7 CONTINUOUS IMPROVEMENTS (50)

7.1 Actions taken based on the results of evaluation of each of the POs & PSOs.

POs	Target Level	Attainment Level	Observations
PO1: Engineering Knowledge			
PO1	1.6	2.09	TARGET ATTAINED
In view target being met, the target level is increased by 5% i.e., 2.05. Actions reckoned to meet the higher target: 1. Tutorials shall be conducted to increase the level of comprehension of fundamentals. 2. Active classes shall be encouraged to enhance the level of participation of students in classroom teaching. 3. Experiential learning shall be encouraged by making students to carry out experiments beyond curriculum, to carry out mini projects and to make students participate in theme-based projects.			

POs	Target Level	Attainment Level	Observations
PO2: Problem Analysis			
PO2	1.6	2.00	TARGET ATTAINED
In view target being met, the target level is increased by 5%. Actions reckoned to meet the higher target: 1. More numerical and frequently asked questions of previous year university paper problems will be solved during the regular lectures. 2. Tutorials shall be engaged for mathematical oriented subjects.			

POs	Target Level	Attainment Level	Observations
PO3: Design/development of Solutions			
PO3	1.6	1.90	TARGET ATTAINED
In view target being met, the target level is increased by 5%.			

Actions reckoned to meet the higher target:

Students are encouraged to attend workshops/trainings conducted by academic/industrial experts within and outside the college.

POs	Target Level	Attainment Level	Observations
PO4: Conduct Investigations of Complex Problems			
PO4	1.6	2.12	TARGET ATTAINED

In view target being met, the target level is increased by 5%.

Actions reckoned to meet the higher target:

1. Students will be encouraged to participate in technical paper presentations, Conferences, Paper publications, etc.

2. Innovative teaching methodologies such as flipped classroom, cohort-based learning, seminars by students, etc. shall be implemented.

POs	Target Level	Attainment Level	Observations
PO5: Modern Tool Usage			
PO5	1.6	2.29	TARGET ATTAINED

In view target being met, the target level is increased by 5%.

Actions reckoned to meet the higher target:

1. More practical approach of teaching shall be adopted.

2. Modern tools like MATLAB, Arduino, Xilinx, etc. are used to specify fulfillment of requirement in engineering applications in new industrial era.

POs	Target Level	Attainment Level	Observations
PO6: The Engineer and Society			

PO6	1.6	2.19	TARGET ATTAINED

In view target being met, the target level is increased by 5%.

Actions reckoned to meet the higher target:

To understand the safety concerns and social aspects, students visited industry to enhance their practical knowledge with the improved practices in engineering.

POs	Target Level	Attainment Level	Observations
PO7: Environment and Sustainability			
PO7	1.6	1.97	TARGET ATTAINED

In view target being met, the target level is increased by 5%.

Actions reckoned to meet the higher target:

1. Students shall be encouraged to indulge in projects, in which global and environmental issues are involved, with respect to consumption of energy and utilization of renewable energy resources.
2. NSS cell helps in educating students to inculcate environment sustainable practices.

POs	Target Level	Attainment Level	Observations
PO8: Ethics			
PO8	1.6	1.43	NOT ATTAINED **GAP** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice

Career guidance programs, lectures and talks from industry experts shall be organized.

POs	Target Level	Attainment Level	Observations
PO9: Individual and Team Work			
PO9	1.6	1.59	NOT ATTAINED **GAP** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
1. Students are motivated to participate in curricular, co-curricular and extra-curricular activities. 2. Focus on inter-disciplinary projects and intra-disciplinary projects.			

POs	Target Level	Attainment Level	Observations
PO10: Communication			
PO10	1.6	1.48	NOT ATTAINED **GAP** 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.

1. Soft skills training shall be imparted to students to enhance various aspects by conducting technical talks, group discussions, presentations and other activities. 2. Paper presentation is encouraged to each project team.

POs	Target Level	Attainment Level	Observations
PO11: Project Management and Finance			
PO11	1.6	2.39	TARGET ATTAINED
1. The awareness shall be created among the students regarding the management principles and managing projects. 2. Planned to organize technical talks on Management and Entrepreneurship development skills.			

POs	Target Level	Attainment Level	Observations
PO12: Life-long Learning			
PO12	1.6	1.58	TARGET NOT ATTAINED **GAP** 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.
1. Using of ICT facilities such as PPTs for live demonstration of topic which are imparted using video lectures. 2. Students are educated about Massive Open Online Courses (MOOC's) like NPTEL, Course etc. which gives them lifelong learning ability.			

PSOs Attainment Levels and Actions for Improvement

PSO	Target Level	Attainment Level	Observations
PSO1: To exhibit the ability to design and implement complex systems in the areas of Communication, VLSI, Embedded Systems, Signal Processing and Programming.			
PSO1	1.6	1.82	TARGET ATTAINED
1. More hands-on and tutorials will be conducted for the students to expose them to the recent trends in the field of technology. 2. Students shall be encouraged to take real time projects/internship in industries.			

PSO	Target Level	Attainment Level	Observations
PSO2: To exhibit the knowledge in inter-disciplinary and multi-disciplinary areas such as Computer Architecture, Artificial Intelligence, Renewable Energy Resources, Image Processing, Environmental Protection and Management, etc., and to demonstrate skills in multitude domains.			
PSO2	1.6	1.67	TARGET ATTAINED
1. Students are encouraged to do the interdisciplinary projects.			

PSO	Target Level	Attainment Level	Observations
PSO3: To exhibit the ability to solve complex electronics and communication engineering problems using modern tools to have a successful career, and to become entrepreneurs with social and environmental responsibilities			
PSO 3	1.6	1.70	TARGET ATTAINED
1.Students shall be provided with various modern tools for design, develop, implement, and test the electronics systems for communication, signal processing, image processing and VLSI. 2. Students shall be encouraged to enhance their knowledge in communication, networking, signal processing, and VLSI domains through industrial visits.			

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

1. Title of the Practice: Academic Audit

2. Objectives of the Practice:

- To assess the academic performance of individual faculty in a department.
- To assess the academic performance of the department as a whole.
- To identify the strengths and limitations of the department.
- To make the individual faculty and the department accountable.

3. The Context:

The conceptualized features and challenges in implementing this practice are

- There is a need to develop a format in such a way to qualify this academic performance of the individual faculty as well as the whole department.
- It consumes a lot of time to complete the whole process.
- Academic audit being conducted at the end of semester / year when teachers are busy in conducting practical exams.
- Teachers feel a bit of difficulty since they do not prepare necessary records throughout the year but make preparations just before the academic audit dates.

4. The Practice:

- Academic audit committee is being constituted with senior faculty members from the various departments.
- Once the committee is constituted, the date and time of the academic audit will be informed to the respective departments well in advance.
- Each faculty is expected to get ready with the documents and display them before the Academic Audit Committee.
    - Teaching Record
    - Publications
    - Curriculum Details
    - Student Details
- The members of academic audit interact with each member of faculty with regards to subject matter; various concepts of the courses taught and also go through all their records and credentials. The performance of each faculty is quantified.

- At the end, the committee calculates the whole departments' academic performance.
- A report is prepared with the significant contribution of the members of faculty as well as the department.
- Hard copies of the reports duly signed are being sent to the IQAC
- Based on the performance, the performance of each faculty is graded and the details will be sent to the Head of the Department.

5. Evidence of Success:

After conducting the academic audit regularly, we found a significant improvement of the individual faculty with regard to attending seminars, publishing papers, undertaking consultancy, organizing seminars / workshops, maintaining records etc

6. Problems Encountered and Resources Required

It is advisable to prepare the records for academic audit right from the first month of the academic year. It is a continuous process. There is need to give direction to all the members of faculty to prepare the records ready to display before the committee. There is a need to give directions to the Heads of department for making very objective and impartial qualitative assessment. Notes: The formats developed by us can be adopted by other institutions who qualify the academic performance of the teachers

7. Academic Development Support

Academic audit is a best practice to be continued in any organization for better results. The main aim of conducting academic audit is to assess the academic performance of both individual faculty and the whole department. This practice develops accountability of the individual members with regards to their academic performance. By conducting academic audit, the strength and weakness of the department can be assessed. The quantification of the academic performance helps us to compare the academic performance of departments and members of faculty. The respective Dean and Management will be well informed about the performance of each department in the University. This practice develops a healthy competition among the members of faculty of each department and also among the department.

Criterion	Metric No	Items	Verification (yes/No)	Comments	Suggestions for improvement
Academic Performance					
Curricular Aspects	1.1	The department adheres to the academic calendar including for the conduct of CIE	Yes	Satisfactory	NIL
	1.2	The Department ensures effective curriculum delivery through a well-planned and documented process	Yes	Satisfactory	Use more ICT facilities to enhance the teaching learning process. Adapt Experiential leaning
	1.3	Teachers of the department participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the last. 1. Academic council/BoS of Affiliating university. 2. Setting of question papers for UG/PG programs. 3. Design and Development of Curriculum for Add on/ certificate/ Diploma Courses. 4. Assessment /evaluation process of the affiliating University	Yes	Proper documentation is required	Increase the no of faculty participation in university level bodies
	1.4	Percentage of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented.	Yes	Good	NIL

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	1.5	Number of Add on /Certificate programs. offered during the last year.	Yes	No add on /Certificate programs.	Take initiation to start add on/certification courses in department level
	1.6	Average percentage of students enrolled in Certificate/ Add-on programs as against the total number of students during the last years	Yes	Awareness regarding the same is to be conveyed to the student's community.	Need to take up the certification programss
	1.7	The courses that include experiential learning through project work/field work/internship during the years.	Yes	Satisfactory	Satisfactory
	1.8	Percentage of students undertaking project work/field work/ internships	Yes	Satisfactory	Satisfactory
	1.9	Institution obtains feedback on the syllabus and its transaction at the Department from the following stakeholders 1. Students 2. Teachers 3. Employers 4. Alumni	Yes	Satisfactory	Satisfactory
	1.10	Feedback process of the Department may be classified as follows: Options: Feedback collected, analyzed and action taken and feedback available on website Feedback collected, analysed and action has been taken Feedback collected and analysed Feedback collected Feedback not collected	Yes	Not found on the website	Satisfactory

Teaching-Learning and Evaluation	2.1	The Department assesses the learning levels of the students and organizes special Programmes for advanced learners and slow learners.	Yes	Satisfactory	Satisfactory
	2.2	Student- Full time teacher ratio	Yes	Satisfactory	Maintain cadre ratio
	2.3	Student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences	Yes	found less experiential learning, participative learning and problem-solving in teaching learning process	Adapt the experiential learning, participative learning and problem-solving in teaching learning process
	2.4	Teachers use ICT enabled tools for an effective teaching-learning process.	Yes	Make use of more ICT Tools	NA
	2.5	Ratio of mentor to students for academic and other related issues	Yes	Good	Conduct more interactions
	2.6	Mechanism of internal assessment is transparent and robust in terms of frequency and mode	Yes	Good	NA
	2.7	Teachers and students are aware of the stated Programme and course outcomes of the Programmes offered by the institution.	Yes	S Good	Awareness among the students is less
	2.8	Attainment of Programme outcomes and course outcomes are evaluated by the institution.	Yes	Good	Implement proper assessment of students through indirect method
	2.9	Average pass percentage of Students during last years	Yes	Satisfactory	Satisfactory
	2.10	Online student satisfaction survey regarding to teaching learning process.	Yes	Satisfactory	Satisfactory

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	5.4	Average percentage of students progressing to higher education during the last years	Yes	Less	Need to improve
	5.5	Average percentage of students qualifying in state/national/ international level examinations	Yes	Less	Need to improve
	5.6	Describe best practices successfully implemented by the department as per the format provided below.	Yes	Satisfactory	Satisfactory

1. SWOC and Perspective/Strategic plan of the department:

Strengths:

- The Department of EEE has qualified and dedicated faculty.
- All the laboratories are as per the curriculum and are established on par with state of art technology.
- Excellent central library including separate department library and computing, Internet facilities are available in excess of the norms stipulated.
- Mechanism is available for direct mentoring of students by faculty, interacting with students, and directing them to upgrade their skills.

Weakness:

- Number of volumes and journals in the department library need to be increased.
- The activities through Industry Institution Interaction Cell are to be improved.
- Soft skills and communication skills of students need to be improved.
- Student and staff are to be encouraged for paper presentation at various National/International conferences, workshops and seminars.

Opportunities:

- Increased demand of engineers in power sector.
- Scope for enhanced research work to be carried out in all related field of electrical engineering.
- Possibility of becoming effective and individual entrepreneurs by enjoying the benefits and encouragement given by the management.
- More employment potential in research centers and bodies like CPRI, DRDO etc.,
- Scope for the development of interdisciplinary projects useful for society.

Challenges:

- Global recession may hamper placement opportunities for students.
- To come out from this challenge the desired course objectives and outcomes are to be achieved satisfactorily.
- To frame and design an effective Curriculum, Teaching learning methodologies that bridges the gap between Industry and Institution.
- Development of advanced teaching & learning methodologies and evolution, personal interaction by developing smart classrooms and mechanism for effective evaluation.

2. Best Practice(s)/innovations of the department:

- Industrial mentorship program
- Alumni Interaction
- Industrial Visit
- Student Mentorship Program

3. Future plans of the Department:

- Concentrate on the placement of the students in core, IT and Electronics related companies.
- Encouraging students for the entrepreneurship.
- Take up the NBA accreditation at department level.
- Focusing on research grants.
- Electrical Vehicle Incubation center in the department

4. Remarks of the Auditing team:

1. In some matrices you have not submitted any information and data so please review such matrix discus with IQAC and come to a final conclusion on those matrices.
2. Concentrate on the R&D, paper publications and alumni interaction.
3. In the above report we highlighted some points with red color and mentioned a few points in the remark column so please incorporate the same in the report.
4. Showing only two best practices in the department is not enough.

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5. Remarks of the IQAC:

As per the reviews and feedback from the auditing committee

- The department should focus more on proper documentation of the academic, curricular and extra-curricular activities in time.
- The department should take some new initiatives related to strengthen and improve the technical skills among the students.
- Audit Report of the department found Satisfactory.

1. Malagouda Patil
2. Dhanashree Kulkarni
3. Kiran Idagi

Name & Signature of the HOD with seal:

Head of the Department
Electrical & Electronics Engineering
Angadi Institute of Technology And Management
Savagaon Road, Belagavi-590 009

IQAC

Name & Signature of the Academic Audit Expert

Principal & Director
Principal & Director
Suresh Angadi Education Foundation's
Angadi Institute of Technology And Management

Date:

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

Assessment is based on improvement in:

• Placement: number, quality placement, core industry, pay packages etc.

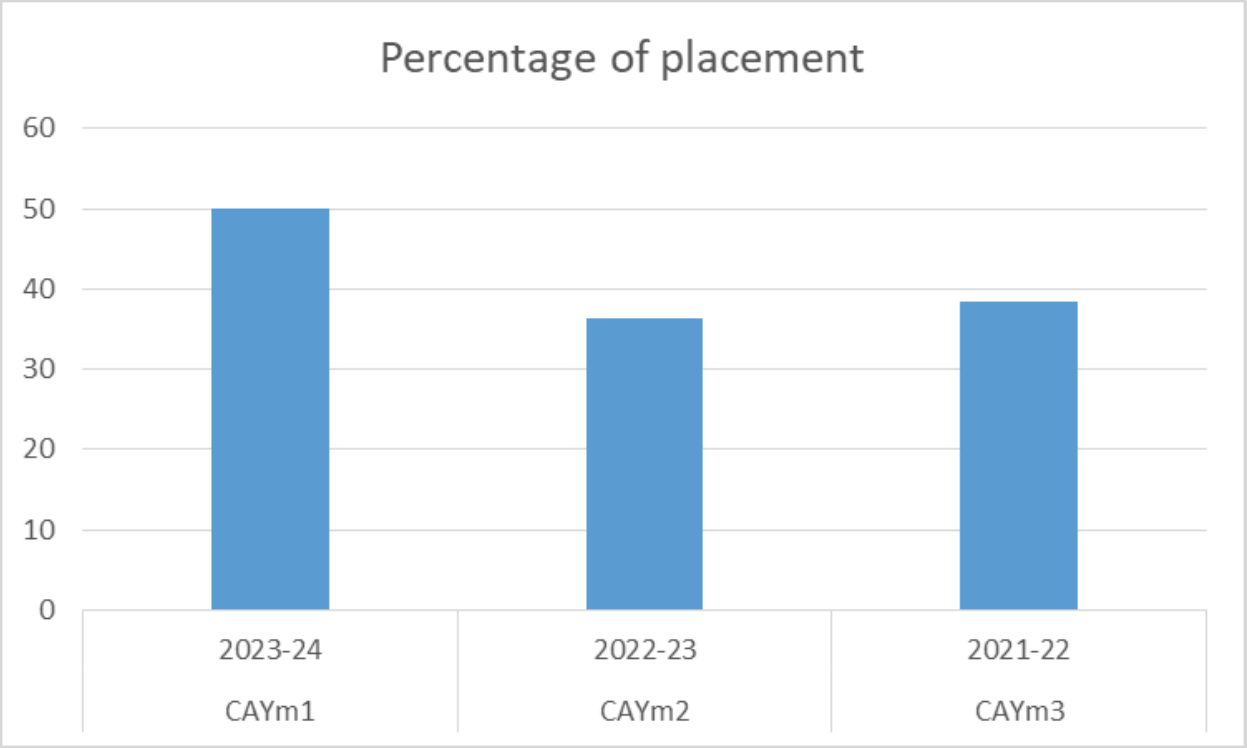
• Higher studies: performance in GATE, GRE, GMAT, CAT etc., and admissions in premier institutions.

• Entrepreneurs

Summary of placed students, higher studies and Entrepreneurs for different academic years is shown in Table 7.3.1.

	CAYm1	CAYm2	CAYm3
	2023-24	2022-23	2021-22
Number of students Placed	5	7	10
No. of students admitted to Higher studies	1	0	0
No. of Entrepreneurs	0	1	0
Total no. of students	12	22	26
Percentage of placement	**50**	**36.36**	**38.4**

Table 7.3.1: Summary of placed students, higher studies and Entrepreneurs.



Details of higher studies for different academic years are shown in Table 7.3.2.

Academic Year	Student Name	Course Name /Specialization	Year of Joining	Institute	University
2023-24	Ms. Kirti S. Doddamani	VLSI Design and Embedded System	**2024**	**Visvesvaraya Technological University, Regional Office, Gulbarga**	**Visvesvaraya Technological University, Belagavi**
2022-23	-	-	-	-	-
2021-22					

Table 7.3.2: Higher study details.

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

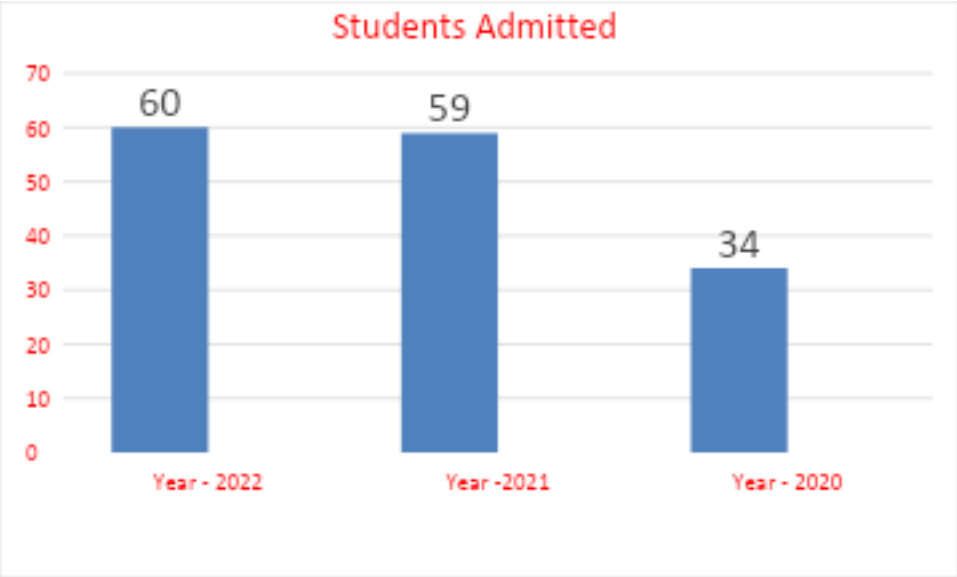
The quality of students admitted are shown in Table 7.4.

ITEM		2022	2021	2020
National Level Entrance Exam	No of Students Admitted	NIL	NIL	NIL
	Opening Score / Rank	NIL	NIL	NIL
	Closing Rank / Score	NIL	NIL	NIL
State Level Entrance Exam KCET	No of Students Admitted	60	59	34
	Opening Score / Rank	44403	31478	39638
	Closing Rank / Score	150007	175227	149300
Lateral Entry DCET	No of Students Admitted	6	5	7
	Opening Score / Rank	2529	4844	7918
	Closing Rank / Score	3743	7936	7918

Table 7.4: Quality of students admitted.

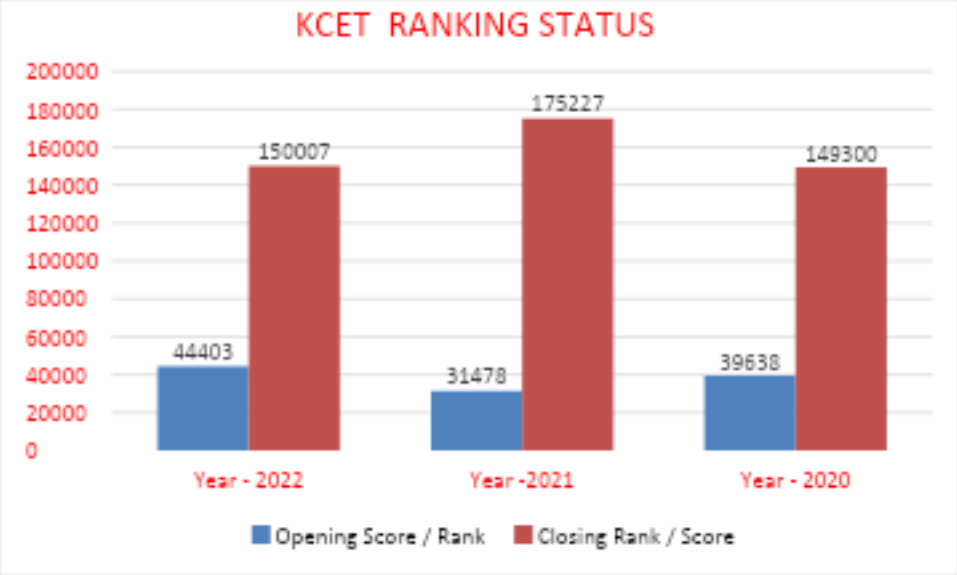
YEAR	Year - 2022	Year -2021	Year - 2020
No of Students Admitted	60	59	34

Table 7.5: No of Students Admitted



YEAR	Year - 2022	Year -2021	Year - 2020
Opening Score / Rank	44403	31478	39638
Closing Rank / Score	150007	175227	149300

Table 7.6: State Level Entrance Exam KCET



YEAR	Year - 2022	Year -2021	Year - 2020
Opening Score / Rank	2529	4844	7918
Closing Rank / Score	13153	6936	7918

Table 7.7: Lateral Entry DCET