THIAGARAJAR COLLEGE OF ENGINEERING

MADURAI

STUDENT SATISFACTION SURVEY

2023-24

STUDENT SATISFACTION SURVEY

As a part of continuous improvement at Thiagarajar College of Engineering, the student satisfaction survey is conducted by the end of every academic year. The voice of the students on the effectiveness of teaching learning process is recorded through the survey. The questionnaire has been designed with specific focus on curriculum, content delivery, assessment and support system/infrastructure. Google form with the links

UG Programmes: https://forms.gle/yGev6JxpuLizNSkN6
PG Programmes: https://forms.gle/Bf46BKE6rePRExJZ9
Architecture (B.Arch /M.Arch): https://forms.gle/bZHSPmhzRZxn2SwaA

have been circulated among all the students. The feedback was collected in anonymous mode. Around 1888 UG, 189 PG students, 223 students from Architecture department have participated in the survey. The responses have been carefully analysed and appropriate action plan has been prepared by the academics team of the institute to enhance the quality of Teaching Learning Process.

QUESTIONNAIRE FOR UNDER GRADUATE STUDENT SATISFACTION SURVEY

CURRICULUM

1. The curriculum is well balanced, updated periodically and satisfies the present needs.
   - *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

2. Exposure to industrial practices is provided through industry supported courses/ seminars/ guest lectures/ field visits/ student internships.
   - *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

3. The curriculum facilitates interdisciplinary learning through foundation electives and general electives.
   - *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

4. The curriculum has adequate number of practical courses / theory cum practical courses/ Project works for skill development.
   - *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

5. The Special Interest Groups (SIG) and programme electives have helped you in specialization of your area of interest.
   - *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

6. The implementation of the Choice Based Credit System (CBCS) has enabled you to enroll in the courses and slots you opted for.
    - *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

7. Adoption of Conceive, Design, Implement, Operate (CDIO) framework in TCE undergraduate curriculum has enriched the technical and professional skills.
    - *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

8. CDIO Skill based courses like Engineering Exploration, Lateral Thinking, Design Thinking, Project Management, System Thinking are facilitating participation in international contests / competitions
    - *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

9. Audit courses like Environmental Sciences, Constitution of India, Professional Ethics etc., created social awareness
    - *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

10. What are the inter-disciplinary courses (General Elective Course/Foundation Electives) do you prefer to study (courses offered by Departments other than yours)?

11. If you have gained Programming Knowledge at School level, what type of basic Programming courses do you wish to have in Sem 1 and/or Sem 2 in TCE ?

12. Do you wish to have Foreign Languages in Curriculum with credits?

13. If you have gained Programming Knowledge at School level, what type of basic Programming courses do you wish to have in Sem 1 and/or Sem 2 in TCE ?

14. If you have gained Programming Knowledge at School level, what type of advanced Programming courses do you wish to have in Sem 1 and/or Sem 2 in TCE ?

CONTENT DELIVERY

15. How much of the syllabus was covered in the class?
    - *90 to 100%* ▪ *80 to 89%* ▪ *70 to 79%* ▪ *60 to 69%* ▪ *Less than 50%*

16. The instructors adopt active and collaborative learning strategies like Think Pair Share, Flipped Classroom, Problem Based Learning etc.,
    - *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

17. The instructors use a variety of ICT Tools and Learning Management Systems like Moodle, Canvas, Google Classroom are effectively used for sharing of resource materials, conducting assignments, discussions and quizzes.

▪ *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

18. Instructors are readily available for clarification of doubts and for personal mentoring.

▪ *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

19. Laboratories are well equipped with appropriate hardware and software for the conduct of practical classes/project works.

▪ *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

20. The institute provides support for participation in online certification from NPTEL, Coursera, edX etc.,

▪ *Regularly* ▪ *Often* ▪ *Sometimes* ▪ *Rarely* ▪ *Never*

21. You are aware of TCE MOOCs. What are the TCE Online Courses do you prefer to have?

ASSESSMENT

22. The assessment process (CAT / Assignments / Terminal Examinations / Review) at TCE is fair and unbiased.

▪ *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

23. The tasks given in assignments have helped in enhancing your problem solving and communication skills.

▪ *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

24. The assessments are designed and evaluated appropriately to assess higher order thinking skills.

▪ *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

25. The assessments provided the right level of challenge and an opportunity for collaborative/co-operative learning.

▪ *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

26. Communication, Critical thinking, Collaboration, Creativity are given importance in assessments.

▪ *Strongly Agree* ▪ *Agree* ▪ *Neutral* ▪ *Disagree* ▪ *Strongly Disagree*

SUPPORT SYSTEM/INFRASTRUCTURE

27. The institute takes active interest in promoting internships / student exchange programmes / field visits opportunities for students.

▪ *Regularly* ▪ *Often* ▪ *Sometimes* ▪ *Rarely* ▪ *Never*

28. Efforts are made by the institute/ teachers to inculcate soft skills, life skills and employability skills to make you ready for the world of work.
    - *Regularly*   - *Often* - *Sometimes* - *Rarely*   - *Never*

29. The institute provides opportunities for cocurricular / extra curricular activities.
    - *Regularly*   - *Often* - *Sometimes* - *Rarely*   - *Never*

30. In connection with the implementation of Outcome Based Education, Course Outcomes and Programme Outcomes are assessed periodically and subsequent actions are taken for continuous improvement.
    - *Strongly Agree* - *Agree* - *Neutral* - *Disagree* - *Strongly Disagree*

31. A mentoring/tutor system is available to identify your strengths and weaknesses and encourage you with providing the right level of challenges.
    - *Strongly Agree* - *Agree* - *Neutral* - *Disagree* - *Strongly Disagree*

32. Classrooms are well equipped with good Audio System/Multimedia Projectors/Digital Boards/Wi-Fi connectivity.
    - *Strongly Agree* - *Agree* - *Neutral* - *Disagree* - *Strongly Disagree*

33. Library is digitized and includes sufficient count of reference and text books and access to international and national journals
    - *Strongly Agree* - *Agree* - *Neutral* - *Disagree* - *Strongly Disagree*

34. The support systems like Hostel, Canteen, Bank, Post office, Stores and Clinic are functioning well and they cater to the need of the hour.
    - *Strongly Agree* - *Agree* - *Neutral* - *Disagree* - *Strongly Disagree*

35. Record your suggestions for enhancing the quality of Teaching Learning process at TCE.

STUDENTS PARTICIPATION – DEPARTMENT WISE

UNDERGRADUATE PROGRAMMES

Department	Count of Responses
Civil Engineering	276
Mechanical Engineering	258
Electrical and Electronics Engineering	128
Electronics and Communication Engineering	317
Computer Science and Engineering	341
Information Technology	249
Mechatronics	136
Computer Science and Business Systems	183
Total Responses	**1888**

POST GRADUATE PROOGRAMMES

Department	
Computer Applications	10
Applied Mathematics and Computational Sciences	119
Civil	42
Electronics and Communication Engineering	5
Computer Science and Engineering	13
Total Responses	**189**

ANALYSIS OF RESPONSES

UNDER GRADUATE PROGRAMMES

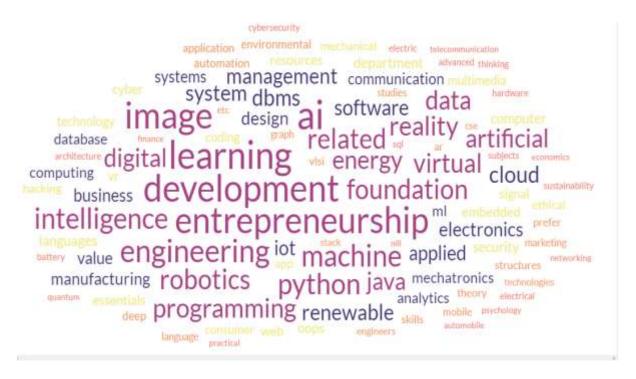| S.No	Questions	Average
Q1	The curriculum is well balanced, updated periodically and satisfies the present needs.	3.6
Q2	Exposure to industrial practices is provided through industry supported courses/ seminars/ guest lectures/ field visits/ student internships	3.44
Q3	The curriculum facilitates interdisciplinary learning through foundation electives and general electives	3.68
Q4	The curriculum has adequate number of practical courses / theory cum practical courses/ Project works for skill development.	3.72
Q5	The Special Interest Groups (SIG) and programme electives have helped you in specialization of your area of interest.	3.44
Q6	The implementation of the Choice Based Credit System (CBCS) has enabled you to enroll in the courses and slots you opted for.	3.6
Q7	Adoption of Conceive, Design, Implement, Operate (CDIO) framework in TCE undergraduate curriculum has enriched the technical and professional skills.	3.6
Q8	CDIO Skill based courses like Engineering Exploration, Lateral Thinking, Design Thinking, Project Management, System Thinking are facilitating participation in international contests / competititions	3.6
Q9	Audit courses like Environmental Sciences, Constitution of India, Professional Ethics etc., created social awareness	3.56
Q10	How much of the syllabus was covered in the class?	3.68
Q11	The instructors adopt active and collaborative learning strategies like Think Pair Share, Flipped Classroom, Problem Based Learning etc.,	3.52
Q12	The instructors use a variety of ICT Tools and Learning Management Systems like Moodle, Canvas, Google Classroom are effectively used for sharing of resource materials, conducting assignments, discussions and quizzes	3.6
Q13	Instructors are readily available for clarification of doubts and for personal mentoring.	3.68

Q14	Laboratories are well equipped with appropriate hardware and software for the conduct of practical classes/project works.	3.52
Q15	The institute provides support for participation in online certification from NPTEL, Coursera, edX etc.,	3.52
Q16	The assessment process (CAT / Assignments / Terminal Examinations / Review) at TCE is fair and unbiased.	3.52
Q17	The tasks given in assignments have helped in enhancing your problem solving and communication skills.	3.6
Q18	The assessments are designed and evaluated appropriately to assess higher order thinking skills	3.56
Q19	The assessments provided the right level of challenge and an opportunity for collaborative/co-operative learning,	3.6
Q20	Communication, Critical thinking, Collaboration, Creativity are given importance in assessments	3.56
Q21	The institute takes active interest in promoting internships / student exchange programmes / field visits opportunities for students.	3.28
Q22	Efforts are made by the institute/ teachers to inculcate soft skills, life skills and employability skills to make you ready for the world of work.	3.52
Q23	The institute provides opportunities for cocurricular / extra curricular activities	3.52
Q24	In connection with the implementation of Outcome Based Education, Course Outcomes and Programme Outcomes are assessed periodically and subsequent actions are taken for continuous improvement	3.6
Q25	A mentoring/tutor system is available to identify your strengths and weaknesses and encourage you with providing the right level of challenges.	3.56
Q26	Classrooms are well equipped with good Audio System/Multimedia Projectors/Digital Boards/Wi-Fi connectivity.	3.28
Q27	Library is digitized and includes sufficient count of reference and text books and access to international and national journals	3.6
Q28	The support systems like Hostel, Canteen, Bank, Post office, Stores and Clinic are functioning well and they cater to the need of the hour.	2.04

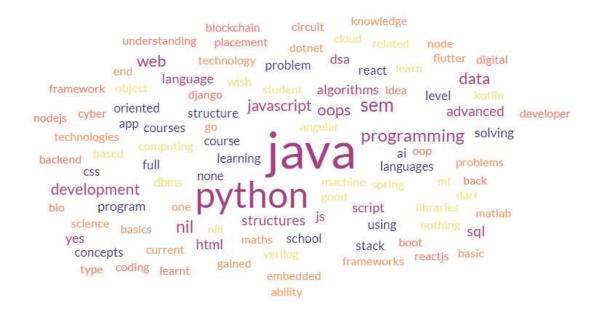## DETAILED RESPONSES – UNDER GRADUATE PROGRAMMES

S.No / Likert Scale	Count of Responses				
	4	3	2	1	0
Q1	730	804	303	33	18
Q2	639	743	366	101	39
Q3	790	795	267	21	15
Q4	810	826	222	11	19
Q5	669	733	391	61	34
Q6	773	750	292	45	28
Q7	715	821	310	24	18
Q8	745	791	299	26	27
Q9	759	764	301	32	32
Q10	1041	567	187	59	34
Q11	676	774	360	48	30
Q12	735	796	309	29	19
Q13	833	769	249	21	16
Q14	725	741	308	75	39
Q15	916	556	335	58	23
Q16	728	748	318	64	30
Q17	698	832	292	40	26
Q18	667	831	326	39	25
Q19	682	845	307	35	19
Q20	695	806	318	45	24
Q21	738	514	458	126	52
Q22	675	772	370	42	29
Q23	757	719	332	45	35
Q24	709	824	303	31	21
Q25	766	734	321	36	31
Q26	590	684	425	120	69
Q27	775	777	279	33	24
Q28	151	473	475	187	602

DETAILED RESPONSES – QUALITATIVE FEEDBACK (Samples)

What are the inter-disciplinary courses (General Elective Course/Foundation Electives) do you prefer to study (courses offered by Departments other than yours)?

If you have gained Programming Knowledge at School level, what type of basic Programming courses do you wish to have in Sem 1 and/or Sem 2 in TCE ?

Record your suggestions for enhancing the quality of Teaching Learning process at TCE.

The overall process is good! I would say revise the curriculum and the tools that is being to the latest!

Well and good

More practical experience is needed and SIG needs to be improved

Quality of teaching is amazing at TCE

Iam from CSBS department, we have both computer science as well as management subjects, But in our department have only Computer Science Oriented Staff, not have at least one faculty regarding management. Also they assigned Computer Science technical skill staff to teach the mangement subjects. So we not even understand clearly the management concepts . So kindly we request you to recruit and assign atleast one or two to the CSBS department

No suggestion, all good

Increase the library books facility

Syllabus can be updated based on current industry needs and enhancing practical skills can be adopted instead of more theory

please improve the coding club culture in TCE. Need more autonomy for students to organize coding events

Field visits to the sites which enhances understanding of that concept

Already the process at TCE is very good as classes are always interactive.

Concentrate more on the subject and corrections of exam answer sheets should be done leniently.

Conduct quiz after every session for recap

Offer skill development courses and certifications in emerging technologies and soft skills to prepare students for the job market.

Practical teaching will be helpful

Its good

Can practice some other ways to keep the lecture interesting.

Mock test in topics to revise regularly and some importance to coding too regularly

Syllabus must be updated to the current version

It would be better if the infrastructure is developed

More practical sessions

Many events like activities for hackathon can be conducted

Already teaching is well in tce

The learning process now is very good. Keeping it will be good.

The internal assessment can be digitalized

It is already going good

Make practical classes to learn from the root of the experiment

Everything's good

Enhance preparation for job interviews, Gate exams

It would be good if Regular placement training starts from 3rd year

Provide more such opportunities in future

Instead of teaching whole theory part of syllabus , focus on parts that are really required in industires to get a job ...

Keep some theory cum practical courses

It is at par with IITs already.

More practical related courses should be employed

The existing is good and well appreciated

Leetcode problem solving session to enhance the coding knowledge and company based aptitude solving session.

 Online lectures.

Good faculty student relationships

Give some subject discussion class as seperate period

To teach the students the reality , which what corporate expect right from the 1st year to create awareness related to it

Increase practical classes

Theory+practical=engineering

To work on trends of the curriculum

Technology improvement in classrooms

 Very good

Can be more interactive while teaching and could be clear way of delivering the topic and can be loud

The teaching learning process at TCE is very good. Professors are available to clarify our doubts and are well equipped in the knowledge of that subject.

Do anything no suggestions from my side

Usage of proper marking schemes for evaluation among different slots could give fair results

Can have extra courses for competitive exams like upsc.

 better Wi-Fi connectivity

ANALYSIS OF RESPONSES

POST GRADUATE PROGRAMMES

S.No	Questions	Average
Q1	The curriculum is well balanced, updated periodically and satisfies the present needs.	3.48
Q2	Exposure to industrial practices is provided through industry supported courses/ seminars/ guest lectures/ field visits/ student internships	3.28
Q3	The curriculum has adequate number of practical courses / theory cum practical courses/ Project works for skill development.	3.44
Q4	The Special Interest Groups (SIG) and programme electives have helped you in specialization of your area of interest.	3.2
Q5	How much of the syllabus was covered in the class?	3.48
Q6	The instructors adopt active and collaborative learning strategies like Think Pair Share, Flipped Classroom, Problem Based Learning etc.,	3.6
Q7	The instructors use a variety of ICT Tools and Learning Management Systems like Moodle, Canvas, Google Classroom are effectively used for sharing of resource materials, conducting assignments, discussions and quizzes	3.68
Q8	Instructors are readily available for clarification of doubts and for personal mentoring.	3.52
Q9	Laboratories are well equipped with appropriate hardware and software for the conduct of practical classes/project works.	3.36
Q10	The institute provides support for participation in online certification from NPTEL, Coursera, edX etc.,	3.64
Q11	The assessment process (CAT / Assignments / Terminal Examinations / Review) at TCE is fair and unbiased.	3.52
Q12	The tasks given in assignments have helped in enhancing your problem solving and communication skills.	3.6
Q13	The assessments are designed and evaluated appropriately to assess higher order thinking skills	3.52
Q14	The assessments provided the right level of challenge and an opportunity for collaborative/co-operative learning,	3.52

Q15	Communication, Critical thinking, Collaboration, Creativity are given importance in assessments	3.16
Q16	Efforts are made by the institute/ teachers to inculcate soft skills, life skills and employability skills to make you ready for the world of work.	3.36
Q17	The institute provides opportunities for cocurricular / extra curricular activities	3.16
Q18	In connection with the implementation of Outcome Based Education, Course Outcomes and Programme Outcomes are assessed periodically and subsequent actions are taken for continuous improvement	3.48
Q19	A mentoring/tutor system is available to identify your strengths and weaknesses and encourage you with providing the right level of challenges.	3.48
Q20	Classrooms are well equipped with good Audio System/Multimedia Projectors/Digital Boards/Wi-Fi connectivity.	2.96
Q21	Library is digitized and includes sufficient count of reference and text books and access to international and national journals	3.56
Q22	The support systems like Hostel, Canteen, Bank, Post office, Stores and Clinic are functioning well and they cater to the need of the hour.	2.36

DETAILED RESPONSES – POST GRADUATE PROGRAMMES

S.No / Likert Scale	Count of Responses				
	4	3	2	1	0
Q1	54	89	37	7	2
Q2	57	72	45	8	7
Q3	55	84	43	4	3
Q4	45	73	55	11	5
Q5	57	84	40	5	3
Q6	69	84	30	3	3
Q7	80	80	26	1	2
Q8	62	85	33	6	3
Q9	75	55	44	11	3
Q10	74	84	23	5	3
Q11	60	84	41	2	2
Q12	62	91	29	5	2
Q13	59	88	36	4	2
Q14	55	91	32	7	4
Q15	61	58	45	16	9
Q16	56	81	35	9	8
Q17	45	77	48	8	11
Q18	49	94	38	5	3
Q19	57	87	35	7	3
Q20	39	64	54	19	13
Q21	61	87	37	2	2
Q22	14	63	49	19	44

DETAILED RESPONSES – QUALITATIVE FEEDBACK (Samples)

- Could include more industry based training for PG programmes
- More infrastructures can be implemented in labs and classes for the students needs
- Good
- Maybe incorporate more real world experience
- Can bring some Data science company for placements
- I think the students need to get more exposure to the outside world.
- Teach some more good industry demand course, products and softwares
- should modernize inside classroom
- Better Infrastructure and Lab facilities
- Good
- better graphics and visual media to engage students well
- The process is going perfectly no changes needed
- Currently at present there are no suggestions regarding enhancing the quality of teaching learning proc
- Providing support from the college side for students to get internships from their 1st year
- 3 cat exams so that syllabus can be split up and learnt well.
- can improve the syllabus according to the updates in the field instead of having legacy portions
- Lab facilities can be improved.The systems doesn't support processing of high level tasks
- Good
- Can suggest more core company for specified departments
- Teaching Learning Process should be updated yearly or twice . so that we can in the current updates and coursers or learning method needed relate to the mmc companies by this placement of the student may be increase in the future
- It would be better if teachers saw students as individuals rather than focusing on their favorites, as every student steps in with a dream and high hopes, and opportunities must be the same for all.
- More updated syllabus for Artificial Intelligence and Data Science
- Update the syllabus for data science and AI
- Use experienced and approachable ones
- Very thing is good
- Teaching learning process is good but i have issues with wifi both in hostel as well as college (not connecting)
- Good
- All going well, no suggestions
- Staffs should deliver contents relating to realtime. Some staffs just deliver

contents from geeksforgeeks.
- Teachers must show pratical example of the topics
- Reform teaching methods
- They could teach in practical approcah
- Maintain the current doing activity
- Give more weightage to the practicals than theory part. Frequent workshops and sessions by industrial experts are highly expected.
- Upgrade laboratory facilities with the latest equipment and ensure they are well-maintained.
- Nil
- Implement interactive and practical learning sessions, incorporating real-world projects and modern technology tools to enhance student engagement and understanding.
- Everything is well and good with current TLP method
- Adopt Active Learning Techniques: Incorporate strategies like group discussions, problem-solving sessions, and case studies to engage students actively. 2. Integrate Technology: Utilize modern educational technologies, such as interactive whiteboards, learning management systems, and virtual labs to facilitate better learning experiences.
- Improvement of wifi quality in hostels and Classrooms
- Implement adaptive learning technologies that personalize the learning experience based on individual student progress, strengths, and areas needing improvement.
- Need a proper explanation and teaching for a subject computational statistics. Because it's a very important paper, but they telling just formulas and solving problems.
- Providing the mini project of the particular course like programming paper help students to understand all the concepts clearly
- Teach us the latest technology
- Suggestions for enhancing Teaching Learning Process at TCE include implementing interactive learning methods like group discussions and hands-on projects, providing faculty development opportunities, improving student feedback system, updating curriculum, diversifying assessment methods, collaborating with industry, enhancing learning resources, encouraging research opportunities, establishing mentorship programs, and promoting extracurricular activities for holistic development. These changes aim to create a more engaging and effective learning environment at TCE.
- Encourage a research-oriented mindset by providing facilities and support for student and faculty research projects.
- experiential learning, participative learning, and problem-solving methodologies. These approaches actively engage students and enhance their learning

experience. Additionally, leverage ICT-enabled tools and online resources for effective teaching

- Thiagarajar College of Engineering offers an exceptional educational experience with a strong emphasis on practical and interactive learning. Exposure to real world industries are to be developed and be assisted to student more

ACTION TAKEN FOR IMPROVEMENT OF TEACHING LEARNING PROCESS

1. From the SSS analysis, it could be inferred that the CDIO courses like Design Thinking, System Thinking and Capstone courses have improved logical and reasoning abilities of students. These courses have supported the student project teams to undertake real-time problems based on Sustainable Development Goals (SDGs). As part of strategic partnership with the School of Design Thinking, faculty development programmes on Design Thinking shall be organized.

2. 2022 Regulations include mandatory Project course in the semesters 5, 6 and 7 for 3 credits each, which would support students to gain more experiential learning and understand industry related problems.

3. Associations of all Departments and Professional Society chapters shall increase the count of special lectures by industry experts, alumni in the emerging technologies

4. TCE MOOCs have courses on Data Science and Statistics. Also, students are given free registrations to Coursera courses to have blended learning.

5. The tutor ward system has been automated in myCAMU application; Parent logins are enabled in myCamu to communicate the progress of wards to their Parents.

6. Remedial classes for Mathematics courses and other courses shall be conducted periodically. Result analysis of continuous assessment tests for first year shall be done to improve academic performance.

7. As part of infrastructure improvement, Construction of new restrooms near Canteen area has been completed and its utilization has started. KK auditorium has been renovated. Classroom ambience is to be improved.

8. Wifi access points have been increased inside the campus for the internet access.

9. Career Development Cell shall organize activities for students aspiring for higher studies and Government examinations.

10. Login credentials in SkillRack platform has been given to all UG students I year to IV year and their progress is monitored by their Tutors weekly/monthly.