Criterion 2 - Teaching-Learning and Evaluation

2.1 Student Enrolment and Profile

2.1.1 Enrolment percentage

Response: 63.84

2.1.1.1 Number of seats filled year wise during last five years, (Only first year admissions to be considered).

2022 - 23	2021 - 22	2020 - 21	2019 - 20	2018 - 19
306	286	204	214	189

2.1.1.2 Number of sanctioned seats year wise during last five years

2022 - 23	2021 - 22	2020 - 21	2019 - 20	2018 - 19
396	391	356	361	374

File Description	Document
Institutional data in the prescribed format	View document
Final admission list as published by the HEI and endorsed by the competent authority.	View document
Document related to sanction of intake from affiliating university / Government / Statutory body for first year students only	View document

2.1.2 Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first-year admission during the last five years

Response: 68.42

2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years (Exclusive of supernumerary seats)

2022 - 23	2021 - 22	2020 - 21	2019 - 20	2018 - 19
166	165	113	133	88

2.1.2.2 Number of seats earmarked for reserved category as per GOI/ State Govt rule year wise during the last five years

2022 - 23	2021 - 22	2020 - 21	2019 - 20	2018 - 19
214	221	201	177	159

File Description	Document
Institutional data in the prescribed format	View Document
Final admission list indicating the category as published by the HEI and endorsed by the Competent authority.	View Document
Copy of communication issued by state govt. or Central Government indicating the reserved categories (SC, ST, OBC, Divyangjan, etc.) to be considered as per the state rule (Translated copy in English to be provided as applicable)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.2. Student Teacher Ratio

2.2.1 Student – Full time Teacher Ratio

(Data for the latest completed academic year)

Response: 15.84

2.3 Teaching Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences and teachers use ICT – enabled tools including online resources for effective teaching and learning process

Response:

The sole aim of the institute is to primarily strengthen the academic potential of the students. The student centric approach encourages the students to get fruitful educational experiences. Different types of student centric strategies are created to increase active participation in experiential learning, participatory learning and problem-solving skills.

Experiential Learning

Experiential learning approach involves learning through experience and reflection. Experiential learning can take many forms, including hands-on activities, field trip and Project works. Industrial visits and Workshops are concrete experiences where students understand the responsibility of the engineering profession and it provides an opportunity for them to improve technical skills and gives practical exposure. Students are involved in real time projects and a few innovative projects.

All the students are involved in experiential learning by doing mini projects, major curriculum projects and internship in industry in order to develop professional skills. State-of-the-art laboratories have been established to enrich the practical knowledge of the students.

Participative Learning

Students are encouraged to explore knowledge through participation in programming classes, paper presentation, seminars, guest lectures and quiz competitions. Professors, experts and alumni are invited to deliver lectures and the students are encouraged to actively participate in the interactive session. NPTEL, SWAYAM On line courses gives the opportunity to the students.

Problem Solving Methodologies

Students are encouraged to improve their problem-solving skills by participating in various technical events like project contest which is organized by the institutions. Discussion

methodology is used in many of the subjects as it makes the students to think widely. Students are encouraged and guided to involve themselves in various real-life projects such as Electrical Vehicle, rainwater harvesting, Waste management discussions. Also, the students are motivated to publish research papers in reputed journals and to prepare for GATE and Competitive exams.

Teachers use ICT enabled tools for effective teaching-learning process

ICT enabled tools are used by Krishnasamy College of Engineering & Technology (KCET) to support effective teaching and learning methods. Students are exposed to variety of learning materials with different learning style.

The following methods are adopted in the institution in the teaching-learning process:

- The Seminar halls in all departments are equipped with internet-enabled computers / laptops, LCD projectors with multimedia facilities are used to showcase PPT, Videos, and simulations to create the best possible learning environment.
- Instead of teaching from a traditional method, faculty members have been using resources like e-books, National Program on Technology Enhanced Learning (NPTEL) technical articles published to journals.
- Students can access NPTEL courses in digital library and also, they can access the content in their department by using same IP address.
- Seminars, Workshops, and guest lectures on recent advancements in the fundamental courses are arranged for efficient teaching and learning.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

2.4 Teacher Profile and Quality

2.4.1 Percentage of full-time teachers against sanctioned posts during the last five years

Response: 93.39

2.4.1.1 Number of sanctioned posts year wise during the last five years

2022-2023	2021-2022	2020-2021	2019-2020	2018-2019
68	67	69	71	73

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts).	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.4.2 Percentage of full-time teachers with NET/SET/SLET/ Ph. D./D.Sc. / D.Litt./L.L.D. during the last five years (consider only highest degree for count)

Response: 16.31

2.4.2.1. Number of full time teachers with NET/SET/SLET/Ph. D./ D.Sc. / D.Litt./L.L.D year wise during the last five years

2022-2023	2021-2022	2020-2021	2019-2020	2018-2019
15	11	11	8	8

File Description	Document
List of faculties having Ph.D./D.Sc./D.Litt. / L.L. D along with particulars of degree awarding university, subject and the year of award per academic year.	**View Document**
Institutional data in the prescribed format	**View Document**

Copies of Ph.D./D.Sc./D.Litt. /L.L. D awarded by UGC recognized universities	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.5 Evaluation Process and Reforms

2.5.1 Mechanism of internal / external assessment is transparent and the grievance redressal system is time- bound and efficient

KCET follows transparent mechanism for internal and external assessment. In order to ensure the transparency, the internal assessment test schedule is communicated to the students well in advance as per the schedule given in the academic calendar.

Slip tests and assessment tests are conducted on a continuous basis and the performance of students is analyzed. Student centric learning is ascertained through collection of assignments and various other activities like seminar, group discussions etc.

The HOD verifies the pattern, quality and correctness of the question papers that are sent to the examination cell on time for printing, the answer papers are valued and handed over to the students within three days from the conduct of examination. After completion of the internal exams signature of candidates is obtained in answer script, grievances if any sorted-out time to time.

After the assessment test, the results are discussed by the HOD along with subject staff. Feedback on internal assessment performance is given to the students by the concerned faculty on a routine basis.

The assessment test performances along with the attendance details are periodically communicated to the parents through a progress report. If required parents are called to discuss measures for ensuring the progress of the candidates. Remedial tests and coaching classes are arranged for slow learners.

The mentor strives hard towards improving the student's academic performance through proper counseling and guidance.

As per the regulations of the affiliating University 80% weightage is given for the end semester exams and 20% weightage for continuous internal assessment. The faculty members are bound to enter both the attendance and Internal Assessment marks of the students periodically in the Anna University Web portal. Students can view their attendance and internal test marks in web portal which can be viewed at any time. Many other services including registration of elective subjects through Web Portal have been facilitated which ensures transparency.

The University appoints examiners for the practical examinations and viva voce examinations. The Institution also sends its faculty members as examiners based on the order received from affiliating University for evaluating the end semester answer scripts.

The College has devised systematic evaluation procedures, assessment indicators in line with the guidelines of the University. During the end semester examination, the discrepancies in the question paper are intimated to the exam cell by the subject handling staff through Question paper compliance with the knowledge of principal.

After the semester examination results, students have provision for receiving photo copy and applying revaluation of the answer script. The internal subject expert evaluates the photocopy and recommends for the revaluation. The application for the revaluation is forwarded to the University by the exam cell.

The revaluation result will be published after completion of the process. The students can apply for challenge revaluation if they have any disagreement in the revaluation result.

Other grievances like correction in the grade sheet (DoB, duplicate grade sheet etc.,) are rectified by representing to the Controller of Examinations, Anna University.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1 Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website

Response:

Krishnasamy College of Engineering & Technology, adopts Programme Educational Objectives (PEOs), Programme Specific Outcomes (PSOs), Programme Outcomes (POs) and Course Outcomes (COs) from Anna University. By implementing Outcome – Based Education (OBE), our Institute focuses on a student-centric approach, emphasizing outcome - oriented teaching and learning processes. In alignment with OBE principles, POs, PSOs, PEOs and Cos have been established for all undergraduate (UG) and Post Graduate (PG) programs, except for PSOs in the PG programs.

Programme Educational Objectives (PEOs) are broad statements that outline the career and professional accomplishments that graduates are expected to achieve within 5 years after graduation. These objectives provide a vision to the graduates potential career and contributions in their fields, highlighting long-term achievements.

Programme outcomes, or POs, are statements that outline the knowledge and skills that students should be able to acquire from their specific programmes. These results cover the behaviours, attitudes, knowledge and analytical capacities that students develop during the course of their programmes.

Programme certain Outcomes (PSOs) are designed specifically for each programme and outline the knowledge and skills that graduates are expected to possess in certain areas of

their career. PSOs enhance graduates' expertise and employability in particular sectors by focusing on the distinct competencies and knowledge areas that are essential to the discipline.

Course Outcomes (COs) are concise descriptions of the skills and information that students will acquire upon successfully completing a certain course. Every curricular course has its own unique COs, which are linked to POs and PEOs using a course articulation matrix. By matching individual course outcomes with overall programme aims and educational goals, this matrix guarantees that each course contributes to the larger programme goals.

OBE emphasizes the use of Bloom's Taxonomy levels (BTL) to estimate the knowledge level of students, particularly in relation to COs. This taxonomy classifies learning objectives based on complexity and specificity, ranging from basic recall of facts to higher-order thinking skills like analysis, evaluation, and creation. By aligning COs with Bloom's Taxonomy, we ensure that our educational programs progressively build students cognitive and conceptual understanding. Our institution's website serves as the primary hub for accessing comprehensive program information, enabling easy navigation for students and faculty members. Additionally, we employ various offline channels to ensure the broad dissemination of PEOs, POs, and PSOs. These outcomes are prominently displayed in classrooms, laboratories, faculty and HOD rooms, libraries etc. This ensures that they serve as tangible resources, offering detailed insights into the distinct educational experiences provided by our programs. Information is also disseminated to stakeholders such as faculty, alumni, and employers through surveys.

Faculty members prepare lesson plans for each semester, based on POs and COs, ensuring that teaching activities are aligned with the desired outcomes. The Head of the Department (HOD) and the Course Instructor work together to create awareness among students about POs, PSOs, and COs, emphasizing the importance of achieving these outcomes.

File Description	Document
Upload Additional information	View document
Provide Link for Additional information	View document

2.6.2 Attainment of POs and COs are evaluated.

Explain with evidence in a maximum of 500 words

Response:

Krishnasamy College of Engineering & Technology is committed in providing excellent education through a meticulous approach in evaluating Program Outcomes (POs) and Course Outcomes (COs), aligned with the guidelines outlined in the AICTE examination reforms.

The process of assessing programme outcomes and course outcomes are divided into two categories such as direct method and indirect method. Direct method shows the student's knowledge and skills from their performance in the internal assessment tests, assignments, end semester examination etc. Indirect method is used to assess opinions or thoughts about the knowledge or skills gained through various surveys like Course Exit Survey (CES), Program Exit Survey (PES), Alumni Survey and Employer Survey.

CO Attainment

The COs are mapped against each question and analysis are carried out by our faculty members for each course and documented in faculty course file. The contribution of COs is assessed in high, moderate and low levels, towards the attainment of POs / PSOs.

For all courses, 80% weightage given to direct attainment of assessment tools such as Internal Assessment tests and End semester exams. The remaining 20% weightage is given to indirect attainment by CES.

POs and PSOs Attainment

Based on CO attainment and CO-PO mapping table, direct attainment of POs and PSOs are calculated at the end of every semester and aggregated by the time of course completion of each batch of students. Indirect attainment of POs and PSOs are done through Programme Exit Survey, Alumni Survey and Employer Survey. The final PO attainment is achieved by giving 80% and 20% weightage through direct and indirect methods respectively.

COs, POs and PSOs attainment calculation are as follows:

Course wise threshold value (attainment) shall be fixed based on bench marks by the faculty in consultation with the HoD while the level of attainment is fixed by IQAC for each batch of the entire institute. Based on the assessment procedure, the COs articulation matrix is calculated for each course.

COs Attainment is calculated based on the marks scored by the students in IAT1, IAT2, Model Examination, End Semester Examination (ESE) and CES. If the attainment is achieved, it is inferred that CO is achieved for that course. The gap is reviewed and analyzed, thereby adopting the effective teaching-learning methods for continuous improvements. Finally, POs are mapped with COs for each course at the end of the programme; i.e., Final COs-POs attainment Matrix. If the POs / PSOs attainment is less than the target, reform measures in the teaching and learning method in order to improve students' performance for subsequent batch in consultation with Head of the Department / Principal / IQAC Coordinator.

File Description	Document
Upload Additional information	View document
Provide Link for Additional information	View document

2.6.3 Pass percentage of Students during last five years (excluding backlog students)

Response: 66.73

2.6.3.1 Number of final year students who passed the university examination year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
160	138	166	105	121

2.6.3.2 Number of final year students who appeared for the university examination year-wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
230	161	177	233	233

File Description	Document
Institutional data in the prescribed format	View document
Certified report from the Controller Examination of the affiliating university indicating pass percentage of students of the final year (final semester) eligible for the degree program-wise / year wise	View document
Annual report of controller of Examinations (COE) highlighting the pass percentage of final year students	View document
Provide Links for any other relevant document to support the claim (if any)	View document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response

File Description	Document
Upload database of all students on roll as per data template	View Document