PES Institute of Technology and Management

Electrical and Electronics Engineering

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Part A : Institutional Information

1 Name and Address of the Institution

PES Institute of Technology and Management,
PES Campus, NH-206, Sagar Road, Guddada Arakere, Kotegangoor Post, Shivamogga-577204

2 Name and Address of Affiliating University

Visvesvaraya Technological University

3 Year of establishment of the Institution:

2007

4 Type of the Institution:

☐ University	☐ Autonomous
☐ Deemed University	☑ Affiliated
☐ Government Aided	

5 Ownership Status:

☐ Central Government	☑ Trust
☐ State Government	☐ Society
☐ Government Aided	☐ Section 25 Company
☐ Self financing	☐ Any Other(Please Specify)

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

Name of Institutions	Year of Establishment	Programs of Study	Location
PES Institute of Advanced Management Studies	2008	Commerce, Computer Application, PG Department of Commerce	Guddada Arakere Village Kotegangoor, Sagar Road Shivamogga – 577204 Karnataka
PES Pre University College	2009	11th and 12th Standard	Guddada Arakere Village Kotegangoor, Sagar Road Shivamogga – 577204 Karnataka
PES Public School	2010	CBSE-1st Standard to 10th Standard.	Guddada Arakere Village Kotegangoor, Sagar Road Shivamogga – 577204 Karnataka
PES Polytechnic	2011	Diploma Courses	Guddada Arakere Village Kotegangoor, Sagar Road Shivamogga – 577204 Karnataka
PES Kids Academy	2015	Pre-KG, LKG, UKG	Guddada Arakere Village Kotegangoor, Sagar Road Shivamogga – 577204 Karnataka

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

Name of 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 for Duration
BE- Electrical and Electronics Engineering	UG	2007	2007	60	No	60	Applying first time	--	--	Yes	4
BE- Civil Engineering	UG	2013	2013	60	No	60	Granted accreditation for 3 years for the period (specify period)	2021	2024	No	4
BE- Computer Science and Engineering	UG	2007	2007	60	Yes	120	Granted accreditation for 3 years for the period (specify period)	2021	2024	0	4
BE-Information Science & Engineering	UG	2007	2007	60	No	60	Granted accreditation for 3 years for the period (specify period)	2021	2024	0	4
BE Artificial Intelligence and Machine Learning	UG	2021	2021	60	No	60	Not eligible for accreditation	--	--	0	4
BE - Computer Science and Design	UG	2022	2022	60	No	60	Not eligible for accreditation	--	--	0	4
Master of Business Administration	PG	2008	2008	60	No	60	Eligible but not applied	--	--	0	2
Master of Computer Application	UG	2022	2022	60	No	60	Not eligible for accreditation	--	--	0	2
BE- Mechanical Engineering	UG	2010	2010	60	Yes	60	Granted accreditation for 3 years for the period (specify period)	2021	2024	0	4

Sanctioned Intake for Last Five Years for the BE- Mechanical Engineering	
Academic Year	**Sanctioned Intake**
2022-23	60
2021-22	60
2020-21	120
2019-20	120
2018-19	120
2017-18	120

BE Electronics and Communication Engineering	UG	2007	2007	60	Yes	120	Granted accreditation for 3 years for the period (specify period)	2021	2024	0	4
BE Computer Science & Engineering (Data Structure)	UG	2022	2022	60	No	60	Not eligible for accreditation	--	--	0	4

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Electrical and Electronics Engineering

9 Total number of employees in the institution:

A. Regular* Employees (Faculty and Staff):

Items	2022-23		2021-22		2020-21	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	64	73	73	73	74	76
Faculty in Engineering (Female)	23	23	26	26	18	18
Faculty in Maths, Science & Humanities (Male)	6	6	6	6	7	7
Faculty in Maths, Science & Humanities (FeMale)	6	8	9	9	7	7
Non-teaching staff (Male)	19	21	24	27	24	27
Non-teaching staff (FeMale)	5	8	11	13	11	13

B. Contractual* Employees (Faculty and Staff):

Items	2022-23		2021-22		2020-21	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	0	0	0	0	0	0
Faculty in Engineering (Female)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (Male)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (FeMale)	0	0	0	0	0	0
Non-teaching staff (Male)	0	0	0	0	0	0
Non-teaching staff (FeMale)	0	0	0	0	0	0

10 Total number of Engineering Students:

Engineering and Technology- UG	☑ Shift1	☐ Shift2
Engineering and Technology- PG	☐ Shift1	☐ Shift2
Engineering and Technology- Polytechnic	☐ Shift1	☐ Shift2
MBA	☐ Shift1	☐ Shift2
MCA	☐ Shift1	☐ Shift2

Engineering and Technology- UG Shift-1

Items	2022-23	2021-22	2020-21
Total no. of Boys	1012	1019	1063
Total no. of Girls	929	867	853
Total	**1941**	**1886**	**1916**

11 Vision of the Institution:

To be the most preferred institution for engineering & management education, research and entrepreneurship by creating professionally superior and ethically strong global manpower.

12 Mission of the Institution:

To prepare students for professional accomplishments and responsible global citizenship while fostering continuous learning and to provide state-of the-art education through the committed and highly skilled faculty by partnering and collaborating with industry and R&D institutes.

13 Contact Information of the Head of the Institution and NBA coordinator, if designated:

Head of the Institution	
Name	Dr. Chaitanya Kumar M. V.
Designation	Principal
Mobile No.	9380741865
Email ID	principal_pesitm@pes.edu

NBA Coordinator, If Designated

Name	Dr. Prasanna Kumar H.R
Designation	Professor, Department of Information Science & Engineering
Mobile No.	8884093472
Email ID	hodise@pestrust.edu.in

PART B: Criteria Summary

Critera No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	60	60.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	120	120.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	120	110.00
4	STUDENTS' PERFORMANCE	150	83.78
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	144.76
6	FACILITIES AND TECHNICAL SUPPORT	80	80.00
7	CONTINUOUS IMPROVEMENT	50	50.00
8	FIRST YEAR ACADEMICS	50	43.61
9	STUDENT SUPPORT SYSTEMS	50	50.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	120.00
	Total	**1000**	**863**

Part B

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (60)

Total Marks 60.00

1.1 State the Vision and Mission of the Department and Institute (5)

Total Marks 5.00

Institute Marks : 5.00

Vision of the institute	To be the most preferred institution for engineering & management education, research and entrepreneurship by creating professionally superior and ethically strong global manpower.
Mission of the institute	To prepare students for professional accomplishments and responsible global citizenship while fostering continuous learning and to provide state-of the-art education through the committed and highly skilled faculty by partnering and collaborating with industry and R&D institutes.
Vision of the Department	To emerge as a leading centre for education in Electrical & Electronics Engineering and to produce globally competent engineers and entrepreneurs with good ethical values.
Mission of the Department	

Mission No.	Mission Statements
M1	Develop as a center of excellence for Electrical and Electronics Engineering education, by providing state-of-the-art infrastructure and effective teaching learning process.
M2	Contribute to the development of nation by applying their knowledge gained in the thrust areas of power and energy systems. To serve society and country for sustainable development.
M3	To inculcate value based socially and ethically committed professionals who are able to evolve thoughtfully in response to the needs of the industry, society and changing world.

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

Total Marks 5.00

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	The ability to use their knowledge acquired in various subjects to analyse, design and implement solutions for complex problems encountered in their professional career
PEO2	The ability to understand the concept of core electrical subjects that will facilitate understanding of new technology
PEO3	The ability to exhibit professionalism, ethical attitude, communication skills, team work in their profession and adapt to current trends by in lifelong learning.

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

Total Marks 10.00

Institute Marks : 10.00

Vision, Mission of the institution as well as Vision, Mission and PEOs of the department are published in

- Institute website
- Cabin of Head of the Department
- Class rooms and laboratories
- Seminar hall
- News letter
- Project Report
- Internship Report
- Laboratory manuals
- Tutorial rooms
- Department Library

1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the program (25)

Total Marks 25.00

Institute Marks : 25.00

Considering the institutional Mission and Vision, the Vision and Mission Statements of the department were defined by involving the stakeholders.

- Department vision has been defined in the department in consistency with the vision of the institution.
- The proposed vision is then reviewed by program assessment committee and departmental advisory committee.
- Suggestions by the committee are then incorporated and then it is sent to Governing Council for their suggestions.
- Mission statements are defined to achieve the vision of the department and are in consistency with the mission of the institution.

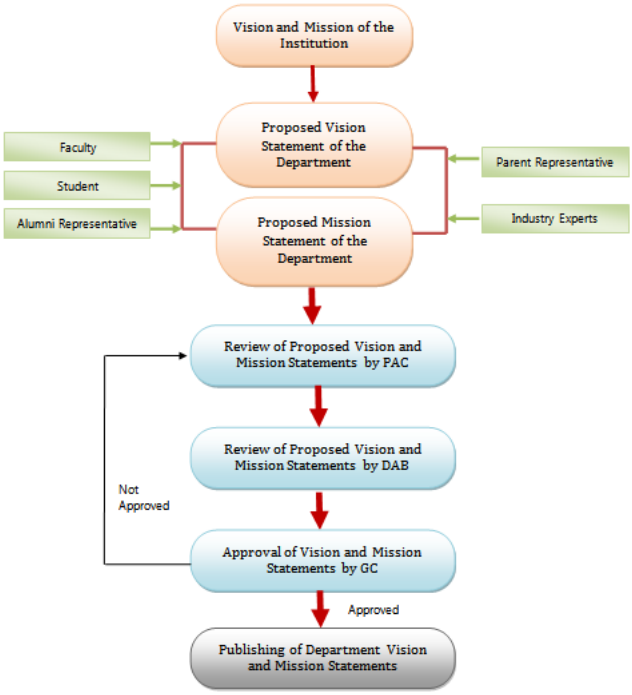


Fig. 1.1 Flow chart representing process for defining Vision and Mission

Program Educational Objectives (PEO's) have been framed based on vision and mission of the department and courses offered in the program.

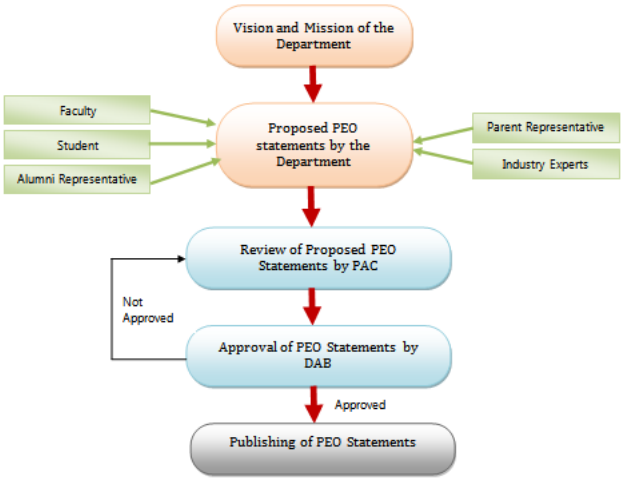


Fig. 1.2 Flow chart representing process for defining PEO statements

1.5 Establish consistency of PEOs with Mission of the Department (15) Total Marks 15.00

Institute Marks : 15.00

Mission Statement			
	Develop as a center of excellence for Electrical and Electronics Engineering education, by providing state-of-the-art infrastructure and effective teaching learning process.	Contribute to the development of a nation by applying their knowledge gained in the thrust areas of power and energy systems. To serve society and country for sustainable development.	To inculcate value based socially and ethically committed professionals who are able to evolve thoughtfully in response to the needs of the industry, society and changing world.
PEO Statement			
The ability to use their knowledge acquired in various subjects to analyze, design and implement solutions for complex problems encountered in their professional career.	Moderately mapped as the knowledge required by the students will be transferred by the up-to-date faculties which will help in effective teaching learning process.	Lightly mapped as the knowledge acquired can be applied to solve the societal problems encountered in their professional life.	Moderately mapped as the Skills gained during the study can be applied to fulfill requirements of industry, society and changing world in their professional life.
The ability to understand the concept of core electrical subjects that will facilitate understanding of new technology.	Highly mapped as a sound foundation facilitates new/ advanced/emerging technologies in electrical and electronics domain.	Moderately mapped as the understanding of core electrical subjects like power and energy system helps them serve society and country for sustainable development.	Moderately mapped as understanding of core subjects will help them to fill the needs of industry, society and the changing world.
The ability to exhibit professionalism, ethical attitude, communication skills, teamwork in their profession and adapt to current trends by lifelong learning.	Highly mapped as the knowledge provided during the program will help students to adapt to current technology by exhibiting exhibit professionalism, ethical attitude, communication skills and teamwork	Highly mapped as these lifelong learning skills will help them to serve in an organized and disciplined way for sustainable development..	Highly mapped as the professionalism exhibited is required to fulfill the needs of society and the changing world.

PEO Statements	M1	M2	M3
The ability to use their knowledge acquired in various subjects to analyse, design and implement solutions for complex problems encountered in their professional career	2	1	2
The ability to understand the concept of core electrical subjects that will facilitate understanding of new technology	3	2	2
The ability to exhibit professionalism, ethical attitude, communication skills, team work in their profession and adapt to current trends by in lifelong learning.	3	3	3

2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (120) Total Marks 120.00

2.1 Program Curriculum (20) Total Marks 20.00

2.1.1 State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexurel. Also mention the identified curricular gaps, if any (10)

Institute Marks : 10.00

PES Institute of Technology and Management, Shivamogga, is affiliated to Visvesvaraya Technological University (VTU), Belagavi. The syllabus/curriculum prescribed by the university for Under Graduate Program for Electrical & Electronics Engineering is followed. VTU curriculum contains compulsory and elective courses. The curriculum is formulated and reviewed once in 4 years with the help of Board of Studies (BOS) comprising of a chairman and senior faculty members of the discipline.

At present Choice Based Credit System (CBCS) scheme is adopted for all four years. CBCS scheme has been introduced from the academic year 2014-15.

- Students admitted in the year 2016-17 are under 2015 CBCS scheme
- Students admitted in the year 2017-18 are under 2017 CBCS scheme
- Students admitted in the year 2018-19 are under 2018 CBCS scheme
- Students admitted in the year 2021-22 are under 2021 CBCS scheme

Link for VTU 1st year be Scheme & Syllabus https://vtu.ac.in/pdf/2018syll/12.pdf (https://vtu.ac.in/pdf/2018syll/12.pdf)

Link for VTU-BE-EEE Scheme & Syllabus https://vtu.ac.in/pdf/2018syll/eee.pdf (https://vtu.ac.in/pdf/2018syll/eee.pdf)

For each course, outcomes are defined by the course instructor and these are mapped to Program Outcomes (POs) and Program Specific Outcomes (PSOs). The PSOs are defined by the department.

Program Outcomes (POs) that Electrical & Electronics Engineering Graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSOs)

- PSO1: Apply the knowledge to have a foundation in theoretical and practical aspects of Electrical & Electronics Engineering.
- PSO2: Model, analyze, design and realize physical systems, components and hands on competence in modern engineering tools to process and adapt them in the field of electrical and electronics engineering.
- PSO3: Communicate and work professionally in order to take up entrepreneurial activities in the field of Electrical & Electronics Engineering and related areas for the benefit of the society.

University prescribed Curriculum maintains the balance in the composition of

- Basic science
- Humanities
- Core, Open and Professional elective courses
- Mini-Project, Major –Project, Internships, Technical Seminars

Sl no	Type of course	No of courses	Subject names
1	Basic Science courses	8	Engineering physics, Engineering chemistry etc.…
2	Engineering science courses	8	Basic Electrical Engineering, Basic electronics, Elements of Mechanical Engineering etc…
3	Humanities, Social science and Management courses	4	Technical English I,II, Constitution of India, Kannada, Management & Entrepreneurship.
4	Professional Core Courses	33	Electric circuit Analysis, Transformer & Generator, Microcontroller, Power systems etc.…

5	Professional elective courses	2	CAED Drawing, Advanced control systems, PLC & SCADA etc…..
6	Open elective courses	4	Electric vehicle technologies, Electrical Energy Conservation & Auditing, Renewable Energy sources etc….
7	Project work, Seminar & Internships	5	Major Project phase I, II, Mini-Project, Technical Seminar & Internship.

Table 2.1.1: Courses for 2018 CBCS scheme, Courses 64 with 175 credits

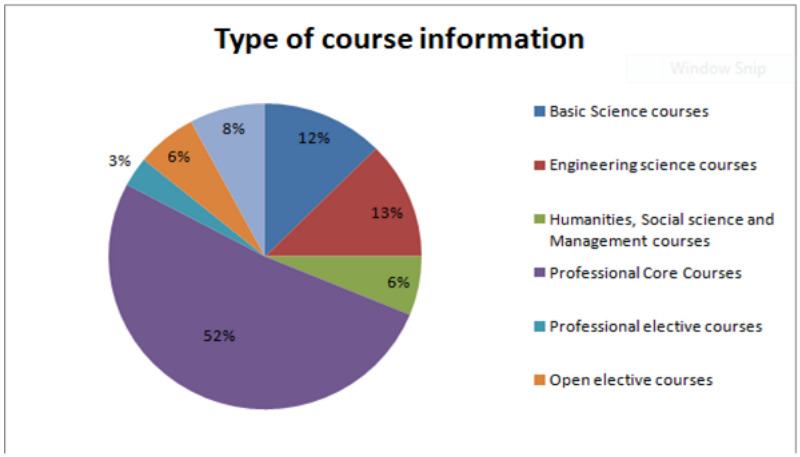
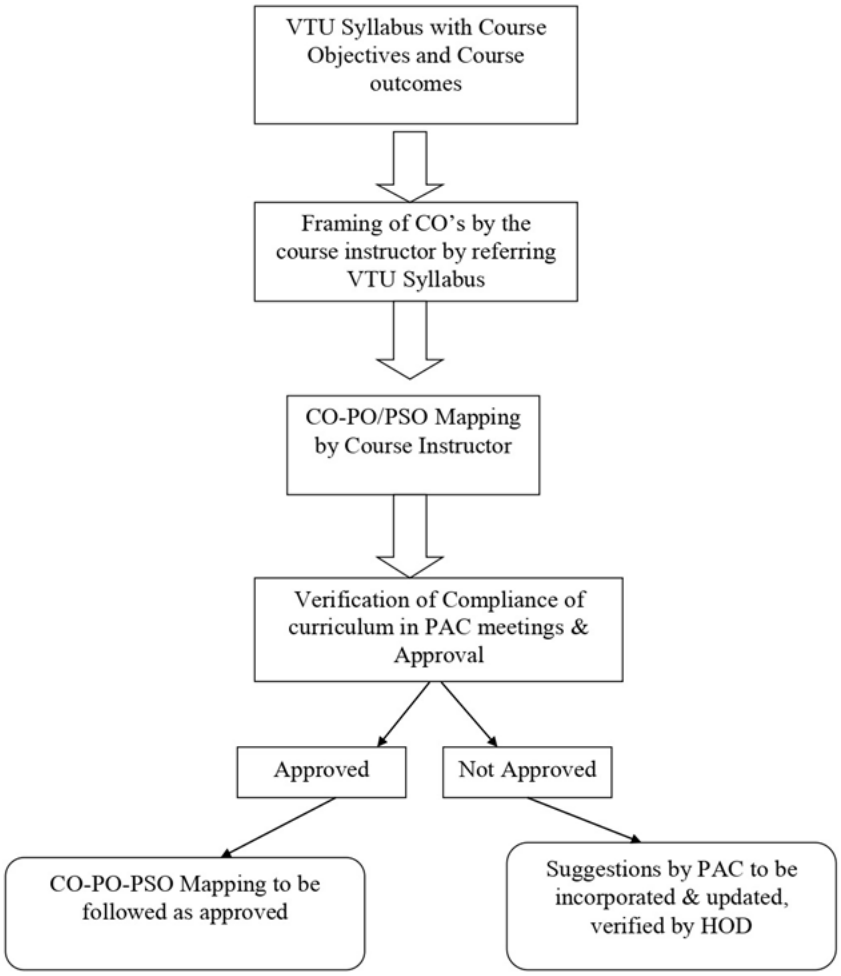


Fig 2.1.1: PI chart 18-Scheme Courses

The steps followed to ensure the compliance of curriculum for attaining program outcome and program specific outcome are summarized below:

- Course instructor on the basis of the syllabus as prescribed by VTU, three to six Course Outcomes (COs) are framed.
- The course outcomes are mapped to relevant Program Outcomes (POs) namely PO 01 to PO12 along with three Program Specific Outcomes (PSOs). The mapping is done by Course instructor.
- After CO-PO and CO-PSO mapping, discussion with faculty members regarding the compliance of the curriculum is done through department meetings, feedbacks of Alumni, outgoing students and views of senior professor in the department will be collectively taken for consideration.
- The Head of the Department along with the faculty coordinator will interact with final year students after the final viva-voce examination and collect their feedback which is termed as exit survey. It is also used as a tool to analyze the compliance of the curriculum with program outcome and program specific outcome.
- **The flow diagram of the above mentioned process is given below in the form of flow diagram**



Fir 2.1.2: Flow chart of steps followed to ensure the compliance of curriculum for attaining PO & PSO

We are following the syllabus and scheme as prescribed by the VTU. As stated earlier, CO-PO mapping and CO-PSO mapping is done at the beginning of the semester. Through the mapping, gaps and content beyond syllabus (if it is there /required) in the curriculum, are identified and are fulfilled by audio video classes (specially NPTEL)/ Laboratories /workshops/industrial visits/ mini -models. Along with curricular gaps some non- curricular gaps like presentation skills, computer skills, communication etc are also considered as gaps and are addressed by conducting relevant workshops, SDP's motivation classes etc.

The process adopted for identification of gaps/ content beyond syllabus in the syllabus is represented as a flow chart in Fig 2.1.7

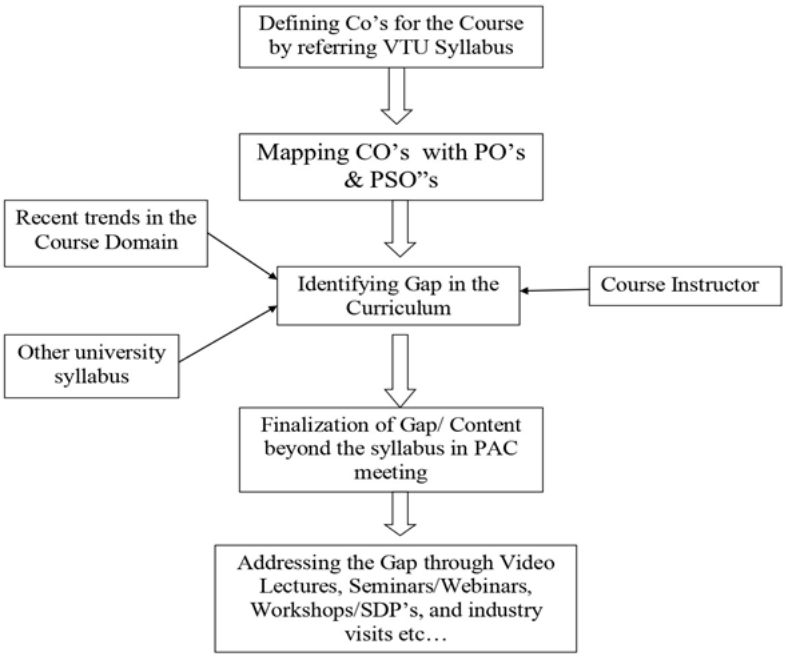


Fig. 2.1.7: Flow chart representing Identification of Gap/ Content beyond syllabus in Curriculum

2.1.2 State the delivery details of the content beyond the syllabus for the attainment of POs and PSOs (10)

Institute Marks : 10.00

Sl no	Gap	Action Taken	Date	Resource person	% students attended	Relevance to Pos,PSOs
1	Report writing, Presentation & Journal drafting skills	SDP on “Guidelines for student project”	16/12/2020 to 18/12/2020	Inhouse resource persons of EEE/ECE Dept PESITM	90%	PO5,PO9,PO10, PO11,PO12,PSO3
2	Report writing, Presentation & Journal drafting skills	SDP on “Guidelines for student project”	15/12/2021 to 17/12/2021	Inhouse resource persons of EEE/CV/MBA Dept PESITM	95%	PO5,PO9,PO10, PO11,PO12,PSO3
3	Industry specific skills	Webinar on " “Effective Skill Enhancement For The Industry Needs During Pandemic"	11/6/2021	Mr. Chidananda M S , Founder & CEO Sparkle Skills, mysuru 094834 81086 & Mr.Chandrappa , Control Engineer L & T Mysuru 0821 240 5572	95%	PO6,PO7,PO8, PO12,PSO3
4	Journal paper preparation	seminar on journal drafting	27/05/2022	Dr. Manu A P, Associate Dean (Research), PESITM	85%	PO5,PO9,PO10, PO11,PO12,PSO3
5	Project presentation & Communication skills	SDP on "Project Presentation & Communication"	14-12-2022 to 16-12-2022	Inhouse resource persons of EEE/CV/English Dept PESITM	880%	PO5,PO9,PO10, PO11,PO12,PSO3
6	Entrepreneurship skills	Motivational Talk on Entrepreneurship/Start Ups	25-05-2022	Mr. Nivedan Nempe founder of ARECA Tea	80%	PO6,PO7,PO9,PO10, PO11,PO12,PSO3

Table 2.1.5: Content beyond the syllabus & Action taken

Subject	Content beyond the syllabus	Action Taken	Resource Person	Relevance to Pos,PSOs
Industrial Drive Applications	Stepper motor drive application levels	Industrial Visit to Varahi power House, Hosangadi 30/11/2022	Mr. Harish, Control room Engineer Varahi Power House	PO1,PO3,PSO3
Signals and Systems	Real time applications of the techniques studied	Invited Talk on “Advancement in Signals and System” 28/12/2020	Prof .Vidya Global Academy Banglore	PO1,PO2,PO3,PO5,PSO1,PSO2
Power System Operation & Control	Application of SCADA	SDP on “Recent Trends in Electrical Engineering” 24/05/2021-26/05/2021	Dr. Mohan Lakshmi MCE Hasan, Dr. Sandeep Kumar & Dr. Lokesh ,NIEIT, Mysuru	PO1,PO5, PSO1

Microcontrollers 8051-	Introduction to Arduino / ESP	Audio visual Classes Online videos (Youtube)	Mr. Bharath Acharya (20/12/2021)	PO1,PO4,PO7,PSO2
Power generation and Economics	Industry standards of different power production plants	Industrial visit to BTPS, Thoranagallu 25-04-2022	Mr. Thomas, AEE, BTPS	PO7,PO9,PO10,PO11,PO12, PSO1,PSO3
Microcontroller 8051	Sensor interfacing and signal conditioning programs	Audio visual Classes Online videos (Youtube)	Mr. Bharath Acharya (8/12/2022)	PO1,PO2,PO5,PSO1
Advanced Control System	Fractional Order control system analysis and application	Audio visual Classes Online videos NPTEL	Mr. Raghunathan Rangaswamy IIT, Madras	PO2,PSO2
Industrial Drives And Applications	Machine tools	Audio visual Classes Online videos NPTEL	Prof. Krishna Vasudevan, EEE Dept, IIT Madras (6/01/2022)	PO1,PO3, PSO1
Industrial Drives And Applications	knowledge about gear boxes and stepped pulleys for machine tools	Audio visual Classes Online videos (Youtube)	Mr. Mohansing R Pardeshi (17/12/2021)	PO1, PSO1
OPAMP AND LIC	Photolithography (Heart of Micro engineering Process)	Audio visual Classes Online videos NPTEL	Dr Hardik Pandey, IISc Professor (28/10/2021)	PO1,PO2,PO4, PSO2

Table 2.1.6: Content beyond the syllabus & Action taken

2021-22

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Principles of Flexible AC Transmission system Power System planning	Audio visual Classes Online videos NPTEL.	15/12/2021	Dr. Lini Mathew NITTTR, Chandigarh	80	PO1,PO2,PO4, PSO1
2	Power circle Diagram Transmission & Distribution	Audio visual Classes Online videos NPTEL	09/05/2022	Dr. Tirupathiraju Asst Prof, NIT Delhi	75	PO2,PO3,PSO1

2020-21

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Basics of SCADA PSOC	Youtube videos	20/11/2021	B.Subba Reddy Dept of HVE-EE IISC Banglore	65	PO1,PO5,PSO1
2	Design of Memories DSD	NPTEL HRD video	27/10/2021	Dr.S. Ramachandran EEE Dept IIT Madras	70	PO3,PO1,PSO2
3	Protection for LC commutated circuit Power Electronics	NPTEL Youtube video	09/11/2021	Prof. Shabari Nath EEE Dept IIT, Guwahati	70	PO1,PO4,PSO1

2019-20

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Recent Updates in Demand and Production RES	Workshop on "Solar Energy Systems"	11/10/2019	Sri. Chidanand MS Sparkle Skills, Mysuru	100	PO6,PO7,PO12,PSO1
2	Introduction to Diode Practical aspects AEC	NPTEL Youtube video	19/08/2019	Prof. Shouribrata chatterjee EEE Dept IIT, Delhi.	80	PO1,PSO1

2.2 Teaching - Learning Processes (100) Total Marks 100.00

2.2.1 Describe processes followed to improve quality of Teaching & Learning (25)

Institute Marks : 25.00

2.2 Teaching - Learning Processes

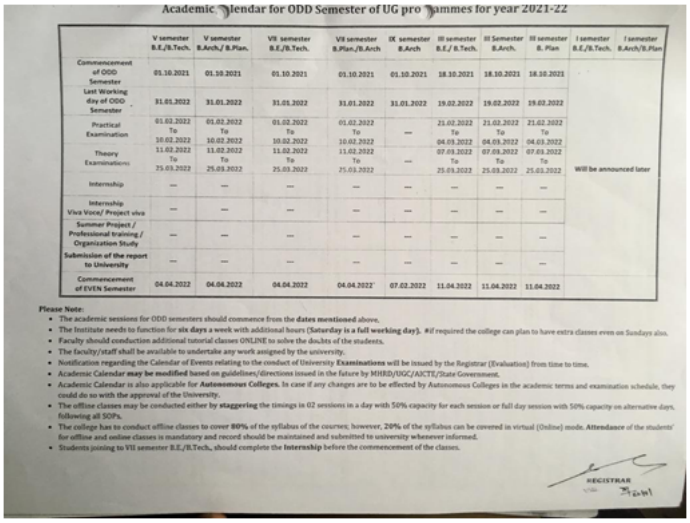
2.2.1 Processes followed to improve quality of Teaching & Learning

A standard practice has been framed and is being practiced to achieve the quality in Teaching and Learning Process. The processes followed to improve quality of Teaching and Learning is as follows.

A. **Time frame:** As each semester and the program is time bound, the course instructors needs a time frame.

- University provides the academic calendar to be followed for a semester, which includes commencement of semester, last working day of the semester, examination dates etc.
- Based on the academic calendar of the university, Calendar of events is prepared by the institute, which includes working days, holidays, and Internal Assessment Test schedule.
- Based on the calendar of events of the Institution, Calendar of events at departmental level is prepared, which includes activities planned for semester.
- Subject allotment is done in the department level to the faculties depending on the specialization, area of the interest and course instructors choice in presence of HOD.
- In accordance with the calendar of events, time table is prepared at department level by the coordinators.
- Based on these inputs, course instructor prepares Lesson schedule for the course based on the syllabus.

This time frame will help the course instructor to have a proper plan to complete the course in an effective manner.



Academic Calendar for ODD Semester of UG programmes for year 2021-22

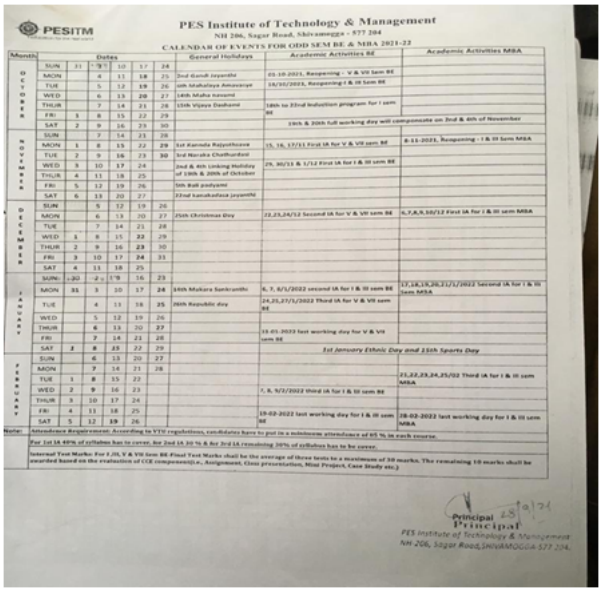
	V semester B.E./B.Tech.	V semester B.Arch./ B.Plan.	VII semester B.E./B.Tech.	VII semester B.Plan./B.Arch	IX semester B.Arch	III semester B.E./ B.Tech.	III Semester B.Arch.	III semester B. Plan	I semester B.E./B.Tech.	I semester B.Arch/B.Plan
Commencement of ODD Semester	01.10.2021	01.10.2021	01.10.2021	01.10.2021	01.10.2021	18.10.2021	18.10.2021	18.10.2021		
Last Working day of ODD Semester	31.01.2022	31.01.2022	31.01.2022	31.01.2022	31.01.2022	19.02.2022	19.02.2022	19.02.2022		
Practical Examination	01.02.2022 To 10.02.2022	01.02.2022 To 10.02.2022	01.02.2022 To 10.02.2022	01.02.2022 To 10.02.2022	---	21.02.2022 To 04.03.2022	21.02.2022 To 04.03.2022	21.02.2022 To 04.03.2022	Will be announced later	
Theory Examinations	11.02.2022 To 25.03.2022	11.02.2022 To 25.03.2022	11.02.2022 To 25.03.2022	11.02.2022 To 25.03.2022	---	07.03.2022 To 25.03.2022	07.03.2022 To 25.03.2022	07.03.2022 To 25.03.2022		
Internship	---	---	---	---	---	---	---	---		
Internship Viva Voce/ Project viva	---	---	---	---	---	---	---	---		
Summer Project / Professional training / Organization Study	---	---	---	---	---	---	---	---		
Submission of the report to University	---	---	---	---	---	---	---	---		
Commencement of EVEN Semester	04.04.2022	04.04.2022	04.04.2022	04.04.2022`	07.02.2022	11.04.2022	11.04.2022	11.04.2022		

Please Note:

- The academic sessions for ODD semesters should commence from the **dates mentioned** above.
- The Institute needs to function for **six days** a week with additional hours (**Saturday is a full working day**). #If required the college can plan to have extra classes even on Sundays also.
- Faculty should conduction additional tutorial classes ONLINE to solve the doubts of the students.
- The faculty/staff shall be available to undertake any work assigned by the university.
- Notification regarding the Calendar of Events relating to the conduct of University **Examinations** will be issued by the Registrar (Evaluation) from time to time.
- Academic Calendar **may be modified** based on guidelines/directions issued in the future by MHRD/UGC/AICTE/State Government.
- Academic Calendar is also applicable for **Autonomous Colleges**. In case if any changes are to be effected by Autonomous Colleges in the academic terms and examination schedule, they could do so with the approval of the University.
- The offline classes may be conducted either by **staggering** the timings in 02 sessions in a day with 50% capacity for each session or full day session with 50% capacity on alternative days, following all SOPs.
- The college has to conduct offline classes to cover **80%** of the syllabus of the courses; however, **20%** of the syllabus can be covered in virtual (Online) mode. **Attendance** of the students' for offline and online classes is mandatory and record should be maintained and submitted to university whenever informed.
- Students joining to VII semester B.E./B.Tech., should complete the **Internship** before the commencement of the classes.

REGISTRAR

Fig. 2..2.1 University Calendar of events Odd semester 2021-22



PES Institute of Technology & Management

NH 206, Sagar Road, Shivamogga - 577 204

CALENDAR OF EVENTS FOR ODD SEM BE & MBA 2021-22

Month		Dates						General Holidays	Academic Activities BE	Academic Activities MBA
OCTOBER	SUN	31	'01	10	17	24				
	MON		4	11	18	25		2nd Gandi Jayanthi	01-10-2021, Reopening - V & VII Sem BE	
	TUE		5	12	19	26		4th Mahalaya Amavasya	18/10/2021, Reopening I & III Sem BE	
	WED		6	13	20	27		14th Maha navami		
	THUR		7	14	21	28		15th Vijaya Dashami	18th to 23rd Induction program for I sem BE	
	FRI	1	8	15	22	29				
	SAT	2	9	16	23	30			19th & 20th full working day will compensate on 2nd & 4th of November	
NOVEMBER	SUN		7	14	21	28				
	MON	1	8	15	22	29		1st Kannada Rajyothsava	15, 16, 17/11 First IA for V & VII sem BE	8-11-2021, Reopening - I & III Sem MBA
	TUE	2	9	16	23	30		3rd Naraka Chathurdasi		
	WED	3	10	17	24			2nd & 4th Linking Holiday of 19th & 20th of October	29, 30/11 & 1/12 First IA for I & III sem BE	
	THUR	4	11	18	25			5th Bali padyami		
	FRI	5	12	19	26			23rd kanakadasa jayanthi		
	SAT	6	13	20	27					
DECEMBER	SUN		5	12	19	26				
	MON		6	13	20	27		25th Christmas Day	22,23,24/12 Second IA for V & VII sem BE	6,7,8,9,10/12 First IA for I & III sem MBA
	TUE		7	14	21	28				
	WED	1	8	15	22	29				
	THUR	2	9	16	23	30				
	FRI	3	10	17	24	31				
	SAT	4	11	18	25					
JANUARY	SUN	-30	-2	'09	16	23				
	MON	31	3	10	17	24		14th Makara Sankranthi	6, 7, 8/1/2022 second IA for I & III sem BE	17,18,19,20,21/1/2022 Second IA for I & III Sem MBA
	TUE		4	11	18	25		26th Republic day	24,25,27/1/2022 Third IA for V & VII sem BE	
	WED		5	12	19	26				
	THUR		6	13	20	27			31-01-2022 last working day for V & VII sem BE	
	FRI		7	14	21	28			1st January Ethnic Day and 15th Sports Day	
	SAT	1	8	15	22	29				
FEBRUARY	SUN		6	13	20	27				
	MON		7	14	21	28				21,22,23,24,25/02 Third IA for I & III sem MBA
	TUE	1	8	15	22					
	WED	2	9	16	23				7, 8, 9/2/2022 third IA for I & III sem BE	
	THUR	3	10	17	24					
	FRI	4	11	18	25				19-02-2022 last working day for I & III sem BE	28-02-2022 last working day for I & III sem MBA
	SAT	5	12	19	26					

Note: Attendance Requirement: According to VTU regulations, candidates have to put in a minimum attendance of 85 % in each course.

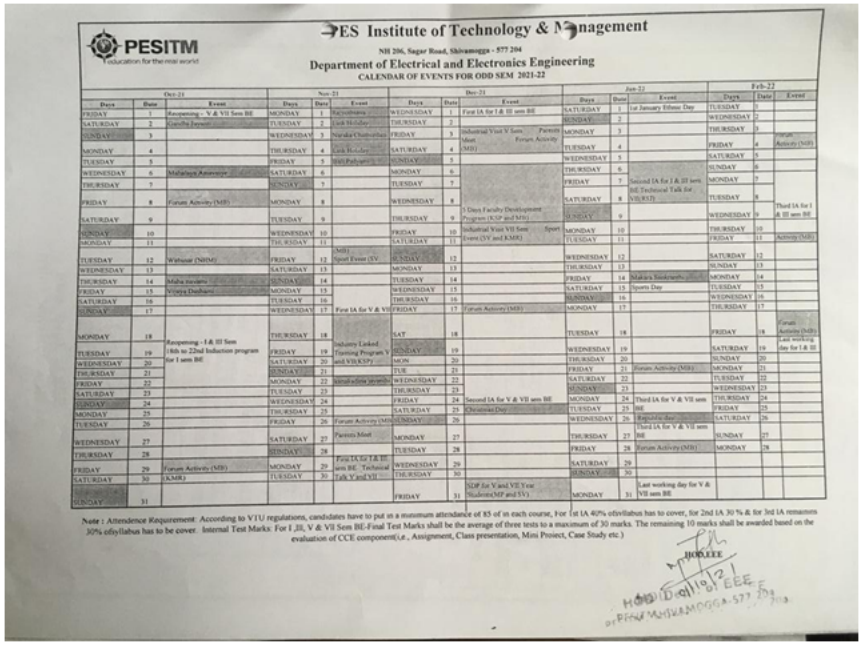
For 1st IA 40% of syllabus has to cover, for 2nd IA 30 % & for 3rd IA remaining 30% of syllabus has to be cover.

Internal Test Marks: For I, III, V & VII Sem BE-Final Test Marks shall be the average of three tests to a maximum of 30 marks. The remaining 10 marks shall be awarded based on the evaluation of CCE components(i.e., Assignment, Class presentation, Mini Project, Case Study etc.)

Principal

PES Institute of Technology & Management NH 206, Sagar Road, SHIVAMOGGA 577 204.

Fig. 2.2.2 College Calendar of events Odd semester 2021



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PES Institute of Technology & Management

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Department of Electrical and Electronics Engineering

CALENDAR OF EVENTS FOR ODD SEM 2021-22

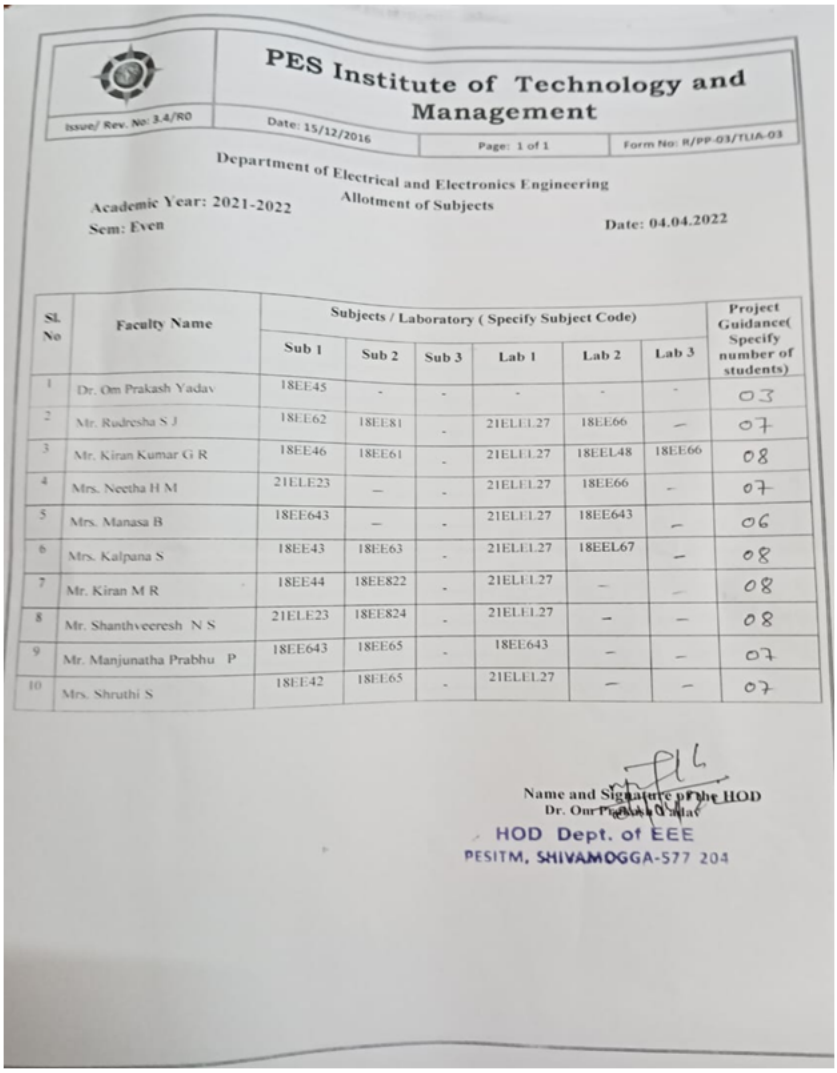
Oct-21			Nov-21			Dec-21			Jan-22			Feb-22		
Days	Date	Event	Days	Date	Event	Days	Date	Event	Days	Date	Event	Days	Date	Event
FRIDAY	1	Reopening - V & VII Sem BE	MONDAY	1	Kanakdasa	WEDNESDAY	1	First IA for I & III sem BE	SATURDAY	1	1st January Ethnic Day	TUESDAY	1	
SATURDAY	2	Gandhi Jayanti	TUESDAY	2	Uuk Holiday	THURSDAY	2		SUNDAY	2		WEDNESDAY	2	
SUNDAY	3		WEDNESDAY	3	Naraka Chaturdashi	FRIDAY	3	Industrial Visit V Sem Parents Meet Forum Activity (MD)	MONDAY	3		THURSDAY	3	Forum Activity (MD)
MONDAY	4		THURSDAY	4	Uuk Holiday	SATURDAY	4		TUESDAY	4		FRIDAY	4	
TUESDAY	5		FRIDAY	5	Bali Padyami	SUNDAY	5		WEDNESDAY	5		SATURDAY	5	
WEDNESDAY	6	Mahalaya Amavasya	SATURDAY	6		MONDAY	6		THURSDAY	6		SUNDAY	6	
THURSDAY	7		SUNDAY	7		TUESDAY	7		FRIDAY	7	Second IA for I & III sem BE, Technical Talk for VII, EVS	MONDAY	7	
FRIDAY	8	Forum Activity (MD)	MONDAY	8		WEDNESDAY	8		SATURDAY	8		TUESDAY	8	Third IA for I & III sem BE
SATURDAY	9		TUESDAY	9		THURSDAY	9	5 Days Faculty Development Program (KSP and MN)	SUNDAY	9		WEDNESDAY	9	
MONDAY	10		WEDNESDAY	10		FRIDAY	10	Industrial Visit VII Sem Sport Event (SV and KMR)	MONDAY	10		THURSDAY	10	
MONDAY	11		THURSDAY	11		SATURDAY	11		TUESDAY	11		FRIDAY	11	Activity (MD)
TUESDAY	12	Webinar (NRM)	FRIDAY	12	(MD) Sport Event (SV	SUNDAY	12		WEDNESDAY	12		SATURDAY	12	
WEDNESDAY	13		SATURDAY	13		MONDAY	13		THURSDAY	13		SUNDAY	13	
THURSDAY	14	Maha Navami	SUNDAY	14		TUESDAY	14		FRIDAY	14	Makara Sankranthi	MONDAY	14	
FRIDAY	15	Vijaya Dashami	MONDAY	15		WEDNESDAY	15		SATURDAY	15	Sports Day	TUESDAY	15	
SATURDAY	16		TUESDAY	16		THURSDAY	16		SUNDAY	16		WEDNESDAY	16	
SUNDAY	17		WEDNESDAY	17	First IA for V & VII	FRIDAY	17	Forum Activity (MD)	MONDAY	17		THURSDAY	17	
MONDAY	18		THURSDAY	18		SAT	18		TUESDAY	18		FRIDAY	18	Forum Activity (MD)
TUESDAY	19	Reopening - I & III Sem 18th to 22nd Induction program for I sem BE	FRIDAY	19	Industry Linked Training Program V and VII (KSP)	SUNDAY	19		WEDNESDAY	19		SATURDAY	19	Last working day for I & III
WEDNESDAY	20		SATURDAY	20		MON	20		THURSDAY	20		SUNDAY	20	
THURSDAY	21		SUNDAY	21		TUE	21		FRIDAY	21	Forum Activity (MD)	MONDAY	21	
FRIDAY	22		MONDAY	22	Mahalaxmi pooja	WEDNESDAY	22		SATURDAY	22		TUESDAY	22	
SATURDAY	23		TUESDAY	23		THURSDAY	23		SUNDAY	23		WEDNESDAY	23	
SUNDAY	24		WEDNESDAY	24		FRIDAY	24	Second IA for V & VII sem BE	MONDAY	24	Third IA for V & VII sem BE	THURSDAY	24	
MONDAY	25		THURSDAY	25		SATURDAY	25	Christmas Day	TUESDAY	25		FRIDAY	25	
TUESDAY	26		FRIDAY	26	Forum Activity (MD)	SUNDAY	26		WEDNESDAY	26	Report to duty	SATURDAY	26	
WEDNESDAY	27		SATURDAY	27	Parents Meet	MONDAY	27		THURSDAY	27	Third IA for V & VII sem BE	SUNDAY	27	
THURSDAY	28		SUNDAY	28		TUESDAY	28		FRIDAY	28	Forum Activity (MD)	MONDAY	28	
FRIDAY	29	Forum Activity (MD)	MONDAY	29	First IA for I & III sem BE, Technical Talk V and VII	WEDNESDAY	29		SATURDAY	29				
SATURDAY	30	(KMR)	TUESDAY	30		THURSDAY	30		SUNDAY	30				
SUNDAY	31					FRIDAY	31	SDP for V and VII Year Students(MP and EV)	MONDAY	31	Last working day for V & VII sem BE			

Note : Attendence Requirement: According to VTU regulations, candidates have to put in a mnumum attendance of 85 of in each course, For 1st IA 40% ofsvllabus has to cover, for 2nd IA 30 % & for 3rd IA remaenes 30% ofsyllabus has to be cover. Internal Test Marks: For I ,III, V & VII Sem BE-Final Test Marks shall be the average of three tests to a maximum of 30 marks. The remaining 10 marks shall be awarded based on the evaluation of CCE component(i.e., Assignment, Class presentation, Mini Project, Case Study etc.)

HOD/EEE

HOD Dept. of EEE
PESITM, SHIVAMOGGA-577 204

Fig 2..2.3 Department Calendar of Events odd Semester 2021-22



PES Institute of Technology and Management

Issue/ Rev. No: 3.4/R0	Date: 15/12/2016	Page: 1 of 1	Form No: R/PP-03/TLIA-03

Department of Electrical and Electronics Engineering

Academic Year: 2021-2022 Allotment of Subjects

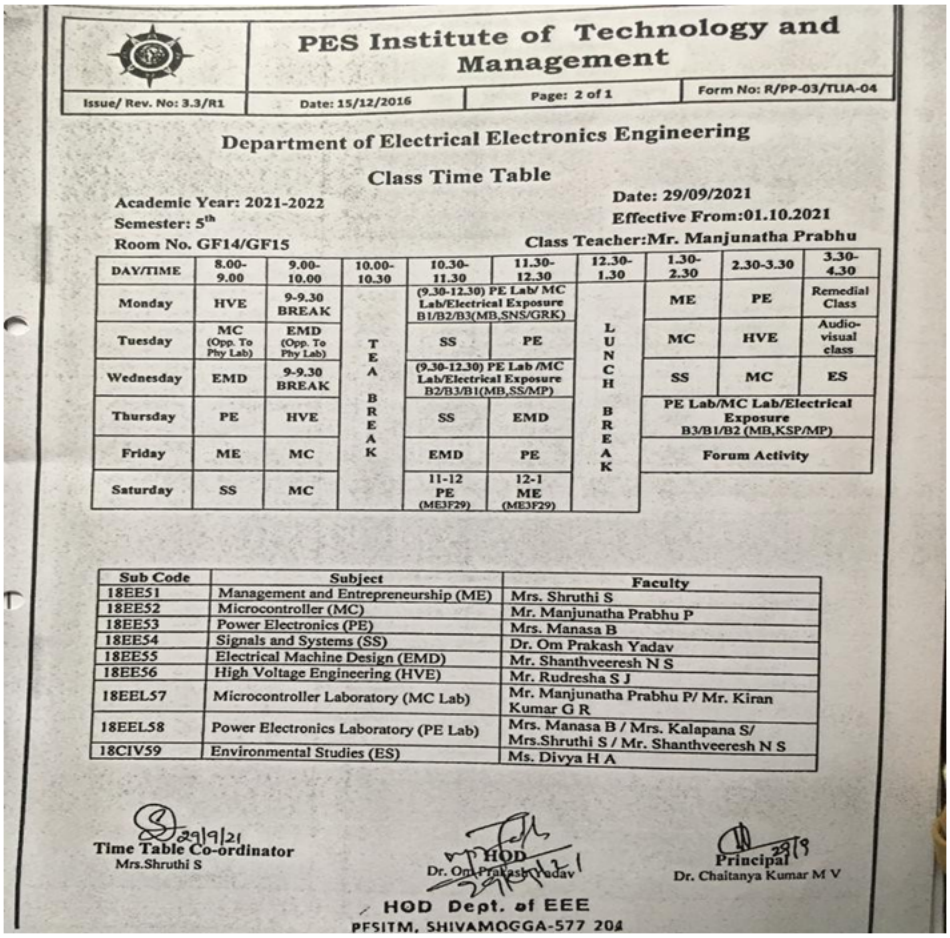
Sem: Even Date: 04.04.2022

Sl. No	Faculty Name	Subjects / Laboratory (Specify Subject Code)						Project Guidance(Specify number of students)
		Sub 1	Sub 2	Sub 3	Lab 1	Lab 2	Lab 3	
1	Dr. Om Prakash Yadav	18EE45	-	-	-	-	-	03
2	Mr. Rudresha S J	18EE62	18EE81	-	21ELE1.27	18EE66	-	07
3	Mr. Kiran Kumar G R	18EE46	18EE61	-	21ELE1.27	18EEL48	18EE66	08
4	Mrs. Neetha H M	21ELE23	-	-	21ELE1.27	18EE66	-	07
5	Mrs. Manasa B	18EE643	-	-	21ELE1.27	18EE643	-	06
6	Mrs. Kalpana S	18EE43	18EE63	-	21ELE1.27	18EEL67	-	08
7	Mr. Kiran M R	18EE44	18EE822	-	21ELE1.27	-	-	08
8	Mr. Shanthveeresh N S	21ELE23	18EE824	-	21ELE1.27	-	-	08
9	Mr. Manjunatha Prabhu P	18EE643	18EE65	-	18EE643	-	-	07
10	Mrs. Shruthi S	18EE42	18EE65	-	21ELE1.27	-	-	07

Name and Signature of the HOD
Dr. Om Prakash Yadav

HOD Dept. of EEE
PESITM, SHIVAMOGGA-577 204

Fig 2..2.4: Allotment of Subjects in Department 2021-22



PES Institute of Technology and Management

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Department of Electrical Electronics Engineering

Class Time Table

Academic Year: 2021-2022 — Date: 29/09/2021

Semester: 5th — Effective From:01.10.2021

Room No. GF14/GF15 — Class Teacher:Mr. Manjunatha Prabhu

DAY/TIME	8.00-9.00	9.00-10.00	10.00-10.30	10.30-11.30	11.30-12.30	12.30-1.30	1.30-2.30	2.30-3.30	3.30-4.30
Monday	HVE	9-9.30 BREAK	TEA BREAK	(9.30-12.30) PE Lab/ MC Lab/Electrical Exposure B1/B2/B3(MB,SNS/GRK)		LUNCH BREAK	ME	PE	Remedial Class
Tuesday	MC (Opp. To Phy Lab)	EMD (Opp. To Phy Lab)		SS	PE		MC	HVE	Audio-visual class
Wednesday	EMD	9-9.30 BREAK		(9.30-12.30) PE Lab /MC Lab/Electrical Exposure B2/B3/B1(MB,SS/MP)			SS	MC	ES
Thursday	PE	HVE		SS	EMD		PE Lab/MC Lab/Electrical Exposure B3/B1/B2 (MB,KSP/MP)		
Friday	ME	MC		EMD	PE		Forum Activity		
Saturday	SS	MC		11-12 PE (ME3F29)	12-1 ME (ME3F29)				

Sub Code	Subject	Faculty
18EE51	Management and Entrepreneurship (ME)	Mrs. Shruthi S
18EE52	Microcontroller (MC)	Mr. Manjunatha Prabhu P
18EE53	Power Electronics (PE)	Mrs. Manasa B
18EE54	Signals and Systems (SS)	Dr. Om Prakash Yadav
18EE55	Electrical Machine Design (EMD)	Mr. Shanthveeresh N S
18EE56	High Voltage Engineering (HVE)	Mr. Rudresha S J
18EEL57	Microcontroller Laboratory (MC Lab)	Mr. Manjunatha Prabhu P/ Mr. Kiran Kumar G R
18EEL58	Power Electronics Laboratory (PE Lab)	Mrs. Manasa B / Mrs. Kalapana S/ Mrs.Shruthi S / Mr. Shanthveeresh N S
18CIV59	Environmental Studies (ES)	Ms. Divya H A

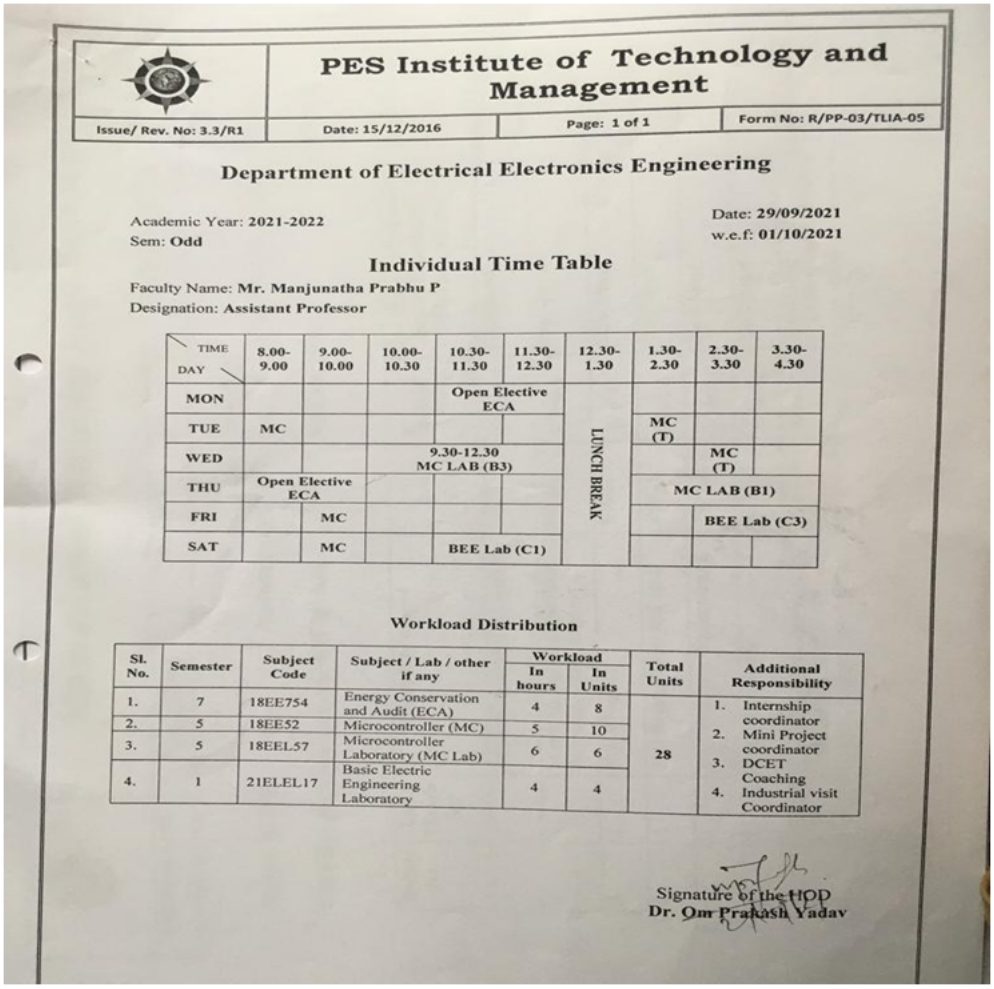
29/9/21
Time Table Co-ordinator
Mrs.Shruthi S

HOD
Dr. Om Prakash Yadav

HOD Dept. of EEE
PESITM, SHIVAMOGGA-577 204

29/9
Principal
Dr. Chaitanya Kumar M V

Fig 2.2.5 Sample Class time table for odd semester 2021-22



PES Institute of Technology and Management

Issue/ Rev. No: 3.3/R1	Date: 15/12/2016	Page: 1 of 1	Form No: R/PP-03/TLIA-05

Department of Electrical Electronics Engineering

Academic Year: 2021-2022
Sem: Odd

Date: 29/09/2021
w.e.f: 01/10/2021

Individual Time Table

Faculty Name: Mr. Manjunatha Prabhu P
Designation: Assistant Professor

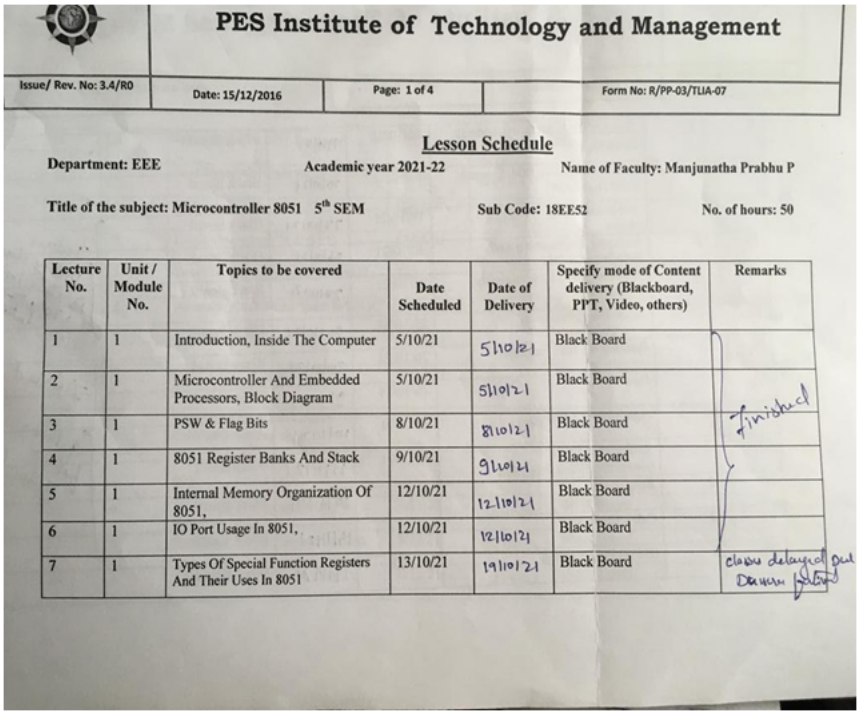
TIME / DAY	8.00-9.00	9.00-10.00	10.00-10.30	10.30-11.30	11.30-12.30	12.30-1.30	1.30-2.30	2.30-3.30	3.30-4.30
MON				Open Elective ECA		LUNCH BREAK			
TUE	MC						MC (T)		
WED			9.30-12.30 MC LAB (B3)					MC (T)	
THU	Open Elective ECA						MC LAB (B1)		
FRI		MC						BEE Lab (C3)	
SAT		MC		BEE Lab (C1)					

Workload Distribution

Sl. No.	Semester	Subject Code	Subject / Lab / other if any	Workload In hours	Workload In Units	Total Units	Additional Responsibility
1.	7	18EE754	Energy Conservation and Audit (ECA)	4	8	28	1. Internship coordinator 2. Mini Project coordinator 3. DCET Coaching 4. Industrial visit Coordinator
2.	5	18EE52	Microcontroller (MC)	5	10		
3.	5	18EEL57	Microcontroller Laboratory (MC Lab)	6	6		
4.	1	21ELEL17	Basic Electric Engineering Laboratory	4	4		

Signature of the HOD
Dr. Om Prakash Yadav

Fig 2.2.6 Sample Individual Time table Odd semester 2021-22



PES Institute of Technology and Management

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Lesson Schedule

Department: EEE Academic year 2021-22 Name of Faculty: Manjunatha Prabhu P

Title of the subject: Microcontroller 8051 5th SEM Sub Code: 18EE52 No. of hours: 50

Lecture No.	Unit / Module No.	Topics to be covered	Date Scheduled	Date of Delivery	Specify mode of Content delivery (Blackboard, PPT, Video, others)	Remarks
1	1	Introduction, Inside The Computer	5/10/21	5/10/21	Black Board	
2	1	Microcontroller And Embedded Processors, Block Diagram	5/10/21	5/10/21	Black Board	finished
3	1	PSW & Flag Bits	8/10/21	8/10/21	Black Board	
4	1	8051 Register Banks And Stack	9/10/21	9/10/21	Black Board	
5	1	Internal Memory Organization Of 8051,	12/10/21	12/10/21	Black Board	
6	1	IO Port Usage In 8051,	12/10/21	12/10/21	Black Board	
7	1	Types Of Special Function Registers And Their Uses In 8051	13/10/21	19/10/21	Black Board	class delayed due to Dasara holidays

Fig. 2.2.7 Lesson Schedule format for individual courses

B. **Course Delivery Methods**

Course contents are delivered by the course instructor through various educational tools such as

- Chalk and talk
- Power point presentation (PPT)
- Demonstration of Experiments
- Seminars/Webinars/Guest Lectures
- Assignments
- Video lectures

Delivery Method	Significance
Chalk and talk	Classroom lectures conducted using basic and conventional method of disseminating information to the students as per the curriculum. Students are encouraged to think and analyze the Engineering problems.
Power point presentation (PPT)	Ideas and concepts taught during lectures are reinforced in the minds of students with the aid of presentations and videos.
Demonstration of Experiments	Exposes the students on experimental and practical aspects of theory studied in classrooms. Lab-experiments help students in verifying the theory concepts by interpretation of results
Tutorials	Tutorials help the students in analyzing and solving the engineering problems based on the theory dealt during lectures. The tutorial sessions makes the concept clear to the students
Seminars	Seminars/Webinars/Guest Lectures are arranged as per the requirements.
Assignments	Assignments make students self-reliant in solution of solving problems through understanding of theory through practice.

Table 2.2.1: Delivery methods

C.Attention to weak and bright students

Academically weak and bright students are identified based on the attendance and the results of internal assessment tests.

Weak student support strategy: Course Instructors and Mentors attempt to enhance the performance of weak student with following action plan

- Regular counseling and providing moral support
- Constant monitoring their performance
- Conducting Extra classes (remedial classes)
- Encouraging them for regular attendance).

Bright student support strategy: Course Instructors, Department and the Institute encourages bright students with following action plan

- Management provides Book coupons worth Rs. 750 for top 5 performers of all semesters.
- Encouragement towards participation in national level programs and competitions.
- Assisting and encouraging for publishing journals.

D.Effectiveness

For effectiveness in teaching and learning, following measures are taken

- Well-structured lesson plans are prepared and executed for all theory and practical courses
- Course file containing all the details of the semester activities, initiatives related to the course is maintained by course instructor.
- Faculties are encouraged to participate in FDP/workshops and other courses on regular basis which helps them to enhance their knowledge.
- Faculties and students are encouraged to register for NPTEL courses and get online certifications.

- A three days SDP for students is a part of our regular activity in every semester.

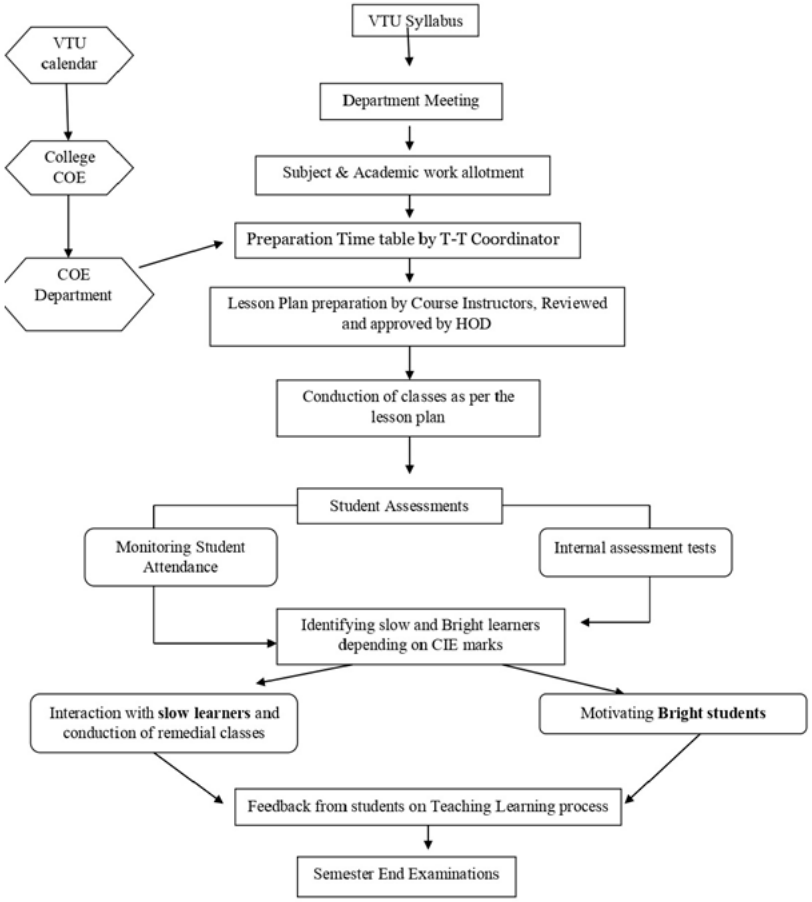


Fig 2.2.7: Flow Chart Teaching Learning Process

2.2.2 Quality of internal semester Question papers, Assignments and Evaluation (20)

Institute Marks : 20.00

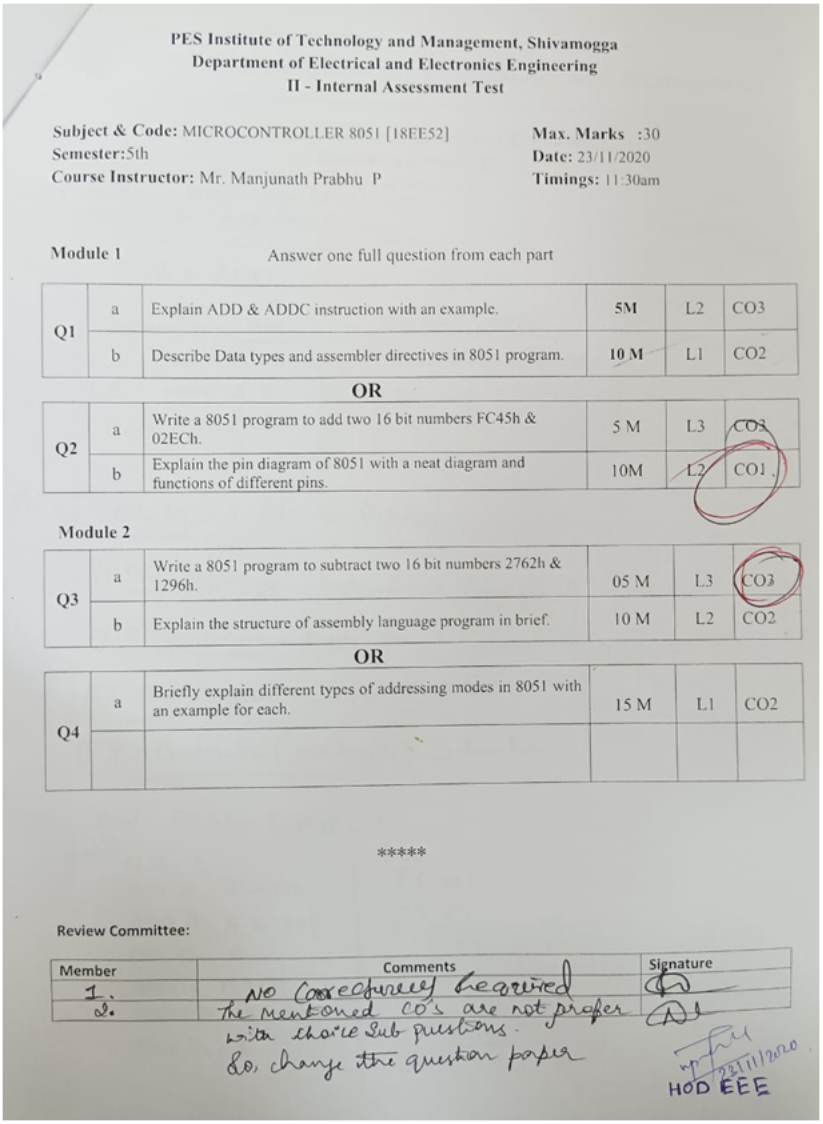
2.2.2 Quality of internal semester Question papers, Assignments and Evaluation

Internal assessments are conducted as per the regulations of the university and scheduled as per the calendar of events of the institution.

- Course instructor prepares the question paper by referring to previous year semester End Examination papers.
- Question paper is prepared by considering the COs and Blooms Taxonomy.
- Course instructor also prepares the scheme of evaluation for the question paper, highlighting the distribution of marks for each question.
- Review committee reviews the question paper and the scheme of evaluation with respect to
  - Technicality of the paper
  - Difficulty level and duration
  - Marks allocations
  - Relevance to Course Outcomes and Bloom's Taxonomy
- Suggestions / corrections (if any) made by the review committee is incorporated in the question paper and the scheme of evaluation.
- Assessment is based on the approved scheme of evaluation

Sl No	scheme	Internal Evaluation	SEE Marks
1	2021	50	50
2	2018	40	60
3	2017	40	60
4	2015	20	80

- EX:- for 2018 Scheme Out of CIE 40 marks , Internal assessment is conducted for 30 marks and 10 marks for assignments, Model making , Activity etc.. is given by the course instructor with relevant CO's.
- 3 Internal tests are conducted and average is taken out of 3. Assignment marks is added to it.



PES Institute of Technology and Management, Shivamogga
Department of Electrical and Electronics Engineering
II - Internal Assessment Test

Subject & Code: MICROCONTROLLER 8051 [18EE52] **Max. Marks** :30
Semester:5th **Date:** 23/11/2020
Course Instructor: Mr. Manjunath Prabhu P **Timings:** 11:30am

Module 1 Answer one full question from each part

Q1	a	Explain ADD & ADDC instruction with an example.	5M	L2	CO3
	b	Describe Data types and assembler directives in 8051 program.	10 M	L1	CO2
		OR			
Q2	a	Write a 8051 program to add two 16 bit numbers FC45h & 02ECh.	5 M	L3	CO3
	b	Explain the pin diagram of 8051 with a neat diagram and functions of different pins.	10M	L2	CO1

Module 2

Q3	a	Write a 8051 program to subtract two 16 bit numbers 2762h & 1296h.	05 M	L3	CO3
	b	Explain the structure of assembly language program in brief.	10 M	L2	CO2
		OR			
Q4	a	Briefly explain different types of addressing modes in 8051 with an example for each.	15 M	L1	CO2

*****

Review Committee:

Member	Comments	Signature
1.	NO Corrections required	
2.	The mentioned CO's are not proper with choice Sub questions. So, change the question paper	

23/11/2020
HOD EEE

Fig 2.2.8: Question paper sample with review committee comments and approval of HOD

2.2.3 Quality of student projects (25) Institute Marks : 25.00

2.2.3 Quality of student projects (25)

Project topics and project guide allotment is based on the field of interest of the students. The process adopted is represented as a flow chart below

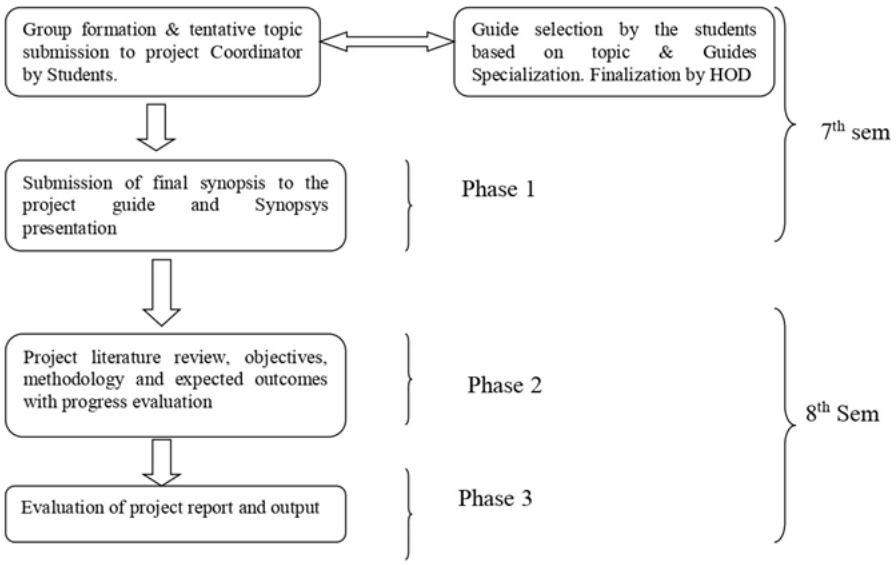


Fig 2.2.9: Process adopted for project Projects.

After the allocation of project topics and project guides, the topics are categorized into

- Application Projects
- Industry Projects / Real-Time Projects
- Research projects
- Review projects

In the department of Electrical & Electronics engineering projects are broadly classified as

1. Industry projects: Under this category, the project is performed in an industry or an external organization with identified internal and external guides.
2. In-house projects: Under this category, the project is performed under the supervision of a faculty from the department

Process to assess individual and team performance

Project Evaluation Guidelines (2018 Scheme)

Components of Evaluation	Description of Evaluation	Weightage in terms of %	Marks (100)
1. Knowledge Component	a. Feasibility and practicality of the intended study	25%	10
	b. Proposed methodology for the study		15
2. Problem Identification	a. Relevance of the problem in the present context	25%	05
	b. Relevance of literatures studied		10
	c. Defining the objectives		10
3. Team Work	a. Involvement of student in the study & contribution	25%	15
	b. Regularity in discussions with guide and submission of assignments		10

4. Report Writing & Presentation	a. Contents & Format of the report	25%	5
	b. Effectiveness of presentation and Communication of intended study		15
	c. Publications		5

Project Phase 1 Evaluation Rubrics (2018 Scheme)

1.	**Knowledge Component**		
a.	**Feasibility & Practicality of intended study**		
Excellent (9-10)	*Good(7-8)*	*Average(5-6)*	*Poor(3-4)*
Thorough consideration and representation of technicality and conduction of experiments / study / research with respect to resource availability and time considerations	Adequate consideration and representation of technicality and conduction of experiments / study / research with respect to resource availability and time considerations	Less consideration and representation of technicality and conduction of experiments / study / research with respect to resource availability and time considerations	Poor consideration and representation of technicality and conduction of experiments / study / research with respect to resource availability and time considerations
b) Proposed Methodology for the Study			
Excellent (13-15)	*Good(10-12)*	*Average(7-9)*	*Poor(4-6)*
Thorough Understanding and representation of approach adopted for achieving the objectives of study with reasoning	Adequate Understanding and representation of approach adopted for achieving the objectives of study with reasoning	Less Understanding and representation of approach adopted for achieving the objectives of study with reasoning	Poor Understanding and representation of approach adopted for achieving the objectives of study with reasoning

2.	**Problem Identification**		
a.	**Relevance of the Project in Present Context**		
Excellent (5)	*Good(4)*	*Average(3)*	*Poor(2)*
Principally relevant with present day socio-economic aspects and technological advancement	Mostly relevant with present day socio-economic aspects and technological advancement	Basically relevant with present day socio-economic aspects and technological advancement	Weakly relevant with present day socio-economic aspects and technological advancement
b) Relevance of Literatures Studied			
Excellent (9-10)	*Good(7-8)*	*Average(5-6)*	*Poor(3-4)*
Thorough Investigation and representation of appropriate literatures in the field of study	Adequate Investigation and representation of appropriate literatures in the field of study	Less Investigation and representation of appropriate literatures in the field of study	Poor Investigation and representation of appropriate literatures in the field of study
c) Defining the Objectives			
Excellent (9-10)	*Good(7-8)*	*Average(5-6)*	*Poor(3-4)*
Precise & specific definition of objectives with respect to technicality, practicality & vocabulary	Suitable & appropriate definition of objectives with respect to technicality, practicality & vocabulary	Acceptable definition of objectives with respect to technicality, practicality & vocabulary	Bare minimum definition of objectives with respect to technicality, practicality & vocabulary

3.	**Team Work**		
a.	**Involvement of Student in the Study & Contribution**		
Excellent (13-15)	*Good(10-12)*	*Average(7-9)*	*Poor(4-6)*
Complete involvement and excellent contribution towards team work with respect to study, report writing & presentation	Satisfactory involvement and good contribution towards team work with respect to study, report writing & presentation	Acceptable involvement and average contribution towards team work with respect to study, report writing & presentation	Lack of involvement and poor contribution towards team work with respect to study, report writing & presentation
b) Regularity in discussions with guide and submission of assignments			

Excellent (9-10)	*Good(7-8)*	*Average(5-6)*	*Poor(3-4)*
Regular interaction with guide, completion and submission of allotted works / assignments on time	Reasonable interaction with guide, completion and submission of allotted works / assignments on time	Reasonable interaction with guide, partial completion and submission of allotted works / assignments on time	Bare minimum interaction with guide, poor completion and submission of allotted works / assignments on time

1.	**Report Writing & Presentation**		
a.	**Contents & Format of Report**		
Excellent (5)	*Good(4)*	*Average(3)*	*Poor(2)*
Complete Adherence to the standard / prescribed format	Satisfactory Adherence to the standard / prescribed format	Partial Adherence to the standard / prescribed format	Poor Adherence to the standard / prescribed format
b) Effectiveness of Presentation & Communication of Results of Study			
Excellent (9-10)	*Good(7-8)*	*Average(5-6)*	*Poor(3-4)*
Excellent presentation of contents and results of study with acceptable justifications	Good presentation of contents and results of study with reasonable justifications	Average presentation of contents and results of study with partial justifications	Poor presentation of contents and results of study with biased justifications
c) Publication			
Excellent (4-5)	*Good(2-3)*	*Average(1)*	*Poor(0)*
Publication in International / Reputed journals	Publication in National journals / Participation in Conferences	Participation in Conferences	No Attempt

Academic Year	**CAY (2021-22)**	**CAY m1 (2020-21)**	**CAYm2 (2019-20)**
Total No. of UG Projects	19	18	20
Industry Projects	02	00	00
In-house Projects	17	18	20

Table 2.2.2: Statistics of Projects In-House / Industry

Academic Year	**CAY (2021-22)**	**CAY m1 (2020-21)**	**CAYm2 (2019-20)**
Industry Projects	Fault detection and solution of lighting control panel system in Air Craft at HAL/BEL, Bangalore	NIL	NIL
	Identification and Reduction of power consumption in Shimul Dairy, Shivamogga		

Table 2.2.3: Details of Industry projects

SL.NO	**YEAR**	**TITLE OF THE PROJECTS**	**STUDENTS NAME**	**SUPERVISOR**	**Funding Agency**	**Amount**
1	**2013-14**	Implementation Of Network Reconfiguration Technique For Loss Minimization On A 11kv Distribution System Of Mrs Shimgoa -A Case Study	Ms. Bhuvaneshwari S. And Others	Mr. Shivakumar L N	KSCST	2500/-
2	**2014-15**	Techno - Economic Analysis Of Solar Photovoltaic Power Olant For Pes Campus Shivamogga -A Case Study	Mr. Mohammed Raqueeb And Others	Mr. Shivakumar L N	KSCST	4000/-

3		Implementation Of Solar Based Statcom Ststem For Improved Grid Transmission Line	Ms. Praneetha B N	Mr. Prasad G	KSCST	4000/-
4	**2015-16**	New Cascaded H-Bridge Multi-Level Inverter With Improved Efficiency	Mr. Shridhar S G	Mr. Kumudeesh K C	KSCST	5000/-
5		Design And Fabication Of Vertical Axis Wind Turbine For Micro Generators	Mr. Harish B S And Others	Mr. Shivakumar L N	KSCST	4000/-
6	**2018-19**	Coin Based Mobile Charger Using Solar Panel And Rfid	Umme Kulsum Hashmath Unnisa Mubeena	Mr. Kumudeesh K C	KSCST	5500/-
7	**2019- 20**	Bionic Prosthetic Arm Controlled By Muscle Sensor	Apoorva H S Chaithra G M	Mr. Manjunath Prabhu P	KSCST	4500/-
8	**2020-21**	Generation Of Electricity Using Plastic Waste	Harshitha S P Deepa Ms.Vasundhara B V Ms. Sindhu N K	Mr. Kiran M R	KSCST	3500/-
8	**2020-21**	IOT based solar powered forest fire early detection and prevention with anti-smuggling system	Noorani Tehrreen, Pooja M, Prakruthi, Usha H	Dr. Rudresha S J	VTU Financial Assistance	5000/-
9	**2020-21**	Advanced Agriculture controlling & monitoring of Green house using Li-FI technology	B hargav B S, Apoorva J R, Meghana S, Prajwal S R	Mr. Manjunatha Prabhu P	VTU Financial Assistance	5000/-
10	**2021-22**	PLC Based Automated Drainage Water Monitoring And Control System	Ravi Kumar H R Sachin I M Manoj R Bidari Shivaganga L	Mrs.Neetha H M	KSCST	6500/-

Table 2.2.4: Funded project details of the department

Sl no	Students Name	Project title	Date/ Year	Awards
1	Saikumar Girish Kumar	Solar bycicle	22nd & 23rd June 2022.	**1st prize** in Project Exhibition Event organized by ABVP. TECH ARORA -2022 ,technical fest held at PESITM, Shivamogga during
2	Srisham SM, Balaraj P, Manoj G , Harshith D Raj	“Replacement for Petrol Engine in Motorcycle – An Electrical Approach”	3rd June 2022	**Best Paper** in International Conference on Engineering Innovation (ICEI-2022) organized by Jain Institute of Technology, Davanagere, in association with Technical Institute of Engineers, Bangalore
3	Harshitha S P Deepa Ms.Vasundhara B V Ms. Sindhu N K	Generation Of Electricity Using Plastic Waste	2020-21	**Best Project** Award by KSCST, Banglore
4	Pruthvi H R Laxman Varsha H K	Sudoku reconfiguration technique for total cross ties PV Array to enhance the Maximum power under partial shading condition	29-02-2020	**Best paper** award in National Conference on Engineering Development (NCED 2020) Organized by PESITM Shivamogga

Table 2.2.5: Awarded project details of the department

2.2.4 Initiative related to industry interaction (15)

Institute Marks : 15.00

Initiatives related to industry interaction (15)

The faculties of the department constantly try to interact with industries for industrial visit.

MOU's was done with industries such as Sparkle skills and Tech fortune Bangalore to emphasize on

- Internships
- Projects
- Workshops for Students
- Industry specific training

Every Year Student development programs and workshops were conducted by inviting industrial experts from core electrical companies.

- **Industrial Visit:**

Department is arranging industrial visit to our students" once in a year/semester to different companies to improve the practical knowledge of students and also to get better knowledge about the latest technologies.

Table 2.2.4: List of industry visits

Sl no	Industry Details	Date of visit	semester	No. of students
1	Raichur Thermal power station, raichur	26-02-2015	6th	45
2	Varahi Underground Power house, Hosangadi	22-04-2017	6th	64
3	Varahi Underground Power house, Hosangadi	03-02-2017	6th	55
4	Varahi Underground Power house, Hosangadi	24-08-2019	5th	74
5	Varahi Underground Power house, Hosangadi	16-11-2019	7th	52
6	Bellary Thermal Power Station, Thoranagallu	25-04-2022	8th	33
7	UNIELEC Switchgears, Universal electricals Harihara,	27-05-2022	6th	53
8	Varahi Underground Power house, Hosangadi	30-11-2022	5th	55

2.2.5 Initiative related to industry internship/summer training (15)

Institute Marks : 15.00

CBCS scheme introduced by the university incorporates 4 week internship program for Unger Graduate students in the final year. Internship program is useful for the students to gain practical knowledge and understand the application part of Electrical and Electronics Engineering in Industries.

Following is the list of internship done by the final year students

Sl No	Name of Student	USN	Company details	Period of internship
1	Khaleel Ur Rahman	4PM14EE013	Inventron tech pvt ltd, (embedded system application and IoT	2/1/20 to 29/1/20
2	Pragath D N	4PM14EE024	Paper Packaging Pvt Ltd, Shivamogga	9/7/19 to 9/8/22
3	Rachana Kadam	4PM14EE025	Agni motors, Baglore	2/1/20 to 29/1/28
4	Varsha R Patil	4PM14EE046	Agni motors, Baglore	2/1/20 to 29/1/29
5	Chaithra N M	4PM15EE009	PCB Fabrication in AT&S india pvt ltd, nanjan gud, karnataka	2/1/20 to 29/1/25
6	Dhanushree S Chapparadalli	4PM15EE012	ShanthalaSpherocast Private ltd, Bhadravathi (Electrical Maintenance)	4/7/19 to 30/7/20
7	Meghana K S	4PM15EE022	MRS, Routine dividion, Shivamogga	2/1/20 to 1/2/29
8	Pavithra K P	4PM15EE031	Inventron Technologies And Business Solutions LLP. Banglore	2/1/20 to 29/1/22
9	Poojashree S	4PM15EE033	Inventron Technologies And Business Solutions LLP. Banglore	2/1/20 to 29/1/23
10	Pragati Bayalusime	4PM15EE035	Inventron Technologies And Business Solutions LLP. Banglore	2/1/20 to 29/1/24
11	Abhishek M Nadig	4PM16EE001	Uddyoth technologies pvt,ltd, Banglore	2/1/20 to 29/1/20
12	Aishwarya M	4PM16EE002	L T switchgears manufacturing, Banglore	2/1/20 to 1/2/20
13	Akshatha A R	4PM16EE003	Malnad Alloy Casting, Machenahalli, Shivamogga	2/1/20 to 1/2/24
14	Akshatha M	4PM16EE004	Inventron Technologies And Business Solutions LLP. Banglore	2/1/20 to 29/1/25
15	Amulya M K	4PM16EE006	South western railway, hubli.	8/7/19 to 20/7/27
16	Apoorva H S	4PM16EE007	Reconfiguration technique for photovoltaic array at NITK Surathkal	2/1/20 to 29/1/26
17	Chaithra G M	4PM16EE010	L T switchgears manufacturing, Banglore	2/1/20 to 1/2/21
18	Chaitra G K	4PM16EE011	South western railway, hubli.	8/7/19 to 20/7/28
19	Chandana K S	4PM16EE012	Malnad Alloy Casting, Machenahalli, Shivamogga	2/1/20 to 1/2/25
20	Divya M J	4PM16EE013	Pincore technologies pvt ltd, banglore	2/1/20 to 29/1/20
21	Inchara S	4PM16EE014	Malnad Alloy Casting, Machenahalli, Shivamogga	2/1/20 to 1/2/26
22	Kavya H J	4PM16EE016	Pincore technologies pvt ltd, banglore	2/1/20 to 29/1/20
23	Lavanya S R	4PM16EE017	L T switchgears manufacturing, Banglore	2/1/20 to 1/2/22
24	Mahalakshmi K R	4PM16EE018	L T switchgears manufacturing, Banglore	2/1/20 to 1/2/23
25	Mohan M	4PM16EE019	South western railway, hubli.	8/7/19 to 20/7/29
26	Niranjana Varamballi N	4PM16EE020	Accolate tech solutions, on Data mining, Mangaluru	2/1/20 to 29/1/27

27	Poornima B P	4PM16EE021	Inventron Technologies And Business Solutions LLP. Banglore	2/1/20 to 29/1/26
28	Pruthvi H R	4PM16EE022	Reconfiguration technique for photovoltaic array at NITK Surathkal	4/7/19 to 30/7/20
29	Raghavendra D C	4PM16EE023	Reconfiguration technique for photovoltaic array at NITK Surathkal	4/7/19 to 30/7/19
30	Rakshitha B V	4PM16EE024	Inventron Technologies And Business Solutions LLP. Banglore	2/1/20 to 29/1/27
31	Rashmi R	4PM16EE025	NGEF , Hubli (Ltd)	9/7/19 to 9/8/19
32	Sachin H R	4PM16EE027	South Western Railway, Hubli.	8/7/19 to 20/7/19
33	Safwan I	4PM16EE028	Uddyoth technologies pvt,ltd, Banglore	2/1/20 to 29/1/21
34	Sahana S Hirematha	4PM16EE029	Inventron Technologies And Business Solutions LLP. Banglore	2/1/20 to 29/1/28
35	Shiva Kumar S	4PM16EE031	South Western Railway, Hubli.	8/7/19 to 20/7/20
36	Shruti Sudesh Shetty	4PM16EE032	South Western Railway, Hubli.	8/7/19 to 20/7/21
37	Siddaling Pattar	4PM16EE033	South Western Railway, Hubli.	8/7/19 to 20/7/22
38	Siddiqahayath B	4PM16EE034	NGEF , Hubli (Ltd)	9/7/19 to 9/8/20
39	Steevan Santhis	4PM16EE035	South Western Railway, Hubli.	8/7/19 to 20/7/23
40	Suraksha D V	4PM16EE036	Pincore technologies pvt ltd, banglore	2/1/20 to 29/1/20
41	Sushma B	4PM16EE037	Pincore technologies pvt ltd, banglore	2/1/20 to 29/1/21
42	Syeda Sufiya Parveen	4PM16EE038	Pincore technologies pvt ltd, banglore	2/1/20 to 29/1/22
43	Varsha K H	4PM16EE040	Inventron Technologies And Business Solutions LLP. Banglore	2/1/20 to 29/1/29
44	Veena B	4PM16EE041	Pincore technologies pvt ltd, banglore	2/1/20 to 29/1/23
45	Vishnu R	4PM16EE042	Uddyoth technologies pvt,ltd, Banglore	2/1/20 to 29/1/22
46	Vishwanatha D	4PM16EE043	Uddyoth technologies pvt,ltd, Banglore	2/1/20 to 29/1/23
47	Yashaswini L Murthy	4PM16EE044	Pincore technologies pvt ltd, banglore	2/1/20 to 29/1/24
48	Laxmana C	4PM16EE045	Reconfiguration technique for photovoltaic array at NITK Surathkal	4/7/19 to 30/7/20
49	Anandkumar B	4PM16EE400	Paper Packaging Pvt Ltd, Shivamogga	9/7/19 to 9/8/23
50	Madhu D G	4PM16EE404	South Western Railway, Hubli.	8/7/19 to 20/7/24
51	Nandini S	4PM16EE408	Manobhu tech pvt ltd, Banglore	2/1/20 to 1/2/27
52	Nishal Kumar M B	4PM16EE410	Paper Packaging Pvt Ltd, Shivamogga	9/7/19 to 9/8/24
53	Pareekshith R	4PM16EE411	Paper Packaging Pvt Ltd, Shivamogga	9/7/19 to 9/8/25
54	Sanjeevthomas	4PM16EE416	Volvo Eicher commercial Vehicles ltd, PithampurGhar, Indhore district, Madhyapradesh	4/7/19 to 30/7/20
55	Adarsha S	4PM17EE400	ECCLESIA, Mysore	9/7/19 to 9/8/25
56	Anju K M	4PM17EE401	ECCLESIA, Mysore	9/7/19 to 9/8/26
57	Anusha S	4PM17EE402	Inventron Technologies And Business Solutions LLP. Banglore	2/1/20 to 29/1/30
58	Bharathwin Raj G	4PM17EE403	BEML Vigyan industries ltd, Tharikere	2/1/20 to 29/1/30

59	Fazil Ashraf	4PM17EE405	Power corporation, Kashmir	2/1/20 to 29/1/30
60	Harshitha L	4PM17EE407	Manobhu tech pvt ltd, Banglore	2/1/20 to 1/2/28
61	Mallikarjuna K	4PM17EE409	ECCLESIA, Mysore	9/7/19 to 9/8/27
62	Manoj L	4PM17EE411	ECCLESIA, Mysore	9/7/19 to 9/8/28
63	Mohammed Altamash	4PM17EE412	Inventrion tech pvt ltd, (embedded system application and IoT	2/1/20 to 29/1/21
64	Mohammed Muzammil	4PM17EE413	ECCLESIA, Mysore	9/7/19 to 9/8/29
65	Muskan S	4PM17EE414	ECCLESIA, Mysore	9/7/19 to 9/8/30
66	Parikshith D K	4PM17EE415	ECCLESIA, Mysore	9/7/19 to 9/8/31
67	Pavankumar R	4PM17EE416	BEML Vigyan industries ltd, Tharikere	2/1/20 to 29/1/31
68	Prajwal S	4PM17EE417	BEML Vigyan industries ltd, Tharikere	2/1/20 to 29/1/32
69	Ramanna K H	4PM17EE418	South Western Railway, Hubli.	8/7/19 to 20/7/25
70	Roshan B R	4PM17EE419	South Western Railway, Hubli.	8/7/19 to 20/7/26
71	Salman Khan	4PM17EE420	NGEF , Hubli (Ltd)	9/7/19 to 9/8/21
72	Vajragowda	4PM17EE422	ECCLESIA, Mysore	9/7/19 to 9/8/32
73	Yogesh M	4PM17EE423	ECCLESIA, Mysore	9/7/19 to 9/8/33

Table 2.2.7: Students Internship Details 2019-2020

Sl. No.	Name	USN	Company details	Period of Internship
1	Abhishekh G M	4PM17EE001	KMF Shivamogga	18/8/20 to 15/9/20
2	Adarsha H R	4PM17EE002	KMF Shivamogga	18/8/20 to 15/9/20
3	Aishwarya B S	4PM17EE003	Tech Fortune Technologies, Banglore	15/3/21 to 15/4/21
4	Aishwarya R	4PM17EE004	SGR Transformers Nidige	3/9/20 to 1/10/20
5	Akshatha C	4PM17EE005	Tech Fortune Technologies, Banglore	15/3/21 to 15/4/21
6	Akshay R C	4PM17EE006	Vasagi Power project PVT LTD , Gajanuru	1/9/20 to 29/9/20
7	Anusha K U	4PM17EE008	Akruthi 3D PVT LTD, Shivamogga	17/08/20 to 12/09/20
8	Apoorva J R	4PM17EE009	66/11 KV multi unit Substation Hosadurga	11/8/20 to 10/9/20
9	Archana J	4PM17EE010	Tech Fortune Technologies, Banglore	15/3/21 to 15/4/21
10	Arun Kumar	4PM17EE011	Vasagi Power project PVT LTD , Gajanuru	1/9/20 to 29/9/20
11	Ayesha Firdose	4PM17EE012	SGR Transformers Nidige	3/9/20 to 1/10/20
12	Bhargav B Shanubhog	4PM17EE013	Shanthala Spherecast PVT LTD, Shimoga	24/8/20 to 23/9/20
13	Bhavya K R	4PM17EE014	Akruthi 3D PVT LTD, Shivamogga	17/08/20 to 12/09/20
14	Bindhu M	4PM17EE015	Akruthi 3D PVT LTD, Shivamogga	17/08/20 to 12/09/20
15	Chandana B	4PM17EE016	220kv Relay Testing , MRS Shivamogga	1/9/20 to 28/9/20
16	Chandana S R Naik	4PM17EE017	Vasagi Power project PVT LTD , Gajanuru	1/9/20 to 29/9/20
17	Harshithkumar K S	4PM17EE020	SRK technologies, Shivamogga	7/10/20 to 7/11/20

18	Mahesha N	4PM17EE023	KMF Shivamogga	18/8/20 to 15/9/20
19	Meghana S	4PM17EE024	220kv Relay Testing , MRS Shivamogga	1/9/20 to 28/9/20
20	MurugeshKolhar	4PM17EE025	ALTTC, Ghaziabad (online)	3/8/20 to 29/8/20
21	N S Prathiksha	4PM17EE026	Akruthi 3D PVT LTD, Shivamogga	17/08/20 to 12/09/20
22	NandanGowda S J	4PM17EE027	KMF Shivamogga	18/8/20 to 15/9/20
23	Niharika S N	4PM17EE028	Vasagi Power project PVT LTD , Gajanuru	1/9/20 to 29/9/20
24	NooraniTehreen	4PM17EE029	SGR Transformers Nidige	3/9/20 to 1/10/20
25	ParvatiKasaval	4PM17EE030	ALTTC, Ghaziabad (online)	3/8/20 to 29/8/20
26	Pooja M	4PM17EE031	SGR Transformers Nidige	3/9/20 to 1/10/20
27	Prajna M R	4PM17EE032	Akruthi 3D PVT LTD, Shivamogga	17/08/20 to 12/09/20
28	Prajval S R	4PM17EE033	Shanthala Spherecast PVT LTD, Shimoga	24/8/20 to 23/9/20
29	Prajwal V M	4PM17EE035	SRK technologies, Shivamogga	7/10/20 to 7/11/20
30	Prakruthi M J	4PM17EE036	SGR Transformers Nidige	3/9/20 to 1/10/20
31	Rajesh M	4PM17EE037	SRK technologies, Shivamogga	7/10/20 to 7/11/20
32	Ramya M	4PM17EE038	Akruthi 3D PVT LTD, Shivamogga	17/08/20 to 12/09/20
33	Raviprasad C	4PM17EE039	SRK technologies, Shivamogga	7/10/20 to 7/11/20
34	Roopa B	4PM17EE040	Akruthi 3D PVT LTD, Shivamogga	17/08/20 to 12/09/20
35	SamruddhiKrishnaa	4PM17EE042	220kv Relay Testing , MRS Shivamogga	1/9/20 to 28/9/20
36	Sanjaya S B	4PM17EE044	SRK technologies, Shivamogga	7/10/20 to 7/11/20
37	Sindhu N K	4PM17EE047	220kv RELAY TESTING , MRS Shivamogga	1/9/20 to 28/9/20
38	Sowmya G K	4PM17EE048	ALTTC, Ghaziabad (online)	3/8/20 to 29/8/20
39	Syed Faisal Pasha	4PM17EE049	Inventron technologies and business solutions LLP Banglore	5/10/20 to 9/11/20
40	Usha H	4PM17EE051	Akruthi 3D PVT LTD, Shivamogga	17/08/20 to 12/09/20
41	Vijay T	4PM17EE052	KMF Shivamogga	18/8/20 to 15/9/20
42	Keerthana V S	4PM17EE054	Akruthi 3D PVT LTD, Shivamogga	17/08/20 to 12/09/20
43	AmreenTaj	4PM18EE400	RV- Transformer Manufacturing company, Davanagere	12/08/20 to 30/08/20
44	BabuNaik P	4PM18EE401	SRK technologies, Shivamogga	7/10/20 to 7/11/20
45	Deepa	4PM18EE402	220kv Relay Testing , MRS Shivamogga	1/9/20 to 28/9/20
46	Dhanush R	4PM18EE403	SRK technologies, Shivamogga	7/10/20 to 7/11/20
47	Harshitha S P	4PM18EE404	220kv Relay Testing , MRS Shivamogga	1/9/20 to 28/9/20
48	Jyothi K T	4PM18EE405	RV- Transformer Manufacturing company, Davanagere	12/08/20 to 30/08/20
49	Jyothi P	4PM18EE406	RV- Transformer Manufacturing company, Davanagere	12/08/20 to 30/08/20

50	Mahesh Savoor	4PM18EE407	SRK technologies, Shivamogga	7/10/20 to 7/11/20
51	Maruthi N	4PM18EE409	SRK technologies, Shivamogga	7/10/20 to 7/11/20
52	NidaBanu A	4PM18EE410	RV- Transformer Manufacturing company, Davanagere	12/08/20 to 30/08/20
53	Sandesh R	4PM18EE413	SRK technologies, Shivamogga	7/10/20 to 7/11/20
54	Shilpa S	4PM18EE414	Akruthi 3D PVT LTD, Shivamogga	17/08/20 to 12/09/20
55	Sumanth T M	4PM18EE415	SRK technologies, Shivamogga	7/10/20 to 7/11/20

Table 2.2.8: Students Internship Details 2020-21

Sl. No.	Name	USN	Company details	Period of Internship
1	Darshan Kumar K	4PM17EE018	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
2	Tejaswini R	4PM17EE050	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
3	Anusha D	4PM18EE001	Kptcl, Substation Theerthahalli	3/9/21 to 2/10/21
4	Ashwini Bl	4PM18EE002	MYSORE ELECTRICAL INDUSTRIES Yashwanthpura, Banglore	1/9/21 to 30/9/21
5	Ashwini.B.V	4PM18EE003	Unielec Switchgears Private Limited, Harihara	1/9/21 to 30/9/21
6	Bhoomika Sm	4PM18EE004	MYSORE ELECTRICAL INDUSTRIES Yashwanthpura, Banglore	1/9/21 to 30/9/21
7	Bhumika.H.D	4PM18EE005	Unielec Switchgears Private Limited, Harihara	1/9/21 to 30/9/21
8	Bhumika L	4PM18EE006	Mass Engineering Technologies Pvt.Ltd.Shivamogga	1/9/21 to 30/9/21
9	Divyashree M	4PM18EE007	MYSORE ELECTRICAL INDUSTRIES Yashwanthpura, Banglore	1/9/21 to 30/9/23
10	Harishkumar.M	4PM18EE008	MYSORE ELECTRICAL INDUSTRIES Yashwanthpura, Banglore	1/9/21 to 30/9/21
11	Mandara B C	4PM18EE009	Unielec Switchgears Private Limited, Harihara	1/9/21 to 30/9/21
12	Manoj R Bidari	4PM18EE010	Mrs Division Kptcl,Shimoga	1/9/21 to 30/9/21
13	Nithin Bs	4PM18EE011	Kptcl, Substation Theerthahalli	3/9/21 to 2/10/21
14	Palaksha Helavar	4PM18EE013	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
15	Pallavi P S	4PM18EE014	Mass Engineering Techonologies Pvt.Ltd.Shivamogga.	1/9/21 to 30/9/21
16	Prashant R	4PM18EE015	Electron Consultants, Banglore	1/9/21 to 30/9/21
17	Prateek M S	4PM18EE016	Electron Consultants, Banglore	1/9/21 to 30/9/21
18	Preetha.M	4PM18EE017	Kptcl, Substation Theerthahalli	3/9/21 to 2/10/21
19	Sachin I M	4PM18EE019	Mrs Division, Kptcl, Shivamogga	1/9/21 to 30/9/21
20	Shilpa U	4PM18EE020	Unielec Switchgears Private Limited, Harihara	1/9/21 to 30/9/21

21	Soujanya S	4PM18EE021	MYSORE ELECTRICAL INDUSTRIES Yashwanthpura, Banglore	1/9/21 to 30/9/21
22	Sourav T	4PM18EE022	Kptcl, Substation Theerthahalli	3/9/21 to 2/10/21
23	Sudhanva G M	4PM18EE023	110/11KV Substation, Machenahalli. Shivamogga	6/9/21 to 5/10/21
24	Sunil.Kg (http://sunil.kg/)	4PM18EE024	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
25	Sushma R R	4PM18EE025	Kptcl, Substation Theerthahalli	3/9/21 to 2/10/21
26	Swaleh Ahmed	4PM18EE026	Kptcl, Rt Substation, Shivamogga	1/9/21 to 30/9/21
27	Vinay R	4PM18EE027	110/11KV Substation, Machenahalli. Shivamogga	6/9/21 to 5/10/21
28	Rudresh.Kodad	4PM18EE412	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
29	Abhishek Pn	4PM19EE400	110/11KV Substation, Machenahalli. Shivamogga	6/9/21 to 5/10/21
30	Ankush S	4PM19EE401	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
31	Arun Kumar S R	4PM19EE402	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
32	Azeem Ahmed	4PM19EE403	Kptcl, Rt Substation, Shivamogga	1/9/21 to 30/9/21
33	Balaraj P	4PM19EE404	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
34	Bhavana S C	4PM19EE406	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
35	Chaithra Y H	4PM19EE407	Ardc Division (Hal), Banglore	8/9/21 to 8/10/21
36	Harshith D Raj	4PM19EE410	V TECH ENGINEERS, Kuntuvalli, Theerthahalli	1/9/21 to 30/9/21
37	Jaideep P	4PM19EE411	Mass Engineering Technologies Pvt. Ltd. Shivamoga	1/9/21 to 30/9/21
38	Janu N	4PM19EE412	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
39	Karthika S P	4PM19EE413	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
40	Kavya Gp	4PM19EE414	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
41	Kiran Naikodi	4PM19EE415	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
42	Manoj G	4PM19EE417	V TECH ENGINEERS, Kuntuvalli, Theerthahalli	1/9/21 to 30/9/21
43	Mohammed Mansoor	4PM19EE418	Kptcl, Rt Substation, Shivamogga	1/9/21 to 30/9/21
44	Mohammed Thajuddin	4PM19EE419	Kptcl, Rt Substation, Shivamogga	1/9/21 to 30/9/21
45	Neeraj P Bhonsle	4PM19EE421	33/11kv Muss, Gescom Substation,Sandur,	1/9/21 to 30/9/21
46	Pavan K	4PM19EE422	August Global Creation Pvt Ltd, Banglore	3/9/21 to 1/10/21
47	Prajwal V	4PM19EE423	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
48	Pramoda C R	4PM19EE424	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
49	Praveen Kumar G R	4PM19EE425	Mrs Division Kptcl.Shivamogga	1/9/21 to 30/9/21

50	Rajesha K S	4PM19EE426	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
51	Rakesha K R	4PM19EE427	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
52	Ranjini M	4PM19EE429	Mass Engineering Technologies Pvt.Ltd.Shivamogga	1/9/21 to 30/9/21
53	Ranjitha G	4PM19EE430	Ardc Division (Hal), Banglore	8/9/21 to 8/10/21
54	Ravikumar Hr	4PM19EE431	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
55	Sandeep S M	4PM19EE432	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
56	Shashikumar H R	4PM19EE433	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
57	Shivaganga L	4PM19EE434	Mrs Division, Kptcl,Shivamogga	1/9/21 to 30/9/21
58	Sneha D M	4PM19EE435	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
59	Srisham S M	4PM19EE436	V TECH ENGINEERS, Kuntuvalli, Theerthahalli	1/9/21 to 30/9/21
60	Tejaswini R	4PM19EE437	Ardc Division (Hal), Banglore	8/9/21 to 8/10/21
61	Varshini K P	4PM19EE438	S G R Transformers, B H Road Nidige, Shivamogga	1/9/21 to 30/9/21
62	Yogeesh L S	4PM19EE439	MYSORE ELECTRICAL INDUSTRIES Yashwanthpura, Banglore	1/9/21 to 30/9/21
63	Dhanush B B	4PM19EE440	110/11KV Substation, Machenahalli. Shivamogga	6/9/21 to 5/10/21

Table 2.2.9: Students Internship Details 2021-22

Sample Internship Certificates

Balaji
Electro Controls

Comprehensive quality products and solutions for;
Electrical Control Panels • iMCC • Cable Trays • Bus-Ducts • AMC Services

CERTIFICATE

Date : 03-02-2020

TO WHOMSOVER IT MAY CONCERN:

This is to certify that **Ms. Chaithra G M,** USN No: 4PM16EE010 of **PES Institute of Technology and Management,** Shivamogga, Studying in Fourth year of Engineering has successfully completed Industrial/Internship Training in our organisation from 2nd January 2020 to 1st February 2020 and acquired the knowledge of LT Switchgear Manufacturing.

We wish her all the best in her future endeavour.

For Balaji Electro Controls Pvt. Ltd.

07/02/2020

Shashishekhar HRS
Executive Director - Technical

Balaji Electro Controls Pvt. Ltd.
(An ISO Certified Co. 9001:2008. Reg. No. 91/6291)
No 36/2, Madanavakanahalli, Near Bhoruka School, Tumkur Road,
Bengaluru - 562 123. Karnataka, India | +91-80-23716292 / 23716290 / 23715499
infobec@balajielectrocontrols.com | www.balajielectrocontrols.com
CIN: U 31200 KA 1986 PTC 007662

Fig 2.2.9 : Sample Internship Certificate 2019-20 batch

GST IN: 29AAKCS2030MIZV

SPCPL

UCIN: U40101KA1997PCO22070PHONE NO: 9448145535

SAHYADRI POWER COMPANYPRIVATE LIMITED

"Pushpagiri", 9th cross, 1st main, sharavathinagara, shimoga, Karnataka

No:21992/D(HR)/I-6 Dated:12.10.2020

TO WHOMSOEVER IT MAY CONCERN

It is to certify that the following student of PES Institute of Technology and Management, shivamogga **Vinay H.J (USN: 4PM18EE418)**, was detailed for internship for a period w.e.f **01.09.2020**to **29.09.2020**vide office letter No:20 dated:12.10.2020 in **Vasgi Power Project Private Limited, Gajanur branch of Sahyadri Power Company Private Limited, Shimoga.** The individual has successfully completed internship training on **"Production, Collection, & Distribution of electricity"** i.e.,specially in **hydroelectric power generation.**

During his internship period, he was found disciplined & hardworking. **Sahyadri Power Company Private Ltd** wishes every success in his future life.

Sahyadri Power Company (P) Ltd.,
"Pushpagiri" 9th Cross, 1st Main
Sharavathi, Nagar, SHIVAMOGGA.
Karanataka.

Managing Director
(S.P.C.P.L)
For Sahyadri Power Company (P) Ltd.,
Managing Director

Fig 2.2.10 : Sample Internship Certificate 2020-21 batch

UNIELEC
Switchgears Private Limited

REF : Unielec/Trng/certfct/036

DATE : 30/09/2021

CERTIFICATE

This is to certify that **Ms.Shilpa.U**, bearing **USN: 4PM18EE020** of 6 th Semister, Bachelor of Engineering (B.E) in Electrical and Electronics Engineering at PES Institute of Technology & Management, Shimogga, has successfully completed internship training with **Unielec Switchgears Private Limited**, Harihara, in "**Manufacturing of Low Tension Electric Panels**" under the guidance of Mr.Basavaraj M S and Mr.Manjunath T.

The internship training has been carried out from **01/09/2021** to **30/09/2021**. Partial requirement for award of Bachelor of Engineering degree in Electrical and Electronics Engineering from PES Institute of Technology & Management, Shimogga, affiliated to VTU, Belagavi-590018

For Unielec Switchgears Private Limited

Place : Harihar

UNIELEC SWITCHGEARS PVT LTD HARIHAR -577601

Managing Director

(BASAVARAJ M S)

29/09/2021

+91 98455 18161, +91 70903 08559 unielec.hrr@gmail.com GSTIN: 29AACCU4802D1ZK CIN: U29308KA2019PTC127308
#11, 1st Floor, Sanketh Building, Hamsagar Compound, K.R. Nagara, Harihara-577601. Karnataka, INDIA. www.unielec.co.in

Fig 2.2.11 : Sample Internship Certificate 2021-22 batch

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (120)

Total Marks 110.00

Define the Program specific outcomes

3.1 Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) (20)

Total Marks 20.00

:

PSO1	Apply the knowledge to have a foundation in theoretical & practical aspects of Electrical & Electronics engineering
PSO2	Ability to model, analyze, design and realize physical systems, components and hands on competence in modern engineering tools to process and adapt them in the field of electrical & electronics engineering
PSO3	Ability to communicate and work professionally in order to take up entrepreneurial activities in the field of electrical & electronics engineering and related areas for the benefit of the society

3.1.1 Course Outcomes(COs)(SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses and made available as evidence, if asked) (5)

Institute Marks : 5.00

Note : Number of Outcomes for a Course is expected to be around 6.

Course Name :	C2 03	Course Year :	2021-2022

Course Name	Statements
C2 03.1	Analyze the performance of single phase and three phase transformers
C2 03.2	Realize the operation of autotransformer, tap changing and parallel operation, load sharing methods of transformers.
C2 03.3	Realize the armature reaction ,commutation and their effects of DC generators
C2 03.4	Explain and analyze the load characteristics of Synchronous machines and design equivalent circuit parameters
C2 03.5	Analyze the construction, operation and performance of Synchronous machines.

Course Name :	C2 14	Course Year :	2021-2022

Course Name	Statements
C2 14.1	Describe the characteristics of Ideal and practical operational amplifier
C2 14.2	Design filters and signal generators using linear IC’s
C2 14.3	Apply the knowledge of linear IC’s as comparators and rectifiers
C2 14.4	Explain & apply the working principle of Converters & DC Voltage Regulators.
C2 14.5	Understand & Illustrate the working principle of PLL & TIMER Circuits.

Course Name :	C3 03	Course Year :	2021-2022

Course Name	Statements
C3 03.1	Explain the application area of power electronic devices and their characteristics and able to design and analysis the different single phase diode rectifier circuits.
C3 03.2	Explain steady state, switching characteristics and gate control requirements of different power Electronic switches and also Thyristors different types of firing circuits and their limitations
C3 03.3	Explain the design, techniques and performance characteristics of AC controlled rectifiers
C3 03.4	Discuss the principle of operation of DC - DC, DC -AC converters and AC voltage controllers

Course Name :	C3 11	Course Year :	2021-2022

Course Name	Statements
C3 11.1	Compute the DFT of various signals using its properties and linear filtering of two sequences.
C3 11.2	Design infinite impulse response Butterworth and Chebyshev digital filters using impulse invariant / bilinear transformation technique.
C3 11.3	Realize a digital IIR filter by direct, cascade, parallel and ladder methods of realization.
C3 11.4	Discuss different window functions and frequency sampling method used for design of FIR filters and to realize the FIR filter by direct, cascade, parallel and ladder methods of realization.

Course Name :	C4 01	Course Year :	2021-2022

Course Name	Statements
C4 01.1	Formulate network matrices, models and formation of Y-bus by different methods for solving load flow problems
C4 01.2	Explain the classification of buses in power system and G-S method of load flow study.
C4 01.3	Apply the various load flow methods to power system problems and find the voltages, power flows, losses at the different buses
C4 01.4	Solve issues of economic load dispatch and unit commitment problems.
C4 01.5	Analyze short circuit faults in power system networks using bus impedance matrix and Numerical Solution of Swing Equation by Point by Point method and Runge Kutta method.

Course Name :	C4 10	Course Year :	2021-2022

Course Name	Statements
C4 10.1	Explain general principles of estimation and major applicable I.E.rules.
C4 10.2	Design the lighting point,sub-circuits and wiring accessories
C4 10.3	Discuss the estimation of service mains and power circuits
C4 10.4	Discuss the estimation of transmission lines componenets
C4 10.5	Discuss estimation of substation & its types

3.1.2 CO-POmatrices of courses selected in 3.1.1(Six matrices to be mentioned; one per semester from 3rd to 8th semester) (5) Institute Marks : 5.00

1 . course name : C203

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C203.1	2	3	-	-	-	-	-	-	-	-	-	-
C203.2	2	2	-	-	-	-	-	-	-	-	-	-
C203.3	2	2	-	-	-	-	-	-	-	-	-	-
C203.4	3	2	-	-	-	-	-	-	-	-	-	-
C203.5	3	1	-	-	-	-	-	-	-	-	-	-
Average	**2.40**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2 . course name : C214

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C214.1	2	1	-	-	1	-	-	-	-	-	-	-
C214.2	1	2	3	-	1	-	-	-	-	-	1	-
C214.3	1	2	-	-	1	-	-	-	-	-	1	-
C214.4	1	3	-	-	-	-	-	-	-	-	-	-
C214.5	1	2	-	-	-	-	-	-	-	-	1	-
Average	**1.20**	**2.00**	**3.00**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.00**	**0.00**

3 . course name : C303

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C303.1	3	2	1	-	-	-	1	-	-	-	-	-
C303.2	3	2	1	1	-	-	-	-	-	-	-	-
C303.3	2	2	1	1	-	-	-	-	-	-	-	-
C303.4	3	2	2	1	-	-	-	-	-	-	-	-
Average	**2.75**	**2.00**	**1.25**	**1.00**	**0.00**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4 . course name : C311

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C311.1	3	3	2	1	-	-	-	-	-	-	-	-
C311.2	3	3	2	1	-	-	-	-	-	-	-	-
C311.3	3	3	2	1	-	-	-	-	-	-	-	-
C311.4	3	2	2	1	-	-	-	-	-	-	-	-
Average	**3.00**	**3.00**	**2.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5 . course name : C401

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C401.1	2	2	2	-	-	-	-	1	1	2	-	-
C401.2	2	1	1	-	-	-	-	1	1	2	-	-
C401.3	2	2	1	-	-	-	-	1	2	2	-	-
C401.4	1	2	1	-	-	-	-	2	1	1	-	-
C401.5	2	2	2	-	-	-	-	1	1	1	-	-
Average	**1.80**	**1.80**	**1.40**	**0.00**	**0.00**	**0.00**	**0.00**	**1.20**	**1.20**	**1.60**	**0.00**	**0.00**

6 . course name : C410

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C410.1	-	-	-	-	-	2	2	2	-	-	-	2
C410.2	2	2	3	1	-	1	1	2	-	-	-	1
C410.3	2	2	3	1	-	1	1	2	-	-	-	1
C410.4	2	2	2	1	-	1	1	2	-	-	-	1
C410.5	2	2	3	1	-	1	1	2	-	-	-	1
Average	**2.00**	**2.00**	**3.00**	**1.00**	**0.00**	**1.20**	**1.20**	**2.00**	**0.00**	**0.00**	**0.00**	**1.20**

1 . Course Name : C203

Course	PSO1	PSO2	PSO3
C203.1	2	1	-
C203.2	2	1	-
C203.3	2	1	-
C203.4	2	1	-
C203.5	2	1	-
Average	**2.00**	**1.00**	**0.00**

2 . Course Name : C214

Course	PSO1	PSO2	PSO3
C214.1	2	1	-
C214.2	2	1	-
C214.3	2	1	-
C214.4	2	-	-
C214.5	1	-	-
Average	**1.80**	**1.00**	**0.00**

3 . Course Name : C303

Course	PSO1	PSO2	PSO3
C303.1	2	-	1
C303.2	2	2	-
C303.3	1	-	-
C303.4	1	-	-
Average	**1.20**	**2.00**	**1.00**

4 . Course Name : C311

Course	PSO1	PSO2	PSO3
C311.1	2	2	-
C311.2	2	2	-
C311.3	2	2	-
C311.4	2	2	-
Average	**2.00**	**2.00**	**0.00**

5 . Course Name : C401

Course	PSO1	PSO2	PSO3
C401.1	2	1	-
C401.2	2	1	-
C401.3	2	1	-
C401.4	2	2	-
C401.5	2	2	-
Average	**2.00**	**1.40**	**0.00**

6 . Course Name : C410

Course	PSO1	PSO2	PSO3
C410.1	1	1	1
C410.2	1	1	2
C410.3	1	1	2
C410.4	1	1	2
C410.5	1	1	2
Average	**1.00**	**1.00**	**1.80**

3.1.3 - A Program level Course-PO matrix of all courses INCLUDING first year courses (10) Institute Marks : 10.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO101	2	1.75	1.5	1.5	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO102	1.8	2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO103	2.2	2.2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2
CO104	2.5	2	1	1	PO5	PO6	PO7	1	PO9	PO10	PO11	PO12
CO105	1.75	1.75	PO3	PO4	1	PO6	PO7	PO8	PO9	PO10	PO11	1
CO106	1.5	2	PO3	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO107	2	2	1	PO4	PO5	PO6	PO7	1	1	1	PO11	1
CO108	PO1	PO2	PO3	PO4	PO5	2	PO7	PO8	1	2.6	1.67	2.2
CO109	2	2	1.5	1.5	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
CO110	2	2.67	2	1.5	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO111	2.6	2	2.25	2.5	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.6
CO112	2.6	2	2.33	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO113	3	2	2.2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.8
CO114	3	2.5	1.5	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO115	2	1.5	2.5	PO4	2	PO6	PO7	PO8	1	1	PO11	1
CO116	PO1	PO2	PO3	PO4	PO5	1.3	PO7	2	1.5	2.8	1.67	2
CO201	2	2	2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO202	2.2	2.6	2.67	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO203	2.4	2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO204	2.8	2	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO205	2.6	2.2	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO206	3	1.2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO207	2	1.5	PO3	PO4	PO5	1	PO7	PO8	1	1	PO11	PO12
CO208	2	2.5	2.5	1.5	PO5	PO6	PO7	PO8	PO9	PO10	2	PO12
CO209	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO210	2.2	1.8	1.4	1.4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO211	1.75	1.75	3	PO4	PO5	2	2	PO8	PO9	PO10	1.5	1.3
CO212	2	2	2	PO4	PO5	1	PO7	PO8	PO9	PO10	PO11	PO12
CO213	1.8	PO2	1.4	1	PO5	1.75	PO7	PO8	1.5	PO10	PO11	1.67
CO214	2	2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO215	1.2	2	3	PO4	1	PO6	PO7	PO8	PO9	PO10	1	PO12
CO216	1.3	1.3	PO3	PO4	PO5	1.67	1.33	PO8	PO9	PO10	PO11	1.3
CO217	2	1.5	3	1	2	PO6	PO7	PO8	1	1	1	PO12

CO218	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO301	PO1	PO2	PO3	PO4	PO5	2.2	PO7	2	2.2	2.2	2	2
CO302	3	1.75	1	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	1
CO303	2.75	2	1.25	1	PO5	PO6	1	PO8	PO9	PO10	PO11	PO12
CO304	3	3	1.2	1	1.2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO305	3	2	1.25	1	PO5	1	1	PO8	PO9	PO10	PO11	PO12
CO306	2	2	1.75	PO4	PO5	1	PO7	1	PO9	PO10	PO11	PO12
CO307	2	1	2	PO4	2.67	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO308	2	PO2	PO3	PO4	1	PO6	PO7	2	2	1	1	PO12
CO309	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO310	1	2.8	2.3	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO311	2	2.4	1.25	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO312	3	3	2	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO313	3	2	2	1	2	PO6	PO7	1	PO9	PO10	1	1
CO314	2	1.2	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO315	2	1.67	1.67	1	2	PO6	PO7	PO8	2	1	1	PO12
CO316	2.25	2.25	2.5	1	1.75	PO6	PO7	PO8	1	1	1	PO12
CO317	2	3	3	2	3	2	2	2	2.5	2	3	2.5
CO401	2	1.8	1.6	1	1.67	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO402	1.8	1.8	1.8	PO4	PO5	PO6	PO7	1.2	1.2	1.6	PO11	PO12
CO403	1.4	2.2	2.5	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO404	1.4	1.6	PO3	PO4	PO5	1.5	1.75	PO8	PO9	PO10	PO11	PO12
CO405	1	1.75	2	2.5	2	2	1.5	2	PO9	1	1.5	1.4
CO406	2	2	2	PO4	2	PO6	PO7	PO8	2	1	PO11	PO12
CO407	2.5	2.5	PO3	1	1	PO6	1	PO8	1	1	1	PO12
CO408	2	3	3	2	3	2	2	2	2.5	2	3	2.5
CO409	2	2	1	PO4	2	PO6	PO7	1	2	2	PO11	PO12
CO410A	2	2	3	1	PO5	1.2	1.2	2	PO9	PO10	PO11	1.2
CO410B	1	1	PO3	PO4	PO5	2	2	PO8	PO9	PO10	PO11	1
CO411	2	3	3	2	3	2	2	2	2.5	2	3	2.5
CO412	1.3	1.3	2	1	1	1	PO7	1	PO9	2	PO11	2
CO413	2	3	2	PO4	PO5	PO6	2	2	2	2.5	2	PO12

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

Course	PSO1	PSO2	PSO3
CO101	PSO1	PSO2	PSO3
CO102	PSO1	PSO2	PSO3
CO103	PSO1	PSO2	PSO3
CO104	PSO1	PSO2	PSO3
CO105	PSO1	PSO2	PSO3
CO106	PSO1	PSO2	PSO3
CO107	PSO1	PSO2	PSO3
CO108	PSO1	PSO2	PSO3
CO109	PSO1	PSO2	PSO3
CO110	PSO1	PSO2	PSO3

CO111	PSO1	PSO2	PSO3
CO112	PSO1	PSO2	PSO3
CO113	PSO1	PSO2	PSO3
CO114	PSO1	PSO2	PSO3
CO115	PSO1	PSO2	PSO3
CO116	PSO1	PSO2	PSO3
CO201	PSO1	PSO2	PSO3
CO202	2	2	PSO3
CO203	2	1	PSO3
CO204	1	PSO2	PSO3
CO205	2	1.8	PSO3
CO206	2	PSO2	PSO3
CO207	2	PSO2	PSO3
CO208	2	2	PSO3
CO209	PSO1	PSO2	PSO3
CO210	PSO1	PSO2	PSO3
CO211	2	2	1
CO212	1.8	1.4	PSO3
CO213	1.4	PSO2	1.3
CO214	1	PSO2	PSO3
CO215	1.8	1	PSO3
CO216	1.3	PSO2	1.3
CO217	2.5	2.5	PSO3
CO218	PSO1	PSO2	PSO3
CO301	PSO1	PSO2	2
CO302	1	1	PSO3
CO303	1.5	2	1
CO304	2	1	PSO3
CO305	2	PSO2	1
CO306	1	1	PSO3
CO307	2	2	PSO3
CO308	1	2	1
CO309	PSO1	PSO2	PSO3
CO310	1	2	PSO3
CO311	1	1.4	PSO3
CO312	2	2	PSO3
CO313	1.8	1	1
CO314	1	PSO2	PSO3
CO315	2	2	PSO3
CO316	2	2	PSO3
CO317	2.5	2.3	1.25
CO401	2	1.4	PSO3
CO402	1.6	1.6	PSO3
CO403	2.25	2	PSO3

CO404	1.67	1.3	1
CO405	1.67	1.75	2
CO406	2	1.6	PSO3
CO407	2	2	PSO3
CO408	2.5	2.33	1.25
CO409	1.8	1.8	1
CO410A	1	1	1.8
CO410B	1	PSO2	PSO3
CO411	2.5	2.5	1.25
CO412	2	2	1
CO413	2.5	2.5	1.33

3.2 Attainment of Course Outcomes (50) Total Marks 40.00

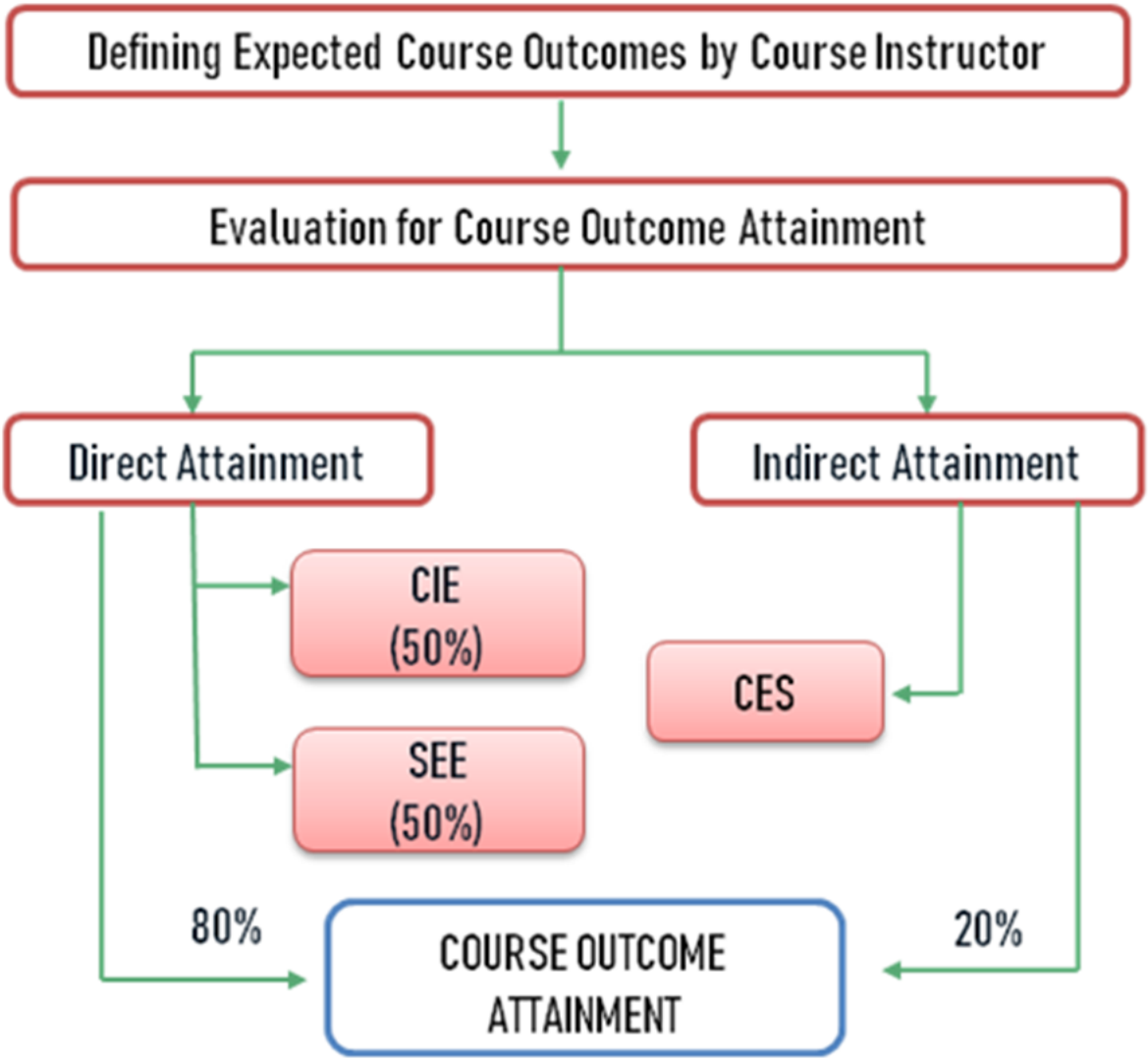
3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10) Institute Marks : 10.00

3.2.1 Assessment Process used for Evaluation of Course Outcomes

- Course Outcome Attainment is calculated based on student performance in Continuous Internal Evaluation (CIE) and Semester End Examination (SEE), which constitutes direct assessment
- For total direct attainment 50% attainment of CIE and 50% attainment of SEE are considered. The equal proportioning is adopted as the marks allocation for questions and in turn CO's in SEE is not provided by the university.
- Course End Survey (CES) is carried out and used for evaluation of course outcome attainment, which constitutes indirect assessment
- For total attainment 80% direct attainment and 20% indirect attainment in considered. As the direct attainment is a better reflection of actual attainment, a higher proportioning is considered.
- Course Outcome Attainment is calculated using the following relationship

- Course Instructor sets a course target, prior to the assessments, based on the nature of course and past performance of the students with respect to the same / relatable course in the previous academic year.
- Three different levels of attainment are set for each program (each batch), with respect to which the attainment or non attainment is calculated.
- The course outcome attainments are represented as 1, 2, 3 or 0(Zero) depending on the direct and indirect attainments compared with set targets.
- For 2018-2022 Batch is under 2018 scheme of study, defined levels are as follows
  - ***Level 1 – 55%***
  - ***Level 2 – 60%***
  - ***Level 3 – 65%***

Figure 3.2.1: Process and Weightage for CO Attainment Calculation



3.2.2 Record the attainment of Course Outcome of all courses with respect to set attainment levels (40)

Institute Marks : 30.00

Sl. No.	Semester	Course Name	Course Code	NBA Code	CO Code	Target (%)	Achieved For set target	Attainment
1	1st	Calculus & Linear Algebra	18MAT11	CO101	CO101.1	50	74.64	3
					CO101.2		90.80	3
					CO101.3		89.44	3
					CO101.4		80.65	3
2		Engineering Physics	18PHY 12/22	CO102	CO102.1	50	44.70	0
					CO102.2		42.45	0
					CO102.3		42.83	0
					CO102.4		45.31	0
					CO102.5		46.12	0
3		Basic Electrical Engg.	18ELE13/23	CO103	CO103.1	50	64.06	2
					CO103.2		59.85	1
					CO103.3		64.29	2
					CO103.4		60.93	2
					CO103.5		64.29	2
4		Elements of Civil Engg. & Mechanics	18CIV14/24	CO104	CO104.1	50	59.32	1
					CO104.2		55.67	1
					CO104.3		63.88	2
					CO104.4		63.62	2
5		Engineering Graphics	18EGDL15	CO105	CO105.1	50	64.63	2
					CO105.2		64.63	2
					CO105.3		64.63	2
					CO105.4		64.63	2
6		Engg. Physics Lab	18PHYL16	CO107	CO106.1	65	61	2
					CO106.2		61	2
7		Basic Eectrical Engg Laboratory	18ELEL17/27	CO106	CO107.1	65	71.4	3
					CO107.2		71.4	3
8	1st	Technical English- I	18EGH18	CO108	CO108.1	50	75	3
					CO108.2		75	3
					CO108.3		75	3
					CO108.4		75	3
					CO108.5		75	

Sl. No.	Semester	Course Name	Course Code	NBA Code	CO Code	Target (%)	Achieved For set target	Attainment
9	2nd	Advanced Calculus & Numerical methods	18MAT21	CO109	CO109.1	50	76.89	2
					CO109.2		77.96	3
					CO109.3		74.57	3
					CO109.4		80.73	3
10		Engineering Chemistry	18CHE22	CO110	CO110.1	50	63.52	2
					CO110.2		62.89	2
					CO110.3		71.06	3
					CO110.4		73.06	3
					CO110.5		73.06	3
11		C Programming for solving Problems	18CPS23	CO111	CO111.1	50	35.28	0
					CO111.2		46.30	0
					CO111.3		47.33	0
					CO111.4		58.82	1
					CO111.5		57.94	1
12		Basic Electronics	18ELN24	CO112	CO112.1	50	39.74	0
					CO112.2		37.16	0
					CO112.3		39.29	0
					CO112.4		35.94	0
					CO112.5		41.76	0
13		Elements of Mechanical Engg.	18ME25	CO113	CO113.1	50	84.74	3
					CO113.2		86.38	3
					CO113.3		85.51	3
					CO113.4		70.93	3
					CO113.5		80.87	3
14		Engg. Chemistry Lab	18CHEL26	CO114	CO114.1	75	74.07	3
					CO114.2		74.07	3
15		Computer Programming Lab	18CPL27	CO115	CO115.1	75	70.37	3
					CO115.2		70.37	3
					CO115.3		70.37	3
					CO115.4		70.37	3
16		Technical English-II	18EGH28	CO116	CO116.1	50	53.7	1
					CO116.2		53.7	1
					CO116.3		53.7	1
					CO116.4		53.7	1
					CO116.5		53.7	1

Sl. No.	Semester	Course Name	Course Code	NBA Code	CO Code	Target (%)	Achieved For set target	Attainment
					CO201.1		66.96	3
17	3rd	Transform Calculus, Fourier Series and Numerical techniques syllabus	18MAT31	CO201		50		
	3rd							
	3rd							

Sl. No.	Semester	Course Name	Course Code	NBA Code	CO Code	Target (%)	Achieved For set target	Attainment
					CO201.2		55.03	1
					CO201.3		46.84	0
					CO201.4		64.74	2
18		Electric Circuit Analysis	18EE32	CO202	CO202.1	40	55.3	2
					CO202.2		56.25	2
					CO202.3		45.55	0
					CO202.4		61.6	3
					CO202.5		58.3	2
19		Transformers and Generators	18EE33	CO203	CO203.1	60	55.70	1
					CO203.2		59.46	1
					CO203.3		66.52	3
					CO203.4		55.04	1
					CO203.5		57.40	1
20		Analog Electronic Circuits	18EE34	CO204	CO204.1	45	64.64	2
					CO204.2		71.80	3
					CO204.3		73.00	3
					CO204.4		68.84	3
					CO204.5		63.16	2
21		Digital System Design	18EE35	CO205	CO205.1	55	87.68	3
					CO205.2		90.04	3
					CO205.3		87.32	3
					CO205.4		82.64	3
					CO205.5		80.56	3
22		Electrical and Electronic Measurements	18EE36	CO206	CO206.1	50	68.96	3
					CO206.2		64.42	2
					CO206.3		60.20	2
					CO206.4		72.20	3
					CO206.5		70.00	3
23		Electrical Machines Laboratory -1	18EEL37	CO207	CO207.1	75	61.80	2
					CO207.2		56.60	1
					CO207.3		60.60	2
					CO207.4		60.60	2
24		Electronics Laboratory	18EEL38	CO208	CO208.1	70	71.72	3
					CO208.2		66.52	3
		Constitution of India, Professional Ethics and Cyber Law Syllabus	18CPH39	CO209	Non Credit Subject			

Sl. No.	Semester	Course Name	Course Code	NBA Code	CO Code	Target (%)	Achieved For set target	Attainment
25	4th	Complex Analysis, Probability and statistical Analysis	18MAT41	CO210	CO210.1	45	52.52	0
					CO210.2		50.92	0
					CO210.3		67.32	3
					CO210.4		51.32	0
					CO210.5		50.92	0
26		Power Generation and Economics	18EE42	CO211	CO211.1	45	68.48	3
					CO211.2		61.90	2
					CO211.3		65.30	3
					CO211.4		72.52	3
27		Transmission and Distribution	18EE43	CO212	CO212.1	50	58.88	1
					CO212.2		56.28	1
					CO212.3		60.12	2
					CO212.4		58.64	1
					CO212.5		56.68	1
28		Electric Motors	18EE44	CO213	CO213.1	50	58.88	1
					CO213.2		50.32	0
					CO213.3		55.00	0
					CO213.4		59.22	1
					CO213.5		56.68	1
29		Electromagnetic Field Theory	18EE45	CO214	CO214.1	50	58.88	1
					CO214.2		50.32	0
					CO214.3		43.16	0
					CO214.4		63.62	2
					CO214.4		61.43	2
30		OP- AMP and Linear ICs	18EE46	CO215	CO215.1	45	52.52	0
					CO215.2		50.92	0
					CO215.3		51.32	0
					CO215.4		65.72	3
					CO215.5		50.92	0
31	4th	Electrical Machines Lab -2	18EEL47	CO216	CO216.1	45	58.5	1
					CO216.2		58.5	1
					CO216.3		58.5	1
32		OP- AMP and Linear ICs Lab	18EEL48	CO217	CO217.1	60	67.24	3
					CO217.2		65.64	3
					CO217.3		66.04	3
33		Adalitha Kannada	18KAK49	CO218	Non Credit Subject			

Sl. No.	Semester	Course Name	Course Code	NBA Code	CO Code	Target (%)	Achieved For set target	Attainment
34	5th	Management and Entrepreneurship	18EE51	CO301	CO301.1	50	84.1	3
					CO301.2		84.18	3
					CO301.3		83.49	3
					CO301.4		77.23	3
					CO301.5		78.15	3
35		Microcontroller	18EE52	CO302	CO302.1	50	88.44	3
					CO302.2		87.08	3
					CO302.3		84.00	3
					CO302.4		0.00	0
					CO302.5		78.40	3
36		Power Electronics	18EE53	CO303	CO303.1	58	62.60	2
					CO303.2		56.60	1
					CO303.3		57.40	1
					CO303.4		63.50	2
37		Signals & Systems	18EE54	CO304	CO304.1	50	56.10	1
					CO304.2		58.26	1
					CO304.3		42.50	0
					CO304.4		46.24	0
					CO304.5		41.60	0
38		Electrical Machine Design	18EE55	CO305	CO305.1	60	68.78	3
					CO305.2		60.76	2
					CO305.3		64.28	2
					CO305.4		59.84	1
39		High Voltage Engineering	18EE56	CO306	CO306.1	50	77.80	3
					CO306.2		76.20	3
					CO306.3		76.60	3
					CO306.4		68.82	3
					CO306.5		65.96	3
40		Microcontroller Laboratory	18EEL57	CO307	CO307.1	70	70.44	3
					CO307.2		68.84	3
					CO307.3		69.24	3
41		Power Electronics Laboratory	18EEL58	CO308	CO308.1	70	70.92	3
					CO308.2		69.32	3
					CO308.3		69.72	3
					CO308.4		69.72	3
42	5th	Environmental Studies	18CIV59	CO309	Non Credit Subject			

Sl. No.	Semester	Course Name	Course Code	NBA Code	CO Code	Target (%)	Achieved For set target	Attainment
43	6th	Control Systems	18EE61	CO310	CO310.1	50	53.87	1
					CO310.2		74.60	3
					CO310.3		74.68	3
					CO310.4		51.80	1
					CO310.5		54.12	1
44		Power System Analysis -1	18EE62	CO311	CO311.1	60	77.60	3
					CO311.2		80.10	3
					CO311.3		72.85	3
					CO311.4		69.20	3
					CO311.5		62.74	2
45		Digital Signal Processing	18EE63	CO312	CO312.1	55	85.15	3
					CO312.2		84.00	3
					CO312.3		81.60	3
					CO312.4		81.11	3
46		CAED	18EE643	CO313	CO313.1	55	78.36	3
					CO313.2		76.84	3
					CO313.3		77.44	3
					CO313.4		66.52	3
					CO313.5		65.92	3
47	6th	Renewable Energy resources	18EE651	CO314	CO314.1	55	68.96	3
					CO314.2		73.16	3
					CO314.3		65.90	3
					CO314.4		65.88	3
					CO314.5		49.28	0
48		Control System Laboratory	18EEL66	CO315	CO315.1	60	67.20	3
					CO315.2		66.60	3
					CO315.3		67.60	3
49		Digital Signal Processing Laboratory	18EEL67	CO316	C0316.1	60	72.20	3
					C0316.2		74.20	3
					C0316.3		71.60	3
					C0316.4		72.80	3
50		Mini Project	18EEMP68	C0317	CO317.1	60	97.60	3
					CO317.2		98.00	3
					CO317.3		97.20	3
					CO317.4		96.60	3

Sl. No.	Semester	Course Name	Course Code	NBA Code	CO Code	Target (%)	Achieved For set target	Attainment
51	7th	Power System Analysis - 2	18EE71	CO401	CO401.1	50	92.36	3
					CO401.2		81.04	3
					CO401.3		81.04	3
					CO401.4		92.96	3
					CO401.5		80.39	3
52		Power System Protection	18EE72	CO402	CO402.1	55	71.04	3
					CO402.2		69.30	3
					CO402.3		75	3
					CO402.4		72.40	3
					CO402.5		71.96	3
53		Advance Control system	18EE734	CO403	CO403.1	50	76.32	3
					CO403.2		57.20	1
					CO403.3		66.84	3
					CO403.4		61.56	2
					CO403.5		75.16	3
54		Industrial Drives & Application	18EE741	CO404	CO404.1	60	61.20	2
					CO404.2		64.28	2
					CO404.3		64.20	2
					CO404.4		65.79	3
					CO404.5		58.80	1
55		Electrical Energy Conservation & Auditing	18EE754	CO405	CO405.1	55	79.20	3
					CO405.2		76.00	3
					CO405.3		79.10	3
					CO405.4		80.54	3
					CO405.5		79.80	3
56		Power System Simulation Laboratory	18EEL76	CO406	CO406.1	70	86.20	3
					CO406.2		85.80	3
					CO406.3		86	3
57		Relay and High Voltage Laboratory	18EEL77	CO407	CO407.1	70	95.60	3
					CO407.2		95.80	3
58	7th	Project work Phase-1	18EEP78	CO408	CO408.1	80	89.60	3
					CO408.2		90.40	3
					CO408.3		90.40	3
					CO408.4		52.80	0

Sl. No.	Semester	Course Name	Course Code	NBA Code	CO Code	Target (%)	Achieved For set target	Attainment
59	8th	Power System Operation and Control	18EE81	CO409	CO409.1	60	67.92	3
					CO409.2		71.54	3
					CO409.3		74.36	3
					CO409.4		72.42	3
					CO409.5		70.64	3
60		Electrical Estimation & Costing	18EE822	CO410A	CO410.1	60	66.96	3
					CO410.2		71.16	3
					CO410.3		74.80	3
					CO410.4		74.00	3
					CO410.5		74.00	3
61		Power System Planning	18EE824	CO410B	CO410.1	58	74.12	3
					CO410.2		74.92	3
					CO410.3		77.88	3
					CO410.4		56.78	1
					CO410.5		76.68	3
62		Project Work Phase -II	18EEP822	CO411	CO411.1	80	89.60	3
					CO411.2		90.40	3
					CO411.3		90.40	3
					CO411.4		52.80	2
63		Technical Seminar	18EEP83	CO412	CO412.1	60	98.20	3
					CO412.2		98.40	3
					CO412.3		98.00	3
64	8th	Internship	18EES84	CO413	CO413.1	75	78.00	3
					CO413.2		90.40	3
					CO413.3		84.00	3
					CO413.4		90.60	3

3.3 Attainment of Program Outcomes and Program Specific Outcomes (50) Total Marks 50.00

3.3.1 Describe the assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes (10)

Institute Marks : 10.00

3.3.1 Assessment tools & process used to measure attainment of PO and PSO

§ Each Course is expected to contribute towards Program Outcomes, which is mapped for its correlation at the outset.

§ Course Instructors in consultation with the subject expert in the department and taking reference of the University syllabus, defines the expected course outcomes in relevance with the correlation to the Program Outcomes.

§ After defining the Expected Course Outcomes, each course outcome is again mapped with program outcome for its correlation accurately.

§ Using this CO – PO Matrix, achievable program outcomes in form of target for the program may be obtained.

§ Based on the course outcomes attained and the CO-PO Matrix, program outcome attainment is calculated for each course.

§ Achievable PO in terms of target and Achieved PO in terms of attainment are compared for evaluation of results.

§ Same process is adopted for Program Specific Outcomes. Program Specific Outcomes have been defined at the Department and is as mentioned in 3.1

PSO Attainment=(Achievable PSO)/3 X (Σ(CO-PSO Mapping x CO Attainment))/(ΣCO-PSO Mapping)

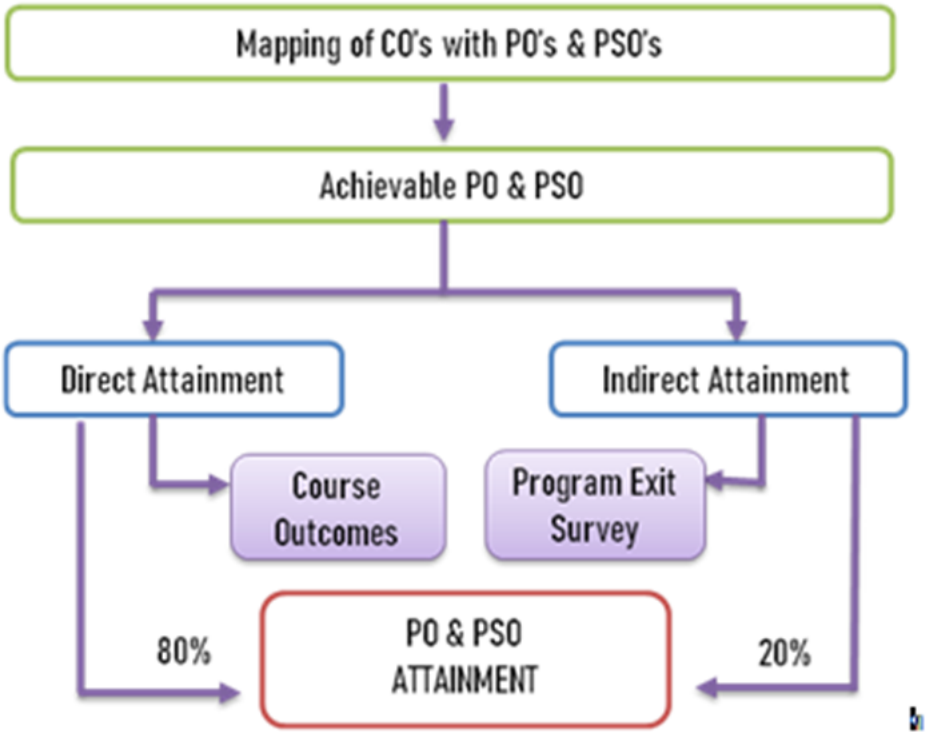


Figure 3.3.1 Process and Weightage for PO & PSO Attainment Calculation

3.3.2 Provide results of evaluation of PO&PSO (40)

Institute Marks : 40.00

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO101	1.68	1.48	1.27	1.27	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO102	0.87	0.9	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO103	1.1	1.1	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO104	2.08	1.67	0.83	0.83	PO5	PO6	PO7	0.83	PO9	PO10	PO11	PO12
CO105	0.88	0.88	PO3	PO4	1	PO6	PO7	PO8	PO9	PO10	PO11	0.5
CO106	1.2	1.34	PO3	PO4	1.34	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO107	1.67	1.67	0.84	PO4	PO5	PO6	0.84	0.84	0.84	PO10	0.84	PO12

CO108	PO1	PO2	PO3	PO4	PO5	0.67	PO7	PO8	0.34	0.87	0.56	0.74
CO109	2.90	1.33	1.33	1	1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO110	1.33	1.8	1.33	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO111	1	0.75	1.25	PO4	1	PO6	PO7	PO8	0.5	0.5	PO11	0.5
CO112	1.3	1	1.17	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO113	2.92	2.28	2.15	1.95	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.73
CO114	2	1.67	1	0.67	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO115	1	0.75	1.25	PO4	1	PO6	PO7	PO8	0.5	0.5	PO11	0.5
CO116	PO1	PO2	PO3	PO4	PO5	1.12	PO7	1.67	0.25	2.34	1.39	1.67
CO201	1.290	1.17	0.92	1.04	PO5	PO6	PO7	PO8	PO9	PO10	PO11	0.59
CO202	1.37	1.6	1.63	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO203	1.41	1.18	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO204	1.93	1.37	1.4	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO205	2.25	1.89	1.73	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO206	2.02	0.81	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO207	1.2	0.91	PO3	PO4	PO5	0.6	PO7	PO8	0.6	0.6	PO11	PO12
CO208	1.75	1.75	1.75	1.05	PO5	PO6	PO7	PO8	PO9	PO10	1.39	PO12
CO210	1.2	0.96	0.79	0.79	PO5	PO6	PO7	PO8	PO9	PO10	PO11	0.56
CO211	1.16	1.17	1.96	PO4	PO5	1.24	1.31	PO8	PO9	PO10	1.02	0.89
CO212	1.17	1.17	1.17	PO4	PO5	0.59	PO7	PO8	PO9	PO10	PO11	PO12
CO213	0.96	1.34	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	0.87
CO214	1.11	0.56	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO215	0.65	1.12	1.53	PO4	0.52	PO6	PO7	PO8	PO9	PO10	0.52	PO12
CO216	1.99	1.33	0.66	PO4	PO5	PO6	PO7	0.67	0.67	0.67	PO11	PO12
CO217	1.99	1.33	1.99	PO4	PO5	PO6	PO7	0.67	1.33	1.33	PO11	PO12
CO301	PO1	PO2	PO3	PO4	PO5	1.53	PO7	1.36	1.53	1.53	PO11	PO12
CO302	0.88	PO2	1.31	1.75	0.88	0.88	1.58	PO8	0.88	PO10	PO11	0.88
CO303	1.66	1.21	0.76	0.6	PO5	PO6	PO7	0.63	PO9	PO10	PO11	PO12
CO304	1.47	1.47	0.58	0.49	0.58	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO305	1.91	1.27	0.79	0.62	PO5	0.64	0.69	PO8	PO9	PO10	PO11	PO12
CO306	1.47	1.31	1.16	0.47	PO5	1.31	PO7	PO8	PO9	PO10	PO11	PO12
CO307	1.4	0.7	1.4	PO4	1.86	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO308	1.4	PO2	PO3	PO4	0.7	PO6	PO7	PO8	1.4	PO10	0.71	PO12
CO309	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO310	0.65	1.75	1.14	1.06	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO311	1.46	1.76	0.9	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO312	2.49	2.49	1.66	0.83	PO5	PO6	PO7	PO8	1.66	1.66	0.83	PO12
CO313	2.2	1.47	1.33	0.67	1.47	PO6	PO7	0.76	PO9	PO10	PO11	PO12
CO314	1.3	0.8	1.28	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO315	0.9	1.13	1.34	PO4	1.36	PO6	PO7	0.68	1.35	0.68	PO11	PO12
CO316	1.64	1.64	1.83	0.73	1.28	PO6	PO7	PO8	0.73	0.73	0.73	1.45
CO317	1.09	1.68	1.61	1.06	1.59	1.08	1.06	1.06	1.13	1.06	1.2	1.37
CO401	1.39	1.55	0.64	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO402	1.3	1.31	1.01	PO4	PO5	PO6	PO7	0.87	0.88	1.16	PO11	PO12
CO403	0.95	1.51	1.65	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO404	0.89	1.39	PO3	PO4	PO5	0.96	1.09	PO8	PO9	PO10	PO11	PO12
CO405	0.8	1.39	1.58	1.97	1.59	1.6	1.21	1.62	PO9	0.8	1.21	0.11

CO406	1.73	1.73	1.73	PO4	1.73	PO6	PO7	PO8	1.73	0.87	PO11	PO12
CO407	1.6	1.6	PO3	0.64	0.64	PO6	0.64	PO8	1.28	0.64	0.64	PO12
CO408	1.81	2.69	2.72	1.81	2.72	1.81	1.81	1.81	1.7	1.81	1.59	2.25
CO409	1.43	1.45	0.73	PO4	1.36	PO6	PO7	0.68	1.36	1.36	PO11	PO12
CO410A	0.89	1	PO3	PO4	PO5	0.96	1.09	PO8	PO9	PO10	PO11	PO12
CO410B	0.73	0.73	PO3	PO4	PO5	1.45	1.45	PO8	PO9	PO10	PO11	0.64
CO411	1.81	2.69	2.72	1.81	2.72	1.81	1.81	1.81	1.7	1.81	1.59	2.25
CO412	1.09	1.68	1.61	1.06	1.59	1.08	1.06	1.06	1.03	1.06	1.2	1.37
CO413	1.56	2.52	1.68	PO4	PO5	PO6	1.81	1.81	1.82	2.01	1.82	PO12

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO Attainment	1.76	1.57	1.52	1.06	1.44	1.29	1.38	1.25	1.24	1.16	1.26	1.18
Direct Attainment	1.45	1.41	1.36	1.05	1.33	1.14	1.25	1.11	1.10	1.14	1.08	1.10
InDirect Attainment	2.99	2.2	2.16	1.12	1.9	1.9	1.9	1.8	1.8	1.25	2	1.5

PSO Attainment

Course	PSO1	PSO2	PSO3
CO101	PSO1	PSO2	PSO3
CO102	PSO1	PSO2	PSO3
CO103	PSO1	PSO2	PSO3
CO104	PSO1	PSO2	PSO3
CO105	PSO1	PSO2	PSO3
CO106	PSO1	PSO2	PSO3
CO107	PSO1	PSO2	PSO3
CO108	PSO1	PSO2	PSO3
CO109	PSO1	PSO2	PSO3
CO110	PSO1	PSO2	PSO3
CO111	PSO1	PSO2	PSO3
CO112	PSO1	PSO2	PSO3
CO113	PSO1	PSO2	PSO3
CO114	PSO1	PSO2	PSO3
CO115	PSO1	PSO2	PSO3
CO116	PSO1	PSO2	PSO3
CO201	PSO1	PSO2	PSO3
CO202	1.24	1.08	PSO3
CO203	1.18	0.58	PSO3
CO204	0.68	PSO2	PSO3
CO205	1.71	1.55	PSO3
CO206	1.48	PSO2	PSO3
CO207	1.2	PSO2	PSO3
CO208	1.38	1.38	PSO3
CO209	PSO1	PSO2	PSO3
CO210	PSO1	PSO2	PSO3
CO211	1.34	1.27	0.64
CO212	1.05	0.81	PSO3
CO213	1.02	PSO2	PSO3

CO214	0.55	PSO2	PSO3
CO215	0.98	0.52	PSO3
CO216	1.33	1.33	PSO3
CO217	0.66	0.67	PSO3
CO218	PSO1	PSO2	PSO3
CO301	PSO1	PSO2	1.35
CO302	1.75	1.4	PSO3
CO303	0.9	1.13	0.63
CO304	0.98	0.49	PSO3
CO305	1.27	PSO2	PSO3
CO306	1.04	1.46	PSO3
CO307	1.39	1.39	PSO3
CO308	0.7	1.42	PSO3
CO309	PSO1	PSO2	PSO3
CO310	0.64	1.24	PSO3
CO311	0.72	1.02	PSO3
CO312	1.66	PSO2	PSO3
CO313	1.3	PSO2	PSO3
CO314	0.68	PSO2	PSO3
CO315	0.9	0.67	0.67
CO316	1.45	PSO2	PSO3
CO317	1.38	1.26	0.64
CO401	0.69	1.04	PSO3
CO402	1.15	PSO2	PSO3
CO403	1.48	1.28	PSO3
CO404	0.65	PSO2	PSO3
CO405	1.3	1.39	1.6
CO406	1.72	1.44	PSO3
CO407	1.28	1.28	PSO3
CO408	2.25	2.11	1.03
CO409	1.29	1.29	0.73
CO410A	0.65	1.06	PSO3
CO410B	0.76	PSO2	PSO3
CO411	2.25	2.11	1.03
CO412	1.38	1.26	0.64
CO413	2.04	2.2	1.13

PSO Attainment Level

Course	**PSO1**	**PSO2**	**PSO3**
CO Attainment	1.34	1.37	1.08
Direct Attainment	1.20	1.24	0.92
InDirect Attainment	1.9	1.9	1.7

4 STUDENTS' PERFORMANCE (150) Total Marks 83.78

:

Table 4.1

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2022-23 (CAY)	2021-22 (CAYm1)	2020-21(CAYm2)	2019-20(CAYm3)	2018-19(CAYm4)	2017-18 (CAYm5)	2016-17 (CAYm6)
Sanctioned intake of the program(N)	60	60	60	60	60	60	60
Total number of students admitted in first year minus number of students migrated to other programs/ institutions plus No. of students migrated to this program (N1)	45	40	38	34	28	55	44
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	0	0	22	20	40	19	24
Separate division students, If applicable (N3)	0	0	0	0	0	0	0
Total number of students admitted in the programme(N1 + N2 + N3)	45	40	60	54	68	74	68

Table 4.2

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated without backlogs in any semester/ year of study (Without Backlog means no compartment or failures in any semester/ year of study)			
		I year	II year	III year	IV year
2022-23 (CAY)	45	0	0	0	0
2021-22 (CAYm1)	40	12	0	0	0
2020-21 (CAYm2)	60	15	13	0	0
2019-20 (CAYm3)	54	16	14	14	0
2018-19 (LYG)	68	14	13	9	9
2017-18 (LYGm1)	74	29	29	24	23
2016-17 (LYGm2)	68	23	17	17	16

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	IV year
2022-23 (CAY)	45	0	0	0	0
2021-22 (CAYm1)	40	37	0	0	0
2020-21 (CAYm2)	60	38	57	0	0
2019-20 (CAYm3)	54	34	53	53	0
2018-19 (LYG)	68	27	65	63	62
2017-18 (LYGm1)	74	48	59	59	58
2016-17 (LYGm2)	68	43	60	57	51

4.1 Enrolment Ratio (20)

Total Marks 14.00

Institute Marks : 14.00

	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2022-23 (CAY)	60	45	75.00
2021-22 (CAYm1)	60	40	66.67
2020-21 (CAYm2)	60	38	63.33

Average [(ER1 + ER2 + ER3) / 3] : 68.33

Assessment : 14.00

4.2 Success Rate in the stipulated period of the program (40) Total Marks 17.95

4.2.1 Success rate without backlogs in any semester / year of study (25) Institute Marks : 5.75

Item	Latest Year of Graduation, LYG (2018-19)	Latest Year of Graduation minus 1, LYGm1 (2017-18)	Latest Year of Graduation minus 2 LYGm2 (2016-17)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	68.00	74.00	68.00
Y Number of students who have graduated without backlogs in the stipulated period	9.00	23.00	16.00
Success Index [SI = Y / X]	0.13	0.31	0.24

Average SI [(SI1 + SI2 + SI3) / 3] : 0.23

Assessment [25 * Average SI] : 5.75

4.2.2 Sucess rate in stipulated period (15) Institute Marks : 12.20

Item	Latest Year of Graduation, LYG (2018-19)	Latest Year of Graduation minus 1, LYGm1 (2017-18)	Latest Year of Graduation minus 2 LYGm2 (2016-17)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	68.00	74.00	68.00
Y Number of students who have graduated in the stipulated period	62.00	58.00	51.00
Success Index [SI = Y / X]	0.91	0.78	0.75

Average SI[(SI1 + SI2 + SI3) / 3]: 0.81

Assessment [15 * Average SI] : 12.20

Note : If 100% students clear without any backlog then also total marks scored will be 40 as both 4.2.1 & 4.2.2 will be applicable simultaneously.

4.3 Academic Performance in Third Year (15) Total Marks 9.10

Institute Marks : 9.10

Academic Performance	CAYm3 (2019-20)	LYG (2018-19)	LYGm1 (2017-18)
Mean of CGPA or mean percentage of all successful students(X)	6.34	5.84	6.20
Total number of successful students(Y)	53.00	63.00	59.00
Totalnumber of students appeared in the examination(Z)	53.00	65.00	59.00
API [X*(Y/Z)]:	6.34	5.66	6.20

Average API [(AP1 + AP2 + AP3)/3] : 6.07

Assessment [1.5 * AverageAPI] : 9.10

4.4 Academic Performance in Second Year (15) Total Marks 8.80

Institute Marks : 8.80

Academic Performance	CAYm2 (2020-21)	CAYm3 (2019-20)	LYG (2018-19)
Mean of CGPA or mean percentage of all successful students(X)	5.78	6.09	6.32
Total number of successful students (Y)	57.00	53.00	65.00
Total number of students appeared in the examination (Z)	60.00	54.00	67.00
API [X * (Y/Z)]	5.49	5.98	6.13

Average API [(AP1 + AP2 + AP3)/3] : 5.87

Assessment [1.5 * AverageAPI] : 8.80

4.5 Placement, Higher Studies and Entrepreneurship (40) Total Marks 18.93

Institute Marks : 18.93

Item	LYG (2018-19)	LYGm1 (2017-18)	LYGm2 (2016-17)
Total No of Final Year Students(N)	63.00	59.00	57.00
No of students placed in the companies or government sector(X)	32.00	28.00	25.00
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	0.00	0.00	0.00
No of students turned entrepreneur in engineering/technology (Z)	0.00	0.00	0.00
x + y + z =	32.00	28.00	25.00
Placement Index [(X+Y+Z)/N] :	0.51	0.47	0.44

Average Placement [(P1 + P2 + P3)/3] : 0.47

Assessment [40 * Average Placement] : 18.93

Program Name :

Assessment Year Name : CAYm1

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	SWALEH AHMED	4PM18EE026	6D Technologies	6D Technologies /2021-2022/10
2	TEJASWINI R	4PM19EE437	6D Technologies	6D Technologies /2021-2022/11
3	SUNIL. K G	4PM18EE024	AVIN SYSTEMS	AVIN/2021-2022/06
4	ASHWINI.B.V	4PM18EE003	BRIGOSHA	BRIGOSHA/2021-2022/13
5	DIVYASHREE M	4PM18EE007	BRIGOSHA	BRIGOSHA/2021-2022/14
6	NITHIN B.S	4PM18EE011	ELCAMINO	ELCAMINO/2021-2022/02
7	HARISHKUMAR.M	4PM18EE008	ELCAMINO	ELCAMINO/2021-2022/03
8	JANU N	4PM19EE412	ELCAMINO	ELCAMINO/2021-2022/04
9	KARTHIKA S P	4PM19EE413	ELCAMINO	ELCAMINO/2021-2022/05
10	PRASHANT R	4PM18EE015	ELCAMINO	ELCAMINO/2021-2022/06
11	PRAVEEN KUMAR G R	4PM19EE425	ELCAMINO	ELCAMINO/2021-2022/07
12	BHUMIKA.H D	4PM18EE005	INFOSYS	INFOSYS/2021-2022/12
13	PRAJWAL V	4PM19EE423	INTELLIPREDIKT	INTELLIPREDIKT/2021-2022/03
14	BHOOMIKA S M	4PM18EE004	KYNDRYL	KYNDRYL/2021-2022/14
15	SUSHMA R R	4PM18EE025	KYNDRYL	KYNDRYL/2021-2022/15
16	PREETHA.M	4PM18EE017	KYNDRYL	KYNDRYL/2021-2022/16
17	AZEEM AHMED	4PM19EE403	MCD BERL	MCD/2021-2022/01
18	MANDARA B C	4PM18EE009	MICROLAND - PLACE	MICROLAND/2021-2022/04
19	MANOJ R BIDARI	4PM18EE010	PENTAGON SPACE	PENTAGON/2021-2022/03
20	BHUMIKA L	4PM18EE006	QSPIDERS	QSPIDERS/2021-2022/09
21	SOURAV T	4PM18EE022	TURING MINDS.AI	TURING/2021-2022/03
22	PRATEEK M S	4PM18EE016	TVS SUPPLY CHAIN	TVS/2021-2022/02
23	RANJITHA G	4PM19EE430	UPSKILLZ	UPSKILLZ/2021-2022/07
24	CHAITHRA Y H	4PM19EE407	UPSKILLZ	UPSKILLZ/2021-2022/08
25	ASHWINI B L	4PM18EE002	UPSKILLZ	UPSKILLZ/2021-2022/09
26	KAVYA GP	4PM19EE414	UPSKILLZ	UPSKILLZ/2021-2022/10
27	VARSHINI K P	4PM19EE438	UPSKILLZ	UPSKILLZ/2021-2022/11
28	ANUSHA D	4PM18EE001	X-WORKZ	X-WORKZ/2021-2022/06
29	JAIDEEP P	4PM19EE411	X-WORKZ	X-WORKZ/2021-2022/07
30	NEERAJ.P.BHONSLE	4PM19EE421	X-WORKZ	X-WORKZ/2021-2022/08
31	SHILPA U	4PM18EE020	X-WORKZ	X-WORKZ/2021-2022/09
32	SRISHAM S M	4PM19EE436	X-WORKZ	X-WORKZ/2021-2022/10

Assessment Year Name : CAYm2

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	MEGHANA. S	4PM17EE024	DELLOITE	DELLOITE/2020-2021/01
2	ABHISHEKH G M	4PM17EE001	D-MART	D-MART/2020-2021/01
3	MAHESHA N	4PM17EE023	D-MART	D-MART/2020-2021/02
4	NANDAN GOWDA SJ	4PM17EE027	D-MART	D-MART/2020-2021/03
5	BHARGAV B SHANUBHOG	4PM17EE013	ECLAMINO	ECAMINO/2020-2021/04
6	N S PRATHIKSHA	4PM17EE026	GLOBAL QUEST	GLOBAL QUEST/2020-2021/03
7	SAMRUDDHI KRISHNAA	4PM17EE042	GLOBAL QUEST	GLOBAL QUEST/2020-2021/05
8	BHAVYA K R	4PM17EE014	PENTAGON SPACE	PENTAGON-SPACE/2020-2021/04
9	SHILPA S	4PM18EE414	PENTAGON SPACE	PENTAGON-SPACE/2020-2021/19
10	SOWMYA G K	4PM17EE048	PENTAGON SPACE	PENTAGON-SPACE/2020-2021/20
11	ANUSHA K U	4PM17EE008	TATA Consultancy Services Limited	TCSL/DT20207213150/Mumbai
12	CHANDANA . B	4PM17EE016	QSPIDERS	QSPIDERS/2020-2021/05
13	PARVATI KASAVAL	4PM17EE030	QSPIDERS	QSPIDERS/2020-2021/14
14	MURUGESH KOLHAR	4PM17EE025	SEVENTH SENSE	SEVENTH SENSE/2020-2021/03
15	SINDHU N K	4PM17EE047	SKOLAR	SKOLAR/2020-2021/02
16	ROOPA B	4PM17EE040	TCS	TCS/2020-2021/07
17	HARSHITHA S P	4PM18EE404	TECHNOLOGICS	TECHNOLOGICS/2020-2021/02
18	AISHWARYA B.S	4PM17EE003	VERZEO	VERZEO/2020-2021/02
19	DEEPA	4PM18EE402	VERZEO	VERZEO/2020-2021/09
20	JYOTHI P	4PM18EE406	VERZEO	VERZEO/2020-2021/13
21	SANDESH R	4PM19EE413	Mphasis	RH8985498/282561
22	SURAJ PATEL SM	4PM19EE416	BYJUS	TNL21908632
23	AKSHATHA C	4PM18EE005	NTT DATA Information Processing Services Private Limited	ID: A7C705A8-7A21-4914-A96A-9B857DAFE243
24	BHARGAV B SHANUBHOG	4PM18EE013	ThechERA	ID: TE-LT- 403167
25	PRAKRUTHI M J	4PM18EE036	Campus Management International Pvt Ltd	CIN: U74900KA2015FTC079859
26	Harshith Kumar	4PM18EE020	TCS	Ref: TCSL/DT20219092897/Lucknow
27	Ramya	4PM18EE038	DXC Technology	CIN: U72900TN2015FTC102489
28	Maruthi N	4PM19EE409	Shree Gajanana Electricals	SGL 00059 DVG

Assessment Year Name : CAYm3

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	LAXMANA C	4PM16EE045	Infosys	BRIDGE I2I/2019-2020/02
2	STEEVAN SANTHIS	4PM16EE035	EXIDE	EXIDE/2019-2020/01
3	SANJEEV TAmulya M KHOMAS	4PM16EE416	IPA PVT LTD	IPA/2019-2020/01
4	CHAITRA GK	4PM16EE011	QSPIDERS	QSPIDERS/2019-2020/02
5	NIRANJANA VARAMBALLI N	4PM16EE020	WIPRO NTH	WIPRO-NTH /2019-2020/06
6	Shruthi S	4PM16EE032	Torry Harris Business Solution	OL/THBS/OL/THBS/1121/48
7	Inchara	4PM16EE014	Cognizant Technology Solutions India Private Limited	ID – 17602095
8	Chaitra G M	4PM16EE010	Innova Solutions	23-06-2021
9	Bharath Win Raj	4PM17EE403	ARBUTUS MERCHANTS PRIVATE LIMITED	Ref - AMPL_C002_ENGLT_Bharath_R01_20210420
10	Safwan I	4PM16EE028	Fintraple capital	ID-FIN004
11	Kavya H J	4PM16EE016	'Eximius'	CIN: U72200TG2014PTC095207
12	Sachin H R	4PM16EE027	Test Yantra	CIN:U72200KA2007PTC044701
13	Mahalakshmi	4PM16EE018	Tetherfi	ID:IN257
14	Mallikarjun	4PM17EE409	Retisio India Pvt Ltd	R-0922-021
15	Akshatha M	4PM16EE004	Virtusa India PVLtd	03-08-2021
16	Anju K M	4PM17EE401	Wistron	MI21022270
17	Adarsh S	4PM17EE400	Thoughts Frame works	08-01-2022
18	SUSHMA B	4PM16EE037	Capgemini	Ref-5635698/12344351
19	Rakshitha B V	4PM16EE024	PFSweb Global Services Pvt. Ltd.	CIN: U74900KA2015FTC084527
20	Abhishek M nadig	4PM16EE001	Torry Harris Business Solution	OL/THBS/1121/03
21	Muskan S	4PM17EE414	IDC Technologies Sol (I) Pvt. Ltd.	Ref. No IDC/OBHR/2021/W2580
22	Manoj L	4PM17EE411	Vijaya Electricals	ID:VE17
23	Pruthvi H R	4PM16EE022	Infosys	HRD/3T/1000656411/21-22
24	Amulya M K	4PM16EE006	KPIT Technologies Ltd.	Employee ID: 00144773
25	Parikshith R	4PM16EE411	TATA Elexi	ID-25850

4.6 Professional Activities (20) Total Marks 15.00

4.6.1 Professional socities/ chapters and organizing engineering events (5) Institute Marks : 2.00

4.6.1. Professional societies/chapters and organizing engineering events (5)

CAY (2021-2022)			
1	**A webinar on " Innovations in Renewable Energy Resources" In association with Institution Innovation Council (IIC)**	**Mrs. Neetha H M/ Mrs. Manasa B**	**23/05/2022**
2	**Project Expo-2022 under IETE Students Forum (ISF)**	**Mr. Rudresh S J**	**09/07/2022**
3	**IETE Student Forum Inauguration**	**Mrs. Kalpana S**	**18/01/2022**

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

Newsletter is published at the end of each semester and e - newsletter is circulated among students, faculty members and alumni.

It is also same is updated in the college website.

	Vol	Issue	
May-Dec 2018	1	1	Editors: Dr.Manoj Kumar M, Mr.Kiran Kumar GR Members: Niranjan V, Chnadana KS
Jan – July 2019	1	2	Editors: Dr.Manoj Kumar M, Mr.Kiran Kumar GR Members: Niranjan V, Chnadana KS
Aug – Dec 2019	2	1	Editors: Dr.Manoj Kumar M, Mr.Kiran Kumar GR Members: Prajwal VM, Pruthvi HR
Jul-Dec 2020	3	1	Editors: Dr.OmPrakashYadav, Mr.Kiran Kumar GR Members: Om Prakash SM, Shreya BS
Jan- Aug 2021	3	2	Editors: Dr.OmPrakashYadav, Mr.Kiran Kumar GR Members: Om Prakash SM, Shreenitha N Raj
Sep-Dec 2021	4	1	Editors: Dr.OmPrakashYadav, Mr.Kiran Kumar GR Members: Om Prakash SM, Shreenitha N Raj
Jan- Jul 2022	4	2	Editors: Dr.OmPrakashYadav, Mr.Kiran Kumar GR Members: Yashaswini N, Shreenitha N Raj

4.6.3 Participationininter-institute events by students of the program of study (10)

Institute Marks : 8.00

Sl. No	Name	USN	Event	Date	Prizes won (if any) or participation details	Event / Workshop / Conference Details
1	Arun Kumar Adarsha H R Mahesha N Nandan Gowda SJ	4PM17EE011 4PM17EE002 4PM17EE023 4PM17EE027	11th International Project Competition VISAI-2021	24-02-2021	Presented with theme GOAL 12: Responsible Consumption and Production	Finger print based electric load switching gear for the safety of the line man
2	Sowmya G K Parvati Kasaval Murugesh Kolhar Syed Faisal Pasha	4PM17EE048 4PM17EE030 4PM17EE025 4PM17EE049	11th International Project Competition VISAI	24-02-2021	Presented with theme GOAL 12: Responsible Consumption and Production	Smart energy monitoring system
3	Deepa Harshitha S P Sindhu NK Vasundhara B V	4PM18EE402 4PM18EE404 4PM17EE047 4PM18EE417	11th International Project Competition VISAI	24-02-2021	Presented with theme GOAL 11: Sustainable Cities and Communities	Generation of electricity using plastic waste

Sl. No	Name	USN	Event	Date	Prizes won (if any) or participation details	Event / Workshop / Conference Details
01	Raviprasad C Rajesh M Prajwal V M Sanjay	4PM17EE039 4PM17EE037 4PM17EE035 4PM17EE044	Journal Publication in **IJAEM**	Aug-2021	Published	Titled “Development of an Automatic Electric Egg Incubator” Volume 3, Issue 8, pp: 01-05 ISSN: 2395-5252
02	Aishwarya B.S Archana.J Akshatha C Bindhu. M	4PM17EE003 4PM17EE010 4PM17EE005 4PM17EE015	Journal Publication in International Journal of Research Publication and Reviews **(IJRPR)**	05/08/2021	Published	Titled “A Heartbeat, Temperature and Other Parameters Measuring System for Remote Health Monitoring Using Wireless Body Area Network” Volume 2, Issue 8, 2021, ISSN 2582-7421
03	Abhishek GM Akshay RC Vijay T Vinay HJ	4PM17EE001 4PM17EE006 4PM17EE052 4PM18EE418	Journal Publication in **IJRES**	Jul/2021	Published	Titled “Smart Cap - Wearable Visual Guidance System for Blind” Vol-9, Iss-8, PP-28-31, ISSN- 2320-9364
04	Anusha K U Ramya M Roopa B Keerthana V S	4PM17EE008 4PM17EE038 4PM17EE040 4PM17EE054	Journal Publication in **IJSDR**	Jul/2021	Published	Titled “Raspberry PI Based Solar Powered Automatic Irrigation System” Vol-6, Iss-7, ISSN- 2455-2631

05	Noorani Tehreen Pooja M Prakruthi M J Usha H	4PM17EE029 4PM17EE031 4PM17EE036 4PM17EE051	National Conference on Power Systems Engineering **NCPSE-2021**	1st and 2nd Jul/2021	Presented	Titled "IOT based Solar Powered Forest Fire Early Detection and Prevention with Anti-Smuggling System " Organized by Department of EEE, SDM College of Engineering & Technology, Dharwad in association with Institution of Engineers (India), Dharwad & HESCOM, Hubballi.

Sl. No	Name	USN	Event	Date	Prizes won (if any) or participation details	Event / Workshop / Conference Details
1	Ms.Amrutha D	4PM20EE006	Online Course	Jan 2022	Completed online course in "Introduction to Artificial Intelligence"	Great Learning Academy
2	Ms. Shreenitha N Raj	4PM19EE031	Online Course	Jan 2022	Completed online course in "Quantitative Aptitude Basics "	Great Learning Academy
3	Ms. Shreenitha N Raj	4PM19EE031	7- Days Boot Camp	Jan 2022	Completed 7-Days " Basic Web Development" Boot camp with Shape AI	ShapeAI
4	Mr.Neeraj P Bhonsle	4PM19EE421	7- Days Boot camp	Jan 2022	Completed 7-Days " Basic Web Development" Boot camp with Shape AI	ShapeAI
5	Mr.Neeraj P Bhonsle	4PM19EE421	7- Days Boot camp	Jan 2022	Completed 7-Days " Basic Web Development" with Boot Strap	CHARUSAT
6	Ms.Amrutha D	4PM20EE006	Online Course	Oct 2021	Completed online course in "Programming Basics "	Great Learning Academy
7	Ms.Amrutha D	4PM20EE006	Online Course	Oct 2021	Completed online course in "Data Science Foundation "	Great Learning Academy
8	Ms.Amrutha D	4PM20EE006	Online Course	Oct 2021	Completed online course in "Digital Marketing "	Great Learning Academy

9	Ms. Shreenitha N Raj	4PM19EE031	Online Course	Sep 2021	Completed online course in “Data Science Foundation ”	Great Learning Academy
10	Ms. Shreenitha N Raj	4PM19EE031	Online Course	12 Sep 2021	Completed online course in “Computer Fubdamentals ”	Udemy
11	Ms. Shreenitha N Raj	4PM19EE031	Online Course	Sep 2021	Completed online course in “Introduction to C ”	Great Learning Academy

5 FACULTY INFORMATION AND CONTRIBUTIONS (200)

Total Marks 144.76

Name	PAN No.	University Degree	Date of Receiving Degree	Area of Specialization	Research Paper Publications	Ph.D Guidance	Faculty receiving Ph.D during the assessment year	Current Designation	Date (Designated as Prof/Assoc. Prof.).	Initial Date of Joining	Association Type
Dr. Rudresha S J	BDDPR4783E	ME/M. Tech and PhD	10/03/2022	Power Systems	2	0	0	Associate Professor	01/06/2022	03/08/2011	Regular
Mr. Kiran Kumar G R	CAGPK8911E	M.E/M.Tech	05/10/2013	Computer Applications in Industrial Drives	1	0	0	Assistant Professor		25/07/2012	Regular
Mrs. Neetha H M	ASPBN6858L	M.E/M.Tech	05/04/2013	Energy Systems	0	0	0	Assistant Professor		25/07/2012	Regular
Mrs. Manasa B	BWZPM7209R	M.E/M.Tech	14/10/2015	Power Electronics	1	0	0	Assistant Professor		16/07/2015	Regular
Mrs. Kalpana S	CVEPK8148N	M.E/M.Tech	17/07/2015	Electronics	1	0	0	Assistant Professor		30/09/2015	Regular
Mr. Kiran M R	CMMPK5984K	M.E/M.Tech	21/01/2017	Power Systems Engineering	0	0	0	Assistant Professor		08/08/2018	Regular
Mr. Shanthveeresh N S	GAYPS9826J	M.E/M.Tech	08/09/2018	Computer Applications in Industrial Drives	0	0	0	Assistant Professor		23/07/2018	Regular
Mr. Manjunatha Prabhu	CSEPP4356E	M.E/M.Tech	21/01/2017	Industrial Automation & Robotics	0	0	0	Assistant Professor		29/07/2019	Regular
Mrs. Shruthi S	CXXPS4049X	M.E/M.Tech	18/03/2019	Power Electronics	0	0	0	Assistant Professor		29/07/2019	Regular
Dr. Om Prakash Yadav	ACFPY9995H	ME/M. Tech and PhD	25/09/2019	Biomedical Signal Processing	3	0	0	Professor	01/10/2022	02/11/2020	Regular
Mr. Omkaraiah H M	AATPO4766A	M.E/M.Tech	09/01/2018	Power Electronics	0	0	0	Assistant Professor		01/08/2019	Regular

5.1 Student-Faculty Ratio (20)

Total Marks 12.00

Institute Marks : 12.00

UG

No. of UG Programs in the Department 1

BE- Electrical and Electronics Engineering						
Year of Study	**CAY**		**CAYm1**		**CAYm2**	
	(2022-23)		**(2021-22)**		**(2020-21)**	
	Sanction Intake	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**
2nd Year	60	0	60	22	60	20
3rd Year	60	21	60	20	60	37
4th Year	60	20	60	37	60	16
Sub-Total	**180**	**41**	**180**	**79**	**180**	**73**
Total	**221**		**259**		**253**	

Grand Total	221	259	253

PG

No. of PG Programs in the Department 0

Grand Total			

SFR

No. of UG Programs in the Department 1

No. of PG Programs in the Department 0

Description	**CAY(2022-23)**	**CAYm1 (2021-22)**	**CAYm2 (2020-21)**
Total No. of Students in the Department(S)	221 **Sum total of all (UG+PG) students**	259 **Sum total of all (UG+PG) students**	253 **Sum total of all (UG+PG) students**
No. of Faculty in the Department(F)	10 **F1**	11 **F2**	11 **F3**
Student Faculty Ratio(SFR)	22.10 **SFR1=S1/F1**	23.55 **SFR2=S2/F2**	23.00 **SFR3=S3/F3**
Average SFR	22.88 **SFR=(SFR1+SFR2+SFR3)/3**		
F=Total Number of Faculty Members in the Department (excluding first year faculty)			

Note: All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty:

1. Shall have the AICTE prescribed qualifications and experience.
2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.
3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit

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(2022-23)	10	0
CAYm1(2021-22)	11	0
CAYm2(2020-21)	11	0

Average SFR for three assessment years : 22.88

Assessment SFR : 12

5.2 Faculty Cadre Proportion (25)

Total Marks 14.00

Institute Marks : 14.00

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2022-23)	1.00	1.00	2.00	1.00	7.00	8.00
CAYm1(2021-22)	1.00	0.00	2.00	1.00	8.00	10.00
CAYm2(2020-21)	1.00	0.00	2.00	1.00	8.00	10.00
Average Numbers	1.00	0.33	2.00	1.00	7.67	9.33

Cadre Ratio Marks [(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5 : 14.00

5.3 Faculty Qualification (25)

Total Marks 10.88

Institute Marks : 10.88

	X	Y	F	FQ = 2.5 x [(10X + 4Y) / F)]
2022-23(CAY)	2	8	11.00	11.82
2021-22(CAYm1)	1	10	12.00	10.42
2020-21(CAYm2)	1	10	12.00	10.42

Average Assessment : 10.88

5.4 Faculty Retention (25)

Total Marks 25.00

Institute Marks : 25.00

Description	2021-22	2022-23
No of Faculty Retained	11	10
Total No of Faculty	11	11
% of Faculty Retained	100	91

Average : 95.00

Assessment Marks : 25.00

5.5 Innovations by the Faculty in Teaching and Learning (20)

Total Marks 20.00

Institute Marks : 20.00

A. Teaching and Learning method

Referring materials: Text books, Reference Books, Journal papers, online videos.

- Lesson plan is prepared in the beginning of the semester which includes curricular gaps. COs for the course are framed by considering the syllabus and objective of the course. Mapping with POs and PSOs are done by individual instructor .
- Internal assessment questions are framed by considering revised blooms levels and COs. It is ensured that all the COs are covered. Schemes for all the internal assessment are prepared and displayed so that students can also evaluate their performance.
- Continuous Internal evaluation is done not only on written assignments but also on quizzes/seminars/ models etc
- The materials are made available to the students so that the level of learning outcome of the course (i.e., the depth of the subject) is obvious to them.

B. Instructional Delivery: Use of teaching aides: Conventional: Class room lectures using black / white board, PPT.

- Video lectures/PPT are used for better understanding of the course and for quick summarization of the module.
- Models: Displaying models in classroom help students to better understanding of systems and their working principle.
- Coordination between theory and practicals: Effective teaching learning of engineering problems require clear understanding of the components / equipment / instruments / devices. In such cases the coordination between the black board work and the practical aspects are made through class room demonstration, laboratory demonstrations.
- Industrial Visit: Objective of industrial visit is to provide students an insight regarding internal working of industries. Theoretical knowledge is not enough for making a good professional career. With an aim to go beyond academics, industrial visits provide students a practical perspective on the world of work.

C Exposure to our own electrical panel, transformers, power house, cables etc is included so that students can see real-time applications.

D Students development activities and guest lectures (on special topics) are also conducted as and when required.

5.6 Faculty as participants in Faculty development/training activities/STTPs (15) Total Marks 12.88

Institute Marks : 12.88

Name of the faculty	Max 5 Per Faculty		
	2021-22 (CAYm1)	2020-21 (CAYm2)	2019-20 (CAYm3)
Dr.OmPrakashYadav	5.00	2.00	0.00
Mr.Rudresh S J	1.00	1.00	1.00
Mrs.Neetha H M	3.00	1.00	1.00
Mr.Kiran Kumar G R	5.00	5.00	5.00
Mrs.Manasa B	3.00	1.00	2.00
Mrs.Kalpana S Patil	2.00	3.00	3.00
Mr.ShanthVeeresh N S	3.00	5.00	0.00
Mr.Kiran M R	1.00	5.00	2.00
Mr.ManjunathPrabhu	5.00	5.00	1.00
Mrs.Shruthi S	1.00	3.00	3.00
Mr.Omkaraiah HM	0.00	0.00	0.00
Mr.Vishwanath	0.00	0.00	0.00
Ms.Rashmi	0.00	0.00	0.00
Sum	29.00	31.00	18.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratioas per 5.1	11.05	12.95	12.65
Assessment [3*(Sum / 0.5RF)]	15.75	14.36	8.54

Average assessment over 3 years: 12.88

5.7 Research and Development (30) Total Marks 20.00

5.7.1 Academic Research (10)

Institute Marks : 10.00

Academic Research

Sl.No.	Name of the Author	Affiliation	Title of the Article	Name of Journal/Conference/Symposium	Publisher	Indexed
			Academic Year 2021-2022			
1	Mrs.Kalpana S	PESITM	Energy Audit at PES Campus	International Journal of Research in Engineering, Science and Management	IJRESM	Yes
2	Mrs.Manasa B	PESITM	Approach to Connecting vehicles with Reconstructed onboard with electric Propulsion converter	International Journal of Research in Engineering and Science (IJRES)	IJRES	Yes
3	Mr.Kiran Kumar GR	PESITM	Replacement for Petrol Engine in Motor Cycle-An Electrical Approach	International Journal of Engineering Research and Technology	IJERT	Yes
4	Mrs.Neetha HM	PESITM	Evolution of Grid connected solar based water pumping by usage of PMSM drive	International Journal of Engineering Research and Technology	IJERT	Yes
5	Mr.Kiran Kumar GR	PESITM	An Hybrid approach for water pumping system	International Journal of Scientific Research in Engineering and Management	IJSREM	Yes
6	Dr.Rudresh SJ	PESITM	Power Factor Correction for Industrial Loads	International Journal of Engineering Research and Technology	IJERT	Yes
7	Mr.ManjunathPrabhu P	PESITM	Finger print based electrical load switching gear for the safety of lineman	International Journal of Research in Engineering and Science	IJRES	Yes
8	Mr.ManjunathPrabhu P	PESITM	Advanced Agricultural Controlling and Monitoring Of Greenhouse Using Li-Fi Technology	International Journal of Research in Engineering and Science	IJRES	Yes
9	Dr. Om PrakashYadav	PESITM	A Novel Method Of Preprocessing And Modeling ECG Signals With Lagrange–Chebyshev Interpolating Polynomials	International Journal of System Assurance Engineering and Management (https://link.springer.com/journal/13198)	IJSAEM	Yes
10	Dr. Om PrakashYadav	PESITM	Enhancement And Analysis Of ECG Signals Using Combined Difference Total Variation Optimization	Journal Of Applied Science And Engineering,	JASE	Yes
11	Rudresh SJ	PESITM	Application Of Hybrid Techniques For Optimal Position And Sizing Of Distributed Generation Units In Radial Distribution System	International Journal Of Electrical Engineering & Technology - IJEET	IJEET	Yes
12	Mr. Kiran Kumar GR	PESITM	Replacement for Petrol Engine in Motor Cycle-An Electrical Approach	International Conference on Engineering Innovation	International Journal of Engineering Research and Technology	Yes
13	Mr.Kiran Kumar GR	PESITM	An Hybrid approach for water pumping system	Two days National Conference on Power Systems Engineering(NCPSE-2022)	International Journal of Scientific Research in Engineering and Management	Yes
14	Dr.Rudresh SJ	PESITM	Power Factor Correction for Industrial Loads	International Conference on Engineering Innovation (ICEI-22)	International Journal of Engineering Research and Technology	Yes

Sl.No.	Name of the Author	Affiliation	Title of the Article	Name of Journal/Conference/Symposium	Publisher	Indexed
15	Dr.Rudresh SJ	PESITM	Use of Solar Energy for Energy Saving in Dairy Processing Industry	Two days National Conference on Power Systems Engineering(NCPSE-2022)	NA	Yes
16	Mr.ManjunathPrabhu P	PESITM	Automation for water distribution management in municipal	National Conference on ICRTST-2022	NA	Yes
17	Mr.Kiran MR	PESITM	Generation of electricity from Sediment Microbial Fuel Cells	National Conference on Developments in the Domain of Engineering Sciences	NA	Yes
18	Mrs. Shruthi S	PESITM	An Improvement of efficiency in a solar panel by using particle swarm optimization technique	National Conference on Developments in the Domain of Engineering Sciences	NA	Yes
19	Mrs.Manasa B	PESITM	Simulation And Analysis Of PMBLDC Vector Controller In Electric Vehicle.	National Conference on Developments in the Domain of Engineering Sciences	NA	Yes
20	Mrs. Neetha H M	PESITM	Evolution of Grid connected solar based water pumping by usage of PMSM drive	International Conference on Engineering Innovation(ICEI-2022)	International Journal of Engineering Research and Technology	Yes
21	Mrs. Kalpana S Patil	PESITM	Transmission line fault Detection using Arduino	Two days National Conference on Power Systems Engineering(NCPSE-2022)	NA	Yes
22	Dr.Om PrakashYadav	PESITM	Electricity in India: Now and Then	International Conference on Intelligent Technologies (CONIT 2022)	NA	Yes

Sl.No.	Name of the Author	Affiliation	Title of the Article	Name of Journal/Conference/Symposium	Publisher	Indexed
			Academic Year 2020-2021			
1	Manasa B, Neetha HM, Kalpana S	PESITM	Harvesting of piezo electric energy for application of traffic signal control	International Journal of Advances in Engineering and Management (IJAEM)	IJAEM	Yes
2	Shruthi S ,Neetha H M , Kiran Kumar G R Kalpana S	PESITM	Modified High Level DC-DC Converter Based Online Transformersless Uninterruptible Power Supply (UPS)	International Journal of Scientific Development and Research - IJSDR	IJSDR	Yes
3	ManjunathaPrabhu P , Shanthveeresh N S , Kiran M R	PESITM	SuDoKu Reconfiguration Technique to Enhance the Maximum Power under Partial Shading Conditions in PV arrays	International Journal of Scientific Development and Research - IJSDR	IJSDR	Yes
4	Kiran Kumar G R, Kalpana S. P., Shruthi S., Neetha H. M.	PESITM	Automation Using Arduino For An Energy Save In An It And Domestic Environment	Journal Of Power Electronics And Devices	JPED	Yes
5	Neetha H. M.	PESITM	Fingerprint Based Pre Paid & Post Paid Electricity System	International journal of Advances in Engineering and Management	IJAEM	Yes
6	Kalpana S, Kiran Kumar G R, Manasa B, Shruthi S	PESITM	Emergency DCInjection Breaking	International Journal of Scientific Development and Research - IJSDR	IJSDR	Yes

Sl.No.	Name of the Author	Affiliation	Title of the Article	Name of Journal/Conference/Symposium	Publisher	Indexed
7	Mr.Rudresh SJ	PESITM	Effects of Integration of Multi Type DGs on Voltage stability and Loss Minimization in the Distribution system	National Conference on Engineering Development in association with IEEE Mangalore sub section	NA	Yes
8	Mr.Kiran Kumar GR	PESITM	Detection of Faults and Protection of single phase Induction Motor using Arduino	National Conference on Engineering Development in association with IEEE Mangalore sub section	NA	Yes
9	Mr.Rudresh SJ	PESITM	Integration of Solar Photovoltaic Generation in a Practical Distribution System for Loss minimization and voltage stability imrovement	Advances in Renewable Energy & Electric Vehicles (AREEV-2020)	NA	Yes
10	Neetha HM, Shruthi S, KiranKmar GR, Manasa B	PESITM	IOT based Energy Meter and Billing System for Home Automation using Thingspeak	3-Day International Conference (Online) Recent Trends in Electrical, Electronics, Telecommunications, Instrumentation, Medical Electronics Engg. & Physics	NA	Yes
11	Mr.Rudresh SJ	PESITM	Effects of Integration of Multi Type DGs on Voltage stability and Loss Minimization in the Distribution system	National Conference on Engineering Development in association with IEEE Mangalore sub section	NA	Yes
12	Mr.Kiran Kumar GR	PESITM	Detection of Faults and Protection of single phase Induction Motor using Arduino	National Conference on Engineering Development in association with IEEE Mangalore sub section	NA	Yes
13	Mrs.Shruthi S	PESITM	Automatic Solar Panel Cleaning and Tracking	National Conference on Engineering Development in association with IEEE Mangalore sub section	NA	Yes
14	Mrs.Kalpana SP	PESITM	Password Based Circuit Breaker	National Conference on Engineering Development in association with IEEE Mangalore sub section	NA	Yes
15	Mr.ManjunathPrabhu	PESITM	Bionic Prosthetic Arm controlled by Muscle sensor	National Conference on Engineering Development in association with IEEE Mangalore sub section	NA	Yes
16	Mr.ManjunathPrabhu	PESITM	Sudoku configuration technique for total cross tier PV array to enhance the maximum power under partial shading condition	National Conference on Engineering Development in association with IEEE Mangalore sub section	NA	Yes

Sl.No.	Name of the Author	Affiliation	Title of the Article	Name of Journal/Conference/Symposium	Publisher	Indexed
			Academic Year 2019-2020			
1	Rudresha SJ	PESITM	Loss minimization and Voltage Stability improvement with integration of Multiple DG's into the distributed System	International Journal of Scientific & Engineering Research (IJSER)	IJSER	Yes
2	Kiran Kumar GR	PESITM	Performance Analysis of BLDC Motor: A Fuzzy Approach	National Journal of Microcontroller Engineering and Applications	NJMEA	Yes

3	Kiran Kumar GR	PESITM	Solar Powered Atmospheric Water Generator	National Journal of Energy, Environment & Carbon Credits	NJEECC	Yes
4	Rudresh SJ	PESITM	Reactive power compensation to improve voltage profile in distribution system using capacitor	Journal of Scientific Development and Research(IJSDR)	IJSDR	Yes
5	Rudresh SJ	PESITM	Voltage Stability Analysis and Loss minimization with Integration of different types of DGs into the Distribution System	International Journal of Scientific Development and Research (IJSDR)	IJSDR	Yes
6	Mr.Rudresh SJ, Mr.Kiran Kumar GR	PESITM	Understanding the Challenges & Opportunities in Indian Higher Education	National Conference on Higher Education in India: Challenges & Opportunities	NA	Yes
7	Mrs.Neetha HM	PESITM	Smart Wheel Chair for Physically Disbaled Persons	National Conference on Convergence of Science, Technology & Management , NCCSTM-2019	United Publisher	Yes
8	Mrs.Mansa B	PESITM	Modified Peak Detector of ASSHI AC-DC Converter using Piezo Electric Energy Harvesting Power Supply	E-Belaku	NA	Yes

Book Chapters:

S. No	Authors	Affiliation	Title	Book Chapter details	Publisher	Link
1	Om Prakash Yadav Yojana Yadav Shashwati Ray	PESITM, Shivamogga PESITM, Shivamogga BIT, Durg	Role of AI and AI-Derived Techniques in Brain and Behavior Computing	Yadav, O.P., Yadav, Y., Ray, S. (2022). Role of AI and AI-Derived Techniques in Brain and Behavior Computing. In: Tyagi, A.K., Abraham, A., Kaklauskas, A. (eds) Intelligent Interactive Multimedia Systems for e-Healthcare Applications. Springer, Singapore.	Springer	https://link.springer.com/chapter/10.1007/978-981-16-6542-4_4
2	Yojana Yadav Shashwati Ray Om Prakash Yadav	PESITM, Shivamogga BIT, Durg PESITM, Shivamogga	**Applications of Machine Learning Algorithms in Fetal ECG Enhancement for E-Healthcare**	Yadav, Y., Ray, S. Yadav, O.P., (2022).. In: Intelligent Interactive Multimedia Systems for e-Healthcare Applications Tyagi, A.K., Mallick Shweta . (eds) CRC Press.	CRC Press.	https://www.appleacademicpress.com/intelligent-interactive-multimedia-systems-for-e-healthcare-applications-/9781774910221

B. PhD guided/PhD awarded during the assessment period while working in the institute

- PhD guided

Sl. No.	Guide	Research Scholars	Year of registration
NIL			

- Ph.D awarded during the assessment period while working in the institute

Sl. No.	Name of the Faculty	Topic	Year
1	Rudresh SJ	Development of Intelligent Technique to Analyse Voltage Stability in Distributed Generation Environment	2022-23

5.7.2 Sponsored Research (5)

Institute Marks : 0.00

2021-22 (CAYm1)

Project Title	Duration	Funding Agency	Amount
PLC based Automated Drainage Water Monitoring and Control System	6 Month	KSCST	6500.00
			Total Amount(X): 6500.00

2020-21 (CAYm2)

Project Title	Duration	Funding Agency	Amount
IOT based solar powered forest fire early detectionand prevention with antismuggling system	6 Month	VTU	5000.00
Advanced agricultural controlling and monitoring of green house using LI-FI technology	6 Month	VTU	5000.00
Generation of Electricity Using Plastic Waste	6 Month	KSCST	3500.00
			Total Amount(Y): 13500.00

2019-20 (CAYm3)

Project Title	Duration	Funding Agency	Amount
Bionic Prosthetic ARM controlled by Muscle Sensor	6 Month	KSCST	4500.00
			Total Amount(Z): 4500.00

Cumulative Amount(X + Y + Z) = 24500.00

5.7.3 Development Activities (10)

Institute Marks : 10.00

A. As a part of academic project, solution to the existing problems with different approaches in the electrical technology has been attempted
B. Various SDP and webinars were conducted on recent trends in electrical engineering to upgrade the practical skills
C. Industrial visits and internships were arranged in relation with several government sector and through MOU

5.7.4 Consultancy(from Industry) (5)

Institute Marks : 0.00

2021-22 (CAYm1)

Project Title	Duration	Funding Agency	Amount
PLC based Automated Drainage Water Monitoring and Control System	6 Month	KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY	6500.00
			Total Amount(X): 6500.00

2020-21 (CAYm2)

Project Title	Duration	Funding Agency	Amount
Generation of Electricity Using Plastic Waste	6 Month	KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY	3500.00
IOT BASED SOLAR POWERED FOREST FIRE EARLY DETECTION AND PREVENTION WITH ANTISMUGGING SYSTEM	6 Month	VTU FINANCIAL ASISTANCE	5000.00
ADVANCED AGRICULTURAL CONTROLLING AND MONITORING OF GREEN HOUSE USING LI-FI TECHNOLOGY	6 Month	VTU FINANCIAL ASSISTANCE	5000.00
			Total Amount(Y): 13500.00

2019-20 (CAYm3)

Project Title	Duration	Funding Agency	Amount
Bionic Prosthetic ARM controlled by Muscle Sensor	6 Month	KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY	4500.00
			Total Amount(Z): 4500.00

Cumulative Amount(X + Y + Z) = 24500.00

5.8 Faculty Performance Appraisal and Development System (FPADS) (30) Tota

Institute

Faculty Performance Assessment is with respect to the following parameters

1. Faculty Self-Appraisal
2. Student feedback
3. Appraisal by Head of the Department

1. **Faculty Self-Appraisal**

   Self-Appraisal is adopted once in a year for an academic year. Self-appraisal includes various parameters of assessment and the Self-Appraisal Format is as mentione

2. **Student Feedback**

   Student feedback is collected and assessed once in a semester. Student feedback is collected after the 1st CIE every semester. Student feedback is based on acaden parameters. The Student Feedback format and Feedback of three academic years has been mentioned below.

3. **Appraisal by Head of the Department**

   Self-appraisal format consists of remarks by HOD for self-appraisal of the faculty. The evaluation of HOD will be forwarded to the management through Principal of the

	PES Institute of Technology and Management	**Performance Apprai**

Name of the Faculty :			**Department:**			**EMP Code:**
Designation:		**Date of Birth:**		**Date of Joining:**		
Mobile No:	**PAN No:**			**Aadhar No:**		

1. Qualification (Starting from the latest to the earliest)

Degree	Specialisation	University	Year	Class obtained	Remarks

2. Experience (Starting from the latest to the earliest)

Designation	From DD/MM/YY	To DD/MM/YY	Total Years	Institution	Experience Certificate Y/N	Remarks

Summary:-

a. **Total Teaching experience at Degree level** …….…….. (PESITM …….. **+** other institute ……)
b. **Industrial Experience** ……..…../
c. **Research experience** ……

(Excluding period spent for acquiring a degree)

Additional qualification/training/expertise obtained during Current academic year……

……

3. **Number of Research papers published (Excluding those which has been communicated) for the current year only**
a. Journals – International/National Journals ……/……..
b. Conferences – International/National Conferences ……/…….
c. Number of Patents obtained/filed: International/National…...../……..

(Attach a list of publication including the title of the paper, Journal in which it is published, year and month of publication, volume number, pages)

4. A. **Number of B.Tech projects/Number of ME/ Ph.D dissertations Guided in the present academic year** ……/……../…….

5. **Details of Research projects applied/undertaken during the year.**

Title of the project	Name of the Agency	Date of starting & duration of the project	Amount

6. **Faculty Development programs conducted during the year. (pl indicate in what capacity, source of funds, Venue, No.of participants)**

Name of the FDP	Date of starting/ duration	Number of participants

7. **Faculty Development programs attended during the year.**

Name of the FDP	Institution	Department	Date of starting/ durat

8. **Details of the International/ National Conferences/ Seminars/ Attended during the year**

International Conference/ Seminars/ Workshops Attended (Indicate whether the participation is as a Delegate/ Chairing a Session/ Ke Speaker etc.)
Details of National/International Conference/ Seminars Conducted (pl indicate in what capacity, source of funds, Venue)

9. **Pedagogy Details (use separate sheet if required)**

Teaching Methodology used :

Teaching Aids used :

Books referred and read in the subject taught :

Use of Course plan (Give details) :

Was Course material prepared? If Prepared was it used by the students? If yes give details/specifics

Was any outbound teaching used, If yes give details

Use of ICT in teaching , If yes give details:

Do you disseminate practical & expertise knowledge If yes give details

10. **10a. Administrative responsibility (Tick wherever appropriate)**

Role	Aug to Dec	Feb to July	Comments, if any
Faculty Adviser/Mentor			
Head of the Department			
Chief Warden			
Warden			
Resident Warden			
Faculty Co-coordinator of Student Activity (Mention the name of the activity)			
Member/Chair/ Co-Chair of Professional bodies like IEEE/IETE/CSI/ISTE etc.			
NBA Coordinator			
Other Activities* (Mention the type of activity)			

*(Lab in charge, counseling students, NBA assistance, calling parents with record, VTU marks entry, class teacher, mentor, lab preparation and monitoring, course coordinator, students club, self-initiation in organizing seminars, organizing industrial visits, preparing handouts, banners, …): record to enclose

10b. Contributions to institute development in other areas /Any other information you would prefer to file

(be brief and indicate each activity involved with a bullet head) Attach in a separate sheet/s if required

11.Present Academic (Theory & Practical's) work Load details (Use Separate sheet if necessary)

Semester	Odd / Even					
	Sub-1 odd/even	**Sub-2 odd/even**	**Sub-3 odd/even**	**Sub-4 odd/even**	**Sub-5 odd/even**	**Sub-6 odd/even**
Subject name with code						
Course plan						
Course file						
Subject notes						
Scheme and evaluation of all tests						
No. of hours handled						
No. of units/modules completed						
Reasons for not completing all units/modules , if any						
Projected % results at the university*						
VTU results percentage Subject: theory/analytical						
Avg IA & max IA marks scored by students						
Avg& max marks scored by students in university exam						
Justification for variations in projected & obtained results for the subject (Use Separate sheet if necessary)						

- As projected in the course plan

Assessment of the Faculty on the following Indicators :

A. **Academic (Weight 50%)**

10	9	8	7	6	5	4	3	2	1

[If the % results obtained in the university exam is - 96 - 100%; 91-95%; 86-90%; 81-85; 76-80%; 71-75%; 66-70%; 61-65%; 56-60%; 51-55%; &<50% then points score are, A=10; 9; 8; 7; 6; 5, 4, 3, 2, 1 & 0 respectively]

Add 15% weightage to the %results for analytical subjects

Add 10% weightage to the %results if % Avg-IA & % avg-university marks scored in the subject is within 10% of each other

Add 10% to the %results if any outbound/reinforcement teaching has been done in the subject to maximum of 100% for each subject And, further if handling two different subjects; then allot score for each - obtain Score on A and average to obtain final score under this criterion

B. **Research and Consultancy (Weight 15%)**

10	9	8	7	6	5	4	3	2	1

Patents Obtained : 10 points**& submission for patents :** 4 points

Journals: National: 2 points for one paper, 4 points for two papers, 5points for 3 papers and above for the current year only.

Journals : International : 5 points for one paper, 10 points for two papers in reputed journals for the current year only

Conferences : 2 points for one paper, 4 points for two papers, 5points for 3 papers and above for the current year only

Consultancy: 10 points if revenue generated beyond Rs.50000, 5 points if revenue generated below Rs.50000. for the current year only

Funds generated: 10 points if revenue generated beyond Rs.100000, 5 points if revenue generated below Rs.100000. for the current year only

Project proposal submitted: 2 points for each project submitted - subject to a maximum four points for the current year only

Total points scored on B limited to a maximum of 10

C. **Faculty Development Programmers Conducted/ Attended (Weight 10%)**

10	9	8	7	6	5	4	3	2	1

FDP conducted : 5 points **FDP attended :** 3 points for one FDP and 5 points for two or more FDPs

D. **Seminars/ Conferences/Attended (Weight 5%)**

10	9	8	7	6	5	4	3	2	1

Seminars/workshops/ symposiums conducted: 5 points

Seminars/workshops/ symposiums attended: 2 points for one event, 4 points for two events and 5 points for three or more events

E. **SDP - Seminars/ Conferences/ Workshops Conducted (Weight 5%) in & outside campus**

10	9	8	7	6	5	4	3	2	1

Seminars/workshops/ symposiums conducted: 5 points

: 2 points for one event, 4 points for two events and 5 points for three or more events;

add two points if the event is held outside of our institute

F. **Student Co-curricular/ activity (Weight 10%)**

10	9	8	7	6	5	4	3	2	1

Final year BE/MBA-project Guided at college level 2 points per project subject to a max of 4 points for projects guided;

Ph.D dissertation 4points/award of Ph.D to RS

Students club activity – 2; Students technical paper guidance/mini projects – 1/paper/mini project, subject to a max of 3 points

Total points scored on F limited to a maximum of 10

G. **Student Extra-curricular activity (Weight 5%)**

10	9	8	7	6	5	4	3	2	1

To allocate points as per contribution by the staff member for the current year only

Total self-assessment obtained by the staff member= **[A x 0.05 + score of Bx0.015 + score of (C+F) x0.01 + score of (D+E+G) 0.005] X 100%** Note: 1. Total calculated score should be ≤ 100%. ; 2. Submission of wrong information is liable to be rejection of the self-appraisal report. ; 3. Staff / faculty can use additional page if necessary for specific Remarks or comments. **I …… declare that, the information enclosed/ provided is correct. For any wrong information, I will be held responsible. The above information is for the period 1ST Sept 2019 to 31st Aug 2020.** **Dated :** **Signature of the faculty with date**

Remarks by the HOD (use separate sheet if required) : 1. Self-Assessment : (50% weight age) 2. Student Feed Back (20% weight age) 3. Contributions to institute development in other areas (10% weight age) 4. HOD's academic assessment (10% weight age) 5. HOD's administrator assessment (10% weight age)
Principal
Management

Student Feedback Mechanism

- Student Feedback is collected after the conduction of 1st Internal Assessment for each semester.
- Student Feedback is As per the AICTE APH for the following parameters

Sl. No.	Parameter
1	Has the teacher covered entire syllabus as prescribed by the university/college/board?
2	Has the teacher covered relevant topics beyond syllabus
3	Effectiveness of teaching in terms of technical content/ Course content
4	Effectiveness of teaching in terms of Communication Skills?
5	Effectiveness of teaching in terms of use of technical aids?
6	Pace on which contents were covered?
7	Motivation and inspiration for students to learn?
8	Support for the development of student skills Practical demonstration/ Hands on Training?
9	Clarity of Expectation of students?
10	Willingness to offer help and advice students?
11	Feedback provided on student Progress?
OVERALL FEEDBACK IN TERMS OF PERCENTAGE	

5.9 Visiting/Adjunct/Emeritus Faculty etc. (10)

Total Marks 0.00

Institute Marks : 0.00

NO Visiting/Adjunct/Emeritus Faculty as of now

6 FACILITIES AND TECHNICAL SUPPORT (80)

Total Marks 80.00

6.1 Adequate and well equipped laboratories, and technical manpower (30)

Total Marks 30.00

Institute Marks : 30.00

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	Basic Electrical Engineering Laboratory	4	Auto transformer, Three way-two way control Voltmeter, Multimeter, Ammeter, Watt meter, Choke coil RPS Lamp load, DRB	24 Hours	Mr.Lingaraja R S.	Lab Instructor	Diploma in Electrical Engineering
2	Electrical Machines Laboratory -1	4	2 kVA 440,240V/200V -Transformer, 3.5kVA, 750W,single phase Induction motor 2.2kW,1400rpm,3 phase Induction motor, ammeter, Ammeter, Voltmeter, Watt meter Multimeter. Auto transformer Lamp load	09 Hours	Mr.Lingaraja R S.	Lab Instructor	Diploma in Electrical Engineering
3	Electronics Laboratory	4	Signal generator, Regulated power supply Digital IC Trainer Kit 20MHz Dual Trace CRO	09 Hours	Mrs.Deepa G D	Lab Instructor	B.E in Electrical & Electronics Engineering
4	Electrical Machines Laboratory -2	4	415 V, 1500rpm A.C generator, 3.7kVA , D.C motor 4 point DC motor starter 2KW DC compound Generator	09 Hours	Mr.Lingaraja R S	Lab Instructor	Diploma in Electrical Engineering
5	Op- amp and Linear ICs Laboratory	4	CRO, Duel DC power supply ,Signal generator ,Regulated power supply	09 Hours	Mrs.Deepa G D	Lab Instructor	B.E in Electrical & Electronics Engineering
6	Microcontroller Laboratory	1	Computers, Microcontroller Kits, Duel DC power supply ,CRO	09 Hours	Mr.Lingaraja R S.	Lab Instructor	Diploma in Electrical Engineering
7	Power Electronics Laboratory	4	IGBT study unit, UJT firing circuit, MOSFET study unit ,DC chopper unit ,UJT study unit, SCR study unit ,TRIAC and DIAC study unit	09 Hours	Mrs.Deepa G D	Lab Instructor	B.E in Electrical & Electronics Engineering
8	Control System Laboratory	4	DC Servo motor, 2 Phase AC Servomotor, Synchro transmitter and receiver pair ,Lag-Lead Network ,PID Controller ,CRO Signal Generator ,Computers	09 Hours	Mr.Lingaraja R S.	Lab Instructor	Diploma in Electrical Engineering
9	Digital Signal Processing Laboratory	1	Computers	09 Hours	Mrs.Deepa G D	Lab Instructor	B.E in Electrical & Electronics Engineering
10	Power system Simulation Laboratory	1	Computers	09 Hours	Mrs.Deepa G D	Lab Instructor	B.E in Electrical & Electronics Engineering
11	Rely and High Voltage Laboratory	4	Relay,50kV AC/DC Transformer, Rod gap apparatus, Control Panel, Transformer oil tester	09 Hours	Mr.Lingaraja R S.	Lab Instructor	Diploma in Electrical Engineering

6.2 Additional facilities created for improving the quality of learning experience in laboratories (25)

Total Marks 25.00

Institute Marks : 25.00

Sr. 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	Seminar Hall	Fully equipped seminar hall with Computer, Projector, White Board, Fan, Cushion chair, Microphone, Speaker	To present technical talk/ project seminars/ workshops/ industry interaction presentation. Overall development of students like cultural, sports activities etc.	Throughout the semester	To bridge the band gap between academic and industry curriculum. To upgrade students to industry standard. Cultural and sports activities	PO1,PO10,PO12/ PSO3
2	Electrical Exposure	Electrical exposure is given by electrical maintenance team in the college	To create an awareness about the working of panel boards in the power house and transformer in the campus. To provide knowledge about electrical maintenance work	Once in a week	Electrical maintenance	PO1,PO2, PO10/PSO2,
3	Model Making	Students are encouraged to carry out electrical and electronics models in the laboratory	To enhance Students technical knowledge	Once in a week	By physically building various working models the students will gain better knowledge about use and working of electrical and electronics models.	PO1,PO2,PO10/PSO1
4	Departmental Library	Having collection of Text Books, Reference, Books and Project / seminar report.	To meet the needs of students To provide reference facilities ,To refer advanced information for seminar and projects	Throughout the semester	Student learning process	PO1/PSO1

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

Institute Marks : 10.00

The Process for the maintenance of the laboratory equipment is as follows:

1. One Teaching faculty and a Laboratory instructor will be in-charge of the overall functioning and maintenance of each laboratory.
2. Regular checkup of the equipment is carried out as and when required and also at the end of every semester.
3. Maintenance register is kept in the laboratory and updated regularly.
4. Any damage to the equipment is detected, corrective measures are taken immediately.
5. All laboratories are well equipped and have uninterrupted power supply.
7. Calibration is done for the equipment as and when required.

6.3.1 Servicing and Repairs (Breakdown Maintenance)

Servicing and repair of the machines and equipment's is done by professional consultants and also the replacement of the parts worn and torn is done periodically by the technical staff. After every semester, maintenance of lab equipments are done under the supervision of Faculty Incharge. Incase, any equipment is not repairable by our staff, it is sent outside for repair.

The details of the servicing and repair done over the period of three years are presented in the following tables.

Table 6.3.1 Service and Repairs done during Academic year 2021-22

Sl. No.	Laboratory	Particulars	Date	Company	Bill No.
1.	Power Electronics	• Single controlled full wave rectifier with R and RL load • Speed Control of Universal motor using AC voltage regulator • SCR Turn on circuit Using Synchronized UJT relaxation Oscillator • Single phase MOSFET/IGBT based PWM Inverter	22-10-21	Pragna Micro Designs	039

Table 6.3.2 Service and Repairs done during Academic year 2020-21

Sl. No.	Laboratory	Particulars	Date	Company	Bill No.
1.	Basic Electrical Engineering Lab (New Components Purchased)	• Ammeters • Voltmeters • 3-ph Autrotransformer • 3-ph Resistive load • Decade Resistance BOX • Multimeter • Choke coil	27-09-2021	RGS Instruments and Service	191

Table 6.3.3 Service and Repairs done during Academic year 2019-20

Sl. No.	Laboratory	Particulars	Date	Company	Bill No.
1.	Machines Lab	Servicing for machines lab including All transformers, Induction motors and machines	15-02-2020	Pragna Micro Designs	0155

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PRAGNA MICRODESIGNS

NO. 34,KAREKALLU, KAMAKSHIPALYA,
BASAVESHWARANAGAR POST,
BANGALORE-560079 . Ph:080 23482492,23285123
e-mail:pragnamicrodesigns@yahoo.com
Company's GSTIN: 29AABPO1632P1ZD

INVOICE NO	DATE
039	22.10.2021
P.O.No. HPS / 19 / EEE Department / 2020 -21	Dated 24.09.2021
D.C. No.	Date
Dispatched Through Through Personal	Destination Shivamogga
E-WAYBILL NO:	

Customer :To The Principal,
P.E.S. Institute of Technology and Management,
NH 206, Sagar Road,
Shivamogga – 577 204.
GST NO: 29AABTP2364H1ZE.

Sl no	Description of Goods	HSN CODE	GST RATE	UNIT	QTY	Unit Price	Amount
1	Servicing & component replacement for Power Electronics Lab equipments:-						
	a) Single phase controlled full wave rectifier with R and RL load.		18%	Nos.	02	1000.00	2000.00
	b) Speed control of universal meter using A.C. Voltage regulator.		18%	Nos.	02	1000.00	2000.00
	c) SCR turn on circuit using synchronized UJT relaxation oscillator.		18%	Nos.	02	500.00	1000.00
	d) Single phase MOSFET / IGBT based PWM Inverter.		18%	Nos.	02	2000.00	4000.00

Payement Rcvd

Total		9000.00
SGST @	9%	810.00
CGST @	9%	810.00
TOTAL		10620.00
Discount		1120.00
Grand Total		9500.00

Rupees: NINE THOUSAND FIVE HUNDRED ONLY.

Bank Details
City Union Bank
BRANCH : VIJAYANAGAR BRANCH, BANGALORE – 560040.

OD A/C NO : 233120000150611
IFSC CODE : CIUB0000233.

for Pragna Microdesigns,

Authorised Signatory

Receivers Signature:

Declaration:
We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct.

SUBJECT TO BANGALORE JURISDICTION

GSTIN : 29AQEPR5589F2Z6 **TAX INVOICE**

RGS | 1175

R.G.S. Instruments & Services

319/A, 11th Main Road, 2nd Block, Hanumanthanagar, BSK. 1st Stage, Bangalore-560 050.
Mob: 9844519491/8884696793
E-mail: rgsinstruments6@gmail.com

To,
M/s. R.E.S Institute of Technology
NH 206 Sagar road
Shivamogga

Invoice No. 191 Date : 27/9/21

DC No. Date :

Vehicale No.

Party's GSTIN :

E-WAY BILL : 101381726661

Sl. No.	PARTICULARS	HSN/SAC CODE	Qty.	Rate	Amount Rs.	Ps.
1.	Ammeter 0-200MA. EOM Type		6	850	5,100	00
2.	Ammeter 0-2A, (AC) EOM Type		2	950	1,900	00
3.	Ammeter 0-10/20A, (AC), EOM Type		9	950	8,550	00
4.	Voltameter 0-50V (DC) EOM Type		6	850	5,100	00
5.	Voltameter 0-300V (AC) EOM Type		3	950	2,850	00
6.	Decade resistance box, 6dials		6	2000	12,000	00
7.	choke coil. 40W		2	400	800	00
8.	3Phase Auto transformer		3	12000	36,000	00
9.	3 phase load (resistive) 25KW		3	10,000	30,000	00
					1,02,300	00
	2.2% Discount				2,250	00
	TOTAL				1,00,050	00
	SGST 9 %				9,004	50
	CGST 9 %				9,004	50
	GRAND TOTAL				1,18,059	00

Rupees In Words: one lakh Eighteen Thousand Fifty Nine rupees only

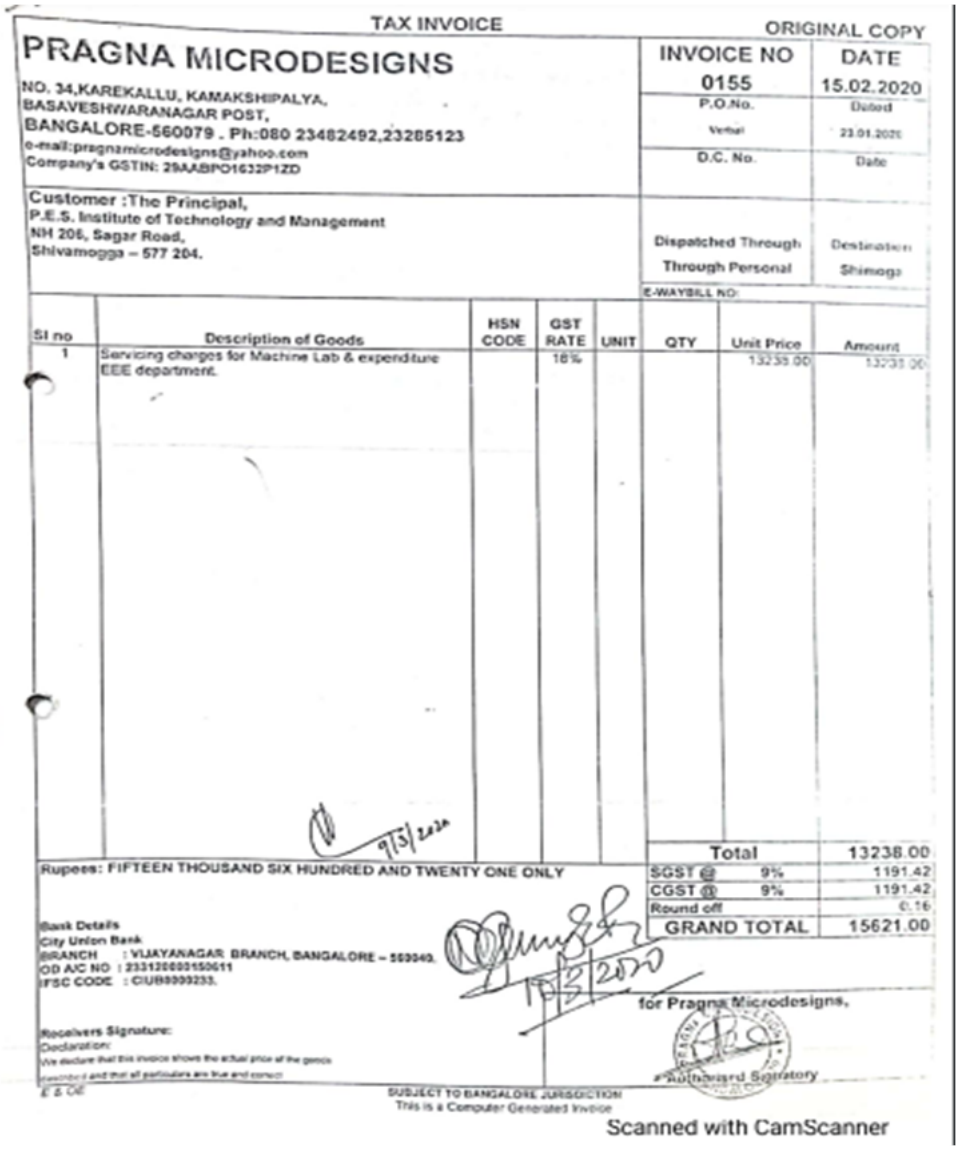
27/9/21

Company Name : R.G.S. Instruments & Services
Bank Name : KARNATAKA BANK
A/c. No. : 0992000100200201
IFSC : KARB0000099
MICR : 560052025
Branch : Srinagar, Bangalore.

Customer's Signature

For R.G.S. Instruments & Services

Authorised Signatory



TAX INVOICE

ORIGINAL COPY

PRAGNA MICRODESIGNS

NO. 34,KAREKALLU, KAMAKSHIPALYA,
BASAVESHWARANAGAR POST,
BANGALORE-560079 . Ph:080 23482492,23285123
e-mail:pragnamicrodesigns@yahoo.com
Company's GSTIN: 29AABPO1632P1ZD

INVOICE NO	DATE
0155	15.02.2020
P.O.No.	Dated
Verbal	23.01.2020
D.C. No.	Date

Customer :The Principal,
P.E.S. Institute of Technology and Management
NH 206, Sagar Road,
Shivamogga – 577 204.

Dispatched Through: Through Personal
Destination: Shimoga
E-WAYBILL NO:

Sl no	Description of Goods	HSN CODE	GST RATE	UNIT	QTY	Unit Price	Amount
1	Servicing charges for Machine Lab & expenditure EEE department.		18%			13238.00	13238.00

Total		13238.00
SGST @	9%	1191.42
CGST @	9%	1191.42
Round off		0.16
GRAND TOTAL		15621.00

Rupees: FIFTEEN THOUSAND SIX HUNDRED AND TWENTY ONE ONLY

Bank Details
City Union Bank
BRANCH : VIJAYANAGAR BRANCH, BANGALORE – 560040.
OD A/C NO : 233120000150611
IFSC CODE : CIUB0000233.

for Pragna Microdesigns,

Receivers Signature:
Declaration:
We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct

Authorised Signatory

E & OE

SUBJECT TO BANGALORE JURISDICTION
This is a Computer Generated Invoice

Scanned with CamScanner

6.3.2 Weekly Maintenance (Preventive)

In addition to the breakdown maintenance, preventive maintenance of the equipment's is done by the internal staff on weekly basis. The technical staff will monitor the condition of each machinery/equipment/instruments on weekly basis.

6.3.3 Cleanliness

- The neatness of the machineries and instruments is ensured by the technical staff after every session of the class.
- Utmost priority is given to cleanliness and all labs are maintained in clean and neat condition by the house keeping staff on daily basis.

6.4 Project laboratories (5) Total Marks 5.00

Institute Marks : 5.00

The students are given permission to carry out their academic projects in the available laboratories.

S L No	Available Laboratory	Name of the Equipments/ Software	Purpose	Faculty Incharge	Qualification
1	Power system Simulation Laboratory	Mi.Power and Matlab	UG Projects	Mrs Kalpana	BE,M.Tech
2	Relay and High Voltage Laboratory	Relay units and High voltage units	UG Projects	Mr.Kiran M R	BE,M.Tech
3	Microcontroller Laboratory	Ride	UG Projects	Mr.Kiran kumar G R	BE,M.Tech
4	Machine Laboratory	Electrical Machines with drives	UG Projects	Mrs.Neetha H M	BE,M.Tech
5	Project Laboratory	Old Projects, 3Phase Auto Transformers, Meters, Loads, Solar , Cables, etc	UG Projects	Dr.Rudresha S J	BE,M.Tech,Ph.D

6.5 Safety measures in laboratories (10)

Total Marks 10.00

Institute Marks : 10.00

Sr. No	Laboratory Name	Safety Measures
1	Basic Electrical Engineering Laboratory	•Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. •First aid box and fire extinguishers are kept in each laboratory. •Well trained technical supporting staff monitor the labs at all times. ` •Damaged equipment's are identified and serviced at the earliest. •Periodical calibrations of the lab equipment's are regularly done. •Electrical Wires are protected by MCB and fuses • Proper earthing is provided. • A clean and organised laboratory is maintained.
2	Electrical Machines Laboratory -1	•Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. •First aid box and fire extinguishers are kept in each laboratory. •Well trained technical supporting staff monitor the labs at all times. ` •Damaged equipment's are identified and serviced at the earliest. •Periodical calibrations of the lab equipment's are regularly done. •Electrical Wires are protected by MCB and fuses • Proper earthing is provided. • A clean and organised laboratory is maintained. • Safety mats are kept in the respective laboratory.
3	Electronics Laboratory	•Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. •First aid box and fire extinguishers are kept in each laboratory. •Well trained technical supporting staff monitor the labs at all times. ` •Damaged equipment's are identified and serviced at the earliest. •Periodical calibrations of the lab equipment's are regularly done. •Electrical Wires are protected by MCB and fuses • Proper earthing is provided. • A clean and organised laboratory is maintained.
4	Electrical Machines Laboratory -2	•Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. •First aid box and fire extinguishers are kept in each laboratory. •Well trained technical supporting staff monitor the labs at all times. ` •Damaged equipment's are identified and serviced at the earliest. •Periodical calibrations of the lab equipment's are regularly done. •Electrical Wires are protected by MCB and fuses • Proper earthing is provided. • A clean and organised laboratory is maintained. • Safety mats are kept in the respective laboratory.
5	Op- amp and Linear ICs Laboratory	•Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. •First aid box and fire extinguishers are kept in each laboratory. •Well trained technical supporting staff monitor the labs at all times. ` •Damaged equipment's are identified and serviced at the earliest. •Periodical calibrations of the lab equipment's are regularly done. •Electrical Wires are protected by MCB and fuses • Proper earthing is provided. • A clean and organised laboratory is maintained.
6	Power Electronics Laboratory	•Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. •First aid box and fire extinguishers are kept in each laboratory. •Well trained technical supporting staff monitor the labs at all times. ` •Damaged equipment's are identified and serviced at the earliest. •Periodical calibrations of the lab equipment's are regularly done. •Electrical Wires are protected by MCB and fuses • Proper earthing is provided. • A clean and organised laboratory is maintained.
7	Microcontroller Laboratory	•Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. •First aid box and fire extinguishers are kept in each laboratory. •Well trained technical supporting staff monitor the labs at all times. ` •Damaged equipment's are identified and serviced at the earliest. •Periodical calibrations of the lab equipment's are regularly done. •Electrical Wires are protected by MCB and fuses • Proper earthing is provided. • A clean and organised laboratory is maintained. • Fully and rightly loaded PC Systems with needed software are readily available for students' usage

8	Control System Laboratory	•Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. •First aid box and fire extinguishers are kept in each laboratory. •Well trained technical supporting staff monitor the labs at all times. ` •Damaged equipment's are identified and serviced at the earliest. •Periodical calibrations of the lab equipment's are regularly done. •Electrical Wires are protected by MCB and fuses • Proper earthing is provided. • A clean and organised laboratory is maintained. • Fully and rightly loaded PC Systems with needed software are readily available for students' usage
9	Digital Signal Processing Laboratory	•Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. •First aid box and fire extinguishers are kept in each laboratory. •Well trained technical supporting staff monitor the labs at all times. ` • Electrical Wires are protected by MCB and fuses • Proper earthing is provided. • A clean and organised laboratory is maintained. • Fully and rightly loaded PC Systems with needed software are readily available for students' usage
10	Power system Simulation Laboratory	•Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. •First aid box and fire extinguishers are kept in each laboratory. •Well trained technical supporting staff monitor the labs at all times. ` • Electrical Wires are protected by MCB and fuses • Proper earthing is provided. • A clean and organised laboratory is maintained. • Fully and rightly loaded PC Systems with needed software are readily available for students' usage
11	Relay and High Voltage Laboratory	•Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. •First aid box and fire extinguishers are kept in each laboratory. •Well trained technical supporting staff monitor the labs at all times. ` •Damaged equipment's are identified and serviced at the earliest. •Periodical calibrations of the lab equipment's are regularly done. •Electrical Wires are protected by MCB and fuses • Proper earthing is provided. • A clean and organised laboratory is maintained. • Safety mats are kept in the respective laboratory.

7 CONTINUOUS IMPROVEMENT (50)

Total Marks 50.00

7.1 Actions taken based on the results of evaluation of each of the POs & PSOs (20)

Total Marks 20.00

Institute Marks : 20.00

POs Attainment Levels and Actions for Improvement- (2021-22)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.14	1.81	Target level not achieved. Some students find it difficult to use their engineering fundamentals in problematic subjects like control systems, estimation and costing and Electromagnetic Filed theory etc.
Action 1: Conduction of more number of classes for the improvement of the knowledge to solve complex problems in the subjects. Action 2: More number of numerical are solved in the classroom. Action 3: Previous year question papers and important questions are discussed.			
PO 2 : Problem Analysis			
PO 2	2.02	1.69	Target level not achieved. Students find it difficult to use problem analysis skills in subjects like Power system analysis and Electric circuits
Action 1: More focus on tutorial classes for problem analysis and solutions for numerical subjects. Action 2: Previous year question papers and important questions are discussed. Action 3: More number of numerical are solved in the classroom.			
PO 3 : Design/development of Solutions			
PO 3	2	1.55	Target level not achieved specially due to courses like elements of civil engineering and power system operation and control.
Action 1: The students are provided with video lecture of the concern topics. Action 2: Students are asked to prepare small electrical models as an additional activity.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.41	1.12	Target level not achieved. Students are unable to solve problems using theoretical knowledge in course Digital Signal Processing , Power Electronics and Electric Motors etc.
Action 1: Motivate students to carry out live projects. Action 2: Students to prepare small electrical models as an additional activity. Action 3: Encourage Students to go for training/internship in industries/premier institutions.			
PO 5 : Modern Tool Usage			
PO 5	1.8	1.48	Target level not achieved mainly due to Courses like Operational amplifiers and Estimation and Costing.
Action 1: More experiments are conducted in laboratories in Operational amplifiers Actions 2: Courses are taught through both chalk and talk and using PPTs. Action 3: Students are encourage to go carry out online certificate courses on Python.			
PO 6 : The Engineer and Society			
PO 6	1.51	1.39	Target level not achieved. Students are not aware of societal issues and subjects like Transmission and Distribution and High voltage engineering affects the attainment level.
Action 1: Learning with real-world examples in view was applied to foster understanding and grasp contextual knowledge Action 2: Industrial visits are also planned to give real time exposure. Action 3: Encourage students to come up with live projects			
PO 7 : Environment and Sustainability			
PO 7	1.36	1.25	Target level not achieved due to courses like power electronic lab and civil engineering.
Action 1: Industrial tour will be planned for final year and pre final year students. Action 2: NPTEL Videos have been adopted in lectures for better understanding of impact of engineering topics such as vector analysis and their concepts. Action 3: Workshops / webinar to be conducted on solar energy			
PO 8 : Ethics			
PO 8	1.5	1.19	Target level not achieved mainly due to courses like Basic electrical engineering laboratory and CAED Power System Operation and Control
Action 1: Encourage students to follow ethics in campus Actions 2: Arrange Career guidance program, corporate lectures and motivational talks to gain knowledge of professional ethics and responsibilities			
PO 9 : Individual and Team Work			
PO 9	1.85	1.36	Target level not achieved. C programming laboratory and Digital Signal Processing Laboratory attainment is very less.
Action 1: Students to be motivated to organize and participate in quiz contest and group participation in events. Action 2: Motivate to do team work in projects. Action 3 : Encourage students for models/mini projects . Action 4: Encourage students to organize events. Action 5: Students to participate in symposiums/conferences to endorse their teamwork capabilities.			
PO 10 : Communication			
PO 10	1.35	1.15	Target level not achieved. C programming Laboratory , Control System Laboratory attainments are less.

Action 1: Soft skill training programs will be provided for the improvement of communication and presentation skills like reading, writing, speaking etc. Action 2: Students will be encouraged to involve in groups for laboratories. Action 3: Encourage Students to present papers in National/ International conferences.			
PO 11 : Project Management and Finance			
PO 11	1.65	1.15	Target level not achieved. Relay and High voltage engineering laboratory, Op-Amplifiers and Linear Circuits and Technical English
Action 1: Students were asked to prepare small model based on operational amplifier applications. Action 2: Students were encouraged to write a proposal for funding agencies. Action 3: Continuous monitoring of project management in open lab and project.			
PO 12 : Life-long Learning			
PO 12	1.49	1.36	Target Level not attained, because students of lack of engagement in the lifelong learning skills and understanding the broadest context of the technology's changes in following subjects Physics laboratory, programming, Mathematics courses.
Action 1: Students are encouraged to carry online courses Action 2: More number of classes arranged to improve results. Action 3: To understand the broadest context of the technological changes, guest lectures, seminars were organized in the recent technologies. Actions 4: Students were asked to give seminars on the topic of their choice.			

PSOs Attainment Levels and Actions for Improvement- (2021-22)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Apply the knowledge to have a foundation in theoretical & practical aspects of Electrical & Electronics engineering			
PSO 1	1.52	1.34	Target level not achieved, Courses like Analog Electronics and Field theory attainment is quite less.
Action 1: Encourage students to give seminar on any topic related to the course. Action 2: Encourage students to prepare small models. Action 3: Remedial classes to be conducted for poor performers .			
PSO 2 : Ability to model, analyze, design and realize physical systems, components and hands on competence in modern engineering tools to process and adapt them in the field of electrical & electronics engineering			
PSO 2	1.57	1.24	It is observed that the attainment is low mainly due to signals and systems and Transformers and generators.
Action 1: Students are encouraged to do live projects. Action 2: Encourage students to prepare small models.			
PSO 3 : Ability to communicate and work professionally in order to take up entrepreneurial activities in the field of electrical & electronics engineering and related areas for the benefit of the society			
PSO 3	1.17	1.04	Target level not achieved. Attainments in Electric power generation, CAED and Power system operations and Control is less.
Action 1: Individual students to submit assignments. Action 2: Laboratory sessions to be organized for CAED. Action 3: Encourage students to participate in conferences. Action 4: Entrepreneurship event to planned			

7.2 Academic Audit and actions taken thereof during the period of Assessment (10) Total Marks 10.00

Institute Marks : 10.00

7.2 Academic Audit and actions taken thereof during the period of Assessment (10)

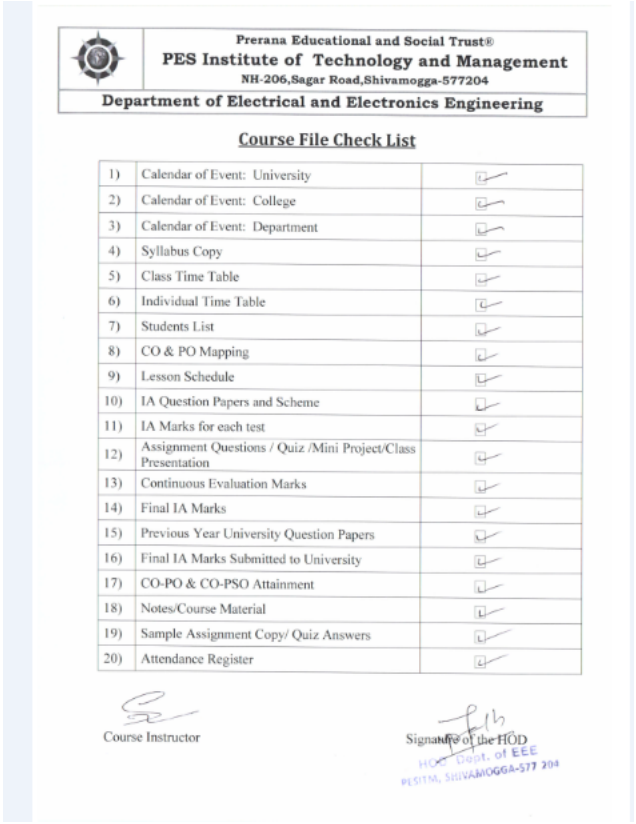
Academic audits are conducted to monitor and evaluate the teaching learning process. It consists of internal audit for every six month and external audits for every year. Audits are conducted for teaching and learning process.

Academic Audit

Course files are prepared by faculty members in the semester beginning. The academic audit committee consisting few of senior faculty members from the institution for internal audit & experts from other institution for external audit performs audit of course files, i.e. verify the contents of the course file, lesson schedule, assignments, extra material lecture notes, etc. The comments of the committee are given as feedback to the faculty member to include the recommended material. This audit ensures the quality deliverables to the students.

The following documents of the faculty members are verified during the internal academic audits.

- Calendar of events
- Time table and Individual time table
- Syllabus
- Class student list
- Lab batch list, lab records
- Lesson schedule
- Remedial Class Records
- Attendance register
- Model question papers / previous university question papers
- Assignment questions
- CIE question papers and Scheme
- Result analysis
- Additional resources to students (Notes, PPT, etc.)
- CO-PO, CO-PSO mapping
- CO-PO, CO-PSO Attainment
- Attendance Register



Prerana Educational and Social Trust®
PES Institute of Technology and Management
NH-206,Sagar Road,Shivamogga-577204
Department of Electrical and Electronics Engineering

Course File Check List

1)	Calendar of Event: University	✓
2)	Calendar of Event: College	✓
3)	Calendar of Event: Department	✓
4)	Syllabus Copy	✓
5)	Class Time Table	✓
6)	Individual Time Table	✓
7)	Students List	✓
8)	CO & PO Mapping	✓
9)	Lesson Schedule	✓
10)	IA Question Papers and Scheme	✓
11)	IA Marks for each test	✓
12)	Assignment Questions / Quiz /Mini Project/Class Presentation	✓
13)	Continuous Evaluation Marks	✓
14)	Final IA Marks	✓
15)	Previous Year University Question Papers	✓
16)	Final IA Marks Submitted to University	✓
17)	CO-PO & CO-PSO Attainment	✓
18)	Notes/Course Material	✓
19)	Sample Assignment Copy/ Quiz Answers	✓
20)	Attendance Register	✓

Course Instructor

Signature of the HOD
HOD Dept. of EEE
PESITM, SHIVAMOGGA-577 204

Academic Audit Details:

Internal Audit: Auditors for the Academic Year 2020-21, 2019-20, 2018-19.

Table7.1: Internal Audit Details

Academic Year	Auditors
2021-22	Dr. Prasanna kumar T M, HoD, Dept. of MBA, PESITM
	Mr.Rakesh M K, Assistant Professor, Dept. of CV, PESITM

2020-21	Mr. Sunil H R, Assistant Professor, Dept. of CSE, PESITM
	Mr. Vishnu, Assistant Professor, Dept. of ECE, PESITM
2019-20	Dr. A. Guruva Reddy, Professor, Dept. of ECE, PESITM
	Dr. Manu A P, Professor, Dept. of CSE, PESITM

7.3 Improvement in Placement, Higher Studies and Entrepreneurship (10)

Total Marks 10.00

Institute Marks : 10.00

7.3 Improvement in Placement, Higher Studies and Entrepreneurship (10)

c	**2021-22**	**2020-21**	**2019-20**
Total No. of Final Year Students (N)	62	58	57
No. of students placed in companies or Government Sector (x)	32	28	25
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y)	..	..	..
No. of students turned entrepreneur in engineering/technology (z)	..	..	..
x + y + z =	32	28	24

Academic Year	**Number of Companies**	**Number of Students Placed**
2021-22	18	28
2020-21	20	29
2019- 20	10	25

Academic Year	Maximum Package(LPA)	Average Package
2021.22	3.5	3.2
2020.21	4.5	2.9
2019.20	3.5	2.8

7.4 Improvement in the quality of students admitted to the program (10)

Total Marks 10.00

Institute Marks : 10.00

Item		2022-23	2021-22	2020-21
National Level Entrance Examination Comed - k	No of students admitted	0	0	0
	Opening Score/Rank	0	0	0
	Closing Score/Rank	0	0	0
State/ University/ Level Entrance Examination/ Others CET	No of students admitted	11	40	38
	Opening Score/Rank	42889	68425	43467
	Closing Score/Rank	212295	161165	149002
Name of the Entrance Examination for Lateral Entry or lateral entry details CET, Lateral Entry	No of students admitted	0	40	22
	Opening Score/Rank	0	2784	385
	Closing Score/Rank	0	16054	16255
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)		70	71	68

8 FIRST YEAR ACADEMICS (50)

Total Marks 43.61

8.1 First Year Student-Faculty Ratio (FYSFR) (5)

Total Marks 5.0

Institute Marks : 5.0

Please provide First year faculty information considering load for the particular program

Name of the faculty member	PAN No.	Qualification	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Teaching load (%)			Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associate is 'No')
							CAY	CAYm1	CAYm2			
Dr. Aveesh S T	ALUPT7731J	M.Sc. and PhD	14/03/2010	Mathematics	Professor	18/07/2016	100	100	100	Yes	Regular	
Dr. Umeshaiah	ABLPU8326K	M.Sc. and PhD	29/07/2020	Mathematics	Associate Professor	04/09/2008	100	100	100	Yes	Regular	
Dr. Chandru K	AZGPC8846B	M.Sc. and PhD	15/02/2019	Differential Geometry	Assistant Professor	29/01/2018	0	0	100	No	Regular	31/07/2021
Dr. Prasad N B	BEJPB9062B	M.Sc. and PhD	24/02/2014	Physics	Assistant Professor	04/10/2021	100	100	0	Yes	Regular	
Dr. Pramod Go	AXZPP7633A	M.Sc. and PhD	09/01/2007	Environ Science	Associate Professor	01/02/2010	100	100	100	Yes	Regular	
Mrs. Deeksha I	BILPK2238J	MA	12/03/2013	English	Assistant Professor	16/07/2018	100	100	100	Yes	Regular	
Mrs. Aruna A	BLFPA3421G	MA	08/02/2012	Humanities	Assistant Professor	21/08/2019	0	100	100	No	Regular	14/09/2022
Ms. Ramya K	DVRPK0646F	M.Sc	19/03/2014	Solid State Physics	Assistant Professor	19/08/2013	0	0	100	No	Regular	30/09/2021
Dr. Soumya D	IZVPS4995A	M.Sc. and PhD	26/09/2022	Mathematics	Assistant Professor	16/11/2022	100	0	0	Yes	Regular	
Ms. Meghana F	EUCPR2338A	M.Sc	24/11/2022	Mathematics	Assistant Professor	05/12/2022	100	0	0	Yes	Regular	
Dr. Shivakuma	AECPK7375N	M.Sc. and PhD	02/05/2000	Chemistry	Professor	01/08/2007	0	0	100	No	Regular	30/06/2021
Ms. Nayana K	AMXPN1818Q	M.E/M.Tech	08/04/2012	Information Communication Technology	Assistant Professor	24/01/2011	0	100	100	Yes	Regular	
Mrs. Veda L K	AIQPV0071N	M.Sc	17/03/2004	Mathematics	Assistant Professor	16/02/2009	100	100	100	Yes	Regular	
Mrs. Swathi V	FZEPS8237P	M.Sc	24/03/2016	Mathematics	Assistant Professor	16/07/2015	100	100	100	Yes	Regular	
Mrs. Roopa C I	DDRPR9742F	M.Sc	02/12/2017	Industrial Chemistry	Assistant Professor	07/08/2017	100	100	100	Yes	Regular	
Mrs. Rashmi H	CFFPR5329D	M.Sc	09/03/2011	Solid State Physics	Assistant Professor	31/07/2017	100	100	100	Yes	Regular	
Mr. Kiran M R	CMMPK5984K	M.E/M.Tech	21/01/2017	Electronics Electronics Engineering	Assistant Professor	08/08/2018	30	30	40	Yes	Regular	
Dr. Om Prakas	ACFPY9995H	M.E/M.Tech	25/09/2019	Electronics Electronics Engineering	Professor	02/11/2020	10	0	0	Yes	Regular	
Mr. Chethan B	AOTPC5115P	M.E/M.Tech	03/05/2014	VLSI Embedded System	Assistant Professor	21/07/2014	100	100	100	Yes	Regular	
Mrs. Shyamala	AMJPC3468P	M.E/M.Tech	04/05/2014	VLSI Embedded System	Assistant Professor	08/08/2013	0	0	100	Yes	Regular	
Mrs. Yajnodbha	ALQPY8597B	M.E/M.Tech	23/07/2013	Civil Engineering	Assistant Professor	15/07/2013	100	100	100	Yes	Regular	
Mrs. Pooja Y E	CPGPP0160K	M.E/M.Tech	22/07/2015	Earthquake Engineering	Assistant Professor	06/02/2017	100	100	100	Yes	Regular	
Mrs. Neetha H	ASBPN6858L	M.E/M.Tech	05/04/2013	Energy System Engineering	Assistant Professor	25/07/2012	100	100	100	Yes	Regular	

Mr. Shanthveer	GAYPS9826J	M.E/M.Tech	08/09/2018	Electrical and Electronics Engineering	Assistant Professor	23/07/2018	100	100	10	Yes	Regular	
Ms. Prathibha S	BMRPP2412F	M.E/M.Tech	03/05/2013	Computer Science Engineering	Assistant Professor	28/12/2020	100	100	100	Yes	Regular	
Mr. Koushik P I	CXMPP8138D	M.E/M.Tech	03/12/2015	Mechanical Engineering	Assistant Professor	16/07/2015	100	100	100	Yes	Regular	
Mr. Ajey C P	BSIPP0956M	M.E/M.Tech	04/12/2015	Mechanical Engineering	Assistant Professor	20/07/2015	100	100	100	Yes	Regular	
Mr. Praveen R	COZPP4986D	M.E/M.Tech	03/05/2014	Mechanical Engineering	Assistant Professor	07/08/2013	50	50	50	Yes	Regular	
Mr. Shivananda	EDRPS3720R	M.E/M.Tech	04/12/2015	Mechanical Engineering	Assistant Professor	20/07/2015	100	50	50	Yes	Regular	
Ms.Vinutha H M	GPIPM4458D	M.E/M.Tech	27/09/2020	Computer Science Engineering	Assistant Professor	27/10/2022	100	0	0	Yes	Regular	
Ms. Pooja G D	IGVPD1490N	M.E/M.Tech	14/10/2022	Civil Engineering	Assistant Professor	24/11/2022	50	0	0	Yes	Regular	
Mr. Amshith Ku	BCIPA5561B	M.E/M.Tech	05/05/2016	Civil Engineering	Assistant Professor	19/07/2017	100	100	0	Yes	Regular	
Mrs. Suchitha H	FMOPS5324E	M.E/M.Tech	05/05/2016	Computer Science Engineering	Assistant Professor	15/12/2022	50	0	0	Yes	Regular	
Mrs. Ramya C	AIHPR0002J	M.E/M.Tech	16/01/2017	Mechanical Engineering	Assistant Professor	17/05/2010	30	30	30	Yes	Regular	
Mrs. Swathi N '	IGKPS3952R	M.E/M.Tech	22/03/2022	Electronics Communication Engineering	Assistant Professor	03/01/2022	20	20	0	Yes	Regular	
Ms. Damini T K	DDQPD6638R	M.E/M.Tech	21/01/2021	Information Science Engineering	Assistant Professor	20/10/2022	70	0	0	Yes	Regular	
Mr. Pradeepa H	BNXPK9496G	M.E/M.Tech	05/04/2013	Computer Science Engineering	Assistant Professor	21/07/2014	0	20	20	Yes	Regular	
Dr. Sendhil G	BSMPS7164N	M.A and Ph.D	15/02/2012	Volleyball	Associate Professor	04/09/2008	100	100	100	Yes	Regular	
Dr. Mohan kum	DPDPK8017Q	M.Sc. and PhD	23/08/2018	Chemistry	Assistant Professor	13/09/2021	100	100	0	Yes	Regular	
Mr. Malteshkur	BSXPD3158G	M.E/M.Tech	21/01/2017	Mechanical Engineering	Assistant Professor	18/07/2016	0	100	100	Yes	Regular	
Tharanatha H	AGIPT3378G	M.E/M.Tech	09/05/2015	Mechanical Engineering	Assistant Professor	21/07/2014	30	30	30	Yes	Regular	
Mr. Sandeep T	ANTPT3541M	M.E/M.Tech	30/04/2011	Computer Science Engineering	Assistant Professor	17/10/2021	50	0	0	Yes	Regular	
Mrs. Yojana Ya	ACYPY8032E	M.E/M.Tech	13/07/2009	Electronics Communication Engineering	Assistant Professor	02/11/2020	30	30	50	Yes	Regular	
Mrs. Manasa B	BWZPM7209R	M.E/M.Tech	14/10/2015	Electricaland Electronics Engineering	Assistant Professor	16/07/2015	0	30	40	Yes	Regular	
Dr. Girish L	ALRPG2475K	ME/M. Tech and PhD	21/01/2017	Mechanical Engineering	Professor	04/01/2016	30	30	30	Yes	Regular	
Mr. Mujebur Re	AWWPR0043A	M.E/M.Tech	05/04/2013	Mechanical Engineering	Assistant Professor	08/08/2013	30	30	30	Yes	Regular	
Dr. Pramod	AQFPP1808G	ME/M. Tech and PhD	09/01/2018	Information Science and Engineering	Associate Professor	31/07/2017	20	0	0	Yes	Regular	

Dr. Devanand S	BQJPS8871H	ME/M. Tech and PhD	18/02/2016	Electronics and Communication Engineering	Professor	02/11/2020	50	50	50	Yes	Regular	
Dr. Manjunath	BEJPC2293D	ME/M. Tech and PhD	14/11/2015	Mechanical Engineering	Associate Professor	02/07/2018	30	40	0	Yes	Regular	
Ms. Shreyas S	HBHPS6229A	M.Sc	16/06/2020	Mathematics	Assistant Professor	11/10/2021	100	100	100	Yes	Regular	
Mr. Vishnu V M	AYFPV1684G	M.E/M.Tech	01/12/2015	Electronics and Communication Engineering	Assistant Professor	16/07/2015	100	100	100	Yes	Regular	
Dr. Praveen Ku	BHQPP3039N	M.Sc. and PhD	13/08/2013	Chemistry	Associate Professor	27/01/2014	100	100	100	Yes	Regular	

Year	Number Of Students(approved intake strength) N	Number of Faculty members(considering fractional load) F	FYSFR (N/F)	*Assessment= (5*20)/FYSFR(Limited to Max.5)
2020-21(CAYm2)	540	30	18	5.00
2021-22(CAYm1)	540	30	18	5.00
2022-23(CAY)	660	33	20	5.00
Average	0	0	0	0

8.2 Qualification of Faculty Teaching First Year Common Courses (5) Total Marks 2.67

Institute Marks : 2.67

Year	x (Number Of Regular Faculty with Ph.D)	y (Number Of Regular Faculty with Post graduate Qualification)	RF (Number Of Faculty Members required as per SFR of 20:1	Assessment Of Faculty Qualification [(5x + 3y) / RF]
2020-21	7	20	27	3.00
2021-22	6	21	27	3.00
2022-23	8	19	33	2.00

Average Assessment: 2.67

8.3 First Year Academic Performance (10) Total Marks 6.94

Institute Marks : 6.94

Academic Performance	2022-23	2021-22	2020-21
Mean of CGPA or mean percentage of all successful students(X)	6.28	7.15	7.85
Total Number of successful students(Y)	37.00	38.00	34.00
Total Number of students appeared in the examination(Z)	40.00	38.00	34.00
API [X*(Y/Z)]	5.81	7.15	7.85

Average API[(AP1+AP2+AP3)/3] : 6.94

Assessment [1.5 * Average API] : 6.94

8.4 Attainment of Course Outcomes of first year courses (10) Total Marks 9.00

8.4.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done (5) Institute Marks : 5.00

CAYm1 (2021-22)

- Three Internal tests, each for maximum of 20 marks and total of 60 marks are conducted.
- Two assignment activities of 10 marks each & one CCE component for 20 marks (i.e., Assignment, Class presentation, Mini Project, Case Study etc.) together for 40 marks shall be awarded.
- A maximum total internal mark for each course is 100 and it is reduced to 50 CIE marks. The student has to score a minimum of 20 marks to be eligible for semester end examination in respective course.
- Semester end examination is conducted by university for maximum marks of 100, reduced to 50 marks.
- Internal assessment including assignment & activity component is conducted in accordance with the defined course outcomes and attainments of each course outcome are computed based on student performance.
- Performance of student in semester end examination is apportioned equally for all course outcomes.
- For the laboratory courses, Continuous Internal Assessment is performed based on conduction of experiment, observations, viva and practical record for 30 marks. One semester end practical test is conducted for maximum of 20 marks. The total CIE marks for the laboratory course is 50. The student has to score a minimum of 20 marks to appear for the exam.
- Semester end examination for laboratory course is conducted for 100 marks and is reduced to 50.
- 50% weightage is considered for both internal assessment and semester end examination in both theory and laboratory courses to get total direct attainment.

CAYm2 (2020-21) & CAYm3 (2019-20)

- Three Internal tests for maximum marks of 30 are conducted and average of three internals is considered.
- 10 marks shall be awarded based on the evaluation of CCE component (i.e., Assignment, Class presentation, Mini Project, Case Study etc.)
- Maximum total internal marks for each course are 40. The student has to get a minimum of 16 marks to appear for the exam in the corresponding course.
- Semester end examination is conducted by university for maximum marks of 100, reduced to 60 marks.
- Internal assessment including assignment & activity component is conducted in accordance with the defined course outcomes and attainments of each course outcome are computed based on student performance.
- Performance of student in semester end examination is apportioned equally for all course outcomes.
- For the laboratory courses, Continuous Internal Assessment is performed based on conduction of experiment, observations, viva and practical record for 24 marks. One semester end practical test is conducted for maximum of 16 marks. The total CIE marks for the laboratory course is 40. The student has to score a minimum of 20 marks to appear for the exam.
- Semester end examination for laboratory course is conducted for 100 marks and is reduced to 60.
- 50% weightage is considered for both internal assessment and semester end examination in both theory and laboratory courses to get total direct attainment.

8.4.2 Record the attainment of Course Outcomes of all first year courses (5) Institute Marks : 4.00

8.4.2 Attainment of Course Outcomes of all first-year courses (CAY 2021-22)

Sl. No.	Subject	Subject Code	NBA Code	CO Code	Target (%)	Achieved For set target	Attainment
1	Calculus & Differential Equations	21MAT11	C101	CO101.1	55	72.15	3
				CO101.2		72.65	3
				CO101.3		71.57	3
				CO101.4		70.57	3
				CO101.5		74.82	3
2	Engineering Physics	21PHY12/22	C102	CO102.1	55	72.24	3
				CO102.2		70.26	3
				CO102.3		74.76	3
				CO102.4		73.09	3
				CO102.5		71.14	3
3	Basic Electrical Engineering	21ELE13/23	C103	CO103.1	55	70.08	3
				CO103.2		76.68	3
				CO103.3		80.28	3
				CO103.4		76.2	3
				CO103.5		70.7	3
4	Elements of Civil Engineering & Mechanics	18CIV14	C104	CO104.1	55	65.14	3
				CO104.2		64.08	2
				CO104.3		65.13	3
				CO104.4		62.44	2
				CO104.5		59.14	1
5	Engineering Visualization	18EGDL15	C105	CO105.1	60	76.64	3
				CO105.2		76.61	3
				CO105.3		76.53	3
				CO105.4		76.4	3
6	Engineering Physics Lab	18PHYL16	C106	CO106.1	60	79.94	3
				CO106.2		79.87	3
				CO106.3		79.87	3
				CO106.4		79.60	3
				CO106.5		79.74	3
7	Basic Electrical Engineering Lab	18ELEL17	C107	CO107.1	60	86.90	3
				CO107.2		86.90	3
				CO107.3		86.7	3
8	Communicative English	21EGH18	C108	CO108.1	55	85.2	3
				CO108.2		82.84	3
				CO108.3		91.6	3
				CO108.4		91.67	3
				CO108.5		72.07	3
9	Innovation & Design Thinking	21IDT19/29	C109	CO109.1	60	86.25	3
				CO109.2		85.125	3
				CO109.3		85.06	3
				CO109.4		85.19	3

10	Advanced Calculus & Numerical Methods	18MAT21	C110	CO110.1	55	69.52	3
				CO110.2		69.26	3
				CO110.3		67.05	3
				CO110.4		69.25	3
				CO110.5		70.35	3
11	Engineering Chemistry	21CHE12/22	C111	CO111.1	55	74.9	3
				CO111.2		72.24	3
				CO111.3		69.13	3
				CO111.4		71.48	3
				C0111.5		67.94	3
12	Problem solving through Programming	21PSP13/23	C112	CO112.1	55	67.85	3
				CO112.2		65.4	3
				CO112.3		66.44	3
				CO112.4		66.09	3
				CO112.5		66.8	3
13	Basic Electronics & Communication Engineering	21ELN14/24	C113	CO113.1	55	73.05	3
				CO113.2		72.25	3
				CO113.3		76.235	3
				CO113.4		75.97	3
				CO113.5		80.18	3
14	Elements of Mechanical Engineering	21EME15/25	C114	CO114.1	55	68.92	3
				CO114.2		67.64	3
				CO114.3		69.16	3
				CO114.4		66.09	3
				CO114.5		68.85	3
				CO114.6		68.649	3
15	Engineering Chemistry Lab	21CHEL16/26	C115	CO115.1	60	72.8	3
				CO115.2		72.54	3
				CO115.3		72.8	3
				CO115.4		72.6	3
				CO115.5		72.46	3
16	Computer Programming Lab	21CPL17/27	C116	CO116.1	60	85.69	3
				CO116.2		85.14	3
				CO116.3		85.14	3
17	Professional Writing skills in English	21EGH18/28	C117	CO117.1	60	59.4	1
				CO117.2		65.77	3
				CO117.3		71.4	3
				CO117.4		71.07	3
				CO117.5		63.14	2
18	Scientific Foundations of Health	21IDT19/29	C118	CO118.1	60	62.94	2
				CO118.2		60.6	2
				CO118.3		60.8	2
				CO118.4		63.94	2
				CO118.5		64.14	2

8.5 Attainment of Program Outcomes from first year courses (20) Total Marks 20.00

8.5.1 Indicate results of evaluation of ezch relevant PO and/ or PSO, if applicable (15) Institute Marks : 15.00

POs Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	1.31	1.27	0.72	0.75	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C102	1.30	0.73	PO3	PO4	0.72	PO6	PO7	PO8	0.73	0.73	PO11	PO12
C103	1.01	1.14	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.22
C104	1.65	1.26	0.63	0.59	PO5	PO6	1.31	0.65	0.64	PO10	PO11	0.64
C105	1.53	1.53	PO3	PO4	1.53	PO6	PO7	PO8	PO9	PO10	PO11	0.77
C106	0.8	0.8	PO3	PO4	PO5	PO6	PO7	0.8	0.8	0.8	PO11	PO12
C107	1.45	1.74	PO3	PO4	PO5	PO6	PO7	0.87	0.87	0.87	PO11	PO12
C108	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	2.54	PO11	2.54
C109	0.86	0.86	PO3	PO4	PO5	PO6	PO7	PO8	0.86	0.86	PO11	PO12
C110	1.38	1.17	0.69	1.25	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C111	1.14	1.08	0.75	PO4	PO5	0.7	0.71	PO8	PO9	PO10	PO11	PO12
C112	1.91	1.91	1.91	PO4	PO5	PO6	PO7	0.62	0.62	PO10	PO11	1.91
C113	1.89	1.38	1.26	PO4	PO5	PO6	PO7	PO8	0.62	PO10	PO11	PO12
C114	1.32	1	1	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.04
C115	0.73	0.73	PO3	PO4	PO5	1.09	0.73	PO8	PO9	PO10	PO11	PO12
C116	2.55	2.55	2.55	PO4	PO5	PO6	PO7	2.55	2.55	2.55	PO11	2.55
C117	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	2.04	PO11	1.99
C118	PO1	PO2	PO3	PO4	PO5	PO6	1.99	PO8	1.99	1.99	PO11	1.99

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	1.39	1.28	1.19	0.86	1.12	0.90	1.18	1.10	1.08	1.55	0	1.63
CO Attainment	1.39	1.28	1.19	0.86	1.12	0.90	1.18	1.10	1.08	1.55	0	1.63

PSOs Attainment:

Course	PSO1	PSO2	PSO3
	PSO1	PSO2	PSO3

8.5.2 Actions taken based on the results of evaluation of relevant POs (5) Institute Marks : 5.00

POs Attainment Levels and Actions for Improvement- (2021-22)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2	1.39	Set Target 65% Target Attained (69.39%)
PO 2 : Problem Analysis			
PO 2	1.79	1.28	Set Target 65% Target Attained (71.42%)
PO 3 : Design/development of Solutions			
PO 3	1.75	1.19	Set Target 65% Target Attained (68.04%)
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.20	0.86	Set Target 65% Target Attained (72.22%)
PO 5 : Modern Tool Usage			
PO 5	1.5	1.12	Set Target 65% Target Attained (74.66%)
PO 6 : The Engineer and Society			
PO 6	1.25	0.90	Set Target 65% Target Attained (71.80%)
PO 7 : Environment and Sustainability			
PO 7	1.75	1.18	Set Target 65% Target Attained (67.42%)
PO 8 : Ethics			
PO 8	1.40	1.10	Set Target 65% Target Attained (78.57%)
PO 9 : Individual and Team Work			
PO 9	1.44	1.08	Set Target 65% Target Attained (74.50%)
PO 10 : Communication			
PO 10	1.97	1.55	Set Target 65% Target Attained (78.73%)
PO 11 : Project Management and Finance			
PO 11	NA	NA	First year courses do not contribute towards PO11
PO 12 : Life-long Learning			
PO 12	2.46	1.63	Set Target 65% Target Attained (66.17%)

PSOs Attainment Levels and Actions for Improvement- (2021-22)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Apply the knowledge to have a foundation in theoretical & practical aspects of Electrical & Electronics engineering			
PSO 1			
PSO 2 : Ability to model, analyze, design and realize physical systems, components and hands on competence in modern engineering tools to process and adapt them in the field of electrical & electronics engineering			
PSO 2			
PSO 3 : Ability to communicate and work professionally in order to take up entrepreneurial activities in the field of electrical & electronics engineering and related areas for the benefit of the society			
PSO 3			

9 STUDENT SUPPORT SYSTEMS (50) Total Marks 50.00

9.1 Mentoring system to help at individual level (5) Total Marks 5.00

Institute Marks : 5.00

Mentoring is a systematic student centered process to aid students in achieving educational, career, and personal goals.

The purpose of mentoring is that the student can freely and confidentially express their academic, emotional and personal pressures and concerns to a professional who can help them effectively.

Process of Mentoring System

- Based on the number of students in the department mentor allocation is made at department level by HoD.
- **Number of faculty mentor :** 11
- **Number of students per mentor: 20 – 25**
- Mentors collect the mentees information in a standard format, which includes details for communication.
- The standard format also includes details of academic performance of the students
- **Frequency of meeting:** Minimum 2 times in a semester
- Continuous monitoring (Academic and Non Academic) is done and in case any development / complaint with respect to the mentees is noticed, counseling (if required) is done .

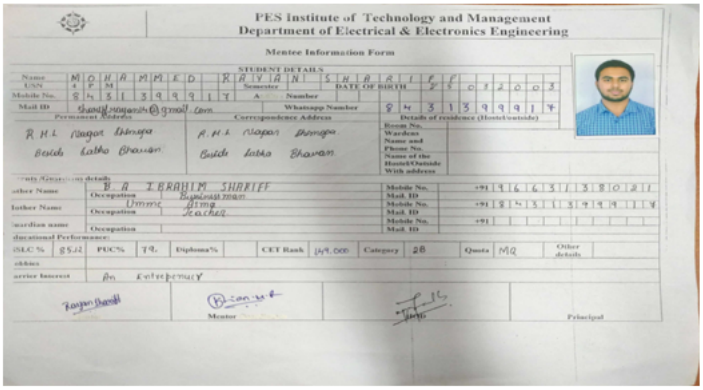
Responsibilities of Mentors:

- To track the academic performance of the mentee and counsel, guide and motivate in all academic and professional matters.
- To advice the mentee regarding choice of electives, add on courses, external certifications, project, summer training/internships and other co.curricular matters.
- To provide psychological, mental, intellectual, moral, technical and any other support

  required.
- To share relevant life and work experience to assist the student mentee in making

  educational and professional decisions
- To encourage mentee to meet their educational and professional goals and objectives.
- To contact parents/guardians if situation demands e.g. irregularities, negative behavioral

  changes and interpersonal relations, detrimental activities etc.
- To communicate mentees performance to parents through performance reports.
- To invite parents for Parents. Teacher meet and to share mentees attendance, performance and other things.



FES Institute of Technology and Management
Department of Electrical & Electronics Engineering

Mentee Information Form

STUDENT DETAILS

Name	MOHAMMED RAYAN SHARIFF		
USN	4PM	Semester	DATE OF BIRTH 25/03/2003
Mobile No.	8431399917	A Number	
Mail ID	Shariffrayan18@gmail.com	Whatsapp Number	8431399917
Permanent Address	R.H.L Nagar Bhanga Basidi Latha Bhavan	Correspondence Address	R.H.L Nagar Bhanga Basidi Latha Bhavan
		Details of residence (Hostel/outside)	Room No. Warden's Name and Phone No. Name of the Hostel/Outside With address
Father Name	B.A IBRAHIM SHARIFF	Occupation	Businessman
Mother Name	Ummi Rumaisa	Occupation	Teacher
Guardian name		Occupation	
Educational Performance:			
SSLC %	95.12	PUC%	79.
Diploma%		CET Rank	149.000
Category	2B	Quota	MQ
Other details			
Hobbies			
Career Interest	An Entrepreneur		

Mentor

Principal

Fig. 9.1 Mentee Information Form

PES Institute of Technology and Management
(Affiliated to Visvesvaraya Technological University & Approved by AICTE, New Delhi)

Issue/ Rev. No: 1/0	29/Nov/2021	Page: 1 of 1	Form No: R/T &L/12

Department of EEE

Student's Appraisal Report (Details of Attendance &Test)

Dear Sir/Madam,

This is to bring your kind notice to the clause of VTU governing the attendance requirement for the students. Each semester is considered as a unit and the candidate has to put in a minimum attendance of 85% in each subject. Three IA tests for a maximum of 30 marks and 10 marks for comprehensive curricular assessment will be conducted for every theory subject in each semester. At the end of the semester, the average of three tests will be considered as Internal Assessment Marks. Minimum marks required are 19 marks. Internal Test for Practicals will also be conducted and every student has to score a minimum of 16 marks in theory and 20 marks in practical to be eligible to appear for the semester end examination.

Following are the details of Attendance & Internal marks of your ward.

Name of Student: **USN:** **Semester & Section:**

Sl. No.	Subjects	Attendance Details From			Marks Details	
		Classes Conducted	Classes Attended	Attendance %	Max Marks	Marks Obtained

Coordinator Signature of HOD Signature of the Princi

Kindly send this acknowledgement back to the Department for the records.

Acknowledgement

Parents are hereby informed to go through the performance of your ward and affix Signature below & return it back to the EEE Department through your ward.

Student's Signature
Name :
USN :

Parent's Signature
Name:
Mobile No.:

Fig. 9.2 Progress Report Format of Mentee Communicated to Parents

9.2 Feedback analysis and reward /corrective measures taken, if any (10) Total Marks 10.00

Institute Marks : 10.00

- **Feedback collected for all courses:** YES
- **Feedback collection process: Twice in a semester t**hrough GEMS Software.
- **Average Percentage of students who participate:** Minimum 80%
- **Feedback process:**

  Students are informed well in advance about the feedback by the Feedback coordinator. Students are made aware about the parameters on which feedback has to given. Link for the feedback is shared by the concerned coordinator. Students are given sufficient time to provide feedback.

  Feedback is collected on following parameters which has been prepared by considering AICTE APH.

Table 9.2 .1 Feedback form

Sl. No.	Parameters of Consideration
1	Has the teacher covered entire syllabus as prescribed by the university/college/board?
2	Has the teacher covered relevant topics beyond syllabus?
3	Effectiveness of teaching in terms of technical content/ Course content?
4	Effectiveness of teaching in terms of Communication Skills?
5	Effectiveness of teaching in terms of use of technical aids?
6	Pace on which contents were covered?
7	Motivation and inspiration for students to learn?
8	Support for the development of student skills Practical demonstration/ Hands on Training?
9	Clarity of Expectation of students?
10	Willingness to offer help and advice students?
11	Feedback provided on student Progress?

- **Feedback analysis process:**

  Feedback report is autogenerated by GEMS software and the performance of faculty is administered by Head of the Department and Principal. The feedback report is also sent to concerned faculty for their information.

Table 9.2 .2 Summery of the feedback for 7th and 5th semester course

S.No	FACULTY NAME	SUBJECT NAME	SUBJECT_CODE	OVER ALL FEEDBACK
1	KALPANA PATIL	Power System Protection	17EE72	81.65
2	KALPANA PATIL	Digital System Design	18EE35	85.58
3	KIRAN M R	Testing and Commissioning of Power System Apparatus	17EE752	84.04
4	KIRAN KUMAR G R	Advanced Control Systems	17EE741	86.26
5	KIRAN KUMAR G R	Electrical and Electronic Measurements	18EE36	81.62
6	MANASA B	Power Electronics	18EE53	82.4
7	MANASA B	Electrical Machine Design	18EE55	85.11
8	MANJUNATHA PRABHU	Microcontroller	18EE52	82.57
9	NEETHA H M	Transformers and Generators	18EE33	80.39
10	RUDRESHA S J	Power System Analysis	12294	85.66

11	SHANTHVEERESH N S	High Voltage Engineering	17EE73	82.52
12	SHRUTHI S	Management & Entrepreneurship	18EE51	86.59
13	SHRUTHI S	Analog Electronic Circuits	18EE34	81.17
14	SHRUTHI S	Electric Circuit Analysis	18EE32	80.91

Corrective measures:

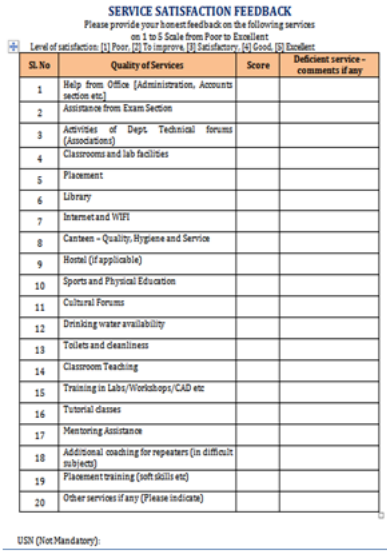
- Head of the Department analyses the feedback and faculty having feedback less than 75% is asked to furnish explanation for the same and their plan of action to improve the feedback. The reason for the same is also explored personally. Suggestions for improvement is provided and is monitored.
- Faculties having good feedback are encouraged and appreciated.

9.3 Feedback on facilities (5)

Total Marks 5.00

Institute Marks : 5.00

Feedback on facilities is also collected at the end of each semester. Once the feedback is collected, it is analyzed by the concern Incharge and a report is submitted to the Head of the Department. Head of the department then initiates corrective actions.



SERVICE SATISFACTION FEEDBACK

Please provide your honest feedback on the following services on 1 to 5 Scale from Poor to Excellent

Level of satisfaction: [1] Poor, [2] To improve, [3] Satisfactory, [4] Good, [5] Excellent

Sl. No	Quality of Services	Score	Deficient service - comments if any
1	Help from Office (Administration, Accounts section etc)		
2	Assistance from Exam Section		
3	Activities of Dept. Technical forums (Associations)		
4	Classrooms and lab facilities		
5	Placement		
6	Library		
7	Internet and WIFI		
8	Canteen - Quality, Hygiene and Service		
9	Hostel (if applicable)		
10	Sports and Physical Education		
11	Cultural Forums		
12	Drinking water availability		
13	Toilets and cleanliness		
14	Classroom Teaching		
15	Training in Labs/Workshops/CAD etc		
16	Tutorial classes		
17	Mentoring Assistance		
18	Additional coaching for repeaters (in difficult subjects)		
19	Placement training (soft skills etc)		
20	Other services if any (Please indicate)		

- USN (Not Mandatory):

Once the feedback is collected, it is analyzed by the concern Incharge and a report is submitted to the Head of the Department. Head of the department then initiates corrective actions.

9.4 Self-Learning (5)

Total Marks 5.00

Institute Marks : 5.00

Facilities for Self.Learning: Students are offered facilities in form of

- Centralized library with reference books
- Digital Library with internet connection to access the journals, articles and NPTEL/MOOC videos.
- Department library with sufficient number of volumes.
- Old project/internships/seminar reports are made available to students as per their requirements.
- Every semester top five students are getting book coupons worth Rs 750 as a reward.
- Exposure to real.time electrical (Control Panels, Transformers, DGs, Cables, Solar street lights etc) and electronics Components applications available in the campus.

Additional recent topics are included in the lesson schedule so as to cover contents beyond syllabus. Webinars/Invited talks/Guest lectures are also conducted to enhance their learning capabilities.

Students are encourage to carry out NPTEL and other certificate courses of their choices. Additionally, students are encouraged to participate in conferences/ workshops and other competitions.

Student Participation : 2022-23

Sl. No.	Name of the Student	USN	Semester	Achievement / Award
1.	Girish MV	4PM19EE013	7	Completed workshop on AutoCAD-2D On 23rd August 2022, from LEARN Delta.
2.	Girish MV	4PM19EE013	7	Completed course on Introduction to electric vehicle, On 7th October 2022, from SKILL LYNC
3.	Girish MV	4PM19EE013	7	Completed Three Days course on Hacker Rank Boot Camp From 7th October 2022 to 9th October 2022, from Study Online.
4.	Amrutha D	4PM20EE006	5	Completed course on Java script On 27th October 2022, from Sololearn.
5.	ShilpaNayaka	4PM20EE029	5	Completed course on HTML On 23rdOctober 2022, from Sololearn.
6.	Ganavi SS	4PM20EE011	5	Completed course on HTML On 22ndNovember 2022, from Sololearn.
7.	Ganavi SS	4PM20EE011	5	Completed course on C++ On 19th November 2022, from Sololearn.
8.	Ganavi SS	4PM20EE011	5	Completed course on Introduction to Microsoft excel On 15th December 2022, from Coursera
9.	Shilpa Nayaka	4PM20EE029	5	Completed course on C On 23rd October 2022, from Sololearn.
10.	Amrutha D	4PM20EE006	5	Completed course on C On 11th October 2022, from Sololearn.
11.	Amrutha D	4PM20EE006	5	Completed course on CSS On 5th October 2022, from Sololearn.
12.	Mahamad Chand Ankali	4PM20EE408	7	Completed course on Introduction to electric vehicle, On 7th October 2022, from SKILL LYNC

13.	Likitha B	4PM19EE019	7	Completed course on Introduction to electric vehicle, On 7th October 2022, from SKILL LYNC
14.	Rajverma	4PM19EE024	7	Completed course on GUI Development with Python and Tkinter, On 11th October 2022, from UDEMY
15.	Deepthi R	4PM19EE009	7	Get Certified by NASSCOM Govt. of India , Microsoft, Google and Get 50% fees refunded by Govt. of India, on 13th October 2022.

Student Participation : 2021-22

Sl. No.	Name of the Student	USN	Semester	Achievement / Award
1	Srinivasa N	4PM19EE032	6	12 week course on "Sensors and Actuators" from **NPTEL** Online Certification (Funded by the MoE, Govt. of India), during Jan-April 2022.
2	Saikumar	4PM21EE415	4	won the **1st prize** in Project Exhibition Event organized by Akhil Bharathiya Vidyrathi Parishad(ABVP) , shivamogga in association with PESITM, Shivamogga, as a part of TECH ARORA -2022 , A division level technical fest held at PESITM, Shivamogga during 22nd & 23rd June 2022.
3	Ananya SU	4PM20EE007	4	8 week course on "Technical English for Engineers" from **NPTEL** Online Certification (Funded by the MoE, Govt. of India), during Feb- April 2022.
4	Srisham SM,Balaraj P, Manoj G , Harshith D Raj	4PM19EE436 4PM19EE404 4PM18EE4174PM19EE410	8	Presented paper titled "Replacement for Petrol Engine in Motorcycle – An Electrical Approach" in the International Conference on Engineering Innovation (ICEI-2022) organized by Jain Institute of Technology, Davanagere, in association with Technical Institute of Engineers, Bangalore, which has been selected as the **Best Paper** amongst presented papers on 3rd June 2022.
5	Rashmi G	4PM19EE027	6	
6	Pooja HN	4PM19EE022	6	Completed course on Java Programming from **Great Learning Academy**
7	Deepthi R	4PM19EE009	6	
8	Yashaswini T	4PM19EE034	6	
9	Yashaswini T/ Gouthami GM	4PM19EE034 4PM19EE015	6	Participated in paper presentation event **E-Belaku-2K22**, National Level Technical Symposium organized by AIT, Chikkamagaluru, and presented a paper titled "Generation of Electricity Using Solar Tree", on 27th Jun 2022.
10	All 17 Batches of Final year Students		8	Attended conference and presented a paper on the project work carried out by them in the final year engineering
10	Amrutha D	4PM20EE006	3	Completed course on Introduction to Artificial Intelligence from **Great Learning Academy**

11	Shreenitha N Raj	4PM19EE031	5	Completed course on Quantitative Aptitude Basics from **Great Learning Academy**
12	Shreenitha N Raj	4PM19EE031	5	Completed course on Basic Web Development from **Shape AI**
13	Neeraj P Bhonsle	4PM19EE421	7	Completed course on Basic Web Development from **Shape AI**
14	Neeraj P Bhonsle	4PM19EE421	7	Completed course on Basic Web Development with Boot Strap from **CHARUSAT**
15	Amrutha D	4PM20EE006	3	Completed course on Pragramming Basics from **Great Learning Academy**
16	Amrutha D	4PM20EE006	3	Completed course on Data science foundation from **Great Learning Academy**
17	Amrutha D	4PM20EE006	3	Completed course on Digital Marketing from **Great Learning Academy**
18	Shreenitha N Raj	4PM19EE031	5	Completed course on Data science foundation from **Great Learning Academy**
19	Shreenitha N Raj	4PM19EE031	5	Completed course on computer fundamentals from **Udemy**
20	Shreenitha N Raj	4PM19EE031	5	Completed course on Introduction to C from **Great Learning Academy**
21	Akruthi MK	4PM20EE004	3	Completed course on " English language for competitive exams" from **NPTEL** Online Certification (Funded by the MoE, Govt. of India), during 2021.
22	Girish MV	4PM19EE013	6	Completed course on Electrical control and protection systems from UDEMY on 9th april 2022
23	Girish MV	4PM19EE013	6	Completed course on Electrical control and protection systems part -2 from UDEMY on 18th May 2022
	Girish MV	4PM19EE013	6	Completed course on Electrical control and protection systems part -3 from UDEMY on 18th May 2022
	Girish MV	4PM19EE013	6	Completed course on Electrical control and protection systems part -4 from UDEMY on 20th May 2022
	Girish MV	4PM19EE013	6	Completed course on Electrical control and protection systems part -5 from UDEMY on 24th May 2022

As a Continuous Internal Evaluation , students are asked to submit models/ to give/written assignments seminars etc

Effectiveness: Number of students attending online courses and participating in conference/webinars etc increased.

9.5 Career Guidance, Training, Placement (10) Total Marks 10.00

Institute Marks : 10.00

- Institute has a centralized Career Development Cell looking after all training and placement activities.
- Career development Cell is lead by Training & Placement Officer (TPO). Department of Electrical and Electronics Engineering has a designated placement coordinator.
- Career guidance, training and placement activities are planned as per the industry requirements through Pre.Placement Trainings.
- The Training programs and Recruitment processes are conducted either through offline mode or online mode.
- Guidance on career opportunities, professional requirement is provided at department level in coordination with career development cell.

Objective of the cell is:

- To develop proficiency in English language and public speaking
- To develop students aptitude, logical reasoning, data interpretation, analytical ability and general awareness.
- To focus on overall personality, wisdom, character and to inspire the students to meet the challenges of the world

List of Soft Skill Trainings conducted for the last three years

Sl No	Name of the Soft Skill Training	Date of conduction	Name of the agency / Consultants
2021-22	Soft skills , language and communication skills Training program for 2nd year students	04.07.2022 to 07.07.2022	Bizotic Talent Solutions
	Soft skills , language and communication skills Training program for 3rd year students	25.06.2022 to 28.06.2022	Bizotic Talent Solutions
	Soft skills , language and communication skills Training program for 3rd year students	27.12.2021 to 30.12. 2021	Bizotic Talent Solutions
	Soft skills , language and communication skills Training program for 2nd year students	21.12.2021 to 24.12. 2021	Bizotic Talent Solutions
	Soft skills , language and communication skills Training program for 3rd year students	01.07.2021 to 31.08.2021	Bizotic Talent Solutions
	Soft skills , language and communication skills Training program for 2nd year students	31.05.2021 to 03.06.2021	Bizotic Talent Solutions
	Jaagruthi series – session 3. Dinacharya – The aurvedic healthy routine for healthy life	30.01.2021	Dr.SowmyaAyurvedic specialist, Shivamogga
2020-21	Soft skills , language and communication skills Training program for 3rd year students	27.12.2021 to 30.12.2021	Bizotic Talent Solutions
	Soft skills , language and communication skills Training program for 2nd year students	21.12.2021 to 24.12.2021	Bizotic Talent Solutions
	Soft skills , language and communication skills Training program for 3rd year students	01.07.2021 to 31.08.2021	Bizotic Talent Solutions
	Soft skills , language and communication skills Training program for 2nd year students	31.05.2021 to 03.06.2021	Bizotic Talent Solutions
	Soft skills , language and communication skills Training program for 4th year students	21.10.2020 to 23.10.2020	Seventh sense talent solutions
	Soft skills , language and communication skills Training program for 4th year students	16.10.2020 to 17.10.2020	Seventh sense talent solutions

2019-20	Soft skills , language and communication skills Training program for 4th year students	07.12.2020 to 23.12.2020	Seventh sense talent solutions
	Soft skills , language and communication skills Training program for 4th year students	21.10.2020 to 23.10.2020	Seventh sense talent solutions
	Soft skills , language and communication skills Training program for 4th year students	16.10.2020 to 17.10.2020	Seventh sense talent solutions
	Soft skills , language and communication skills Training program for 3rd year students	17.02.2020 to 20.02.2020 (Phase 2)	Career Prime
	Soft skills , language and communication skills Training program for 3rd year students	04.11.2019 to 07.11.2019	Career Prime
	Soft skills , language and communication skills Training program for 4th year students	17.09.2019 to 30/09/2019	Career Prime
	Soft skills , language and communication skills Training program for 4th year students	03.09.2019 to 21.12.2019	Career Prime
	Soft skills , language and communication skills Training program for 2nd year students	21.08.2019 to 24.08.2019	Genesis

Additionally, Workshops/seminar/invited talks are conducted so as enhance their knowledge and to make them ready for placement drives.

List of last three years workshops/ seminars/ webinars / invited talks / Industrial visits conducted in the department.

Year	Name of the workshop/ seminar/ webinar / invited talks / Industrial visits conducted in the department	Number of Participants	Date of conduction
2022-23	Invited talk on "**Entrepreneurship skill ,Attitude and Behaviour Development**"	38	24.12.2022
	Invited talk on "**Industrial automation using PLC**"	40	28.11.2022
	3 days industry linked training program	53	25.05.2022 to 27.05.2022
	Invited Talk on "**Essential Employability Skills for Electrical and Electronics Engineers**"	51	27.05.2022
	Webinar on "**Innovations in Renewable Energy Resource**"	120	23.05.2022
2021-22	Industrial visit to BTPS,Thorangallu	33	24.04.2022 to 25.04.2022
	Webinar in association with Ohm Institute, Hyderabad on "**Gate Orientation and Its Opportunities**"	90	21.01.2022
	Webinar on "**Hybrid Electric Vehicle Technology**"	160	20.12.2021
	Webinar on "**Effective Skill Enhancement For The Industry Needs During Pandemic**"	90	06.11.2021
	Webinar on "**Electrical Switchgear & and Its Applications"**	150	20.06.2020
2020-21	SDP on "**Recent Trends in Electrical Engineering**"	68	24.05.2021 to 26.05.2021
	Motivational Talk on "**The Importance of Decision Making to Youths"**	83	19.05.2021
	Invited Talk on "**Advancement in Signals and System"**	63	28.12.2020
2019-20	Workshop on "**Solar Energy Systems**"	55	11.10.2019 . 12.10.2019
	Webinar on "**Electrical Switchgear & and Its Applications"**	150	20.06.2020

4 weeks Internship is mandatory for all students. Students are free to carry out internship in any industry/company of their choice. However, at department level, one faculty is assigned to each student who will take care of internship report. A committee is framed to evaluate internships done by students on the basis of their presentation and report submission.

TPO and Departmental TPO take of all placement activities and records.

9.6 Entrepreneurship Cell (5)

Total Marks 5.00

Institute Marks : 5.00

Roles & Responsibilities of Entrepreneur Development Cell

i. To create an entrepreneurship eco-system in the institute, where students would learn the technicalities of entrepreneurship and become job providers instead of job seekers. To be in continuous contact with District Industry Officer, KSFC and other Government and private nodal agencies.
ii. To arrange lectures on establishment of new start.ups, MSM enterprises. Strive to establish an incubation centre with Governmental funding.
iii. Create a strong network of mentors who would provide sector specific knowledge & real world practical guidance. To arrange Entrepreneurship training programs, conduct events and inspirational programs.
iv. Build a strong team with adequate knowledge and experience in guiding start.ups, building business plans, facilitating investments, building networks, etc.

9.6 A List of members of Entrepreneur Development Cell

Sl. No.	Faculty Name	Department Name	Role
1	**Dr. Prasanna Kumar T.M**	**Prof & HOD . MBA**	**Chairman**
2	Ms. Ramya C R	Assistant Professor.ME	Member
3	Mr. Amshith Kumar M.J	Assistant Professor.CV	Member
4	Dr. Ashok R Banagar	Assistant Professor.ME	Member.Convener
5	Ms. Akshatha D.P	Assistant Professor.CV	Member
6	Mr. Shanthveersh N.S	Assistant Professor.EEE	Member
7	Mr. Vishnu V.M.	Assistant Professor.ECE	Member
8	Dr. Likewin Thomas	Associate Professor.CSE	Member
9	Dr. Pramod	Associate Professor.ISE	Member
10	Mr. Aravind Mallik	Assistant Professor.MBA	Member
11	Mr.MalteshKumar Deshpande	Assistant Professor.ME	Member
11	Dr. Rudresha S J	Associate Professor.EEE	Member

9.6 B List of activities conducted by Entrepreneurship Cell for EEE students

S. No.	Date of the event	Details of the event	Resource Person
1	13.08.2022	A webinar on Karnataka Government Schemes for Start Up	Shri C. L. Ramesh Director, District Industries Association,Shivamogga
2	12.11.2022	Entrepreneurship boot.camp	Mr.AshvikK S, Business Executive, NaaViCAgri. Business Incubation Centre, ICAR.NIVEDI, Bangalore
3	11.08.2021 to 13.08.2021	Innovation and Entrepreneurship week 2021	Ms Sujatha Program Director .AIFMB
4	06.03.2020	How to become a successful Entrepreneur	Shri C. L. Ramesh Director, District Industries Association,Shivamogga
5	01.02.2019	Awareness program on Innovation and Entrepreneurship Development	Mr.Rajashekar P Patil, joint director, C.DAC Shivamogga.

- Institution has a centralized entrepreneurship cell with a representative from each department.

9.7 Co-curricular and Extra-curricular Activities (10) Total Marks 10.00

Institute Marks : 10.00

Co-curricular activities

Every year there is an abundance of stimulating programs and activities are conducted from which students learn a lot. Co-curricular activities are an integral part of college life, offering students additional values to explore their talents, passions and interests. Participating in co-curricular activities which are conducted by our college and other institutions ,our students continue to apply what they learn in the classroom to enhance their knowledge and performance. Students development activities / webinar/ invited talks/workshops etc are regularly conducted.

9.7 A Co-curricular activities at Department level

Year	Name of the workshop/ seminar/ webinar / invited talks / Industrial visits conducted in the department	Number of Participants	Date of conduction
2022-23	Invited talk on “Entrepreneurship skill ,Attitude and Behaviour Development”	38	24.12.2022
	Invited talk on “Industrial automation using PLC”	40	28.11.2022
	3 days industry linked training program	53	25.05.2022 to 27.05.2022
	Invited Talk on “Essential Employability Skills for Electrical and Electronics Engineers”	51	27.05.2022
	Webinar on “Innovations in Renewable Energy Resource”	120	23.05.2022
2021-22	Industrial visit to BTPS,Thorangallu	33	24.04.2022 to 25.04.2022
	Webinar in association with Ohm Institute, Hyderabad on “Gate Orientation and Its Opportunities”	90	21.01.2022
	Webinar on “Hybrid Electric Vehicle Technology”	160	20.12.2021
	Webinar on “Effective Skill Enhancement For The Industry Needs During Pandemic”	90	06.11.2021
	Webinar on “Electrical Switchgear & and Its Applications”	150	20.06.2020
2020-21	SDP on “Recent Trends in Electrical Engineering”	68	24.05.2021 to 26.05.2021
	Motivational Talk on “The Importance of Decision Making to Youths"	83	19.05.2021
	Invited Talk on “Advancement in Signals and System”	63	28.12.2020
2019-20	Workshop on “Solar Energy Systems”	55	11.10.2019 . 12.10.2019
	Webinar on “Electrical Switchgear & and Its Applications”	150	20.06.2020

Extra-Curricular Activities

EEE department is having its own forum and through the forum, department conducts extra-curricular events. Students are also encouraged to participate in extracurricular activities conducted by other departments/other institutes.

9.7 B Cultural events at Department level

Sl. No.	Name of the event	Date
1	Cooking without fire	16.12.2022
2	Ethnic Day	03.12.2022
3	National Education Day	11.11.2022
4	Spell Bee and quiz Bee	08.01.2022
5	Face Painting	31.12.2021
6	Freshers Day	17.12.2021
7	Photo collage	03.06.2021 to 06.06.2021
8	Logo making , Mehendi Competition , Painting	22.05.2021to 24.05.2021
9	Mobile Photography	12.02.2021
10	Ethnic Day. Festive culture of India	30.01.2021

11	Face Painting	13.11.2020
12	Best out of waste	06.11.2020
13	Treasure hunt	16.10.2020
14	Mobile Photography	09.10.2020
15	Rangoli	25.09.2020
16	Solo Singing	18.09.2020

The college offers wide range of opportunities and facilities for sports and games activities. The institution has a huge sports ground. There are well equipped gym and sports kits. A full-fledged gym is available to make the students fit with a physique. Annual sports meet and annual carnival are conducted. Students are encouraged to participate in various zonal and inter.zonal tournaments. Students are provided with various sportskits and equipments.. The department of Physical Education provides opportunities to involve in outdoor and indoor games

Indoor Games: Carom, Chess, Badminton, Table Tennis

Outdoor Games: Volleyball, Football, Kabaddi, Basketball, Badminton, Cricket.

9.7 C Sports at Department level

Sl. No.	Name of the event	Date
1	Lagori	06.01.2023
2	Chess	09.12.2022
3	Cricket,Volley ball, Throw ball, Chess (Intra dept.)	07.12.2021 to 10.12.2021
4	Throw Ball	17.09.2021
5	Volley Ball	16.09.2021
6	Chess	10.04.2019
7	PUB.G	05.03.2019
8	Kabbadi	12.03.2019
9	Volley Ball	02.04.2019

The motto of NSS “Not Me, But You”, reflects the essence of democratic living and upholds the need for self.less service. PESITM NSS volunteers are highly motivated to strive hard for the well.being of the society. PESITM NSS team continuously organizes many events. The college nominated one of college faculty as NSS coordinator.

NSS activities at Department level:

9.7 D NCC, NSS and Other Clubs

Sl. No.	Name of the event	Date
1	Fire and Safety	23.12.2022
2	Awareness on Electrical safety and Precautions	16.06.2022
3	Blood Donation Camp	26.02.2022
4	Fire and Safety Precautions	08.10.2021
5	SwachhBharath	10.04.2019

10 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120) Total Marks 120.00

10.1 Organization, Governance and Transparency (40) Total Marks 40.00

10.1.1 State the Vision and Mission of the Institute (5) Institute Marks : 5.00

Vision :
To be the most preferred institution for engineering & management education, research and entrepreneurship by creating professionally superior and ethically strong global manpower.
Mission :
To prepare students for professional accomplishments and responsible global citizenship while fostering continuous learning and to provide state-of the-art education through the committed and highly skilled faculty by partnering and collaborating with industry and R&D institutes.

10.1.2 Governing body,administrative setup,functions of various bodies,service rules, procedures, recruitment and promotional policies (10) Institute Marks : 10.00

Governing Council of the institute

The Governing Council of the Institute is constituted as per the norms of AICTE, New Delhi; Affiliating University & Govt. of Karnataka and it is the supreme administrative body. The Governing Council of the institute has a robust framework for the governance and it works towards meeting the interests of all stake holders. The Governing Council meets a minimum of two times a year or whenever needed. The Governing Council of PESITM is given below

Name	Designation	Position
Prof. M R Doreswamy	Chancellor, PES University, Bengaluru	Chairman
Sri B Y Raghavendra	Management Trustee, PES Trust (R), Shivamogga Member of Parliament, Shivamogga	Member
Prof. Jawahar Doreswamy	Treasurer, PES Institutions. Pro.Chancellor. PES University, Bengaluru	Member
Sri B. Y. Vijayendra	Joint Treasurer, PES Trust (R), Shivamogga	Member
Smt. S. Y. Arunadevi	Joint Secretary, PESITM & Trustee	Member
Smt. S. Y. Umadevi	Industry Executive	Member
Smt. Tejaswini Raghavendra	Trustee	Member
Dr. S. S. Gupta	Director, Rajiv Gandhi Institute for Steel Technology, JSW steels, Bellary, Karnataka.	Member
Dr. M R Shivakumar.	Principal, SRSIT, Bangalore	VTU Nominee Member
Dr. G P Prabhukumar	Emeritus Professor New Horizon College of Engineering, Bangalore	Member
Dr. L S Nandeesh	Professor of Chemistry, Academic Director and NAAC Consultant (Sri Jagadguru Renukacharya Education Society, Bangalore)	Member
Prof. Dr. R. Nagaraja	Chief Coordinator – Administration, PES Trust (R), Shivamogga	Member
Dr. Prasanna Kumar H.R	HOD & Professor PESITM, Shivamogga	Member
Dr. Chaitanya Kumar M V	Principal PESITM, Shivamogga	Member Secretary

Major Responsibilities of the Governing Council

- To uphold the legal stature of the college in view of AICTE, UGC, State Government and affiliating University (VTU) or any other body or agency.
- To take decisions regarding the intake and addition or discontinuation of any program accordingly recommending the Principal to take formal steps with the affiliating body to put this into action. Fix the fee structure and any charges applicable in accordance with the recommendation of administrative bodies and the prescribed fee structure of affiliating university.
- Extension, Renovation or Procurement plans recommended by Core Committee. Decide the promotions or penalties as recommended by the Academic Committee. Approve the budget and recommend necessary corrections.
- Nominate and constitute other central committees for smooth discharge of responsibilities

Powers and Functions of the Governing Council

The Governing Council shall exercise powers and discharge the functions as follows:

- Ensure proper management& maintenance of the institution in relation to land, infrastructure, equipment, and funds, including loans and grants received from AICTE, Central Government and Government of Karnataka. Ensure compliance with norms and standards prescribed by the Government of Karnataka and affiliating University.
- To ensure implementation of provision of acts, instructions, rules, and regulations prescribed by AICTE and Government of Karnataka in matters of service conditions of the staff relating to appointment, leave Provident Fund, age of retirement and disciplinary actions.
- To submit reports and returns from time to time to AICTE, Government of Karnataka and affiliating University. Create a peaceful and favorable atmosphere for study free from ragging.

Powers and Functions of Chairperson of Governing Council

- The Chairperson shall ensure that the Governing Council is functioning properly to meet the desired deliverables. In the event of taking a vote on any decision and if a tie occurs, then the decision of Chairperson shall be final.
- The Chairperson shall ensure that the decisions taken in the Governing Council meeting are implemented by Member Secretary.

·Powers and Functions of Member Secretary of Governing Council

- Principal of the institution, by default, is the Member Secretary of the Governing Council.
- Member Secretary executes the decisions taken in the Governing Council on behalf of the Governing Council.
- He would take correspondence on behalf of the Governing Council meeting in relation to the decisions taken in it and get it confirmed by the Chairperson and members present. With confirmation, the proceedings would be forwarded to AICTE, Government of Karnataka and affiliating University.
- He will exercise powers and functions as maybe imposed and assigned by the Governing Council from time to time.
- The Member Secretary would issue appointment letters to the staff selected by the Recruitment Committee after the approval from the sponsoring trust and the Governing Council of the institute.

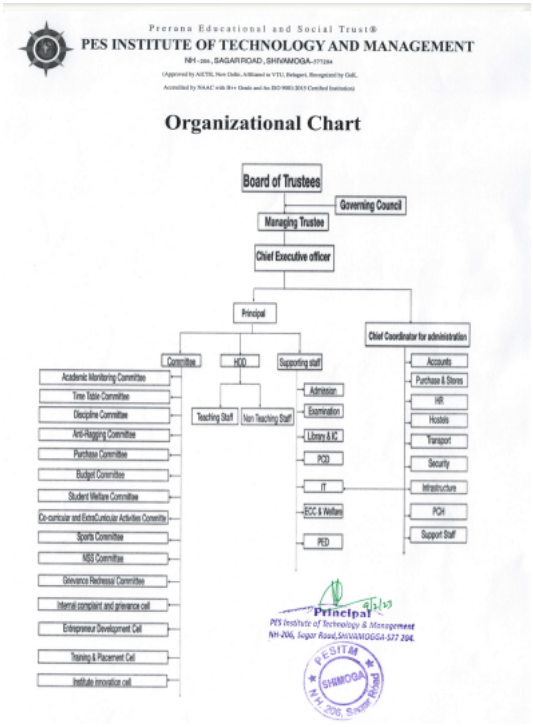


Fig 10.1: Organizational Chart

Functions of key administrative positions

Administrative Position	Functions
Principal	• He functions as the Head of the Institution and is the Member. Secretary of the GC. • He is responsible for the overall development of the Institution. • Ensure the attainment of the vision of the Institution through strategic mission. • Define quality policy and objectives. • Define & delegate responsibilities of various positions in the organization. • He is the final authority for all academic, admission, administrative, co. curricular and extracurricular, research, placement, innovation, • Resource mobilization, planning and development, recruitment. • He also coordinate the needs of meeting statutory and regulatory • Requirements of the government (AICTE, UGC, DTE) and University (VTU). • He channelizes the growth and benchmarking activities of accreditation (NBA/NAAC) and affiliation (VTU) processes for the institute. • He is the single point contact (SPC) for external bodies (industries, Academia, regulators, institutions/organizations, companies) and also for stakeholders: industries, parents, and alumni.

Administrative Position	Functions
Head of Departments	• He / She is the functional and administrative head of the concerned department. He/she ensures the smooth running of the concerned department by laying goals and milestones of the department. Vision and Mission statements too are chalked out for streamlining all further actions. • HOD builds and leads the team of required numbers of faculty members • The HOD ensures planning, execution, troubleshooting of all academic activities (theory and lab classes), examination (CIE)along with supporting smooth • Conduction of VTU examinations, research and publication, projects and developmental activities. • He/she coordinates intra institutional Communicational roles. • HOD plans and organizes events (conferences, seminars, workshops, and training) and conducts industrial visits and guest lecturers for the benefit of dept. (students and faculty members). • He/she organizes meetings with stakeholders (particularly parents) in the form of PTM. • Develop Calendar of events, Timetables for each section/semester, Upkeep and maintain records of the department, maintain laboratories and assets, assign duties and monitor faculty performance, verifies faculty appraisal, benchmark the growth parameters, monitor mentoring of students by the mentors (faculty team), identify and execute action on departmental needs, develop team towards audits and • Compliance, monitor R&D and project activities of the department, ensure up. keeping of departmental library, lead team towards publications and IP, and seek MOUs from related industries. • He/she renders all support to the Principal. • He/she encourages and motivates the team to contribute to the positive growth of the department, in turn, the institution.
Head Training & Placements	• Head T & P is solely responsible for planning, connecting, organizing, culminating all activities leading to the placement needs of the graduating students. • He develops and nurtures contacts/connects with industries/companies/ organizations/alumni database in view of placement needs. • He ensures the smooth coordination with various stakeholders required for the process of placement. • He initiates the process of feedback collection from the visiting • Companies/organizations for offering placement and shares with concerned departments for better understanding and possible improvements in the subsequent sessions/years. • He coordinates activities for pool.in placement drives. Facilitate career guidance to the students. • He significantly contributes to building the brand value of the institution.
I/C Library	• The Librarian is responsible for the resources of the Library and Information Centre comprising of assets in both hard and soft forms. • The associated duties are: • He envisages the plans, initiates actions for addressing all possible needs of primary stakeholders . students, teachers and research scholars (via identifying and ordering books, reference material, journals, online resources, issue of resources and maintenance of records). • He with his team undertakes series of tasks towards optimal utilization and for maintenance of the library. • Maintain library discipline and culture. Prepare annual budget for library • Proposing an annual budget.
Director Physical Education	• Creation and upkeep of sports facilities. Purchasing of sport items. • Conduct training camps. • Ensure the smooth conduct of sports. • Encourage students to participate in regional / zonal / VTU tournaments.

The service rules, policies and procedures are available in every department and is also upload on our institute website. The same can be obtained at : https://pestrust.edu.in/pesitm/service-rules/

Awareness about the service rules, policies and procedures is being communicated by HR and Head of the department at the time of joining.

10.1.3 Decentralization in working and grievanceredressal mechanism (10) Institute Marks : 10.00

Majority of the decisions within the department are made by the respective heads of the departments.

Sl. No.	Name	Head of Department
1.	Dr. Arjun U.	Computer Science & Engineering
2.	Dr. Hiremath M. N.	Civil Engineering
3.	Dr. Om Prakash Yadav	Electrical and Electronics Engineering
4.	Dr. Madhavi M	Electronics and Communication Engineering
5.	Dr. Prasanna Kumar H. R.	Information Science & Engineering
6.	Dr. Girisha L	Mechanical Engineering
7.	Dr. Prasanna Kumar T M	MBA
8.	Dr. Likewin Thomas	AI and ML
9.	Dr. Aveesh S T	First Year/Basic Sciences

A number of committees are present in the college that is formed taking into the considerations of the stakeholders. There is diversification that ensures that the committees address any issues faced by the stake holders and also aims for the improvements under the purview of the respective committees.

Academic Monitoring Committee (AMC)

AMC is centralized (Institute level) committee responsible for regulatory and implementing different Academic activities in PESITM, Shivamogga. It is meant for smooth and uniform conduction of Academics throughout the Institute. It is constituted on 6th July 2016. Committee hierarchy ; AMC is headed by Academic head along with department coordinators. The representative from each department acting as Departmental Academic coordinators and they are the members of AMC. All coordinators are involved in monitoring process. Class teachers and teacher guardians (mentor) are pillars of AMC. All teachers are responsible for implementing the same.

Objectives:

1. To restructure, review and monitor the educational process of all the programmes.
2. To ensure that the program not only remains competitive, but also relevant to the present context so has to enhance the emerging and contemporary issue.
3. To take consistent efforts to blind the industry expectation and Academic curriculum.
4. To introduce innovation and creative ways in imparting knowledge and skill sets to promote Academic excellence.
5. To ensure overall grooming of entrepreneurial and managerial skill sets of students.

Functions of AMC:

1. The program of the courage of the syllabus of each class.
2. The overall attendance of the students of each class.
3. Result analysis at the end of each semester.
4. Ensuring the adherence to the dates mentioned in the academic calendar for conducting various activities by each department.
5. The mentoring of the students of each class.
6. Compliance of previous meeting remarks.

Roles and Responsibilities:

1. The AMC thoroughly works on designing the educational process.
2. It continuously reviews and monitors the process keeping in view the emerging needs and expectations of the industry.
3. The AMC along with the strength of the faculty members continuously works on updating and restructuring the innovative skill sets for promoting academic excellence.
4. To do departmental faculty academic pre-preparation and generate verification report.
5. To conduct monthly audit of course delicacy monitoring and submit report to HOD.
6. To conduct midterm academic monitoring and submit report to HOD.
7. To conduct end term academic monitoring and submit report to HOD.
8. To maintain departmental academic file.
9. To prepare departmental academic calendar.
10. To make sure that daily attendance report of each class is filled properly before submitting.
11. To maintain work of class teacher and teacher for smooth conduction of academics.
12. To conduct departmental audit per semester.
13. To conduct interdepartmental audit per semester.
14. To observe lecture condition of faculty member along with senior faculty members.
15. To held discussion on CBCS scheme and outcome based education (O.B.E).

Sl No	Faculty Name	Dept	Role
1	Dr. Madhavi.M.	ECE	Chairperson
2	Dr. Girisha L Associate Professor,	ME	Member

3	Mr. Rakesh M K Assistant Professor,	CV	Member
4	Mr. Amit Kumar K Assistant Professor,	ISE	Member
5	Ms. Manasa B	EEE	Member
6	Dr. Chethan L S	CSE	Member. Convener

Meetings of Academic Monitoring Committee

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2022-23	19.08.2022	6	Nil
	29.09.2021	9	Nil
2021-22	24.03.2021	9	Nil
2020-21	29.03.2021	8	01
2020-21	**02-06-2020**	**9**	**Nil**

B. Time Table Committee

Sl. No.	Faculty Name	Department Name	Role
1	**Dr. Aveesh S.T**	**Basic Science & Humanities**	**Chairman**
2	Mrs. Shruthi S	EEE	Member
3	Mr. Sunil Kumar R A	CV	Member
4	Mr. Nithin H.V	ECE	Member
5	Mr.Pramod V Rampur	ECE	Member
6	Mr. Devaraj F V	CSE	Member
7	Dr. Arjun U	ISE	Member
8	Ms. Rashmi H S	Basic Science & Humanities	Member
9	Mr. Arjun J	MBA	Member

Roles & Responsibilities of Time Table Committee

- Consultation with principal and head of the departments for preparation of the timetable for each semester and for each class.
- To conduct timetable committee meeting with timetable committee departmental in- charges.
- To update timetable time to time
- To Inform teachers well in advanced regarding changes in time table.
- To report to principal & HOD regarding any discrepancy in time table.
-

Meetings of Time Table Committee

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2022-23	13.08.2022	**9**	Nil
2021-22	**07.09.2021**	**8**	**Nil**

	02.04.2021	**8**	**Nil**
2020-21	**15.12.2020**	**8**	**Nil**

C. Discipline Committee

Sl. No.	Faculty Name	Department Name	Role
1	**Dr.Girisha L**	**ME**	**Chairman**
2	Dr. M.N. Hiremath	CV	Member
3	Dr.MadhaviMallam	ECE	Member
4	Dr.Sendhil G	PED	Member
5	Mrs.Yagnodbavi H. M.	CV	Member
6	Mr.Mahantesh	MBA.4th Semester	Student Member
7	Ms.Akshatha M.A	ECE.6th Semester	Student Member

Roles & Responsibilities of Discipline Committee

- To maintain and enforce strict discipline within the college campus. All the students should wear their ID Cards while they are in the campus and their respective class rooms. In case of any violation of dress code or disturbance in the class, the ID card will be confiscated from the student which will be handed over to the student on the same day with a warning and advice from the Disciplinary Committee Members.
- In case of any misbehavior or violation of the college rules, the ID cards of the students will be kept with the Disciplinary Committee Members till the enquiry is over.
- To enforce total prohibition of cell phone usage by the students within the college campus. Please note that cell phone is prohibited in the college campus and if a student is found carrying a cell phone, it will be taken away and handed over to the Principal.
- To monitor the movement of the students in the college and prevent students loitering around in the corridors during the college working hours.
- To ensure that all the students attend classes without bunking and prevent them from leaving the college early. Please note that no student can leave the college early without prior permission from the concerned authorities. Smoking is strictly prohibited in the college campus and ensures that this is being strictly followed.
- To ensure that students maintain complete silence in the library.
- To maintain proper discipline in the college canteen and student common boys/girl resting room during the college working hours. If any damage is caused to the college property by any student / group of students, the cost of the same will be recovered with a fine from the said student / group of this will be followed by disciplinary action. If any indiscipline is found by any of the students, warn them on the first instance. Take disciplinary action based on the rules and regulations of the committee, if the pattern of misconduct continues. Submit the enquiry report of any incidents/issues after conducting a committee meeting.

Meetings of Discipline Committee

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2022-23	**14.01.2023**	**5**	**4**
	02.11.2022	**4**	**5**
2021-22	**02.08.2022**	**7**	**2**
	02.06.2022	**6**	**3**
2020-21	**22. 04. 2021**	**9**	**Nil**
	28.08. 2020	**8**	**01**

D. Anti-Ragging Committee

Sl. No.	Faculty Name	Department Name	Role
1	**Dr. Chaitanya Kumar M V**	**Principal**	**Chairman**
2	Dr. Prasanna Kumar H R	HOD.ISE	Member
3	Dr. M.N. Hiremath	HOD.CV	Member
4	Dr. Arjun U	HOD.CSE	Member
5	Dr. Prasanna Kumar T M	HOD.MBA	Member
7	Ms. Kalpana	Assistant Professor .EEE	Member
8	Dr. Girish.L.	HOD.ME	Member
9	Dr. Devananda S N	HOD.ECE	Member
10	Mr. Pramod V Rampur	Assistant Professor.ECE	Member
11	Dr. Om PrakashYadav	HOD.EEE	Member
12	Dr. Aveesh S T	HOD.MATHS	Member
13	Dr. Umeshaiah m	Associate Professor.MATHS	Member
13	Dr. PramodPai	HOD.Physics	Member

15	Dr. Praveen Kumar C M	HOD.Chemistry	Member
16	Mr. Kaleemulla	Police, ThungaNagara	Invited.Member
17	Mr. Thippesh	Warden	Member
18	Mrs. Sridevi	Warden	Member
19	Mr. RajuBaliger	MBA	Student Member
20	Ms. Yashodha	MBA	Student Member

Roles & Responsibilities of Anti-Ragging Committee

- Preventing the menace of ragging in the college and making the camp us Zero Ragging Zone.
- Ensure anti-ragging instructions are displayed at prominent places in college campus and hostels.
- To make surprise raids in the college, hostels and other vulnerable places where students generally visit and where either the incidents of ragging have occurred or which are potentially prone to ragging.
- To conduct an on-the-spot enquiry into any incident of ragging referred to it by any
- member of the committee or any faculty as the case may be.
- If any such above incidents are observed, take immediate action to prevent the same and report the same to the Principal without any delay

Meetings of Anti-Ragging Committee

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2022-23	28.06.2022	20	Nil
2021-22	13.01.2022	15	Nil
2020-21	11.1.2021	14	Nil

E. Co-curricular and Extra-Curricular Activities Committee

Sl. No.	Faculty Name	Department Name	Committee
1	**Dr. Om PrakashYadav**	**Associate Professor** **EEE**	**Chairman**
2	Mr. Puneeth B H	Assistant Professor CSE	Member
3	Mr. Shivayogappa HJ	Assistant Professor ECE	Member
4	Ms. DeekshaKamath	Assistant Professor Basic Science & Humanities	Member Convenor
5	Mr. Vinay S K	Assistant Professor ISE	Member
6	Ms. Manasa B	Assistant Professor EEE	Member
7	Ms. Ramya C R	Assistant Professor ME	Member
8	Mr. Arvind Mallik D M	Assistant Professor MBA	Member
9	Mr. Sanjay S J	Assistant Professor CV	Member

Roles & Responsibilities of Co-curricular and Extra-Curricular Activities Committee

- The Cultural Committee shall be responsible for all intra and inter collegiate cultural events in the Institute.
- To plan and schedule cultural events for the academic year.
- The Convener of the committee shall conduct a meeting of the committee to discuss and delegate tasks.
- To prepare the Annual Budget for various cultural events.

- Motivating students to participate in cultural events organized at College, University, National and International levels. Organizing cultural events for staff members
-

Meetings of Co-curricular and Extra-Curricular Activities Committee

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2022-23	07.11.2022	9	Nil
	20.10.2022	9	Nil
	03.09.2022	9	Nil
	29.07.2022	8	1
	25.05.2022	11	02
2021-22	11.04.2022	10	01
	30.09.1021	10	Nil
	16.02.2021	10	Nil
2020-21	27.01.2021	9	1
	20.01.2021	10	Nil

F. Sports Committee

Sl. No.	Name	Designation
1	**Dr. M.N.Hiremath**	**Prof &HOD-CV**
2	Dr. Sendhil.G.	Physical Director -PED
3	Dr. Mohan Kumar	Assistant Professor -Basic Science & Humanities
4	Mr. Hemanth Kumar	Assistant Professor MBA
5	Mr.Sanjay	Assistant Professor-CV
6	Mr. Shivayogappa	Assistant Professor-ECE
7	Mr. Ajey C.P	Assistant Professor – ME
8	Mr. Kiran M R	Assistant Professor-EEE
9	Mr Ranjan	Assistant Professor-CSE
10	Ms. Vani	Assistant Professor-ISE

Roles & Responsibilities of Sports Committee

- To provide an environment for physical development of the students. To develop team spirit among the students.
- To provide opportunity for the students to showcase their talent in sports.
- To promote sportsmanship among students by organizing various sports activities. Organizing various indoor and outdoor games during sports week.
- Motivating students to participate in sports events organized at University, national and international levels. Organizing sports events for staff members.

Meetings of Sports Committee

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2022-23	**10.01.2023**	**10**	**10**
2021-22	**24.05.2022**	**10**	**10**
2020-21	23-01-2020	09	Nil
	01-08-2019	09	Nil

G. NSS Committee

Sl. No	Name	Department Name	Role

1	Dr. Chaitanya Kumar M V	Principal, PESITM	**Chairman**
2	Mr. Prasanna Nayak H	Assistant Professor ME	**NSS Officer**
3	Mr. Tharanatha .H.	Assistant Professor ME	**Member**
4	Mr. Puneeth B H,	Assistant Professor CSE	**Member**
5	Mr. Amshith Kumar,	Assistant Professor CV	**Member**
6	Mr. Ramesh D.	Assistant Professor ISE	**Member**
7	Mr. Nithin H V,	Assistant Professor ECE	**Member**
8	Mr. Shantveeresh,	Assistant Professor EEE	**Member**
9	Mr. Arjun J	Assistant Professor MBA	**Member**
10	Mrs. DeekshaKamath	Assistant Professor Basic Science.	**Member**
11	Mr. Dhanush – Civil 6th Semester	**CV**	**St. Member**
12	Mr. Bipin Chandra – ECE 6thSemester	**ECE**	**St. Member**

Roles & Responsibilities of NSS Committee

i. Develop a sense of social and civic responsibility among students.
ii. Utilize student's knowledge in finding practical solution to individual and community problems. Acquire leadership qualities and democratic attitude.
iii. Develop community service attitude during emergencies and natural disasters.

Meetings of NSS Committee

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2022-23	13.01.2023	9	Nil
	20.12.2022	9	Nil
	26.09.2022	9	Nil
	08.08.2022	9	Nil
	01.06.2022	9	Nil
2021-22	23.05.2022	9	Nil
	19.02.2022	9	Nil
	10.12.2021	9	Nil
	06.10.2021	9	Nil
2020-21	22-02-2021	8	1
	10-02-2021	8	1

H. Grievance Redressal Committee

Grievance Redressal Committee is constituted as per AICTE regulations. The committee shall meet within a week from the date of receipt of any petition/complaint from any student and take necessary action as deem fit and initiate necessary action for solving problem.

Sl. No.	Faculty Name	Department Name	Role
1	Dr. Chaitanya Kumar M V	Principal	Chairman

2	Dr. Prasanna Kumar T M	HOD . MBA	Member
3	Ms. Prathiba S	Assistant Professor.CSE	Member
4	Ms. Yajnodbhavi H M	Assistant Professor . CV	Member
5	Dr. Praveen Kumar C M	Assistant Professor Basic Science & Humanities	Member Convener

Mechanism for redressing grievance

- The departmental level grievances are attended by the concerned Class Coordinators, Mentors / or Department Heads. Unresolved grievances at the departmental level are referred to the Grievance Redressal Committee of the institution.
- The committee shall send report with recommendations to all concerned within 15 days from the date of receipt of the complaint

Note: Student can register complaint through online using college website.

Roles & Responsibilities of Grievance Redressal Committee

i. To resolve student grievances related to both academic as well as non-academic matters. To ensure there is no bias or prejudices while dealing with students
ii. To promote and establish transparent practices related to students To create a conducive environment for learning

Meetings Grievance Redressal Committee

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2022-23	28.06.2022	05	Nil
2021-22	23.03.2022	05	Nil
	28.10.2022	05	Nil
2020-21	28.08.2021	06	Nil
	09.08.2021	06	Nil
	09.03.2021	06	Nil
	02.03.2021	06	Nil
	28.08.2020	06	Nil
	25.08.2020	06	Nil

I. Anti-Sexual harassment Committee

Sl. No.	Faculty Name	Department Name	Committee
1	Dr. Sunitha B S	CSE	**Chairman**
2	Dr. Om PrakashYadav	EEE	Member
3	Ms. YojanaYadav	ECE	Member
4	Ms. Vani G S	ISE	Member
5	Ms. Shyamala S.C	ECE	Member
7	Ms. Roopa C P	Basic Science & Humanities	Member
8	Mr. Devaraj F V	CSE	Member
9	Ms. Neetha H M	EEE	Member

Roles & Responsibilities Anti-Sexual harassment Committee

i. Prevent discrimination and sexual harassment against women (active and preventive in nature) in the campus, hostel and college premises by promoting gender amity among students.
ii. Prevention of sexual harassment to ensure safe learning environment for girl students.
iii. To ensure provision of an educational environment that is free from sexual harassment.
iv. To address any oral, written or online complaint at WECARE about sexual harassment. Sexual harassment includes oral or written statements of a sexual nature to a person, or in a person's presence.
v. Aiming at ensuring support services to the victimized and termination of the harassment. If any such incidents occur / found, report the same to the Principal immediately.

Meetings Anti-Sexual harassment Committee

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2022-23	03.08.2022	12	Nil

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2021-22	02.03.2022	14	Nil
	26.02.2022	14	Nil
	01.09.2021	10	Nil
	18.08.2021	09	Nil
	18.01.2021	9	Nil
2020-21	17-08-2021	10	Nil
	15-01-2021	6	Nil
	14-09-2020	6	Nil

J. Entrepreneur Development Cell (EDC)

Sl. No.	Faculty Name	Department Name	Role
1	Dr. Prasanna Kumar T.M	Prof & HOD , MBA	Chairman
2	Ms. Ramya C R	Assistant Professor.ME	Member
3	Mr. Amshith Kumar M.J	Assistant Professor.CV	Member
4	Dr. Ashok R Banagar	Assistant Professor.ME	Member.Convener
5	Ms. Akshatha D.P	Assistant Professor.CV	Member
6	Mr. Shanthveersh N.S	Assistant Professor.EEE	Member
7	Mr. Vishnu V.M.	Assistant Professor, ECE	Member
8	Dr. Likewin Thomas	Associate Professor, CSE	Member
9	Dr. Pramod	Associate Professor, ISE	Member
10	Mr. Aravind Mallik	Assistant Professor, MBA	Member
11	Mr.MalteshKumar Deshpande	Assistant Professor, ME	Member
11	Dr. Rudresha S J	Associate Professor, EEE	Member

Roles & Responsibilities of Entrepreneur Development Cell

i. To create an entrepreneurship eco-system in the institute, where students would learn the technicalities of entrepreneurship and become job providers instead of job seekers. To be in continuous contact with District Industry Officer, KSFC and other Government and private nodal agencies.

ii. To arrange lectures on establishment of new start-ups, MSM enterprises. Strive to establish an incubation centre with Governmental funding.

iii. Create a strong network of mentors who would provide sector specific knowledge & real world practical guidance. To arrange Entrepreneurship training programs, conduct events and inspirational programs.

iv. Build a strong team with adequate knowledge and experience in guiding start-ups, building business plans, facilitating investments, building networks, etc.

Meetings of Entrepreneur Development Cell

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2022-23	**10.11.2022**	**11**	**Nil**
	25.08.2022	**10**	**01**
	11.08.2022	**08**	**03**
	22.04.2022	**09**	**02**
2021-22	**22.02. 2022**	**10**	**01**
	12.11.2021	**09**	**02**
	06.08.2021	**11**	**Nil**
2020-21	09.01.2020	08	Nil

K. Training & Placement Cell

Sl. No.	Faculty Name	Department Name	Role
1	Dr. Prasanna Kumar T M	HOD.MBA & CDC	Chairman
1	Ms. Kalpana S	Assistant Professor.EEE	Member
2	Mr. Ranjan V	Assistant Professor.CSE	Member
3	Mr. Rakesh M K	Assistant Professor.CV	Member
4	Ms. Yojana Yadav	Assistant Professor.ECE	Member
5	Dr. Arjun U	Associate Professor, CSE	Member
6	Dr. Ashok Banagar	Assistant Professor, ME	Member
7	Mr. Arjun J.	Assistant Professor,MBA	Member
8	Mrs. Aruna A	Manager.CDC	Member

Roles & Responsibilities of Training & Placement Cell

i. To review the Training & Placement Performance of every outgoing batch of Graduates.
ii. To understand the Industry Specific Skills and being aware of trending technologies with respect every specialization. To analyze the academic performances of students and orient students about eligibility criteria of Companies.
iii. To ensure maximum student participation in all Training & development initiatives.
iv. To facilitate Internships, Guest talks, Industry Specific Workshops, Academic Projects,
v. Industry initiatives and campus recruitment drives. To maintain connectivity with all campus recruited students for mentoring and training programs.

Meetings of Training & Placement Cell

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2022-23	15.12.2022	12	Nil
	17.10.2022	12	Nil
	19.09.2022	12	Nil
2021-22	08.04.2022	12	02
	07.01.2022	09	05
	08.12.2021	11	03
	24-06-2021	8	01
	16-04-2021	9	Nil
2020-21	24-03-2021	8	01
	13-02-2021	8	01
	01-02-2021	8	01
	09-01-2021	9	Nil
	23-11-2020	9	Nil
	27-10-2020	8	01

L. Purchase Committee

Sl. No.	Designation	Name of the Person	Position
1	CCA, PES Trust (R) &	Dr. Nagaraja R	Chairman (Authorized to sign POs)
2	Principal, PESITM		Member (Authorized to sign POs)
3	Head /Section Head of the concerned Dept		Member
4	Senior Professor, of the concerned Dept		Member
5	Assistant Professor Dept. of Civil Engg.	Mr. Nandan N Shenoy	Member Secretary

Roles & Responsibilities of Purchase Committee

i. To scrutinize requisitions for equipment of various departments and decide upon the necessity of purchasing the equipment, keeping in view the requirements specified by the University, AICTE, NBA, NAAC, GOI, GOK etc.
ii. To coordinate all the purchases of various Departments and ensure the procurement of required items as per schedule
iii. To call and scrutinize tenders/ quotations for items of purchase, with the help of department. To ensure that the supplies/services quoted for comply with what was requested.
iv. To carry out discussions and negotiations with suppliers and procure the best quality items with competitive price.
v. To seek clarification from suppliers/service providers wherever necessary. To finalize the terms and conditions in the purchase order.
vi. To forward the negotiated /finalized quote for approval of the management through
vii. To arrange for sending the purchase order, inspection and acceptance/ rejection of the equipment received, with the help of department.
viii. To communicate the decision of the Committee to concerned department. Normally frequency of the CPC meeting should be once in 15 days; whereas in case of urgency and necessity CPC can meet as and when required.
ix. If the value of the purchase falls lesser than Rs 10,000/- (Ten Thousand Rupees), Purchase section/Dept with the consent of the chairman may proceed with purchasing the indented items directly without the approval of the Purchase committee.

M. Budget Committee

Sl #	Names	Designation /Department	Committee
1	**Smt. Uma Devi S Y**	**CEO**	**Chairperson**
2	Dr. Nagaraja R	CCA	Member
3	Dr. Chaitanya Kumar M V	Principal	Member
4	All HODS	ECE	Member
		EEE	Member
		MV	Member
		CV	Member
		ISE	Member
		CSE	Member
		Ist Year Basic Science & Humanities	Member
5	Mr. Raghavendra N.M	Accounts Manager	Member
6	Dr. NandanShenoy	CV	Member Secretary

Roles & Responsibilities of Budget Committee

i. Ensuring that the financial elements of the institution are in accordance with its vision, mission, objectives and strategic plan.
ii. To assist PES Trust in fulfilling its fiduciary responsibility.
iii. To protect the organization from legal challenges and liabilities.
iv. To guard the organization against illegal, unethical, or incompetent activities by fiscal managers.
v. To protect the organization from actual or apparent conflict of interest. To act as an advisory panel to the financial operations.
vi. To evaluate both the financial operations and the people in charge of it meticulously.
vii. To be vigilant of illegal, unethical, or incompetent financial dealings engaged in by individuals or groups that the organization deals with, or financial arrangements that may harm the organization.
viii. Participating in the annual audit and carry out meticulous pre-audit checks. Evaluating PESITM's fiscal operations, and those in charge of it.
ix. Reporting to the board of trustees about the financial conditions of PESITM, and/or any financial irregularities or inefficiencies regularly.
x. To evaluate and approve budget of the programs, activities, conferences, FDPs, SDPs, Workshops, Symposiums and/or any other academic, curricular and co-curricular, any other events of PESITM. Examine and scrutinize the annual budget of the Institute prepared by the principal and make suggestions and recommendations.
xi. To take up any other activity/responsibility as assigned by the Managing Trustee from time to time.

Meetings of Budget Committee

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2022-23	10.02.2022	14	01
2021-22	08.02.2021	14	01
2020 - 21	04.02.2020	15	Nil
2019- 20	18.02.2019	15	Nil

N. Student Welfare Committee

Roles & Responsibilities of Student Welfare Committee

i. Addressing the students regarding issues with facilities available in the college. Addressing the issues regarding Ragging in the campus.
ii. Giving awareness to students regarding various scholarship schemes.
iii. Giving awareness about reporting issues through website link (we care), email to student welfare process, suggestion box
iv. Conducting the meeting at least two times in a year to resolve the student's issues and taking necessary actions. Meeting can be called as and when required, depending upon the seriousness of the issue. If any issues found, immediately report to the Principal.

Sl. No.	Faculty Name	Department Name	Committee
1	Dr. Prasanna Kumar H R	HOD, ISE	Chairman
2	Ms. Roopa C P	Assistant Professor Basic Science & Humanities	Member
3	Ms. Jyothi G H	Assistant Professor ,MBA	Member
4	Mr. Yogeesha G	Assistant Professor ,ECE	Member
5	Mr. Rudresh N C	Associate Professor, ISE	Member
6	Mr. Manjunatha Prabhu P	Assistant Professor,.EEE	Member

Meetings of Student Welfare Committee

Academic Year	Date of Meeting	No. of Members Attended	No. of Members Absent
2022-23	28.11.2022	6	Nil
2021-22	28.11.2022	08	Nil
2020-21	27-01-2020	07	1

10.1.4 Delegation of financial powers (10) Institute Marks : 10.00

Preparation of the budget is very important for running any departments. Every department at PESITM prepares a budget before the commencement of the academic year. Department Heads, with Senior Professors give the requisition to the Principal with regard to stationery, lab requirements, etc, for which budget allocations are approved by the Principal in discussion with the Management. Also, every Department Head is expected to give separate budget for FDPs, SDPs and any other activities planned by the department to Principal for approval.

Key administrative personnel are empowered to take decision with regard to spending money for any important operational purpose and the table given below outline financial powers for these personnel.

Sl. No.	Designation	Financial Power (in Rs.)
1	Chief Coordinator – Administration (CCA)	1,00,000.00
2	Principal	50,000.00
3	Head of Departments	25,000.00

10.1.5 Transparency and availability of correct/unambiguous information in public domain (5) Institute Marks : 5.00

Information of PESITM Policies, Rules, Processes and Dissemination made available to the public on the college website. The URL is https://pestrust.edu.in/pesitm/service-rules/

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (30) Total Marks 30.00

10.2.2 Utilization of allocated funds (15)

Institute Marks : 15.00

The allocated funds are utilized properly and are adequate as per the Academic requirements. The budget funds are utilized on priority basis as per the requirements of each department, based on availability of funds. However, all recurring and non- recurring expenditure of departments is met in full (including salaries, lab consumables etc).

Year	Total budget (in Lakhs)		Actual Expenditure (in Lakhs)	
	Non recurring	Recurring	Non recurring	Recurring
2021-22	325.00	1025.9	170.78	998.90
2020-21	490.00	1335.46	146.36	890.31
2019-20	565.10	1237.67	490.07	1047.33

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

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3
CFY : (Current Financial Year),
CFYm1 : (Current Financial Year minus 1),
CFYm2 : (Current Financial Year minus 2) and
CFYm3 : (Current Financial Year minus 3)

Table 1 - CFY 2022-23

Total Income 204196868				Actual expenditure(till…): 71133411			Total No. Of Students 2019
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
204196868	0	0	0	71133411	0	0	35232.00

Table 2 - CFYm1 2021-22

Total Income 205075594				Actual expenditure(till…): 116968424			Total No. Of Students 1886
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
201782549	0	0	3293045	99889940	17078484	0	62019.31

Table 3 - CFYm2 2020-21

Total Income 194217139.47				Actual expenditure(till…): 103666615.77			Total No. Of Students 2034
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
190929788	0	1600000	1687351.47	89030963.01	14635652.76	0	50966.87

Table 4 - CFYm3 2019-20

Total Income 183106339.72				Actual expenditure(till…): 153739780.89			Total No. Of Students 2046
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
180745209	0	200000	2161130.72	104732874.11	49006906.78	0	75141.63

Items	Budgeted in 2022-23	Actual Expenses in 2022-23 till	Budgeted in 2021-22	Actual Expenses in 2021-22 till	Budgeted in 2020-21	Actual Expenses in 2020-21 till	Budgeted in 2019-20	Actual Expenses in 2019-20 till

Infrastructure Built-Up	13000000	0	25000000.00	11966210.00	40000000	34254518.50	40000000.00	32446560.5
Library	1000000	0	600000.00	490185.00	1215000	913398.00	1350000.00	1249517.00
Laboratory equipment	4000000	0	5500000.00	3387727.00	14510000.00	12832046.00	3800000.00	3564695.50
Laboratory consumables	600000	0	545000.00	518157.00	820000.00	619648.00	960000.00	786085.00
Teaching and non-teaching staff salary	73500000	0	72000000.00	71133411.00	79860000.00	70410056.00	72600000.00	71581873.50
Maintenance and spares	3500000	0	4350000.00	4144675.00	8712000.00	8388964.16	7260000.00	7665672.50
R&D	1000000	0	0	0	0	0	60000.00	46000.00
Training and Travel	200000	0	130000.00	122648.00	5600000.00	1546780.36	5500000.00	2634403.00
	2000000.00	0	2200000.00	2120460.00	7560000.00	4541271.74	12600000.00	11991014.00
Others, specify	20000000	0	23400000.00	23084951.00	22000000.00	20233098.11	22900000.00	20071683.68
Total	**118800000.00**	**0**	**133725000.00**	**116968424.00**	**180277000.00**	**153739780.87**	**167030000.00**	**152037504.68**

10.2.1 Adequacy of budget allocation (10) Institute Marks : 10.00

Before the commencement of every academic year a meeting of all the Heads of departments is convened and budgetary requirement is taken, which includes procurement of new equipment, maintenance/servicing of existing equipment, consumables required, building space and also books required for the library. The detailed plans and estimates are prepared and are discussed in the Governing Council meetings. The budgetary requirements are met through the fees collected from the students and the revenue generated. The budget allocated at the beginning of the financial year is adequate for managing the expenditure during that year. In case of any additional funds required, the management provides the requisite support.

10.2.3 Availability of the audited statements on the institute's website (5) Institute Marks : 5.00

PESITM Financial year 2018-19, 2019-20 and 2020-21 Audit Reports made available on the college website. The URL is https://pestrust.edu.in/pesitm/audit-report/ (https://pestrust.edu.in/pesitm/audit.report/ (https://pestrust.edu.in/pesitm/audit-report/))

10.3 Program Specific Budget Allocation, Utilization (30) Total Marks 30.00

10.3.2 Utilization of allocated funds (20) Institute Marks : 20.00

The allocated funds are utilized properly, and adequate as per the Academic requirements.

Year	Approved Budget	Actual Expenditure	Percentage of utilization
2021-22	192000	98707	51.40%
2020-21	554000	212244	38.31%
2019-20	309000	187468	60.67%

10.3.1 Adequacy of budget allocation (10) Institute Marks : 10.00

The Head of the department instructs the faculties to provide the budget required for the coming academic year. Faculties provides both, recurring and non recurring budget required for the department. Based on the budget requirements by various faculties the a final budget proposal will be prepared by considering :

- Laboratory maintenance and spares/ Laboratory upgradation/ and laboratory miscellaneous expenses
- Departmental activities planned
- Annual intake of students

The budget provided by the institute to the department is adequate t to meet the academic requirements. The budget allocation and utilization for the last four years is adequate.

Institute Marks :

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3
CFY: (Current Financial Year),
CFYm1 : (Current Financial Year minus 1),
CFYm2 : (Current Financial Year minus 2) and
CFYm3 : (Current Financial Year minus 3)

Table 1 :: CFY 2022-23

0		Actual expenditure (till…): 0		Total No. Of Students 0
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
0	0	0	0	0

Table 2 :: CFYm1 2021-22

192000.00		Actual expenditure (till…): 98707.00		Total No. Of Students 219
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
0	1,92,000.00	0	98,707.00	450.72

Table 3 :: CFYm2 2020-21

554000.00		Actual expenditure (till…): 212243.61		Total No. Of Students 231
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1,00,000.00	4,54,000.00	22,988.44	189,255.17	918.80

Table 4 :: CFYm3 2019-20

309000.00		Actual expenditure (till…): 187468.00		Total No. Of Students 241
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
175,000.00	134,000.00	128,733.00	58,735.00	777.88

Items	**Budgeted in 2022-23**	**Actual Expenses in 2022-23 till**	**Budgeted in 2021-22**	**Actual Expenses in 2021-22 till**	**Budgeted in 2020-21**	**Actual Expenses in 2020-21 till**	**Budgeted in 2019-20**	**Actual Expenses in 2019-20 till**
Laboratory equipment	50000.00	0	0	0	100000.00	0	150000.00	107383.00
Software	0	0	0	0	0	0	0	0
Laboratory consumable	100000.00	0	100000.00	64044	300000.00	79299.00	50000.00	28947.00
Maintenance and spares	20000.00	0	50000.00	1900.00	50000.00	46743.00	20000.00	17383.00
R & D	0	0	0	0	0	0	0	0
Training and Travel	45000.00	0	24000	0	24000.00	16000.00	24000	400.00
	35000.00	0	18000.00	32763.00	80000	47213.17	65000.00	33355.00
Total	**250000.00**	**0**	**192000.00**	**98707.00**	**554000.00**	**189255.17**	**309000.00**	**187468.00**

10.4 Library and Internet (20) Total Marks 20.00

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

Institute Marks : 10.00

LIBRARY AND INFORMATION CENTER

The library occupies a place of pride and is most lively place in the campus. It is well-furnished and its pleasant ambience with spacious reading room creates conducive environment to faculty and students and serves as a creative and innovative partner in supporting teaching, learning and research activities of the college.

Relevance of available learning resources including e-resources

Library is contributing to achieve the goal and mission the institution. The collection of the library is rich and diverse comprising both digital and print form. The collection includes books, e-books, Journals (print and electronic), project reports, Conference proceedings etc., Library gives utmost importance to collection development of learning materials. The department heads in consultation with the department faculties recommend the required learning materials to be added to the library. The number of titles and volumes are added every year in accordance with the norms and standards set by VTU and AICTE.

Library Collection:

The rich collection of the library comprises the following resources:

Sl. No.	Learning / Reading Materials	Copies
1	Books (Print)	56,004
2	Books (Electronic)	33,193
3	Journals (print)	76
4	Journals (Electronic)	9956
5	Magazines	10
6	News papers	13
7	CDs/DVDs	498
8	Project reports	457
9	Bound Volumes	201

A campus wide access to various E-resources subscribed to the library through VTU consortium is made through IP enabled access. Any number of users can access to resources at a time. Remote access to the E-resources is provided through KNIMBUS. Users can also access to digital resources through app called mLibrary. Digital library with 16 computers has been established to access E-resources and use NPTEL.

List of Electronic resources subscribed:

Sl. No.	ELECTRONIC RESOURCES	TOTAL RESOURCES	URL to access
1	IEEE	100 Conference proceedings	http://ieeexplore.ieee.org.com/ (http://ieeexplore.ieee.org/)
2	McGraw Hill Education	505 E. Books	http://mcgrawhilleducation.pdn.ipublishcentral.com/ (http://mcgrawhilleducation.pdn.ipublishcentral.com/)
3	MapMyAccess	OA resources: E.Books: 10,000+, E. Journals: 5700+	https://pesit.mapmyaccess.com/ (https://pesit.mapmyaccess.com/)
4	Taylor and Francis (E.Books & Journals)	555 Journals + 4950 E.Books	http://www.tandfonline.com/ (http://www.tandfonline.com/)
5	Springer nature (E.Books & Journals)	690 Journals+ 13000 E.books	https://link.springer.com/ (https://link.springer.com/)
6	Emerald management collection (Journals)	120 JOURNALS	https://www.emeraldinsight.com/ (https://www.emeraldinsight.com/)
7	Pro Quest	4900 Journals	http://www.proquest.com/165290/ (http://www.proquest.com/165290/)
8	EBSCO	E.books	http://search.ebscohost.com/ (http://search.ebscohost.com/)
9	Elsevier – Science direct (CSE)	436 E. Books (Perpetual Access)	https://www.sciencedirect.com/ (https://www.sciencedirect.com/)
10	New Age International	220 E. Books (Perpetual Access)	https://prod.packtpub.com/in/ (https://prod.packtpub.com/in/)

11	Packt E.Books	5002 E. Books (Perpetual Access)	https://prod.packtpub.com/in/ (https://prod.packtpub.com/in/)
12	Sententia Grammar Tool	..	https://sententia.online/ (https://sententia.online/) (https://sententia.online/)
13	Emerald Business Indian Cases (Management)	1000 E.cases	https://www.emerald.com/ (https://www.emeraldinsight.com/)insight/content/case.studies
14	McGraw Hill Education	505 E.Books	http://mcgrawhilleducation.pdn.ipublishcentral.com/ (http://mcgrawhilleducation.pdn.ipublishcentral.com/)
15	Mint Books		http://mintbook.in/ (http://mintbook.in/)

A. Area and Seating Capacity:
Total area of library is 1171.65 m^2 with seating capacity is 120

B. Library hours:

Library is functional on all week days and remains open for 12 hours a day.

C. Working hours of the library

Monday - Friday: 8.00 a.m. to 8.00 p.m.

Saturday: 8.00 a.m. to 5.00p.m.

Sunday: 9.00 a.m. to12.00 p.m.

D. Library staff:

There are 8 library staff working in library in shifts with 4 staff with professional degree

Sl. No.	Name	Designation	Qualification
1	Chandrashekar K. L	Senior Librarian	M.Sc. (lib & Info science), M.Phil, KSET (PhD)
2	Raja A	Assistant Librarian	M.L.I.Sc,
3	Chandrashekar V. M	Assistant Librarian	M.L.I.Sc,
4	Prakash R	Assistant Librarian	M.L.I.Sc,
5	Chetan Kumar S. B	Library Assistant	B.A. (B.L.I. Sc.)
6	Sunanda M C	Library Assistant	ITI
7	Tulasi R	Library Assistant	PUC
8	Uday Kumar K	Library Assistant	SSLC

Library Committee Members:

Sl. No.	Name	Designation
1	Dr. Aveesh S T, Associate Professor, Mathematics	Chairman
2	Dr. Prasanna Kumar H R, Professor & HOD, ISE	Member
3	Mr. Raghavendra, Assistant Professor , CSE	Member
4	Dr. GirishNaik, Associate Professor, CSE	Member
5	Dr. MallikarjunHiremath, Prof. & HOD,CV	Member
6	Mr. Pramod Rampur, Assistant Professor, ECE	Member
7	Mrs. Neetha, Assistant Professor , EEE	Member
8	Mr. ArvindMallik, Assistant Professor , MBA	Member
9	Mr. Shravan Kumar , 2nd semester, CSE Student	St. Member
10	Ms. Apeksha 2nd semester, ISE Student	St. Member
11	Mr. Chandrashekar K L, Senior Librarian	Secretary

Computerization of library activities:

Computerization of library activities is done using LIBSOFT software. All the activities of library viz. Acquisition, cataloguing, circulation (Issue/Return), online public access Catalogue (OPAC). For easy handling of data Barcode technology is also used to barcode learning materials.

Services provided:

Sl. No.	Services	Descriptions
1	Reference	Separate section is available in the first floor of library with the collection of 3500 reference copies
2	Circulation service	Issue and return of books on loan for a period of 14 days
3	Reprography	Photocopy facility is made available inside the library
4	Information deployment and notification (Current Awareness service)	Newly procured books are displayed at the entrance of the library and also the list is hosted on to the library website. E-mail alerts are also sent.
5	Internet Access	Digital library with 16 computers with internet at 10mbps is established for the benefit of users in the library.
6	Bibliography compilation	Bibliographic compilation of Journal articles.
7	In-house/remote access to e-resources	All the subscribed resources are accessible in house via LAN and remote access is provided through Knimbus.
8	User Orientation	Orientation is conducted once in every semester compulsorily and as and when demand placed by users.
9	Assistance in searching database	User will be assisted in searching database in digital library by library staff.
10	Book bank	Book bank facility for all students under which students can borrow 3-4 books for a whole semester and for SC/ST students 2 extra books under SC/ST book bank scheme.
11	Online public Access catalogue(WEB OPAC)	OPAC will provide the bibliographical details of books, Journal articles.
12	Institution Repository	Scholarly publications of faculty members, Old Question papers, Newspaper clippings and other reading materials are also made available for students. Over 6000 items are available.

Support to students for self-learning activates

The Library provides excellent facilities and academic ambience for its users for self-learning activities with following initiatives

- NPTEL (National Programme on Technology Enhanced Learning): Library has established separate NPTEL server to host NPTEL videos which can be accessed via intranet within the campus. One can access the videos in the entire campus without internet. It offers more than 20000 videos of different streams of engineering and Management. These videos serve as a supplement to classroom teaching and learning activities.
- SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds) and MOOC (Massive Open Online Courses): Library has made arrangements for the user to access SWAYAM and MOOC. We encourage students to take online courses.
- E-PG Pathshala: e-PG Pathshala is an initiative of the MHRD under its National Mission on Education through ICT (NME-ICT). Link to e-PG Pathshala is provided to create awareness and to encourage students to take online courses.
- Shodhganga: The Shodhganga@INFLIBNET Centre provides a platform for research students to deposit their Ph.D. theses and make it available to the entire scholarly community in open access. Link to Shodhganga is provided to create awareness and to encourage students to use it.
- Open access resources: Link of many open access resources is provided which helps in self-study of the students.
- National Digital library: Our library has obtained Institutional membership of NDL. We enroll our students and faculty to NDL and encourage to uses Lakhs of resources available freely
- DELNET: Institution is member of DELNET. DELNET offers across to nearly 1.75 crore records of books, periodicals, articles, thesis and dissertations and other databases. Besides this also provides inter library loan and document delivery services all its member libraries.

10.4.2 Internet (10) Institute Marks : 10.00

Name of the Internet provider	BSNL & Sumukha Enterprises
Available band width	5 MBPS & 300 Mbps leased line through optic fiber (1:1 ratio)
WiFi availability	Yes, The Campus is Wi-Fi enabled with 24 Access Points
Internet access in labs, classrooms, library and offices of all Departments	Computer labs are enabled with LAN, and on request basis Internet can be accessed in labs through Ethernet.
Security arrangements	Entire network is protected by SOPHOS XG 750 firewall which has features of gateway antivirus, Intrusion prevention, Antispyware, Application control and content filtering and bandwidth management. Antivirus: Quick Heal Total Security

Annexure I

(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

1. **Engineering Knowledge :** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

(B) PROGRAM SPECIFIC OUTCOME (PSOs)

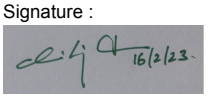
PSO1	Apply the knowledge to have a foundation in theoretical & practical aspects of Electrical & Electronics engineering
PSO2	Ability to model, analyze, design and realize physical systems, components and hands on competence in modern engineering tools to process and adapt them in the field of electrical & electronics engineering
PSO3	Ability to communicate and work professionally in order to take up entrepreneurial activities in the field of electrical & electronics engineering and related areas for the benefit of the society

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 inforce 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 willbe initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, postvisit and subsequent to grant of accreditation.

Head of the Institute
Name : Dr. Chaitanya Kumar M V
Designation : Principal
Signature :



Seal of The Institution :

Place : Shivamogga
Date : 17-02-2023 14:52:53