YEARLY STATUS REPORT - 2021-2022

Part A	
Data of the Institution	
1.Name of the Institution	ZAGDU SINGH CHARITABLE TRUST'S THAKUR COLLEGE OF ENGINEERING AND TECHNOLOGY
• Name of the Head of the institution	Dr. B.K. Mishra
• Designation	Principal
• Does the institution function from its own campus?	Yes
• Phone No. of the Principal	02267308111
• Alternate phone No.	02267308110
• Mobile No. (Principal)	9821285825
• Registered e-mail ID (Principal)	tcet.principal@thakureducation.org
• Address	Thakur College Of Engineering And Technology. A-Block, Thakur Educational Campus, Shyamnarayan Thakur Marg, Thakur Village, Kandivali(E). Mumbai - 400101.
• City/Town	Mumbai
• State/UT	Maharashtra
• Pin Code	400101
2.Institutional status	
• Autonomous Status (Provide the date of conferment of Autonomy)	24/06/2019

• Type of Institution	**Co-education**
• Location	**Urban**
• Financial Status	**Self-financing**
• Name of the IQAC Co-ordinator/Director	**Dr. Rajesh Bansode**
• Phone No.	**02267308106**
• Mobile No:	**9833179097**
• IQAC e-mail ID	**tcet.iqac@thakureducation.org**
3.Website address (Web link of the AQAR (Previous Academic Year)	https://www.tcetmumbai.in/Notice/IQAC/AQAR%202020-21.pdf
4.Was the Academic Calendar prepared for that year?	**Yes**
• if yes, whether it is uploaded in the Institutional website Web link:	https://www.tcetmumbai.in/Notice/Academic_Calender.pdf

5.Accreditation Details

Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	**A**	**3.17**	**2017**	**30/10/2017**	**29/10/2022**

6.Date of Establishment of IQAC	**20/01/2018**

7.Provide the list of Special Status conferred by Central and/or State Government on the Institution/Department/Faculty/School (UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC, etc.)?

Institution/ Department/Faculty/School	Scheme	Funding Agency	Year of Award with Duration	Amount
E&TC	Non-Government	IEEE Bombay Section	01/11/2021	1,30,000/-
E&TC	Government	AICTE	20/07/2021	13,74,510/-
E&TC	Non-Government	IEEE Bombay Section	02/05/2022	17000/-
CIVIL	Government	AICTE	01/10/2021	2,00,000/-

8.Provide details regarding the composition of the IQAC:

• Upload the latest notification regarding the composition of the IQAC by the HEI	View File	

9.No. of IQAC meetings held during the year	**4**	
• Were the minutes of IQAC meeting(s) and compliance to the decisions taken uploaded on the institutional website?	Yes	
• If No, please upload the minutes of the meeting(s) and Action Taken Report	No File Uploaded	

10.Did IQAC receive funding from any funding agency to support its activities during the year?	**No**	
• If yes, mention the amount		

11.Significant contributions made by IQAC during the current year (maximum five bullets)

1. A questionnaire was designed for students satisfaction survey form with IQAC members support to get their suggestions, feedback to improve online teaching. 2. The conduction of Performance Academic Audit for the AY 2019-20 and AY 2020-21 on 27th July 2021 by external peer team where in major aspects like curriculum enrichment, curriculum design development, then followed by specializations internships, higher studies and statistics were focussed for their continual improvement 3. Based on 7 NAAC

Criteria's the format was prepared to discuss during IQAC meeting. The parameters includes: (a) Quality initiatives taken for each criteria (b) Purpose/drive/planning/Deployment (c)Scope & target audience, (d)Outcome & improvement w.r.t previous A.Y (e) Impact of initiatives and (f)Validation & Documentary evidence 4. To make the system time bound, IQAC has created a template for the first time as a colour code so as to ease out to see that a Section in-charge, HOD, Principal, Vice Principal, Dean's can speak once in a go and can complete the agenda for the meeting. 5. Internal benchmarking parameters for student specific were prepared on 06 major parameters where comparison was done among data received for AY 2018-19. 2019-20 which included: (a) Student enrolment admission quality data with highest cut off CET score, the lowest cut off is observed (b) progression of industry placements, (c) No. of students admitted at B.E (d) Exam results with passing % (e) In-house internship & (f) Higher studies. 6. The newly developed template to collect the data related to academic performance audit as developed after receiving suggestions from combined meeting of Academic Performance Audit and 4th Quarterly Meeting of IQAC.as per autonomy and IQAC- NAAC. Template, actionable points and who has to act upon, template is created quarter wise of what quarter wise action planning strategies for implementing future plan action and then quarter wise action for next A.Y. 2021-2022 is to be planned and executed. Template helps to revise the academic planning design process, making it consistent there he mentioned there were some inconsistencies found and then the points are formed, accordingly the Dean academic board (Member secretary), Deans, Controller of examination, HODs as chairman Board of Studies, section in-charges have to take action. The template is prepared based on 7 NAAC criteria's. 7. Faculties were encouraged and counselled to write research papers and publish it in good quality journals, Counselling was done to the ST-AIDS students to make them understand the importance of participation in Hackathons. 8. Students are undertaking projects that have social relevance viz. IoT based remote patient health monitoring system, sign language recognition system, smart garbage monitoring system using IoT to name a few 9. Ui Path academic alliance has conducted Virtual educator readiness workshop. Few faculty members have completed courses conducted by Ui Puth. The department has conducted AICTE-ISTE approved STTP on RPA design & development related to awareness on RPA tool, techniques, challenges & solutions during June 2022. 10. Under ICT academy, institute has conducted around eleven SDP sessions over the year in which around 1000 students (especially from SE and TE) across all departments have participated. 11. The ES&H dept., prepared a plan to focus on the beyond curriculum part of the resource book so as to inculcate more research habits among the students apart from the innovative examination which is already

being conducted since last academic year 12. The funding is to be applied for the equipment and software for funded research and consultancy, and the labs need to be enriched, updated, and upgraded to that requirement. 13. The need of capturing the innovative practices adopted by faculty and publishing them as best practices. 14. Dr. Sheetal Rathi briefing about curriculum enrichment, told TCET is much in line with NEP 2020, which talks about value based multidisciplinary education, choice-based education, industrial link courses and online digital education. 15. Capstone project has been introduced in professional elective courses of TE and BE project was evaluated and marks were included in the term work assessment 16. A proper guidance and orientation to all faculty members before applying for funding and a proper orientation of particular proposal, so that the failure rate can be reduced. 17. E&TC department told Specialization courses like IoT and Communication networks towards 5G have been offered to E&TC students 18. Dr.Sedamkar added he being a research guide thought of creating special interest groups which was supported by Dr. Sujatha (guided by Dr. Sedamkar) has put her grant received 'the system' in which shall be open to students to use facility for their research work, as high end competitions can be done in this lab. 19. Dr. Lochan Jolly added that AICTE Student Exchange Program has been organized, first of which has been organized in Maharashtra in which around 50 students from Odisha visited TCET campus in the month of July 2022.

12.Plan of action chalked out by IQAC at the beginning of the academic year towards quality enhancement and the outcome achieved by the end of the academic year:

Plan of Action	Achievements/Outcomes
Conducting Student development Activities	a) NSE TalentSprint on "Making of Unicorns". b) Cognizant on
Conducting Faculty Development activities	a)IEEE sponsored FDP on Recent Tools for Integration of Smart Systems b)IEEE sponsored FDP on Education 4.0 c)FDP on outcome based education d)IEEE sponsered FDP on Recent Tools for Integration of Smart Systems e)FDP on outcome based education f)IEEE sponsered FDP on Recent Tools for Integration of Smart Systems
Placement Statistics and online course enrolment	a)For Batch 2022 pass out students, 512 students interested in the placement, out of which, 373 students placed marking up to 72.85%. Employability skill development program was carried out for Second and Third Year students. For Second Year, out of 996 students, 956 students have completed the evaluation satisfactorily. For Third Year, out of 856, 810 students were able to complete the evaluation satisfactorily. ESD was conducted for Second year during 24th to 29th January 2022 and Third year during 17th to 21st January 2022. b) Total of 397 showed interest in NPTEL Courses of which 152 participated and 97 successfully completed it. 889 Students from first year registered for FOSSE online Certification
13.Was the AQAR placed before the statutory body?	**Yes**

- Name of the statutory body

Name of the statutory body	Date of meeting(s)
Governing Council	02/07/2022

14.Was the institutional data submitted to AISHE ?	**Yes**

- Year

Year	Date of Submission
2021	31/12/2021

15.Multidisciplinary / interdisciplinary

Ever since TCET got autonomy in 2019, we have ensured that a substantial number of constructive changes have been made to the traditional curriculum, stimulating the learning environment for our students. The curriculum is designed towards providing the students a strong background in fundamentals, an ability to translate it to real life problems and ability to design, build and analyze different products, processes and systems. Incorporation of courses from all areas, be it humanities, sciences, finance, technology etc. ensures holistic development of graduates who understand the impact of their actions or decisions on the society and environment. Domain skills are complemented with soft skills and this together gives TCET students an edge in the domestic and global market.

Through our unique CBCGS-HME scheme(holistic and Multidisciplinary education), we believe that students should become the architect of their own careers. Specialization credits with honors and minor degree are integrated for interdisciplinary/ multidisciplinary learning. Students are offered plenty of choice in selecting the subjects of interest through open electives. Interdisciplinary projects are promoted across the departments. Students are given platform to explore their hobbies along with academics through various hobby clubs under Student council. Activity based learning ensures that the overall personality of the student is groomed.

The multidisciplinary courses includes : project management, Energy audit and Management, Innovation Management, Environment Management,Supplychain Management,Managerial Economics , Digital buisness and marketing,Social network Analysis,Finance

Management,Operation Research, Design Thinking and problem Solving,Human resource mgmt,Management Information systems,Research Methodology, Enterprise resource planning, disaster mgmt and mitigation measures(16 courses) ,with total of 49 credits

16.Academic bank of credits (ABC):

Academic Bank of Credit is a credit facility originally envisioned by the Government of India in the National Education Policy (NEP) 2020. The credits stored in the individual accounts of the students will give them a much larger scope of freedom in terms of their academic/career choices. The students will be able to drop out of their institute from any year/semester and exchange the credits earned so far with a certificate/diploma if eligible.

In this regard, The workshop on National Credit Framework arranged by the Department of Higher Education, Technical Section-II, Ministry of Education at IIT Bombay was attended by Vice Principal and Dean Academic on 28th November 2022. We are studying the framework and trying to understand the possibilities of deploying it in our system from next Academic Year 2023-24.

The National Credit Framework encompasses the following main components/ dimensions of learning: a) Credits earned by virtue of completed academic education b) Credits earned by virtue of undergoing vocational education, training/ skill program c) Credit points earned by virtue of relevant Experiential learning including relevant experience and professional levels acquired.

The process of initiation of academic Bank of Credit in line with NEP 2020 has started in this Academic year where students are made to register and create logins. In due course of time, we will ensure that students can accumulate the credits as per their choices within the rules and regulations of the various regulatory bodies. This will ensure that fast learners and slow learners can accumulate the credits at their pace for degree award thereby facilitating multiple entry and multiple exit as envisioned in NEP 2020.

17.Skill development:

Training and Placement Cell conducts various skill development programmes from First year to Final year of engineering to make students employable in the industry. The skill development activities are conducted to develop technical and non-technical skills and ensure that students meet the industry requirements. Training content and curriculum are prepared by taking the expert's inputs from industry and academia. The in-house and out-house

trainers are identified for the effective conduct of the sessions. The stakeholders like alumni and industry professionals are also involved to carry out the training activities. Moreover, mock activities are also conducted for students so that they can get an exposure to the actual placement process. Following programmes are conducted for students from First to Final Year of students.

- General English Proficiency Training (GEPT) for First Year Students
- Employability Skills Development (ESD)Programme for Second Year and Third Year Students
- Student Development Programme (SDP) for Second Year and Third Year Students
- Aptitude Competency Training for Third Year Students
- Campus Connect Programme for Third Year Students
- Career Development Training for Third Year and Final Year Students
- Coding Club Activities under TCET-Shastra for Third Year and Final Year Students
- Mock activities for aptitude test, coding tests, technical tests and interviews
- Internship and outhouse projects in industries for all students

18.Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course)

Indian Knowledge Systems (IKS) highlights India's intellectual, scientific and artistic knowledge traditions.

TCET is motivated to adopt IKS in its curriculum as it helps to make the individuals agile, environment friendly, creative, and innovative. This will help TCET to achieve its mission to make to student's competent global engineers who can deliver quality results in industry.

Till last year we had integration of only Indian knowledge Yoga as part of Student induction program and under Activity based learning I and II in semester 1 and semester 2.

This semester we got IKS internship for "water management and conservation using ancient Indian knowledge". 36 students have registered for this and are working on development of course material and multimedia book. In this student are studying the traditional techniques and comparing it with modern methods and suggesting a technique that uses traditional and modern methods and

is sustainable, eco-friendly & economical.

19.Focus on Outcome based education (OBE):Focus on Outcome based education (OBE):

TCET aims to transform a young, enthusiastic student into a professionally competent engineer capable of accepting the challenges of the Industry through Quality Education. With this intention, TCET obtained NBA accreditation for all its eligible UG programs right from 2011 and in civil and Mechanical department since 2021. Some of the departments are now accredited in the 4th cycle in the current academic year. The institute has got "Autonomous" status from academic year 2019-2020 and deployed an innovative scheme with focus on holistic education.

The focus is on 'creative learning' based on the unique approaches such as continuously updated curriculum, Activity based learning, Project based learning, Research based learning, Professional Skills and Employability skill development programs.

With these holistic components being an integral part of our curriculum and credits assigned to them, now we are able to measure the attainment of all the components effectively after mapping them to PO and PSO. Both the direct and indirect tools are used to calculate the attainment for scholastic, co-scholastic and non-scholastic activities. To ensure continuous improvement, the attainments are checked at regular intervals and suitable measures are taken to fill the gaps wherever required. Thus through our OBE framework, we ensure that the knowledge, skill and attitude attributes are inculcated in our students to prepare a work- force comparable to the best in the country through a learner- centric, dynamic approach of teaching. In our endeavor for imparting quality technical education, we will be striving hard to make our students think beyond the box and make them globally competent and locally relevant citizens.

20.Distance education/online education:

At our institute currently we do not have any mechanism for distance education/online education.

Extended Profile

1.Programme

1.1   **12**

Number of programmes offered during the year:

File Description	Documents
Institutional Data in Prescribed Format	[View File](#)

2.Student

2.1   **3565**

Total number of students during the year:

File Description	Documents
Institutional data in Prescribed format	[View File](#)

2.2   **801**

Number of outgoing / final year students during the year:

File Description	Documents
Institutional Data in Prescribed Format	[View File](#)

2.3   **3612**

Number of students who appeared for the examinations conducted by the institution during the year:

File Description	Documents
Institutional Data in Prescribed Format	[View File](#)

3.Academic

3.1   **358**

Number of courses in all programmes during the year:

File Description	Documents
Institutional Data in Prescribed Format	[View File](#)

3.2   **213**

Number of full-time teachers during the year:

Extended Profile

1.Programme

1.1	**12**
Number of programmes offered during the year:	

File Description	Documents
Institutional Data in Prescribed Format	View File

2.Student

2.1	**3565**
Total number of students during the year:	

File Description	Documents
Institutional data in Prescribed format	View File

2.2	**801**
Number of outgoing / final year students during the year:	

File Description	Documents
Institutional Data in Prescribed Format	View File

2.3	**3612**
Number of students who appeared for the examinations conducted by the institution during the year:	

File Description	Documents
Institutional Data in Prescribed Format	View File

3.Academic

3.1	**358**
Number of courses in all programmes during the year:	

File Description	Documents
Institutional Data in Prescribed Format	View File

3.2 Number of full-time teachers during the year:	213

File Description	Documents
Institutional Data in Prescribed Format	View File

3.3 Number of sanctioned posts for the year:	206

4.Institution	
4.1 Number of seats earmarked for reserved categories as per GOI/State Government during the year:	180
4.2 Total number of Classrooms and Seminar halls	58
4.3 Total number of computers on campus for academic purposes	1550
4.4 Total expenditure, excluding salary, during the year (INR in Lakhs):	6468

Part B

CURRICULAR ASPECTS

1.1 - Curriculum Design and Development

1.1.1 - Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which are reflected in Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the various Programmes offered by the Institution.

The curriculum offered, under the University of Mumbai (UoM) affiliation, was as per the semester pattern of University of Mumbai. This curriculum included basic/ foundation courses, core courses, design and development, engineering and technological applications and other supporting courses. However, after getting the autonomous status in July 2019, the curriculum has been redesigned to bring learning, simplicity, flexibility, learning

diversity and Holistic Students Development (HSD). This change widened the scope of providing beyond-curriculum components viz., ABL, PBL, Professional skills, Employability skills, Internships, design-based experiments, mini-projects, case studies, etc., along with the perspective of national/ international relevance. The objective has been to develop course specific technical knowledge with strong analytical skills, critical thinking, and innovative mindset among students. The curriculum designed in AY 2021-22 aimed to include core, multidisciplinary, industry linked, research-based learning and value-based HSD under autonomous system. All of the above were added as a part of CBCGS system with Holistic and Multidisciplinary Education with the offering of major/minor courses, additional credits, and recognition for national/ international achievements through credits and citations. The PG syllabus is also redesigned and broadly follows AICTE model curriculum with scope for industry projects component. For Ph.D. programme, the UGC guidelines were followed.

File Description	Documents
Upload additional information, if any	[View File](#)
Link for additional information	https://www.tcetmumbai.in/CMPN%20PO.html

1.1.2 - Number of Programmes where syllabus revision was carried out during the year

18

File Description	Documents
Minutes of relevant Academic Council/BOS meeting	[View File](#)
Details of syllabus revision during the year	[View File](#)
Any additional information	[View File](#)

1.1.3 - Number of courses focusing on employability/entrepreneurship/ skill development offered by the Institution during the year

69

File Description	Documents
Curriculum / Syllabus of such courses	View File
Minutes of the Boards of Studies/ Academic Council meetings with approval for these courses	View File
MoUs with relevant organizations for these courses, if any	No File Uploaded
Any additional information	View File

1.2 - Academic Flexibility

1.2.1 - Number of new courses introduced across all programmes offered during the year

2

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	View File
Any additional information	View File
Institutional data in prescribed format (Data Template)	View File

1.2.2 - Number of Programmes offered through Choice Based Credit System (CBCS)/Elective Course System

18

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	View File
Any additional information	No File Uploaded
List of Add on /Certificate programs (Data Template)	View File

1.3 - Curriculum Enrichment

1.3.1 - Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability, and Human Values into the curriculum

The Institute curriculum of all programs addresses issues relevant

to gender, environment and sustainability, human values and professional ethics. Apart from the academic, TCET offers a separate section in the syllabus scheme for Holistic Multidisciplinary Education of students and offers credits towards that as well apart from academic credits. Various activities are organized throughout the year under the auspices of various committees formed at the department and at the Institute level.

1. Gender Sensitivity: Under NSS and Rotaract committee, students are sensitized and encouraged to work towards gender equity from a cross-cultural perspective. TCET annually organizes seminars, conferences, guest lectures, street plays and literary activities that help in gender sensitization.

2. Environment and Sustainability: A compulsory core course on Environment studies is included in all UG programmes. Apart from that, the UG programmes in Civil and Mechanical Engineering include subjects on Water, Sanitation and Waste Management, Renewable Energy, Dairy Technology, Agriculture and Environmental and Green Technology. Environment awareness camps, seminars, workshops, guest lectures, industry visits etc. are organized.

3. Human Values and Professional Ethics: The curriculum across all years also focusses on the development of human values and professional ethics like Universal Human Values, Indian tradition, Environment Studies etc.

File Description	Documents
Upload the list and description of the courses which address issues related to Gender, Environment and Sustainability, Human Values and Professional Ethics in the curriculum	View File
Any additional information	No File Uploaded

1.3.2 - Number of value-added courses for imparting transferable and life skills offered during the year

3

File Description	Documents
List of value-added courses	View File
Brochure or any other document relating to value-added courses	View File
Any additional information	View File

1.3.3 - Number of students enrolled in the courses under 1.3.2 above

4445

File Description	Documents
List of students enrolled	View File
Any additional information	View File

1.3.4 - Number of students undertaking field work/projects/ internships / student projects

3468

File Description	Documents
List of programmes and number of students undertaking field projects / internships / student projects	View File
Any additional information	View File

1.4 - Feedback System

1.4.1 - Structured feedback and review of the syllabus (semester-wise / year-wise) is obtained from 1) Students 2) Teachers 3) Employers and 4) Alumni

C. Any 2 of the above

File Description	Documents
Provide the URL for stakeholders' feedback report	https://drive.google.com/file/d/1lzAJ8cm4E xZLhXF-kAYD94a0RqoF1sXS/view?usp=sharing
Upload the Action Taken Report of the feedback as recorded by the Governing Council / Syndicate / Board of Management	View File
Any additional information	**No File Uploaded**

1.4.2 - The feedback system of the Institution comprises the following　　**B. Feedback collected, analysed and action taken**

File Description	Documents
Provide URL for stakeholders' feedback report	https://drive.google.com/file/d/11zAJ8cm4E xZLhXF-kAYD94a0RqoF1sXS/view?usp=sharing
Any additional information	No File Uploaded

TEACHING-LEARNING AND EVALUATION

2.1 - Student Enrollment and Profile

2.1.1 - Enrolment of Students

2.1.1.1 - Number of students admitted (year-wise) during the year

890

File Description	Documents
Any additional information	View File
Institutional data in prescribed format	View File

2.1.2 - Number of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per the reservation policy during the year (exclusive of supernumerary seats)

39

File Description	Documents
Any additional information	View File
Number of seats filled against seats reserved (Data Template)	View File

2.2 - Catering to Student Diversity

2.2.1 - The institution assesses students' learning levels and organises special programmes for both slow and advanced learners.

TCET follows a process of segregating students based on learning levels in which students are categorized as excellent, good, and average with academic performance and validation. The wide range of continuous assessment components that include, Class Assignments, Seminars and Group Discussions, Quizzes, Class Tests, Projects, Internships, Viva-voce examinations and attendance,

enable effective assessment of learning levels of students. Faculty members and various Committees regularly review the academic progress and counsel students to improve their performance to ensure their academic growth. Faculty members also refer to such fast learners some advanced areas for further study as per the interest of the students. The institute has another provision for students who face problem of coping with English language since engineering students are from various boards. The provision is General English Proficiency Training which is conducted over and above the curriculum activities. This program is conducted for 12-20 hours in which various activities are conducted for confidence building. The training programs is meant for boosting the confidence of students coming from vernacular medium with English language barriers. The program focuses mainly on speech, grammar, and vocabulary of the students which leads ultimately to develop interest in English language. The Institute employs varied evaluations to test both Quality and Values. It implements well-defined models of evaluation with varied types of assessment to effectively evaluate outcomes, both at the course and the program level.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.tcetmumbai.in/CMPN/Teacher-Guardian_List.pdf

2.2.2 - Student – Teacher (full-time) ratio

Year	Number of Students	Number of Teachers
01/05/2022	3565	213

File Description	Documents
Upload any additional information	View File

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:

TCET believes in the adoption of student's centric methods to enhance student involvement as a part of participative learning

and problem-solving methodology. Role Plays, Team works,

Debates, Seminar Quizzes and case studies Specifically Students centric Teaching Methods are reflected in project work, Field Visit, Industrial visit & guest lectures. Specifically, the student's centric methodology includes Experiential Learning

The curriculum also focuses on promoting Holistic Student Development (HSD) which includes courses on Employability Skill Development which focus on Industry Specific skills,

Professional skills which focus on basic Technology skills for 2nd year, industry/ research/ entrepreneurship skills for 3rd and Final Year. Project Based Learning to aid students identify real world problems and apply computing fundamental and technical skill to find solutions to them.is common for SE, TE and BE under HSD along with Activity Based Learning (Co-curricular/ Extra-curricular/ Extension) to improve personality development skills for SE students and Research Based Learning focused to engage the learner in research by upgrading domain knowledge through participation in various core research activities for

innovative idea generation for TE & BE students.

Professional Skills (PS): PS is taught to introduce new technologies to students. It helps them to acquire skills to develop projects using recent technologies.

Employability Development Skills (ESD): ESD is taught considering the emerging technology requirements in industry.

Activities like Group Presentations, Group-Discussions, Peer to Peer Interactions, etc. helped students enhance his/her participation and interactions.

File Description	Documents
Upload any additional information	[View File](#)
Link for additional Information	https://www.tcetmumbai.in/CMPN/InnovationBYFaculty.pdf

2.3.2 - Teachers use ICT-enabled tools including online resources for effective teaching and learning

At TCET, the classrooms and labs are ICT enabled with projectors installed and the campus is enabled with high speed WIFI connection at various points. During the pandemic , online platforms were used for academic conduct, doubt solving sessions , Project progress demos-presentations and assessments. College has provided pen tablets and other necessary digital

infrastructure to effectively conduct the online session like good cameras, zoom licenses and Webcam, Wi-fi Router, Pen Tablet,Wired Headset, Stylus Pen to each department to improve the learning experience of students have been given to the department in sufficient numbers The faculty at TCET use various ICT enabled tools to enhance the quality of teaching-learning like

1. Microsoft Teams and Google Classroom is used to manage and post course related information- learning material, lab manuals, quizzes, lab submissions and evaluations, assignments, etc.

2. Virtual labs are used to conduct labs through simulations.

3. Online drawing tools like concept maps, mind maps, are used to perform student centric activities.

4. Online quizzes and polls are regularly conducted to record the feedback of the students. Various online Tools were used to conduct Formative Assessment such as Google Form (MCQs), Group discussion Activity (PPTs/Microsoft Word), Quiz (Zoom Pooling) , Debate (PPTs/Microsoft word), Word cloud (Mentimeter), Flip classroom(By uploading material on ERP, Profile website Page), Puzzles (Online Puzzle Maker Tool), padlet used for writing answers and then up voted or down voted by peers, Crossword Puzzles and Case Study etc.

File Description	Documents
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	https://forms.gle/hFDf26sJYm7H13Zr7
Upload any additional information	View File

2.3.3 - Ratio of students to mentor for academic and other related issues

2.3.3.1 - Number of mentors

180

File Description	Documents
Upload year-wise number of students enrolled and full-time teachers on roll	View File
Circulars with regard to assigning mentors to mentees	View File

2.3.4 - Preparation and adherence to Academic Calendar and Teaching Plans by the institution

Academic Calendar is prepared on semester basis which includes all activities held in each 6 months complete span (July to December & January to June) considering the university calendar, the list of holidays, students' activities, etc. The academic calendar is prepared inintegration of list of activities conducted from professional bodieschapter from departments, placement office, HOC cell , NSS, NCC, EWT, IPR cell, student council, TEDx etc. Initially, a tentative academic calendar is released 21 days before the semester commencement. The tentative calendar is shared withHODs during beginning of semester to receive suggestions for incorporating to avoid activitiesleft out elseacademic calendar is required to be moderated. The academic calendar is conducted for initial 15 days after that in case oflapsesthen added to finalize it. The HODsprepare departmental calendar in alignment with institute's academic calendar. Academic calendar is notified on notice board and website.

File Description	Documents
Upload the Academic Calendar and Teaching Plans during the year	View File

2.4 - Teacher Profile and Quality

2.4.1 - Number of full-time teachers against sanctioned posts during the year

213

File Description	Documents
Year-wise full-time teachers and sanctioned posts for the year	View File
List of the faculty members authenticated by the Head of HEI	**No File Uploaded**
Any additional information	View File

2.4.2 - Number of full-time teachers with PhD/ D.M. / M.Ch. / D.N.B Super-Specialty / DSc / DLitt during the year

41

File Description	Documents
List of number of full-time teachers with PhD./ D.M. / M.Ch. / D.N.B Super-Specialty / D.Sc. / D.Litt. and number of full-time teachers for 5 years	View File
Any additional information	View File

2.4.3 - Total teaching experience of full-time teachers in the same institution: (Full-time teachers' total teaching experience in the current institution)

1496

File Description	Documents
List of teachers including their PAN, designation, Department and details of their experience	View File
Any additional information	View File

2.5 - Evaluation Process and Reforms

2.5.1 - Number of days from the date of last semester-end/ year- end examination till the declaration of results during the year

Nil

File Description	Documents
List of Programmes and the date of last semester-end / year-end examinations and the date of declaration of result	[View File](#)
Any additional information	No File Uploaded

2.5.2 - Number of students' complaints/grievances against evaluation against the total number who appeared in the examinations during the year

0

File Description	Documents
Upload the number of complaints and total number of students who appeared for exams during the year	No File Uploaded
Upload any additional information	No File Uploaded

2.5.3 - IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) have brought in considerable improvement in the Examination Management System (EMS) of the Institution

Continuous Evaluation is carried out for evaluating the learning of the students on regular basis from the start of semester on weekly, monthly basis as well as mid semester and end semester

evaluation. Weekly evaluation is done for practical performance/tutorial/project, quizzes, surprise test etc. Monthly evaluation is for Formative assessment and remedial work done by defaulters and slow learners. Mid-term evaluation includes compliance for term work , assignment, internal examination and mid semester review of the student classroom participation, laboratory work . The evaluation of the term work is done and it needs to be granted by the subject teacher and the granted list is to be approved by the authority. The term work is assessed on regular basis and the records are maintained with the concerned laboratories At each stage of evaluation, students are categorized into three levels (Level-I: Low, Level- II: Medium, Level-III: High) and performance is communicated to the students.

In academic year (2021-2022) the institute has moved from the traditional examination scheme where more weightage is given to End Semester Exam (ESE) and internal assessment. In the 60:40

scheme ,60 marks are for ESE and out of remaining 40 marks, 20 marks are for In semester assessment and 20 marks are for Innovative exam where student will be given some task to access the learning in a particular subject. In academic year (2021-2022) 1st & 2nd year students had 60:40 scheme and for the students of 3rd and final year, examination scheme remains as per 75:25(ESE: IA) only.

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional Information	https://www.tcetmumbai.in/examnotification.html

2.6 - Student Performance and Learning Outcomes

2.6.1 - Programme Outcomes and Course Outcomes for all Programmes offered by the institution are stated and displayed on the website and communicated to teachers and students

Programme Outcomes(POs) are published on various publicity platforms and prominent places in the Institute and Department viz. Department and Institute Notice boards, College website:

http://www.tcetmumbai.in/, Admission Brochures and other Institute publications viz. Souvenirs, proceedings, college magazines, faculty diary, journals etc.,Programme Resource

Book, Course Resource Books, Prominent Places in the department, Faculty Diary, Journal files etc. Therefore, these mechanisms provide the means for dissemination of the POs amongst the stakeholders, mainly the faculty and the students and act as a guiding force for shaping the career of the student.

Course Objective and Course Outcomes are defined for every subject and are given in the syllabus. For every subject 6 modules are defined. The course outcomes are based on these 6

modules. Course Outcomes are communicated to the students during the first week of every semester (Semester Orientation Programme).

These Course outcomes are available on the college website as well.

Here the 1st link gives the general information of the department, 2nd link is for PEOs, 3rd link is for POs, 4th link is for PSOs

5th link is for the details of the course outcomes which are

included in the syllabus.

File Description	Documents
Upload COs for all courses (exemplars from the Glossary)	View File
Upload any additional information	No File Uploaded
Link for additional Information	https://www.tcetmumbai.in/deptCompEngineering_home.html

2.6.2 - Attainment of Programme Outcomes and Course Outcomes as evaluated by the institution

At the initial stage of Outcome-Based Education (OBE), the Course Outcomes (CO's) for each course are defined based on the Programme Outcome (PO's) and other requirements. At the end of each course, the COs needs to be assessed and evaluated, to check attainment. Assessment is carried out by the department to evaluate the achievement of programme Outcomes and programme specific outcomes. Attainment is the action or fact of achieving a standard result towards accomplishment of desired goals. Primarily attainment is the standard of academic attainment as observed by continuous evaluation through internal assessment test, assignments and or examination result. Attainment of the COs can be measured directly and indirectly.

In the examinations the effort is taken to align the question paper with Revised Bloom's Taxonomy (RBT) models which helps the institute to understand the attainment of course outcomes and programme outcome, as per the institute guidelines within the framework of a Choice Based Credit Grading System for Holistic Development (CBCGS-HME).

Direct attainment basically displays the student's knowledge and skills from their performance which is determined from the performance in all the relevant assessment instruments like internal assessments, assignments, and final examination, providing strong evidence of student learning. Indirect methods like course surveys and exit surveys ask the stakeholders to reflect on student's learning.

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	https://www.tcetmumbai.in/CMPN/CMPN%20About%20Us.pdf

2.6.3 - Pass Percentage of students

2.6.3.1 - Total number of final year students who passed in the examinations conducted by Institution

801

File Description	Documents
Upload list of Programmes and number of students appear for and passed in the final year examinations	View File
Upload any additional information	View File
Paste link for the annual report	nil

2.7 - Student Satisfaction Survey

2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire). Results and details need to be provided as a weblink

https://www.tcetmumbai.in/Notice/Student%20satisfaction%20survey.pdf

RESEARCH, INNOVATIONS AND EXTENSION

3.1 - Promotion of Research and Facilities

3.1.1 - The institution's research facilities are frequently updated and there is a well-defined policy for promotion of research which is uploaded on the institutional website and implemented

Understanding the need for encouraging students towards pursuing research, TCET R&D Cell was set up in year 2013 for nurturing technical talent of students and giving them platform to check feasibility of their ideas by developing projects under hobby club facilities. The projects having potential of being converted into products are reviewed by entrepreneurs and industrialists. TCET is recognized as research centre by Mumbai University for Ph.D.

(Technology) in E&TC, COMP, IT. To provide a strong platform to researchers, academicians and scholars, TCET regularly organizes national/international conferences, seminars, workshops and colloquium enabling stakeholders to build their capacity for critical examination and sound judgment. TCET has remote centre of IIT Bombay for online research, android mobile application development and e-yantra laboratory. Under industry-institute interaction TCET has Thakur-Accenture Innovation Centre for advanced computing and communication. TCET has a centre of excellence with set objectives for carrying out research which impacts overall research culture. TCET has Publication and Intellectual Property Creation Team to support and guide students/faculty in protecting their inventions and creations by offering legal counselling; streamlining paperwork and helping to identify their own IP while respecting the IP of others. 17 patents have been filed and 12 granted in AY 2021-22.

File Description	Documents
Upload the Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	View File
Provide URL of policy document on promotion of research uploaded on the website	https://www.tcetmumbai.in/research_promotion.html
Any additional information	No File Uploaded

3.1.2 - The institution provides seed money to its teachers for research

3.1.2.1 - Seed money provided by the institution to its teachers for research during the year (INR in lakhs)

Nil

File Description	Documents
Minutes of the relevant bodies of the institution regarding seed money	**No File Uploaded**
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	[View File](#)
List of teachers receiving grant and details of grant received	**No File Uploaded**
Any additional information	**No File Uploaded**

3.1.3 - Number of teachers who were awarded national / international fellowship(s) for advanced studies/research during the year

2

File Description	Documents
e-copies of the award letters of the teachers	[View File](#)
List of teachers and details of their international fellowship(s)	[View File](#)
Any additional information	[View File](#)

3.2 - Resource Mobilization for Research

3.2.1 - Grants received from Government and Non-Governmental agencies for research projects, endowments, Chairs during the year (INR in Lakhs)

4

File Description	Documents
e-copies of the grant award letters for research projects sponsored by non-governmental agencies/organizations	[View File](#)
List of projects and grant details	[View File](#)
Any additional information	[View File](#)

3.2.2 - Number of teachers having research projects during the year

3

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	nil
List of research projects during the year	View File

3.2.3 - Number of teachers recognised as research guides

15

File Description	Documents
Upload copies of the letter of the university recognizing teachers as research guides	View File
Institutional data in Prescribed format	View File

3.2.4 - Number of departments having research projects funded by Government and Non-Government agencies during the year

2

File Description	Documents
Supporting document from Funding Agencies	View File
Paste link to funding agencies' website	nil
Any additional information	View File

3.3 - Innovation Ecosystem

3.3.1 - Institution has created an ecosystem for innovations and creation and transfer of knowledge supported by dedicated centres for research, entrepreneurship, community orientation, incubation, etc.

TCET's R&D cell is a platform where young minds come up with innovative ideas and the ecosystem of this cell has helped these ideas grow with fruitful outcomes. The R&D cell has a well-equipped components library from which students can issue components required to test their ideas for one semester. TCET-IEDC is a unique platform where students are selected from

different branches of engineering and encouraged to do interdisciplinary projects. Every year students are encouraged to take part in various Hackathons, Ideathons organized by the Central Government, AICTE, various MNCs and other industries. To promote first-generation entrepreneurs, TCET organizes various awareness programs, certification courses by reputed institutes, regular meetings with existing successful entrepreneurs etc. TCET's NSS student chapter has organized several activities like blood donation drive, cleanliness drive etc. through which its volunteers have developed constructive linkage between campus and community. TCET's Extension Work Team has organized activities that provide research-based information, teaching people new knowledge and skills, helping people to improve their income etc. TCET's Rotaract club has been started with the main objective of community service and professional development.

TCET-R&D cell is dedicated to help advance existing knowledge and nurture new ideas by providing resources and facilities to create cutting edge products from which future research will emerge.

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional information	https://www.tcetmumbai.in/rnd_entrepreneur.html

3.3.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR), Entrepreneurship and Skill Development during the year

12

File Description	Documents
Report of the events	[View File](#)
List of workshops/seminars conducted during the year	[View File](#)
Any additional information	[View File](#)

3.4 - Research Publications and Awards

3.4.1 - The Institution ensures implementation of its Code of Ethics for Research uploaded in the website through the following: Research Advisory Committee

D. Any 1 of the above

Ethics Committee Inclusion of Research Ethics in the research methodology course work Plagiarism check through authenticated software

File Description	Documents
Code of Ethics for Research, Research Advisory Committee and Ethics Committee constitution and list of members of these committees, software used for plagiarism check	**No File Uploaded**
Any additional information	View File

3.4.2 - Number of PhD candidates registered per teacher (as per the data given with regard to recognized PhD guides/ supervisors provided in Metric No. 3.2.3) during the year

3.4.2.1 - Number of PhD students registered during the year

8

File Description	Documents
URL to the research page on HEI website	nil
List of PhD scholars and details like name of the guide, title of thesis, and year of registration	View File
Any additional information	View File

3.4.3 - Number of research papers per teacher in CARE Journals notified on UGC website during the year

51

File Description	Documents
List of research papers by title, author, department, and year of publication	View File
Any additional information	View File

3.4.4 - Number of books and chapters in edited volumes / books published per teacher during the year

14

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional information	https://www.tcetmumbai.in/Multicon/2022/Multicon-W%202022%20Procedding.pdf

3.4.5 - Bibliometrics of the publications during the year based on average Citation Index in Scopus/ Web of Science/PubMed

3.4.5.1 - Total number of Citations in Scopus during the year

88

File Description	Documents
Any additional information	[View File](#)
Bibliometrics of the publications during the year	[View File](#)

3.4.6 - Bibliometrics of the publications during the year based on Scopus/ Web of Science – h-Index of the University

3.4.6.1 - h-index of Scopus during the year

31

File Description	Documents
Bibiliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	[View File](#)
Any additional information	[View File](#)

3.5 - Consultancy

3.5.1 - Revenue generated from consultancy and corporate training during the year (INR in lakhs)

20.53

File Description	Documents
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	View File
List of consultants and revenue generated by them	No File Uploaded
Any additional information	View File

3.5.2 - Total amount spent on developing facilities, training teachers and clerical/project staff for undertaking consultancy during the year

0

File Description	Documents
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	View File
List of training programmes, teachers and staff trained for undertaking consultancy	No File Uploaded
List of facilities and staff available for undertaking consultancy	No File Uploaded
Any additional information	No File Uploaded

3.6 - Extension Activities

3.6.1 - Extension activities carried out in the neighbourhood sensitising students to social issues for their holistic development, and the impact thereof during the year

In TCET, NSS has always stood up to its strong spirit of serving people keeping in mind the policy of "Not Me, But You". Belief that we must live for others, is being realized throughselfless service ofNSS volunteers who get into timely action forupliftment ofneedy people of their respective localities. NSS unit of TCET has always given volunteers, a platform to serve society and bring happiness and smiles on many faces, which has sownseeds of social commitment instudents who are otherwise kept aloof fromreal challenges and torments faced bymasses in the society as a whole. A team of 150 committed NSS Volunteers and Programme Officers of TCET under NSS Technical cell of Directorate of Technical

Education, Mumbai have proven to be an enough cause and reason for instilling a significant change in the society. The service rendered by NSS are varied in nature: Education, Environment, Health and Society. Regular Activities and Special Camping Programmes arehighlights of NSS activities.The objective of NSS is to enhance physical wellbeing, spread awareness regarding importance of proper health, safety measures and stress on physical and mental health, etc. With these objectives many activities have been conducted.

File Description	Documents
Upload any additional information	**No File Uploaded**
Paste link for additional information	https://www.tcetmumbai.in/ewtTCET.html

3.6.2 - Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government-recognised bodies during the year

5

File Description	Documents
Number of awards for extension activities in during the year	View File
e-copy of the award letters	**No File Uploaded**
Any additional information	View File

3.6.3 - Number of extension and outreach programmes conducted by the institution through NSS/NCC/Red Cross/YRC, etc. during the year (including Government-initiated programmes such as Swachh Bharat, AIDS Awareness, and Gender Sensitization and those organised in collaboration with industry, community and NGOs)

13

File Description	Documents
Reports of the events organized	View File
Any additional information	View File

3.6.4 - Number of students participating in extension activities listed in 3.6.3 during the year

71

File Description	Documents
Reports of the events	View File
Any additional information	View File

3.7 - Collaboration

3.7.1 - Number of collaborative activities during the year for research/ faculty exchange/ student exchange/ internship/ on-the-job training/ project work

4

File Description	Documents
Copies of documents highlighting collaboration	View File
Any additional information	View File

3.7.2 - Number of functional MoUs with institutions of national and/or international importance, other universities, industries, corporate houses, etc. during the year (only functional MoUs with ongoing activities to be considered)

10

File Description	Documents
e-copies of the MoUs with institution/ industry/ corporate house	View File
Details of functional MoUs with institutions of national, international importance, other institutions etc. during the year	View File
Any additional information	View File

INFRASTRUCTURE AND LEARNING RESOURCES

4.1 - Physical Facilities

4.1.1 - The Institution has adequate infrastructure and physical facilities for teaching-learning, viz., classrooms, laboratories, computing equipments, etc.

The institution has the necessary physical infrastructure, such as classrooms, labs, computers, etc., for teaching and learning. The college is equipped with cutting-edge technology, and the world first-rate educational facilities for the study of engineering. The Exceptional infrastructure produced a favourable climate, and the ideal academic environment, critical infrastructure, key

infrastructure consists of

Classrooms :55

Tutorial rooms :22

Laboratories/additional workshop :70

Computer centre :02

Language Laboratory :01

Central Library :01

Departmental library :11

Gymkhana :01

Seminar Hall :03

Auditorium :01

Cafeteria :01

Canteen :01

Pantry for staff: 01

Workshop:02

Drawing Hall:02

Common Room :02

Sick Room: 01

Air-conditionedseminar rooms and classrooms are well-designed and furnished with single-seater benches. There are up to 80 seats in each classroom. The institute includes four Seminar rooms that are properly furnished with Wi-Fi, smart boards, and audio-visual connections.

Laboratories are well-equipped with branded tools, kits, computing resources, computer-based labs, internet access, and the newest software, among other things.

Virtual lab conduction using different online platform. (i.e., IIT's platforms and Amrita Lab).

File Description	Documents
Upload any additional information	View File
Paste link for additional information	nil

4.1.2 - The institution has adequate facilities for cultural activities, yoga, sports and games (indoor and outdoor) including gymnasium, yoga centre, auditorium etc.)

Table tennis, carom, chess, and other indoor sports facilities have been established in the boy's and girl's rooms for recreation during breaks or vacation. Multipurpose Hall/Auditorium are meant to host events like yoga, meditation, inspirational talks, team building exercises, etc.

A sizable playground with 3.5 acres that may be used for all kinds of sporting events is located adjacent to the campus. The sports facility includes volleyball, badminton, throwball, football, cricket, kabaddi, and many more outdoor activities.

File Description	Documents
Geotagged pictures	View File
Upload any additional information	No File Uploaded
Paste link for additional information	nil

4.1.3 - Number of classrooms and seminar halls with ICT-enabled facilities

56

File Description	Documents
Upload any additional information	View File
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	View File

4.1.4 - Expenditure for infrastructure augmentation, excluding salary, during the year (INR in Lakhs)

2191

File Description	Documents
Upload audited utilization statements	**No File Uploaded**
Details of Expenditure, excluding salary, during the years	[View File](#)
Any additional information	[View File](#)

4.2 - Library as a Learning Resource

4.2.1 - Library is automated using Integrated Library Management System (ILMS)

Library is automated using Integrated Library Management System (ILMS)

Name of the ILMS software—Koha Software ,

Nature of automation (full or partial)--Partial

Version—18.11

Year of automation—2005

Library is an essential part of any educational institution. TCET has very well equipped and rich in books library. It facilitates access of books online and off-line. It has a circular section, two reading section and a digital reading section. The library has a sufficient number of books, e-books, and e-journals. Students and staff can access books using Knimbus software inside and outside campus. Learning Resource center (Central Library) has built up area of 840 Sq.m. LRC is highly modular. The library is running for 12 hrs on office working days.

Text Books:31,600

Reference Books: more than 2806

Book bank facility for students with more than 2850 books

Technical Magazines- 11

Journals - 119

Added 42 new books in the AY2021-22

Department library with average 500 books and 500 project reports

8 E journals Data bases

J-GATE includes abstract Journals 15743, Full text Journals 21328 articles.

IEEE-All Society periodicals Package-169 Journals

McGraw Hill-Access Engg/Library-817 e-books

ASME-Mechanical Engineering 31 Journals

Elsevier-Science Direct-749 Journals

ASCE-Civil Engg-42 Journal new

Springer Electrical,Electronics & CMPN-149 Journals

Journal abstract 15743 & Full Text journal 19518

Knimbus Digital Library (E-books 10000) Remotely content

access+mobile app

Library Management : 24 PCs and 157 Mbps Internet

Xerox section: Photocopy/Scan/Print facility

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional information	https://www.tcetmumbai.in/LRCHolding.html

4.2.2 - Institution has access to the following: A. Any 4 or more of the above
e-journals e-ShodhSindhu Shodhganga
Membership e-books Databases Remote
access to e-resources

File Description	Documents
Details of subscriptions like e-journals, e-books, e-ShodhSindhu, Shodhganga membership	View File
Upload any additional information	View File

4.2.3 - Expenditure on purchase of books/ e-books and subscription to journals/e-journals during the year (INR in lakhs)

23.6

File Description	Documents
Audited statements of accounts	**No File Uploaded**
Any additional information	View File
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	View File

4.2.4 - Usage of library by teachers and students (footfalls and login data for online access)

4.2.4.1 - Number of teachers and students using the library per day during the year

98.5

File Description	Documents
Upload details of library usage by teachers and students	View File
Any additional information	**No File Uploaded**

4.3 - IT Infrastructure

4.3.1 - Institution has an IT policy covering Wi-Fi, cyber security, etc. and has allocated budget for updating its IT facilities

Institution has an IT policy covering Wi-Fi, cyber security, etc. and has allocated budget

for updating its IT facilities

Open access Wi-Fi for students Airtel

D-Link Router at all staff room and Offices

FortiGate firewall

324 CCTV,

2.8MP equivision HD camera with one month data back up SSL Certificate for Institute website

Institute has an excellent infrastructure consisting of Local Area Network(LAN) on which on which 1550 computers are connected to internet with the BW of 1.1 Gbps ERP with LMS is also deployed for campus management network infrastructure highlights include :-

High speed servers with 1200 DELL/ HP/ Desktops, Workstation as a windows Linus clients

Microsoft campus agreement licences and high end applications / utility software. Robust campus network configured with Gigabit Sysco backbone switches and optical fibre windows/ Linux server with high speed wifi connectivity

High speed leased line connectivity having 1.1 Gbps bandwidth with integrated RP systems are dedicated 4 Mbps leased line internet connectivity for IIT Bombay Remote centre for Faculty and student development and research programs

Highly secured Network with Forinet 400 E firewall Kaspersky antivirus for security through campus agreement

High speed leased line connectivity in all class room and laboratories connected with internet projection facility

Campus surveillance system with 200 high end camera and DVRs with One month backup storage having facility to provide footage to stakeholder on request it has dedicated control room fitted with 4 TV Displays for monitoring of footage.

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional information	[Nil](#)

4.3.2 - Student - Computer ratio

Number of Students	Number of Computers
3565	1820

File Description	Documents
Upload any additional information	View File

4.3.3 - Bandwidth of internet connection in the Institution and the number of students on campus

A. ?50 Mbps

File Description	Documents
Details of bandwidth available in the Institution	View File
Upload any additional information	View File

4.3.4 - Institution has facilities for e-content development: **Facilities available for e-content development Media Centre Audio-Visual Centre Lecture Capturing System (LCS) Mixing equipments and software for editing**

E. None of the above

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	nil
List of facilities for e-content development (Data Template)	View File

4.4 - Maintenance of Campus Infrastructure

4.4.1 - Expenditure incurred on maintenance of physical and academic support facilities, excluding salary component, during the year (INR in lakhs)

6468

File Description	Documents
Audited statements of accounts	[View File](#)
Upload any additional information	**No File Uploaded**

4.4.2 - There are established systems and procedures for maintaining and utilizing physical, academic and support facilities – classrooms, laboratory, library, sports complex, computers, etc.

Maintenance of resources

i. Records of equipment's are maintained in stock registers as specified in Purchase Process

TCET/IP/05

ii. Equipment's / appliances are serviced periodically and calibrated or as and when required

iii. Record of servicing is maintained in respective registers

iv. Budget of annual maintenance contract (AMC) need to be submitted by December 31st of the ongoing academic year by Department / Section.

v. Equipment's that are not in working condition and are not repairable are removed from the

stock.

b) General maintenance:

i. Auditorium, cleaning and maintenance is done by internal staff member and one person from outside.

ii. Cleanliness & daily maintenance of the interior facility is done by Class IV employees of the Institute

iii. Cleanliness of toilet blocks and wash room have been outsourced since AY 2013-14.

iv. Maintenance of CCTV, Fire extinguisher, A.C. plant is outsourced and is maintained in coordination through technical

person of computer centre

v. Water tank cleaning is done quarterly, and the AMC is outsourced Self-Study Report - NAAC ZCT's Thakur College of Engineering and Technology – Mumbai

vi. Carpentry, plumbing and clerical maintenance is done by the in-house personals.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.tcetmumbai.in/aboutLRC.html

STUDENT SUPPORT AND PROGRESSION

5.1 - Student Support

5.1.1 - Number of students benefitted by scholarships and freeships provided by the Government during the year

180

File Description	Documents
Upload self-attested letters with the list of students receiving scholarships	View File
Upload any additional information	View File

5.1.2 - Number of students benefitted by scholarships and freeships provided by the institution and non-government agencies during the year

180

File Description	Documents
Upload any additional information	View File
Institutional data in prescribed format	View File

5.1.3 - The following Capacity Development and Skill Enhancement activities are organised for improving students' capabilities Soft Skills Language and Communication Skills Life Skills (Yoga,   **C. Any 2 of the above**

Physical fitness, Health and Hygiene)
Awareness of Trends in Technology

File Description	Documents
Link to Institutional website	Nil
Details of capability development and schemes	View File
Any additional information	**No File Uploaded**

5.1.4 - Number of students benefitted from guidance/coaching for competitive examinations and career counselling offered by the institution during the year

1212

File Description	Documents
Any additional information	View File
Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template)	View File

5.1.5 - The institution adopts the following mechanism for redressal of students' grievances, including sexual harassment and ragging: Implementation of guidelines of statutory/regulatory bodies Creating awareness and implementation of policies with zero tolerance Mechanism for submission of online/offline students' grievances Timely redressal of grievances through appropriate committees

A. All of the above

File Description	Documents
Minutes of the meetings of students' grievance redressal committee, prevention of sexual harassment committee and Anti-ragging committee	*View File*
Details of student grievances including sexual harassment and ragging cases	*View File*
Upload any additional information	*View File*

5.2 - Student Progression

5.2.1 - Number of outgoing students who got placement during the year

381

File Description	Documents
Self-attested list of students placed	*View File*
Upload any additional information	*View File*

5.2.2 - Number of outgoing students progressing to higher education

109

File Description	Documents
Upload supporting data for students/alumni	*View File*
Details of students who went for higher education	*View File*
Any additional information	*View File*

5.2.3 - Number of students qualifying in state/ national/ international level examinations during the year

5.2.3.1 - Number of students who qualified in state/ national/ international examinations (e.g.: IIT-JAM/NET/SET/JRF/ GATE /GMAT /CAT/ GRE/ TOEFL/Civil Services/State government examinations) during the year

166

File Description	Documents
Upload supporting data for students/alumni	View File
Any additional information	View File

5.3 - Student Participation and Activities

5.3.1 - Number of awards/medals for outstanding performance in sports and/or cultural activities at inter-university / state /national / international events (award for a team event should be counted as one) during the year

3

File Description	Documents
e-copies of award letters and certificates	View File
Any additional information	View File

5.3.2 - Presence of an active Student Council and representation of students in academic and administrative bodies/committees of the institution

TSDW which stands for TCETStudent Development And Welfare Association is an active student committee. The details of representation in TSDW is attached as a file.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	nil

5.3.3 - Number of sports and cultural events / competitions organised by the institution

5

File Description	Documents
Report of the event	View File
List of sports and cultural events / competitions organised per year	View File
Upload any additional information	View File

5.4 - Alumni Engagement

5.4.1 - The Alumni Association and its Chapters (registered and functional) contribute significantly to the development of the institution through financial and other support services

No. of registered Alumni against the total no. of passed out -1700

File Description	Documents
Upload any additional information	**No File Uploaded**
Paste link for additional Information	nil

5.4.2 - Alumni's financial contribution during the year

D. 2 Lakhs - 5 Lakhs

File Description	Documents
Upload any additional information	View File

GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 - Institutional Vision and Leadership

6.1.1 - The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the Institution

The governance body of TCET keeps the prime focus on the vision and mission of the institute, which is as stated below:

VISION:

Thakur College of Engineering and Technology will excel in Technical Education to become an internationally renowned premier Institute of Engineering and Technology.

MISSION:

To provide state-of-the-art infrastructure and right academic ambience for developing professional skills as well as an environment for growth of leadership and managerial skills to students which will make them competent engineers to deliver quality results in the industry.

The following strategic characteristics and aspirations enable the College to realize its vision:

1. Modern and precise educational experiences that develop engineers.

2. An atmosphere that facilitates personal commitment to the educational success of students in an environment that values multiplicity and society

3. Education and research partnerships with Universities, colleges, and industries.

4. Highly successful alumni who contribute to the profession in the global society ·

5. Undergraduate, postgraduate, and Ph.D. programs that integrate global awareness, communication skills, and team building across the curriculum

6. Practical and responsible resource management.

7. Training that prepares students for interdisciplinary engineering research and advanced problem solving

8. Leadership and service to meet society's needs.

Formulation of action plans and defining the policy objectives attempts to address the issues of systematic change to provide quality education. By creating robust principles, frameworks, systems, and processes the institution intends to reinforce the culture of excellence.

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional Information	https://www.tcetmumbai.in/

6.1.2 - Effective leadership is reflected in various institutional practices such as decentralization and participative management

The institution practices decentralization and participatory management in keeping with its belief in collective leadership and democratic traditions. A particular reflection of this practice may be seen in the extensive delegation of authority to the Heads of the various Departments in the college.

The Ways in which Heads of Departments participate in the Management Process:

- The Head of the Department oversees the Teaching Plans of his/her departmental members.
- He/she enjoys the privilege of convening departmental meetings where the programs for the entire term are decided.
- He/she often takes the lead in planning seminars, workshops, career counseling sessions, remedial measures, inter-departmental or/and inter-college exercises, departmental excursions, and study tours.
- He/she is at liberty to introduce creative and innovative measureslike magazines, and publications for the benefit of his/her students in consultation with his/her departmental colleagues.
- He/she organizes and conducts the Parent-Teacher meetings in which the academic progress of the students is communicated to their guardians.
- He/she, in consultation with his/her department oversees the paper-setting, moderation, evaluation, and marks submission of all internal examinations of the department.
- Through the adept handling of their departments they discharge their function as nodal agents of the academic and administrative processes in the college to maintain the health and vibrancy of the management mechanisms in the college.

The above enumeration of features comprising participatory management points fairly conclusively to the ethics of decentralization which is integral to the institution and informs its functioning at every level.

File Description	Documents
Upload strategic plan and deployment documents on the website	View File
Upload any additional information	View File
Paste link for additional Information	nil

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ Perspective plan has been clearly articulated and implemented

Curriculum Development: Under the Autonomy structure, various courses were introduced to match industry requirements. The combination of academics and holistic activities is the key to the overall development of all the stakeholders.

Teaching and Learning:Faculty members plan the academic conduct as per the syllabus and conduct effectively.The latest available teaching methods, various modes of learning, and digital platforms are also adopted by the faculty members.

Examination and Evaluation:The Examination Committee is formed to ensure smooth the conduct of the examinations. Continuous evaluation is carried out in each semester.Institute communicates the results on the internet through the Institute website.

Research and Development:Areas of domain-specific research in various programs are identified and all faculty members and students are encouraged to explore various research avenues.

Library, ICT and Physical Infrastructure/ Instrumentation:The institute provides the learning resources to students/scholars and faculty to ensure effective teaching learning process with optimum resource utilization at the institute.

Human Resource Management:A well-established team of the institute is responsible for ensuring compliance with employment and government laws. Proper care is taken in the selection process for keeping quality in the appointments.

Industry Interaction / Collaboration:Training & Placement (T&P) cell takes initiatives for collaboration with various MNCs and Local industries for industrial training and internships for students of all departments.

Admission of Students: TCET has adopted a transparent admission process.Institute brand building can be seen through various awards and recognitions.

File Description	Documents
Strategic Plan and deployment documents on the website	View File
Paste link for additional information	nil
Upload any additional information	View File

6.2.2 - The functioning of the various institutional bodies is effective and efficient as visible from the policies, administrative set-up, appointment and service rules, procedures, etc.

TCET's organizational and governance structure comprises three levels: strategic, operational, and advisory. At the strategic level, there is the Trust consisting of the CEO Board of Trustees & Trustee In charge. The Chairman of the Trust (the Trustee-in-Charge of the Institute) is responsible for setting the direction, defining policies, and guiding the Institute's activities in consultation with the Principal and institute senior leadership team. At the advisory level are the Governing Council, and an Advisory Committee formed as per the AICTE/ UOM/ DTE guidelines. These two committees review the Institute's performance and recommend additional programs, changes required in the institutional functioning (academic and research environment,) student and faculty development (personal, professional, and social), outreach and advocacy programs to sustain institutional growth, students and staff welfare, etc. The operational level is a matrix structure and comprises of Principal, Vice Principal, Deans, and HODs, assisted by the various Local Managing Committees. Each Committee comprises cross-functional and inter-departmental staff. Day-to-day management work is the responsibility of the Principal who develops rules and procedures to implement the policies outlined by the Board of Trustees. The vice-Principal and Deans from the senior leadership team to support the Principal in the operation of the institute. The organogram shows the functioning of various levels.

File Description	Documents
Paste link to Organogram on the institution webpage	https://www.tcetmumbai.in/Notice/Institute%20Presentation.pdf
Upload any additional information	View File
Paste link for additional Information	nil

6.2.3 - Implementation of e-governance in areas of operation: Administration Finance and Accounts Student Admission and Support Examination

A. All of the above

File Description	Documents
ERP (Enterprise Resource Planning) Documen	View File
Screen shots of user interfaces	View File
Details of implementation of e-governance in areas of operation	View File
Any additional information	View File

6.3 - Faculty Empowerment Strategies

6.3.1 - The institution has effective welfare measures for teaching and non-teaching staff and avenues for their career development/ progression

For the welfare of Faculty and staff, TCET has a Mediclaim policy, a Credit Society through which personal loans can be taken by staff /Faculty. Every three years medical camps are organized.

For career progression, Faculty Development Programs (FDP) conducted at TCET are either Self-Financed, sponsored by approving authorities like AICTE / ISTE, or Training Programs offered by IIT's conducted at TCET (Remote Center). FDPs have proven to be beneficial to faculty members as well as students. During these FDP's there is a high level of exchange of ideas. During the Pandemic, Online FDP was conducted based on the theme of "Creating Digital Content for Effective Online Academic Delivery" in which many Online Tools were discussed & have been used by the faculty members during the Semester to conduct lectures, evaluate & improve the interaction among the students. They have also developed structured and guided learning resources (E-content) for

the conduction of lectures (PPTs, Videos, Quizzes, and design of experiments using Virtual Lab). Also, faculty members are encouraged to pursue higher studies while on the job.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	nil

6.3.2 - Number of teachers provided with financial support to attend conferences / workshops and towards payment of membership fee of professional bodies during the year

6

File Description	Documents
Upload any additional information	View File
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	View File

6.3.3 - Number of professional development / administrative training programmes organized by the Institution for its teaching and non-teaching staff during the year

8

File Description	Documents
Reports of the Human Resource Development Centres (UGC HRDC/ASC or other relevant centres)	View File
Upload any additional information	View File

6.3.4 - Number of teachers who have undergone online/ face-to-face Faculty Development Programmes during the year: (Professional Development Programmes, Orientation / Induction Programmes, Refresher Courses, Short-Term Course, etc.)

81

File Description	Documents
Summary of the IQAC report	View File
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	View File
Upload any additional information	**No File Uploaded**

6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly

Yes

File Description	Documents
Upload any additional information	View File
Paste link for additional information	nil

6.4.2 - Funds / Grants received from non-government bodies, individuals, and philanthropists during the year (not covered in Criterion III and V) (INR in lakhs)

2491532

File Description	Documents
Annual statements of accounts	View File
Details of funds / grants received from non-government bodies, individuals, philanthropists during the year	View File
Any additional information	View File

6.4.3 - Institutional strategies for mobilisation of funds and the optimal utilisation of resources

The institute has a well-structured fund management system. The strategies include determining the budget for the conduct of the academic year before the start of the academic year, detecting and rectifying any misstatements as early as possible, and increasing transparency and query handling promptly. The main sources of finance come from Trust Funds and Fees collection. The Budget is prepared and approved. Further, the budget is allocated to all departments for resource utilization. The resources are classified as Finance resources, Human resources, and infrastructure

resources. It is optimal utilization in coherence with the current needs and requirements. Resources are utilized interdepartmental also.

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	NIL

6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing quality assurance strategies and processes visible in terms of incremental improvements made during the preceding year with regard to quality (in case of the First Cycle): Incremental improvements made during the preceding year with regard to quality and post-accreditation quality initiatives (Second and subsequent cycles)

1.To align the TE and BE subjects as per industry requirements to cater latest trends & technology.

2.To restructure the laboratory exercises for offline mode after the pandemic

3.To ensure enough subscriptions of e-journals to inculcate research culture among students and faculty members.

4.To encourage faculty members to pursue Ph.D.

5. Up-gradation of laboratories considering the introduction of the new courses.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.tcetmumbai.in/Notice/IQAC/MOM-15.pdf

6.5.2 - The institution reviews its teaching-learning process, structures and methodologies of operation and learning outcomes at periodic intervals through its IQAC as per norms

Teaching and Learning :Faculty members plan the academic conduct as per the syllabus, detailing and developing resource book and course file, designing practice sessions, assignments, and

experiments, IAT paper, and effective conduct of the academics.All lectures and practical classes are to be conducted as per the plan and are reviewed time to time to improve the efficiency and effectiveness of teaching learning during the semester. The latest available teaching methods, various modes of learning anddigital platforms are also used.The TLP is monitored at 3 levels: Faculty, HOD and leadership mentors.

TLP highlights-

Uniform credit structure

Vocational / Certificate Courses

Inculcate, incentivize and nurture research culture

Encouragement to quality publications

Increase connections with the industries; collaboration with reputed Industries in R&D

Multidisciplinary projects

Stakeholders satisfaction

Teachers training programs

CO PO attainment

Conduct of STTPs with appropriate topic selection; Concentrating on uncommon topics and proper resource person selection.

Effective conduct of program assessment tests; based on course-wise GATE questions inclusion; improving students' technical understanding among all courses.

Encouragement forstudents to participate in e-Hackathons and other competitive examinations.

Enhance the use of e-books, e-journals, and Open access through available standard digital platforms.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.tcetmumbai.in/Notice/IQAC/MOM-15.pdf

6.5.3 - Quality assurance initiatives of the institution include Regular meeting of the IQAC Feedback collected, analysed and used for improvement of the institution Collaborative quality initiatives with other institution(s) Participation in NIRF Any other quality audit recognized by state, national or international agencies (such as ISO Certification)

B. Any 3 of the above

File Description	Documents
Paste the web link of annual reports of the Institution	https://www.tcetmumbai.in/Notice/IQAC/AQAR%202020-21.pdf
Upload e-copies of accreditations and certification	View File
Upload details of quality assurance initiatives of the institution	View File
Upload any additional information	No File Uploaded

INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 - Institutional Values and Social Responsibilities

7.1.1 - Measures initiated by the Institution for the promotion of gender equity during the year

Women make up half of all students in law, medicine and engineering fields. So, while progress has been made for women in academia, there are still countless disparities, explicit and implicit, in college on campus and subsequently in the workforce. We, at Thakur College of Engineering and Technology, strive to make our campus safe, inclusive and female-friendly, so we provide top-notch facilities for women on our campus. To start with, security is the main concern these days, so all the floors in our college are well-equipped with high class video surveillance and

are also distributed with floor peons. Any female employee or student who has complaints/suggestions can go to the grievance cell, which is functional for the whole day. The women's washroom has an automatic sanitary napkin dispenser that can be used by women by inserting a small amount of money into the machine. They also have changing rooms. Gym and common room for girls are also available in the campus. There also girl representative in every department for smooth functioning.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional Information	https://www.tcetmumbai.in/WDC.html

7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation: Solar energy   Biogas plant Wheeling to the Grid   Sensor-based energy conservation Use of LED bulbs/ power-efficient equipment

D. Any 1of the above

File Description	Documents
Geotagged Photographs	View File
Any other relevant information	View File

7.1.3 - Describe the facilities in the institution for the management of the following types of degradable and non-degradable waste (within a maximum of 200 words)

In Solid Waste management system dry waste are placed in GREEN labelled and transported to BMC. Such bins are kept in front of the canteen, beside the food stalls in the campus and other prominent places. Recyclable materials are placed in separate bins. Wet waste are placed in BLUE labelled bins.

For E-waste Management System Unusable, irreparable or redundant IT and Electronics equipment are identified by the respective Laboratory In-charge and are declared as obsolete. Depending upon the nature, intensity of usage, maintenance cost, serviceability, obsolescence in terms of technology, up-gradation of technology etc., the related items are classified by the Lab In-charges with the help of Lab Assistant for the purpose of disposal of these Items. 6-S designed to enhance effectiveness and efficiency of Laboratories.

1S – SORT (Organization) : Take out unwanted items

2S- SET IN ORDER (Orderliness) : A place for everything and everything in its place

3S- SHINE (Cleanliness) :The area is cleaned at the work is performed

4S- STANDERDISE (Standardized Clean-up) : Maintain a high standard of housekeeping

5S-SUSTAIN (Sustaining the discipline): It is a habit and continually improved.

6S-Safety (Accident Prevention): Maintain safe work environment

File Description	Documents
Relevant documents like agreements/MoUs with Government and other approved agencies	**No File Uploaded**
Geotagged photographs of the facilities	*View File*
Any other relevant information	**No File Uploaded**

7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus   **D. Any 1 of the above**

File Description	Documents
Geotagged photographs / videos of the facilities	*View File*
Any other relevant information	**No File Uploaded**

7.1.5 - Green campus initiatives include

7.1.5.1 - The institutional initiatives for greening the campus are as follows: **C. Any 2 of the above**

  1. **Restricted entry of automobiles**
  2. **Use of bicycles/ Battery-powered**

vehicles
3. **Pedestrian-friendly pathways**
4. **Ban on use of plastic**
5. **Landscaping**

File Description	Documents
Geotagged photos / videos of the facilities	View File
Various policy documents / decisions circulated for implementation	View File
Any other relevant documents	No File Uploaded

7.1.6 - Quality audits on environment and energy undertaken by the institution

7.1.6.1 - The institution's initiatives to preserve and improve the environment and harness energy are confirmed through the following:

E. None of the above

1. **Green audit**
2. **Energy audit**
3. **Environment audit**
4. **Clean and green campus recognitions/awards**
5. **Beyond the campus environmental promotional activities**

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	No File Uploaded
Certification by the auditing agency	No File Uploaded
Certificates of the awards received	No File Uploaded
Any other relevant information	No File Uploaded

7.1.7 - The Institution has a disabled-friendly and barrier-free environment: Ramps/lifts for easy access to classrooms and centres Disabled-friendly washrooms Signage including tactile path lights, display boards

C. Any 2 of the above

and signposts Assistive technology and facilities for persons with disabilities: accessible website, screen-reading software, mechanized equipment, etc. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading materials, screen reading, etc.

File Description	Documents
Geotagged photographs / videos of facilities	View File
Policy documents and brochures on the support to be provided	No File Uploaded
Details of the software procured for providing assistance	No File Uploaded
Any other relevant information	No File Uploaded

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e. tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities (within a maximum of 200 words).

"Education is the most powerful weapon that you can use to change the world", hence, the Extension Work Team of TCET is working toward providing Basic Education & One-to-one Counselling Sessions for underprivileged kids with the motto - "Reach to Unreached". There are certain students who come from poor socio-economic backgrounds & can't afford tuition or even basic education. Therefore, we offer Online Education on all subjects and Tutoring Session to such students, ranging from grade 1 to grade 10. In addition to that, webinars and seminars on a variety of topics are taken, including Cleanliness, Personal Hygiene, and much more, to provide personal awareness and development. Linguistic differences are resolved by learning the language our students understand best, in our case, the preferred language is Marathi. Basic Online Education is offered by creating study material for the students in the form of PPTs and videos on all the subjects. Whereas, One-to-one Counselling Sessions for students who have failed, in 9th or 10th grade, are done by taking up subjects in which they require assistance. Interesting and fun learning sessions are conducted by also creating PPTs. Hence, TCET-EWT strives to provide basic education & holistic development for the unprivileged students.

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View File

7.1.9 - Sensitization of students and employees of the institution to constitutional obligations: values, rights, duties and responsibilities of citizens:

Universal Human Values FDP program for the academic Year 2021-22(odd semester) offered by AICTE, was attended by all faculty members. The head of institute addressed the teaching/non-teaching staff on values, rights, duties and responsibilities of citizens by conducting meetings. The Student Induction Program (SIP) was conducted for First year students as per the AICTE guidelines. It is designed to orient F.E./F.T. students about the facilities and infrastructure of ES & H Department and their core departments, student interaction Proficiency Module, professional-social body activities, Holistic-Multidisciplinary Education (HME)with class in-charges, Professional Skills, Activity Based Learning, Proficiency module (Soft Skills), Student centric teaching learning process, evaluation & assessment system, course objective/outcome, learning objective/outcome, ERP. Also enlighten few implemented modules like Universal Human Values, Debate/Public speaking, Creative Arts, Talent Show, Physical Health and related activities (Yoga &fitness), Professional Bodies, and Student Forum through Portfolio building, which will encourage them to participate for overall development. The introduction of Universal Human Values to the students is to make them understand the importance of Family in life, the difference between Body and Self, happiness and Prosperity. Also, to comprehend the real meaning Harmony in family/ society. This helps to improve the mental attitude, confidence, coordination & rapport among the students.

File Description	Documents
Details of activities that inculcate values necessary to transform students into responsible citizens	View File
Any other relevant information	**No File Uploaded**

7.1.10 - The institution has a prescribed code of conduct for students, teachers,   **D. Any 1 of the above**

administrators and other staff and conducts periodic sensitization programmes in this regard: The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff Annual awareness programmes on the Code of Conduct are organized

File Description	Documents
Code of Ethics - policy document	View File
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programmes, etc. in support of the claims	**No File Uploaded**
Any other relevant information	View File

7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

TCET, along with the academic performances, understands the importance of co- and extra-curricular activities that help students' holistic development. Celebrating various days throughout the year builds a sense of community. Through Matrubhasha Diwas (21st February), we celebrated our unity in diversity. On Teachers Day (5th September), the birth anniversary of Dr. Sarvapalli Radhakrishanna, the College celebrates by acknowledging the efforts of all the students to provide life-long learning. Engineers day (15th September) holds the most special place in the heart of TCET, where students aim to demonstrate innovation and technology via an exhibition. Lady Representative of our College every year takes the mantle of celebrating International Women's Day (8th March) to appreciate all the incredible budding women in tech and the women who make all this possible. Promoting fitness through Yoga has been an integral part of our Indian culture. Every year on International Yoga Day (21st June), all students and staff start the morning doing Yoga together. Last but not least, celebrating the most important day of India, the Independence Day (15th August) entire Thakur family (Thakur education group) comes together to celebrate the Azadi and

remember the sacrifices of all our brave martyrs.

File Description	Documents
Annual report of the celebrations and commemorative events for during the year	View File
Geotagged photographs of some of the events	**No File Uploaded**
Any other relevant information	View File

7.2 - Best Practices

7.2.1 - Provide the weblink on the Institutional website regarding the Best practices as per the prescribed format of NAAC

Best Practices in the form of Quality Enhancement in National Initiative Program (Student Exchange Program) and Student Leadership Program was undertaken the details of the same is mentioned in the linkattached.

File Description	Documents
Best practices in the Institutional website	https://www.tcetmumbai.in/Notice/IQAC/Quality%20Enhancement%20in%20NIP%20&%20Leadership%20_Best%20practice.pdf
Any other relevant information	nil

7.3 - Institutional Distinctiveness

7.3.1 - Highlight the performance of the institution in an area distinct to its priority and thrust (within a maximum of 200 words)

Thakur College of Engineering Technology (TCET) was established in the A.Y. 2001-02 with objective of providing quality technical education in tune with international standards and contemporary global requirements. TCET is recognized by All India Council for Technical Education (AICTE) Govt. of Maharashtra and was affiliated to the University of Mumbai (UOM). TCET has attained autonomous status for 10 years w.e.f. July 2019 and adopted Choice Based Credit Grading Scheme with Holistic and Multidisciplinary Education (CBCGS-HME 2020) in the process of curriculum

development. In the 20 years of its existence, TCET is one of the leading engineering Colleges in Maharashtra. TCET is ISO 9001:2015 certified since 2017. TCET is a member of National Entrepreneurship Network (NEN) and Confederation of Indian Industry (CII). Along with the academic achievements, the institute provides the platforms for co-curricular and extra-curricular activities which help in the holistic development of students. Student-led clubs, social, cultural, sports activities conducted to inculcate social, moral, ethical and universal values which help them for all round development. TCET has well established T&P cell, HOC cell and R&D cell for students support and their carrier advancement. TCET has Key initiatives like teacher-guardian scheme, book bank scheme and introduction of resource books.

Part B

CURRICULAR ASPECTS

1.1 - Curriculum Design and Development

1.1.1 - Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which are reflected in Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the various Programmes offered by the Institution.

The curriculum offered, under the University of Mumbai (UoM) affiliation, was as per the semester pattern of University of Mumbai. This curriculum included basic/ foundation courses, core courses, design and development, engineering and technological applications and other supporting courses. However, after getting the autonomous status in July 2019, the curriculum has been redesigned to bring learning, simplicity, flexibility, learning diversity and Holistic Students Development (HSD). This change widened the scope of providing beyond-curriculum components viz., ABL, PBL, Professional skills, Employability skills, Internships, design-based experiments, mini-projects, case studies, etc., along with the perspective of national/ international relevance. The objective has been to develop course specific technical knowledge with strong analytical skills, critical thinking, and innovative mindset among students. The curriculum designed in AY 2021-22 aimed to include core, multidisciplinary, industry linked, research-based learning and value-based HSD under autonomous system. All of the above were added as a part of CBCGS system with Holistic and Multidisciplinary Education with the offering of major/minor courses, additional credits, and recognition for national/ international achievements through credits and citations. The PG syllabus is also redesigned and broadly follows AICTE model curriculum with scope for industry projects component. For Ph.D. programme, the UGC guidelines were followed.

File Description	Documents
Upload additional information, if any	[View File]()
Link for additional information	https://www.tcetmumbai.in/CMPN%20PO.html

1.1.2 - Number of Programmes where syllabus revision was carried out during the year

18

File Description	Documents
Minutes of relevant Academic Council/BOS meeting	View File
Details of syllabus revision during the year	View File
Any additional information	View File

1.1.3 - Number of courses focusing on employability/entrepreneurship/ skill development offered by the Institution during the year

69

File Description	Documents
Curriculum / Syllabus of such courses	View File
Minutes of the Boards of Studies/ Academic Council meetings with approval for these courses	View File
MoUs with relevant organizations for these courses, if any	**No File Uploaded**
Any additional information	View File

1.2 - Academic Flexibility

1.2.1 - Number of new courses introduced across all programmes offered during the year

2

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	View File
Any additional information	View File
Institutional data in prescribed format (Data Template)	View File

1.2.2 - Number of Programmes offered through Choice Based Credit System (CBCS)/Elective Course System

18

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	View File
Any additional information	No File Uploaded
List of Add on /Certificate programs (Data Template)	View File

1.3 - Curriculum Enrichment

1.3.1 - Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability, and Human Values into the curriculum

The Institute curriculum of all programs addresses issues relevant to gender, environment and sustainability, human values and professional ethics. Apart from the academic, TCET offers a separate section in the syllabus scheme for Holistic Multidisciplinary Education of students and offers credits towards that as well apart from academic credits. Various activities are organized throughout the year under the auspices of various committees formed at the department and at the Institute level.

1. Gender Sensitivity: Under NSS and Rotaract committee, students are sensitized and encouraged to work towards gender equity from a cross-cultural perspective. TCET annually organizes seminars, conferences, guest lectures, street plays and literary activities that help in gender sensitization.

2. Environment and Sustainability: A compulsory core course on Environment studies is included in all UG programmes. Apart from that, the UG programmes in Civil and Mechanical Engineering include subjects on Water, Sanitation and Waste Management, Renewable Energy, Dairy Technology, Agriculture and Environmental and Green Technology. Environment awareness camps, seminars, workshops, guest lectures, industry visits etc. are organized.

3. Human Values and Professional Ethics: The curriculum across all years also focusses on the development of human values and professional ethics like Universal Human Values, Indian tradition, Environment Studies etc.

File Description	Documents
Upload the list and description of the courses which address issues related to Gender, Environment and Sustainability, Human Values and Professional Ethics in the curriculum	View File
Any additional information	No File Uploaded

1.3.2 - Number of value-added courses for imparting transferable and life skills offered during the year

3

File Description	Documents
List of value-added courses	View File
Brochure or any other document relating to value-added courses	View File
Any additional information	View File

1.3.3 - Number of students enrolled in the courses under 1.3.2 above

4445

File Description	Documents
List of students enrolled	View File
Any additional information	View File

1.3.4 - Number of students undertaking field work/projects/ internships / student projects

3468

File Description	Documents
List of programmes and number of students undertaking field projects / internships / student projects	View File
Any additional information	View File

1.4 - Feedback System

1.4.1 - Structured feedback and review of the syllabus (semester-wise / year-wise) is obtained from 1) Students 2) Teachers 3) Employers and 4) Alumni	C. Any 2 of the above

File Description	Documents
Provide the URL for stakeholders' feedback report	https://drive.google.com/file/d/11zAJ8cm4ExZLhXF-kAYD94a0RqoF1sXS/view?usp=sharing
Upload the Action Taken Report of the feedback as recorded by the Governing Council / Syndicate / Board of Management	View File
Any additional information	No File Uploaded

1.4.2 - The feedback system of the Institution comprises the following	B. Feedback collected, analysed and action taken

File Description	Documents
Provide URL for stakeholders' feedback report	https://drive.google.com/file/d/11zAJ8cm4ExZLhXF-kAYD94a0RqoF1sXS/view?usp=sharing
Any additional information	No File Uploaded

TEACHING-LEARNING AND EVALUATION

2.1 - Student Enrollment and Profile

2.1.1 - Enrolment of Students

2.1.1.1 - Number of students admitted (year-wise) during the year

890

File Description	Documents
Any additional information	View File
Institutional data in prescribed format	View File

2.1.2 - Number of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per the reservation policy during the year (exclusive of supernumerary seats)

39

File Description	Documents
Any additional information	View File
Number of seats filled against seats reserved (Data Template)	View File

2.2 - Catering to Student Diversity

2.2.1 - The institution assesses students' learning levels and organises special programmes for both slow and advanced learners.

TCET follows a process of segregating students based on learning levels in which students are categorized as excellent, good, and average with academic performance and validation. The wide range of continuous assessment components that include, Class Assignments, Seminars and Group Discussions, Quizzes, Class Tests, Projects, Internships, Viva-voce examinations and attendance, enable effective assessment of learning levels of students. Faculty members and various Committees regularly review the academic progress and counsel students to improve their performance to ensure their academic growth. Faculty members also refer to such fast learners some advanced areas for further study as per the interest of the students. The institute has another provision for students who face problem of coping with English language since engineering students are from various boards. The provision is General English Proficiency Training which is conducted over and above the curriculum activities. This program is conducted for 12-20 hours in which various activities are conducted for confidence building. The training programs is meant for boosting the confidence of students coming from vernacular medium with English language barriers. The program focuses mainly on speech, grammar, and vocabulary of the students which leads ultimately to develop interest in English language. The Institute employs varied evaluations to test both Quality and Values. It implements well-defined models of evaluation with varied types of assessment to effectively evaluate outcomes, both at the course and the program level.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.tcetmumbai.in/CMPN/Teacher-Guardian_List.pdf

2.2.2 - Student – Teacher (full-time) ratio

Year	Number of Students	Number of Teachers
01/05/2022	3565	213

File Description	Documents
Upload any additional information	[View File](#)

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:

TCET believes in the adoption of student's centric methods to enhance student involvement as a part of participative learning and problem-solving methodology. Role Plays, Team works,

Debates, Seminar Quizzes and case studies Specifically Students centric Teaching Methods are reflected in project work, Field Visit, Industrial visit & guest lectures. Specifically, the student's centric methodology includes Experiential Learning

The curriculum also focuses on promoting Holistic Student Development (HSD) which includes courses on Employability Skill Development which focus on Industry Specific skills,

Professional skills which focus on basic Technology skills for 2nd year, industry/ research/ entrepreneurship skills for 3rd and Final Year. Project Based Learning to aid students identify real world problems and apply computing fundamental and technical skill to find solutions to them.is common for SE, TE and BE under HSD along with Activity Based Learning (Co-curricular/ Extra-curricular/ Extension) to improve personality development skills for SE students and Research Based Learning focused to engage the learner in research by upgrading domain knowledge through participation in various core research activities for

innovative idea generation for TE & BE students.

Professional Skills (PS): PS is taught to introduce new technologies to students. It helps them to acquire skills to develop projects using recent technologies.

Employability Development Skills (ESD): ESD is taught considering the emerging technology requirements in industry.

Activities like Group Presentations, Group-Discussions, Peer to Peer Interactions, etc. helped students enhance his/her participation and interactions.

File Description	Documents
Upload any additional information	View File
Link for additional Information	https://www.tcetmumbai.in/CMPN/Innovation BYFaculty.pdf

2.3.2 - Teachers use ICT-enabled tools including online resources for effective teaching and learning

At TCET, the classrooms and labs are ICT enabled with projectors installed and the campus is enabled with high speed WIFI connection at various points. During the pandemic , online platforms were used for academic conduct, doubt solving sessions , Project progress demos-presentations and assessments. College has provided pen tablets and other necessary digital

infrastructure to effectively conduct the online session like good cameras, zoom licenses and Webcam, Wi-fi Router, Pen Tablet,Wired Headset, Stylus Pen to each department to improve the learning experience of students have been given to the department in sufficient numbers The faculty at TCET use various ICT enabled tools to enhance the quality of teaching-learning like

1. Microsoft Teams and Google Classroom is used to manage and post course related information- learning material, lab manuals, quizzes, lab submissions and evaluations, assignments, etc.

2. Virtual labs are used to conduct labs through simulations.

3. Online drawing tools like concept maps, mind maps, are used to perform student centric activities.

4. Online quizzes and polls are regularly conducted to record the feedback of the students. Various online Tools were used to

conduct Formative Assessment such as Google Form (MCQs), Group discussion Activity (PPTs/Microsoft Word), Quiz (Zoom Pooling) , Debate (PPTs/Microsoft word), Word cloud (Mentimeter), Flip classroom(By uploading material on ERP, Profile website Page), Puzzles (Online Puzzle Maker Tool), padlet used for writing answers and then up voted or down voted by peers, Crossword Puzzles and Case Study etc.

File Description	Documents
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	https://forms.gle/hFDf26sJYm7H13Zr7
Upload any additional information	View File

2.3.3 - Ratio of students to mentor for academic and other related issues

2.3.3.1 - Number of mentors

180

File Description	Documents
Upload year-wise number of students enrolled and full-time teachers on roll	View File
Circulars with regard to assigning mentors to mentees	View File

2.3.4 - Preparation and adherence to Academic Calendar and Teaching Plans by the institution

Academic Calendar is prepared on semester basis which includes all activities held in each 6 months complete span (July to December & January to June) considering the university calendar, the list of holidays, students' activities, etc. The academic calendar is prepared inintegration of list of activities conducted from professional bodieschapter from departments, placement office, HOC cell , NSS, NCC, EWT, IPR cell, student council, TEDx etc. Initially, a tentative academic calendar is released 21 days before the semester commencement. The tentative calendar is shared withHODs during beginning of semester to receive suggestions for incorporating to avoid activitiesleft out elseacademic calendar is required to be moderated. The academic calendar is conducted for initial 15 days after that in case oflapsesthen added to finalize it.

The HODsprepare departmental calendar in alignment with institute's academic calendar. Academic calendar is notified on notice board and website.

File Description	Documents
Upload the Academic Calendar and Teaching Plans during the year	[View File](#)

2.4 - Teacher Profile and Quality

2.4.1 - Number of full-time teachers against sanctioned posts during the year

213

File Description	Documents
Year-wise full-time teachers and sanctioned posts for the year	[View File](#)
List of the faculty members authenticated by the Head of HEI	**No File Uploaded**
Any additional information	[View File](#)

2.4.2 - Number of full-time teachers with PhD/ D.M. / M.Ch. / D.N.B Super-Specialty / DSc / DLitt during the year

41

File Description	Documents
List of number of full-time teachers with PhD./ D.M. / M.Ch. / D.N.B Super-Specialty / D.Sc. / D.Litt. and number of full-time teachers for 5 years	[View File](#)
Any additional information	[View File](#)

2.4.3 - Total teaching experience of full-time teachers in the same institution: (Full-time teachers' total teaching experience in the current institution)

1496

File Description	Documents
List of teachers including their PAN, designation, Department and details of their experience	[View File](#)
Any additional information	[View File](#)

2.5 - Evaluation Process and Reforms

2.5.1 - Number of days from the date of last semester-end/ year- end examination till the declaration of results during the year

Nil

File Description	Documents
List of Programmes and the date of last semester-end / year-end examinations and the date of declaration of result	[View File](#)
Any additional information	**No File Uploaded**

2.5.2 - Number of students' complaints/grievances against evaluation against the total number who appeared in the examinations during the year

0

File Description	Documents
Upload the number of complaints and total number of students who appeared for exams during the year	**No File Uploaded**
Upload any additional information	**No File Uploaded**

2.5.3 - IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) have brought in considerable improvement in the Examination Management System (EMS) of the Institution

Continuous Evaluation is carried out for evaluating the learning of the students on regular basis from the start of semester on weekly, monthly basis as well as mid semester and end semester

evaluation. Weekly evaluation is done for practical performance/tutorial/project, quizzes, surprise test etc. Monthly evaluation is for Formative assessment and remedial

work done by defaulters and slow learners. Mid-term evaluation includes compliance for term work , assignment, internal examination and mid semester review of the student classroom participation, laboratory work . The evaluation of the term work is done and it needs to be granted by the subject teacher and the granted list is to be approved by the authority. The term work is assessed on regular basis and the records are maintained with the concerned laboratories At each stage of evaluation, students are categorized into three levels (Level-I: Low, Level- II: Medium, Level-III: High) and performance is communicated to the students.

In academic year (2021-2022) the institute has moved from the traditional examination scheme where more weightage is given to End Semester Exam (ESE) and internal assessment. In the 60:40 scheme ,60 marks are for ESE and out of remaining 40 marks, 20 marks are for In semester assessment and 20 marks are for Innovative exam where student will be given some task to access the learning in a particular subject. In academic year (2021-2022) 1st & 2nd year students had 60:40 scheme and for the students of 3rd and final year, examination scheme remains as per 75:25(ESE: IA) only.

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional Information	https://www.tcetmumbai.in/examnotification.html

2.6 - Student Performance and Learning Outcomes

2.6.1 - Programme Outcomes and Course Outcomes for all Programmes offered by the institution are stated and displayed on the website and communicated to teachers and students

Programme Outcomes(POs) are published on various publicity platforms and prominent places in the Institute and Department viz. Department and Institute Notice boards, College website:

http://www.tcetmumbai.in/, Admission Brochures and other Institute publications viz. Souvenirs, proceedings, college magazines, faculty diary, journals etc.,Programme Resource

Book, Course Resource Books, Prominent Places in the department, Faculty Diary, Journal files etc. Therefore, these mechanisms provide the means for dissemination of the POs

amongst the stakeholders, mainly the faculty and the students and act as a guiding force for shaping the career of the student.

Course Objective and Course Outcomes are defined for every subject and are given in the syllabus. For every subject 6 modules are defined. The course outcomes are based on these 6

modules. Course Outcomes are communicated to the students during the first week of every semester (Semester Orientation Programme).

These Course outcomes are available on the college website as well.

Here the 1st link gives the general information of the department, 2nd link is for PEOs, 3rd link is for POs, 4th link is for PSOs 5th link is for the details of the course outcomes which are

included in the syllabus.

File Description	Documents
Upload COs for all courses (exemplars from the Glossary)	View File
Upload any additional information	No File Uploaded
Link for additional Information	https://www.tcetmumbai.in/deptCompEngineering_home.html

2.6.2 - Attainment of Programme Outcomes and Course Outcomes as evaluated by the institution

At the initial stage of Outcome-Based Education (OBE), the Course Outcomes (CO's) for each course are defined based on the Programme Outcome (PO's) and other requirements. At the end of each course, the COs needs to be assessed and evaluated, to check attainment. Assessment is carried out by the department to evaluate the achievement of programme Outcomes and programme specific outcomes. Attainment is the action or fact of achieving a standard result towards accomplishment of desired goals. Primarily attainment is the standard of academic attainment as observed by continuous evaluation through internal assessment test, assignments and or examination

result. Attainment of the COs can be measured directly and indirectly.

In the examinations the effort is taken to align the question paper with Revised Bloom's Taxonomy (RBT) models which helps the institute to understand the attainment of course outcomes and programme outcome, as per the institute guidelines within the framework of a Choice Based Credit Grading System for Holistic Development (CBCGS-HME).

Direct attainment basically displays the student's knowledge and skills from their performance which is determined from the performance in all the relevant assessment instruments like internal assessments, assignments, and final examination, providing strong evidence of student learning. Indirect methods like course surveys and exit surveys ask the stakeholders to reflect on student's learning.

File Description	Documents
Upload any additional information	[View File]()
Paste link for additional Information	[https://www.tcetmumbai.in/CMPN/CMPN%20About%20Us.pdf]()

2.6.3 - Pass Percentage of students

2.6.3.1 - Total number of final year students who passed in the examinations conducted by Institution

801

File Description	Documents
Upload list of Programmes and number of students appear for and passed in the final year examinations	[View File]()
Upload any additional information	[View File]()
Paste link for the annual report	[nil]()

2.7 - Student Satisfaction Survey

2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution

may design its own questionnaire). Results and details need to be provided as a weblink

https://www.tcetmumbai.in/Notice/Student%20satisfaction%20survey.pdf

RESEARCH, INNOVATIONS AND EXTENSION

3.1 - Promotion of Research and Facilities

3.1.1 - The institution's research facilities are frequently updated and there is a well-defined policy for promotion of research which is uploaded on the institutional website and implemented

Understanding the need for encouraging students towards pursuing research, TCET R&D Cell was set up in year 2013 for nurturing technical talent of students and giving them platform to check feasibility of their ideas by developing projects under hobby club facilities. The projects having potential of being converted into products are reviewed by entrepreneurs and industrialists. TCET is recognized as research centre by Mumbai University for Ph.D. (Technology) in E&TC, COMP, IT. To provide a strong platform to researchers, academicians and scholars, TCET regularly organizes national/international conferences, seminars, workshops and colloquium enabling stakeholders to build their capacity for critical examination and sound judgment. TCET has remote centre of IIT Bombay for online research, android mobile application development and e-yantra laboratory. Under industry-institute interaction TCET has Thakur-Accenture Innovation Centre for advanced computing and communication. TCET has a centre of excellence with set objectives for carrying out research which impacts overall research culture. TCET has Publication and Intellectual Property Creation Team to support and guide students/faculty in protecting their inventions and creations by offering legal counselling; streamlining paperwork and helping to identify their own IP while respecting the IP of others. 17 patents have been filed and 12 granted in AY 2021-22.

File Description	Documents
Upload the Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	*View File*
Provide URL of policy document on promotion of research uploaded on the website	*https://www.tcetmumbai.in/research_promotion.html*
Any additional information	**No File Uploaded**

3.1.2 - The institution provides seed money to its teachers for research

3.1.2.1 - Seed money provided by the institution to its teachers for research during the year (INR in lakhs)

Nil

File Description	Documents
Minutes of the relevant bodies of the institution regarding seed money	**No File Uploaded**
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	*View File*
List of teachers receiving grant and details of grant received	**No File Uploaded**
Any additional information	**No File Uploaded**

3.1.3 - Number of teachers who were awarded national / international fellowship(s) for advanced studies/research during the year

2

File Description	Documents
e-copies of the award letters of the teachers	View File
List of teachers and details of their international fellowship(s)	View File
Any additional information	View File

3.2 - Resource Mobilization for Research

3.2.1 - Grants received from Government and Non-Governmental agencies for research projects, endowments, Chairs during the year (INR in Lakhs)

4

File Description	Documents
e-copies of the grant award letters for research projects sponsored by non-governmental agencies/organizations	View File
List of projects and grant details	View File
Any additional information	View File

3.2.2 - Number of teachers having research projects during the year

3

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	nil
List of research projects during the year	View File

3.2.3 - Number of teachers recognised as research guides

15

File Description	Documents
Upload copies of the letter of the university recognizing teachers as research guides	View File
Institutional data in Prescribed format	View File

3.2.4 - Number of departments having research projects funded by Government and Non-Government agencies during the year

2

File Description	Documents
Supporting document from Funding Agencies	View File
Paste link to funding agencies' website	nil
Any additional information	View File

3.3 - Innovation Ecosystem

3.3.1 - Institution has created an ecosystem for innovations and creation and transfer of knowledge supported by dedicated centres for research, entrepreneurship, community orientation, incubation, etc.

TCET's R&D cell is a platform where young minds come up with innovative ideas and the ecosystem of this cell has helped these ideas grow with fruitful outcomes. The R&D cell has a well-equipped components library from which students can issue components required to test their ideas for one semester. TCET-IEDC is a unique platform where students are selected from different branches of engineering and encouraged to do interdisciplinary projects. Every year students are encouraged to take part in various Hackathons, Ideathons organized by the Central Government, AICTE, various MNCs and other industries. To promote first-generation entrepreneurs, TCET organizes various awareness programs, certification courses by reputed institutes, regular meetings with existing successful entrepreneurs etc. TCET's NSS student chapter has organized several activities like blood donation drive, cleanliness drive etc. through which its volunteers have developed constructive linkage between campus and community. TCET's Extension Work Team has organized activities that provide research-based information, teaching people new knowledge and skills, helping

people to improve their income etc. TCET's Rotaract club has been started with the main objective of community service and professional development.

TCET-R&D cell is dedicated to help advance existing knowledge and nurture new ideas by providing resources and facilities to create cutting edge products from which future research will emerge.

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional information	https://www.tcetmumbai.in/rnd_entrepreneur.html

3.3.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR), Entrepreneurship and Skill Development during the year

12

File Description	Documents
Report of the events	[View File](#)
List of workshops/seminars conducted during the year	[View File](#)
Any additional information	[View File](#)

3.4 - Research Publications and Awards

3.4.1 - The Institution ensures implementation of its Code of Ethics for Research uploaded in the website through the following: Research Advisory Committee Ethics Committee Inclusion of Research Ethics in the research methodology course work Plagiarism check through authenticated software	D. Any 1 of the above

File Description	Documents
Code of Ethics for Research, Research Advisory Committee and Ethics Committee constitution and list of members of these committees, software used for plagiarism check	**No File Uploaded**
Any additional information	View File

3.4.2 - Number of PhD candidates registered per teacher (as per the data given with regard to recognized PhD guides/ supervisors provided in Metric No. 3.2.3) during the year

3.4.2.1 - Number of PhD students registered during the year

8

File Description	Documents
URL to the research page on HEI website	nil
List of PhD scholars and details like name of the guide, title of thesis, and year of registration	View File
Any additional information	View File

3.4.3 - Number of research papers per teacher in CARE Journals notified on UGC website during the year

51

File Description	Documents
List of research papers by title, author, department, and year of publication	View File
Any additional information	View File

3.4.4 - Number of books and chapters in edited volumes / books published per teacher during the year

14

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional information	https://www.tcetmumbai.in/Multicon/2022/Multicon-W%202022%20Procedding.pdf

3.4.5 - Bibliometrics of the publications during the year based on average Citation Index in Scopus/ Web of Science/PubMed

3.4.5.1 - Total number of Citations in Scopus during the year

88

File Description	Documents
Any additional information	[View File](#)
Bibliometrics of the publications during the year	[View File](#)

3.4.6 - Bibliometrics of the publications during the year based on Scopus/ Web of Science – h-Index of the University

3.4.6.1 - h-index of Scopus during the year

31

File Description	Documents
Bibiliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	[View File](#)
Any additional information	[View File](#)

3.5 - Consultancy

3.5.1 - Revenue generated from consultancy and corporate training during the year (INR in lakhs)

20.53

File Description	Documents
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	View File
List of consultants and revenue generated by them	No File Uploaded
Any additional information	View File

3.5.2 - Total amount spent on developing facilities, training teachers and clerical/project staff for undertaking consultancy during the year

0

File Description	Documents
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	View File
List of training programmes, teachers and staff trained for undertaking consultancy	No File Uploaded
List of facilities and staff available for undertaking consultancy	No File Uploaded
Any additional information	No File Uploaded

3.6 - Extension Activities

3.6.1 - Extension activities carried out in the neighbourhood sensitising students to social issues for their holistic development, and the impact thereof during the year

In TCET, NSS has always stood up to its strong spirit of serving people keeping in mind the policy of "Not Me, But You". Belief that we must live for others, is being realized throughselfless service ofNSS volunteers who get into timely action forupliftment ofneedy people of their respective localities. NSS unit of TCET has always given volunteers, a platform to serve society and bring happiness and smiles on many faces, which has sownseeds of social commitment instudents who are otherwise kept aloof fromreal challenges and torments faced bymasses in the society as a whole. A team of 150

committed NSS Volunteers and Programme Officers of TCET under NSS Technical cell of Directorate of Technical Education, Mumbai have proven to be an enough cause and reason for instilling a significant change in the society. The service rendered by NSS are varied in nature: Education, Environment, Health and Society. Regular Activities and Special Camping Programmes arehighlights of NSS activities.The objective of NSS is to enhance physical wellbeing, spread awareness regarding importance of proper health, safety measures and stress on physical and mental health, etc. With these objectives many activities have been conducted.

File Description	Documents
Upload any additional information	**No File Uploaded**
Paste link for additional information	https://www.tcetmumbai.in/ewtTCET.html

3.6.2 - Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government-recognised bodies during the year

5

File Description	Documents
Number of awards for extension activities in during the year	[View File](#)
e-copy of the award letters	**No File Uploaded**
Any additional information	[View File](#)

3.6.3 - Number of extension and outreach programmes conducted by the institution through NSS/NCC/Red Cross/YRC, etc. during the year (including Government-initiated programmes such as Swachh Bharat, AIDS Awareness, and Gender Sensitization and those organised in collaboration with industry, community and NGOs)

13

File Description	Documents
Reports of the events organized	[View File](#)
Any additional information	[View File](#)

3.6.4 - Number of students participating in extension activities listed in 3.6.3 during the year

71

File Description	Documents
Reports of the events	View File
Any additional information	View File

3.7 - Collaboration

3.7.1 - Number of collaborative activities during the year for research/ faculty exchange/ student exchange/ internship/ on-the-job training/ project work

4

File Description	Documents
Copies of documents highlighting collaboration	View File
Any additional information	View File

3.7.2 - Number of functional MoUs with institutions of national and/or international importance, other universities, industries, corporate houses, etc. during the year (only functional MoUs with ongoing activities to be considered)

10

File Description	Documents
e-copies of the MoUs with institution/ industry/ corporate house	View File
Details of functional MoUs with institutions of national, international importance, other institutions etc. during the year	View File
Any additional information	View File

INFRASTRUCTURE AND LEARNING RESOURCES

4.1 - Physical Facilities

4.1.1 - The Institution has adequate infrastructure and physical facilities for teaching-learning, viz., classrooms, laboratories, computing equipments, etc.

The institution has the necessary physical infrastructure, such

as classrooms, labs, computers, etc., for teaching and learning. The college is equipped with cutting-edge technology, and the world first-rate educational facilities for the study of engineering. The Exceptional infrastructure produced a favourable climate, and the ideal academic environment, critical infrastructure, key infrastructure consists of

Classrooms :55

Tutorial rooms :22

Laboratories/additional workshop :70

Computer centre :02

Language Laboratory :01

Central Library :01

Departmental library :11

Gymkhana :01

Seminar Hall :03

Auditorium :01

Cafeteria :01

Canteen :01

Pantry for staff: 01

Workshop:02

Drawing Hall:02

Common Room :02

Sick Room: 01

Air-conditionedseminar rooms and classrooms are well-designed and furnished with single-seater benches. There are up to 80 seats in each classroom. The institute includes four Seminar rooms that are properly furnished with Wi-Fi, smart boards, and audio-visual connections.

Laboratories are well-equipped with branded tools, kits, computing resources, computer-based labs, internet access, and the newest software, among other things.

Virtual lab conduction using different online platform. (i.e., IIT's platforms and Amrita Lab).

File Description	Documents
Upload any additional information	View File
Paste link for additional information	nil

4.1.2 - The institution has adequate facilities for cultural activities, yoga, sports and games (indoor and outdoor) including gymnasium, yoga centre, auditorium etc.)

Table tennis, carom, chess, and other indoor sports facilities have been established in the boy's and girl's rooms for recreation during breaks or vacation. Multipurpose Hall/Auditorium are meant to host events like yoga, meditation, inspirational talks, team building exercises, etc.

A sizable playground with 3.5 acres that may be used for all kinds of sporting events is located adjacent to the campus. The sports facility includes volleyball, badminton, throwball, football, cricket, kabaddi, and many more outdoor activities.

File Description	Documents
Geotagged pictures	View File
Upload any additional information	No File Uploaded
Paste link for additional information	nil

4.1.3 - Number of classrooms and seminar halls with ICT-enabled facilities

56

File Description	Documents
Upload any additional information	View File
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	View File

4.1.4 - Expenditure for infrastructure augmentation, excluding salary, during the year (INR in Lakhs)

2191

File Description	Documents
Upload audited utilization statements	**No File Uploaded**
Details of Expenditure, excluding salary, during the years	View File
Any additional information	View File

4.2 - Library as a Learning Resource

4.2.1 - Library is automated using Integrated Library Management System (ILMS)

Library is automated using Integrated Library Management System (ILMS)

Name of the ILMS software—Koha Software ,

Nature of automation (full or partial)--Partial

Version—18.11

Year of automation—2005

Library is an essential part of any educational institution. TCET has very well equipped and rich in books library. It facilitates access of books online and off-line. It has a circular section, two reading section and a digital reading section. The library has a sufficient number of books, e-books, and e-journals. Students and staff can access books using Knimbus software inside and outside campus. Learning Resource center (Central Library) has built up area of 840 Sq.m. LRC is highly modular. The library is running for 12 hrs on office

working days.

Text Books:31,600

Reference Books: more than 2806

Book bank facility for students with more than 2850 books

Technical Magazines- 11

Journals - 119

Added 42 new books in the AY2021-22

Department library with average 500 books and 500 project reports

8 E journals Data bases

J-GATE includes abstract Journals 15743, Full text Journals 21328 articles.

IEEE-All Society periodicals Package-169 Journals

McGraw Hill-Access Engg/Library-817 e-books

ASME-Mechanical Engineering 31 Journals

Elsevier-Science Direct-749 Journals

ASCE-Civil Engg-42 Journal new

Springer Electrical,Electronics & CMPN-149 Journals

Journal abstract 15743 & Full Text journal 19518

Knimbus Digital Library (E-books 10000) Remotely content

access+mobile app

Library Management : 24 PCs and 157 Mbps Internet

Xerox section: Photocopy/Scan/Print facility

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional information	https://www.tcetmumbai.in/LRCHolding.html

4.2.2 - Institution has access to the following: e-journals e-ShodhSindhu Shodhganga Membership e-books Databases Remote access to e-resources

A. Any 4 or more of the above

File Description	Documents
Details of subscriptions like e-journals, e-books, e-ShodhSindhu, Shodhganga membership	[View File](#)
Upload any additional information	[View File](#)

4.2.3 - Expenditure on purchase of books/ e-books and subscription to journals/e-journals during the year (INR in lakhs)

23.6

File Description	Documents
Audited statements of accounts	**No File Uploaded**
Any additional information	[View File](#)
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	[View File](#)

4.2.4 - Usage of library by teachers and students (footfalls and login data for online access)

4.2.4.1 - Number of teachers and students using the library per day during the year

98.5

File Description	Documents
Upload details of library usage by teachers and students	[View File](#)
Any additional information	**No File Uploaded**

4.3 - IT Infrastructure

4.3.1 - Institution has an IT policy covering Wi-Fi, cyber security, etc. and has allocated budget for updating its IT facilities

Institution has an IT policy covering Wi-Fi, cyber security, etc. and has allocated budget

for updating its IT facilities

Open access Wi-Fi for students Airtel

D-Link Router at all staff room and Offices

FortiGate firewall

324 CCTV,

2.8MP equivision HD camera with one month data back up SSL Certificate for Institute website

Institute has an excellent infrastructure consisting of Local Area Network(LAN) on which on which 1550 computers are connected to internet with the BW of 1.1 Gbps ERP with LMS is also deployed for campus management network infrastructure highlights include :-

High speed servers with 1200 DELL/ HP/ Desktops, Workstation as a windows Linus clients

Microsoft campus agreement licences and high end applications / utility software. Robust campus network configured with Gigabit Sysco backbone switches and optical fibre windows/ Linux server with high speed wifi connectivity

High speed leased line connectivity having 1.1 Gbps bandwidth with integrated RP systems are dedicated 4 Mbps leased line internet connectivity for IIT Bombay Remote centre for Faculty and student development and research programs

Highly secured Network with Forinet 400 E firewall Kaspersky antivirus for security through campus agreement

High speed leased line connectivity in all class room and laboratories connected with internet projection facility

Campus surveillance system with 200 high end camera and DVRs with One month backup storage having facility to provide footage to stakeholder on request it has dedicated control room fitted with 4 TV Displays for monitoring of footage.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

4.3.2 - Student - Computer ratio

Number of Students	Number of Computers
3565	1820

File Description	Documents
Upload any additional information	View File

4.3.3 - Bandwidth of internet connection in the Institution and the number of students on campus	A. ?50 Mbps

File Description	Documents
Details of bandwidth available in the Institution	View File
Upload any additional information	View File

4.3.4 - Institution has facilities for e-content development: Facilities available for e-content development Media Centre Audio-Visual Centre Lecture Capturing System (LCS) Mixing equipments and software for editing	E. None of the above

File Description	Documents
Upload any additional information	**No File Uploaded**
Paste link for additional information	[nil](nil)
List of facilities for e-content development (Data Template)	View File

4.4 - Maintenance of Campus Infrastructure

4.4.1 - Expenditure incurred on maintenance of physical and academic support facilities, excluding salary component, during the year (INR in lakhs)

6468

File Description	Documents
Audited statements of accounts	View File
Upload any additional information	**No File Uploaded**

4.4.2 - There are established systems and procedures for maintaining and utilizing physical, academic and support facilities – classrooms, laboratory, library, sports complex, computers, etc.

Maintenance of resources

i. Records of equipment's are maintained in stock registers as specified in Purchase Process

TCET/IP/05

ii. Equipment's / appliances are serviced periodically and calibrated or as and when required

iii. Record of servicing is maintained in respective registers

iv. Budget of annual maintenance contract (AMC) need to be submitted by December 31st of the ongoing academic year by Department / Section.

v. Equipment's that are not in working condition and are not repairable are removed from the

stock.

b) General maintenance:

i. Auditorium, cleaning and maintenance is done by internal staff member and one person from outside.

ii. Cleanliness & daily maintenance of the interior facility is done by Class IV employees of the Institute

iii. Cleanliness of toilet blocks and wash room have been outsourced since AY 2013-14.

iv. Maintenance of CCTV, Fire extinguisher, A.C. plant is outsourced and is maintained in coordination through technical

person of computer centre

v. Water tank cleaning is done quarterly, and the AMC is outsourced Self-Study Report - NAAC ZCT's Thakur College of Engineering and Technology – Mumbai

vi. Carpentry, plumbing and clerical maintenance is done by the in-house personals.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.tcetmumbai.in/aboutLRC.html

STUDENT SUPPORT AND PROGRESSION

5.1 - Student Support

5.1.1 - Number of students benefitted by scholarships and freeships provided by the Government during the year

180

File Description	Documents
Upload self-attested letters with the list of students receiving scholarships	View File
Upload any additional information	View File

5.1.2 - Number of students benefitted by scholarships and freeships provided by the institution and non-government agencies during the year

180

File Description	Documents
Upload any additional information	View File
Institutional data in prescribed format	View File

5.1.3 - The following Capacity Development and Skill Enhancement activities are organised for improving students' capabilities Soft Skills Language and Communication Skills Life Skills (Yoga, Physical fitness, Health and Hygiene) Awareness of Trends in Technology

C. Any 2 of the above

File Description	Documents
Link to Institutional website	Nil
Details of capability development and schemes	View File
Any additional information	No File Uploaded

5.1.4 - Number of students benefitted from guidance/coaching for competitive examinations and career counselling offered by the institution during the year

1212

File Description	Documents
Any additional information	View File
Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template)	View File

5.1.5 - The institution adopts the following mechanism for redressal of students' grievances, including sexual harassment and ragging: Implementation of guidelines

A. All of the above

of statutory/regulatory bodies Creating awareness and implementation of policies with zero tolerance Mechanism for submission of online/offline students' grievances Timely redressal of grievances through appropriate committees

File Description	Documents
Minutes of the meetings of students' grievance redressal committee, prevention of sexual harassment committee and Anti-ragging committee	View File
Details of student grievances including sexual harassment and ragging cases	View File
Upload any additional information	View File

5.2 - Student Progression

5.2.1 - Number of outgoing students who got placement during the year

381

File Description	Documents
Self-attested list of students placed	View File
Upload any additional information	View File

5.2.2 - Number of outgoing students progressing to higher education

109

File Description	Documents
Upload supporting data for students/alumni	View File
Details of students who went for higher education	View File
Any additional information	View File

5.2.3 - Number of students qualifying in state/ national/ international level examinations during the year

5.2.3.1 - Number of students who qualified in state/ national/ international examinations (e.g.: IIT-JAM/NET/SET/JRF/ GATE /GMAT /CAT/ GRE/ TOEFL/Civil Services/State government examinations) during the year

166

File Description	Documents
Upload supporting data for students/alumni	View File
Any additional information	View File

5.3 - Student Participation and Activities

5.3.1 - Number of awards/medals for outstanding performance in sports and/or cultural activities at inter-university / state /national / international events (award for a team event should be counted as one) during the year

3

File Description	Documents
e-copies of award letters and certificates	View File
Any additional information	View File

5.3.2 - Presence of an active Student Council and representation of students in academic and administrative bodies/committees of the institution

TSDW which stands for TCETStudent Development And Welfare Association is an active student committee. The details of representation in TSDW is attached as a file.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	nil

5.3.3 - Number of sports and cultural events / competitions organised by the institution

5

File Description	Documents
Report of the event	View File
List of sports and cultural events / competitions organised per year	View File
Upload any additional information	View File

5.4 - Alumni Engagement

5.4.1 - The Alumni Association and its Chapters (registered and functional) contribute significantly to the development of the institution through financial and other support services

No. of registered Alumni against the total no. of passed out -1700

File Description	Documents
Upload any additional information	**No File Uploaded**
Paste link for additional Information	nil

5.4.2 - Alumni's financial contribution during the year	D. 2 Lakhs - 5 Lakhs

File Description	Documents
Upload any additional information	View File

GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 - Institutional Vision and Leadership

6.1.1 - The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the Institution

The governance body of TCET keeps the prime focus on the vision and mission of the institute, which is as stated below:

VISION:

Thakur College of Engineering and Technology will excel in Technical Education to become an internationally renowned premier Institute of Engineering and Technology.

MISSION:

To provide state-of-the-art infrastructure and right academic ambience for developing professional skills as well as an environment for growth of leadership and managerial skills to students which will make them competent engineers to deliver quality results in the industry.

The following strategic characteristics and aspirations enable the College to realize its vision:

1. Modern and precise educational experiences that develop engineers.

2. An atmosphere that facilitates personal commitment to the educational success of students in an environment that values multiplicity and society

3. Education and research partnerships with Universities, colleges, and industries.

4. Highly successful alumni who contribute to the profession in the global society ·

5. Undergraduate, postgraduate, and Ph.D. programs that integrate global awareness, communication skills, and team building across the curriculum

6. Practical and responsible resource management.

7. Training that prepares students for interdisciplinary engineering research and advanced problem solving

8. Leadership and service to meet society's needs.

Formulation of action plans and defining the policy objectives attempts to address the issues of systematic change to provide quality education. By creating robust principles, frameworks, systems, and processes the institution intends to reinforce the culture of excellence.

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional Information	https://www.tcetmumbai.in/

6.1.2 - Effective leadership is reflected in various institutional practices such as decentralization and participative management

The institution practices decentralization and participatory management in keeping with its belief in collective leadership and democratic traditions. A particular reflection of this practice may be seen in the extensive delegation of authority to the Heads of the various Departments in the college.

The Ways in which Heads of Departments participate in the Management Process:

- The Head of the Department oversees the Teaching Plans of his/her departmental members.
- He/she enjoys the privilege of convening departmental meetings where the programs for the entire term are decided.
- He/she often takes the lead in planning seminars, workshops, career counseling sessions, remedial measures, inter-departmental or/and inter-college exercises, departmental excursions, and study tours.
- He/she is at liberty to introduce creative and innovative measureslike magazines, and publications for the benefit of his/her students in consultation with his/her departmental colleagues.
- He/she organizes and conducts the Parent-Teacher meetings in which the academic progress of the students is communicated to their guardians.
- He/she, in consultation with his/her department oversees the paper-setting, moderation, evaluation, and marks submission of all internal examinations of the department.
- Through the adept handling of their departments they discharge their function as nodal agents of the academic and administrative processes in the college to maintain the health and vibrancy of the management mechanisms in the college.

The above enumeration of features comprising participatory

management points fairly conclusively to the ethics of decentralization which is integral to the institution and informs its functioning at every level.

File Description	Documents
Upload strategic plan and deployment documents on the website	View File
Upload any additional information	View File
Paste link for additional Information	nil

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ Perspective plan has been clearly articulated and implemented

Curriculum Development: Under the Autonomy structure, various courses were introduced to match industry requirements. The combination of academics and holistic activities is the key to the overall development of all the stakeholders.

Teaching and Learning:Faculty members plan the academic conduct as per the syllabus and conduct effectively.The latest available teaching methods, various modes of learning, and digital platforms are also adopted by the faculty members.

Examination and Evaluation:The Examination Committee is formed to ensure smooth the conduct of the examinations. Continuous evaluation is carried out in each semester.Institute communicates the results on the internet through the Institute website.

Research and Development:Areas of domain-specific research in various programs are identified and all faculty members and students are encouraged to explore various research avenues.

Library, ICT and Physical Infrastructure/ Instrumentation:The institute provides the learning resources to students/scholars and faculty to ensure effective teaching learning process with optimum resource utilization at the institute.

Human Resource Management:A well-established team of the institute is responsible for ensuring compliance with

employment and government laws. Proper care is taken in the selection process for keeping quality in the appointments.

Industry Interaction / Collaboration:Training & Placement (T&P) cell takes initiatives for collaboration with various MNCs and Local industries for industrial training and internships for students of all departments.

Admission of Students: TCET has adopted a transparent admission process.Institute brand building can be seen through various awards and recognitions.

File Description	Documents
Strategic Plan and deployment documents on the website	View File
Paste link for additional information	nil
Upload any additional information	View File

6.2.2 - The functioning of the various institutional bodies is effective and efficient as visible from the policies, administrative set-up, appointment and service rules, procedures, etc.

TCET's organizational and governance structure comprises three levels: strategic, operational, and advisory. At the strategic level, there is the Trust consisting of the CEO Board of Trustees & Trustee In charge. The Chairman of the Trust (the Trustee-in-Charge of the Institute) is responsible for setting the direction, defining policies, and guiding the Institute's activities in consultation with the Principal and institute senior leadership team. At the advisory level are the Governing Council, and an Advisory Committee formed as per the AICTE/ UOM/ DTE guidelines. These two committees review the Institute's performance and recommend additional programs, changes required in the institutional functioning (academic and research environment,) student and faculty development (personal, professional, and social), outreach and advocacy programs to sustain institutional growth, students and staff welfare, etc. The operational level is a matrix structure and comprises of Principal, Vice Principal, Deans, and HODs, assisted by the various Local Managing Committees. Each Committee comprises cross-functional and inter-departmental staff. Day-to-day management work is the responsibility of the Principal who develops rules and procedures to implement the policies outlined by the Board of Trustees. The vice-Principal

and Deans from the senior leadership team to support the Principal in the operation of the institute. The organogram shows the functioning of various levels.

File Description	Documents
Paste link to Organogram on the institution webpage	https://www.tcetmumbai.in/Notice/Institute%20Presentation.pdf
Upload any additional information	View File
Paste link for additional Information	nil

6.2.3 - Implementation of e-governance in areas of operation: Administration Finance and Accounts Student Admission and Support Examination	**A. All of the above**

File Description	Documents
ERP (Enterprise Resource Planning) Documen	View File
Screen shots of user interfaces	View File
Details of implementation of e-governance in areas of operation	View File
Any additional information	View File

6.3 - Faculty Empowerment Strategies

6.3.1 - The institution has effective welfare measures for teaching and non-teaching staff and avenues for their career development/ progression

For the welfare of Faculty and staff, TCET has a Mediclaim policy, a Credit Society through which personal loans can be taken by staff /Faculty. Every three years medical camps are organized.

For career progression, Faculty Development Programs (FDP) conducted at TCET are either Self-Financed, sponsored by approving authorities like AICTE / ISTE, or Training Programs offered by IIT's conducted at TCET (Remote Center). FDPs have proven to be beneficial to faculty members as well as students. During these FDP's there is a high level of exchange of ideas.

During the Pandemic, Online FDP was conducted based on the theme of "Creating Digital Content for Effective Online Academic Delivery" in which many Online Tools were discussed & have been used by the faculty members during the Semester to conduct lectures, evaluate & improve the interaction among the students. They have also developed structured and guided learning resources (E-content) for the conduction of lectures (PPTs, Videos, Quizzes, and design of experiments using Virtual Lab). Also, faculty members are encouraged to pursue higher studies while on the job.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	nil

6.3.2 - Number of teachers provided with financial support to attend conferences / workshops and towards payment of membership fee of professional bodies during the year

6

File Description	Documents
Upload any additional information	View File
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	View File

6.3.3 - Number of professional development / administrative training programmes organized by the Institution for its teaching and non-teaching staff during the year

8

File Description	Documents
Reports of the Human Resource Development Centres (UGC HRDC/ASC or other relevant centres)	View File
Upload any additional information	View File

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6.3.4 - Number of teachers who have undergone online/ face-to-face Faculty Development Programmes during the year: (Professional Development Programmes, Orientation / Induction Programmes, Refresher Courses, Short-Term Course, etc.)

81

File Description	Documents
Summary of the IQAC report	View File
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	View File
Upload any additional information	**No File Uploaded**

6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly

Yes

File Description	Documents
Upload any additional information	View File
Paste link for additional information	nil

6.4.2 - Funds / Grants received from non-government bodies, individuals, and philanthropists during the year (not covered in Criterion III and V) (INR in lakhs)

2491532

File Description	Documents
Annual statements of accounts	View File
Details of funds / grants received from non-government bodies, individuals, philanthropists during the year	View File
Any additional information	View File

6.4.3 - Institutional strategies for mobilisation of funds and the optimal utilisation of resources

The institute has a well-structured fund management system. The strategies include determining the budget for the conduct of

the academic year before the start of the academic year, detecting and rectifying any misstatements as early as possible, and increasing transparency and query handling promptly. The main sources of finance come from Trust Funds and Fees collection. The Budget is prepared and approved. Further, the budget is allocated to all departments for resource utilization. The resources are classified as Finance resources, Human resources, and infrastructure resources. It is optimal utilization in coherence with the current needs and requirements. Resources are utilized interdepartmental also.

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	NIL

6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing quality assurance strategies and processes visible in terms of incremental improvements made during the preceding year with regard to quality (in case of the First Cycle): Incremental improvements made during the preceding year with regard to quality and post-accreditation quality initiatives (Second and subsequent cycles)

1.To align the TE and BE subjects as per industry requirements to cater latest trends & technology.

2.To restructure the laboratory exercises for offline mode after the pandemic

3.To ensure enough subscriptions of e-journals to inculcate research culture among students and faculty members.

4.To encourage faculty members to pursue Ph.D.

5. Up-gradation of laboratories considering the introduction of the new courses.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.tcetmumbai.in/Notice/IQAC/MOM-15.pdf

6.5.2 - The institution reviews its teaching-learning process, structures and methodologies of operation and learning outcomes at periodic intervals through its IQAC as per norms

Teaching and Learning :Faculty members plan the academic conduct as per the syllabus, detailing and developing resource book and course file, designing practice sessions, assignments, and experiments, IAT paper, and effective conduct of the academics.All lectures and practical classes are to be conducted as per the plan and are reviewed time to time to improve the efficiency and effectiveness of teaching learning during the semester. The latest available teaching methods, various modes of learning anddigital platforms are also used.The TLP is monitored at 3 levels: Faculty, HOD and leadership mentors.

TLP highlights-

Uniform credit structure

Vocational / Certificate Courses

Inculcate, incentivize and nurture research culture

Encouragement to quality publications

Increase connections with the industries; collaboration with reputed Industries in R&D

Multidisciplinary projects

Stakeholders satisfaction

Teachers training programs

CO PO attainment

Conduct of STTPs with appropriate topic selection; Concentrating on uncommon topics and proper resource person selection.

Effective conduct of program assessment tests; based on course-wise GATE questions inclusion; improving students' technical understanding among all courses.

Encouragement forstudents to participate in e-Hackathons and other competitive examinations.

Enhance the use of e-books, e-journals, and Open access through available standard digital platforms.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.tcetmumbai.in/Notice/IQAC/MOM-15.pdf

6.5.3 - Quality assurance initiatives of the institution include Regular meeting of the IQAC Feedback collected, analysed and used for improvement of the institution Collaborative quality initiatives with other institution(s) Participation in NIRF Any other quality audit recognized by state, national or international agencies (such as ISO Certification)	**B. Any 3 of the above**

File Description	Documents
Paste the web link of annual reports of the Institution	https://www.tcetmumbai.in/Notice/IQAC/AQAR%202020-21.pdf
Upload e-copies of accreditations and certification	View File
Upload details of quality assurance initiatives of the institution	View File
Upload any additional information	**No File Uploaded**

INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 - Institutional Values and Social Responsibilities

7.1.1 - Measures initiated by the Institution for the promotion of gender equity during the year

Women make up half of all students in law, medicine and engineering fields. So, while progress has been made for women in academia, there are still countless disparities, explicit and implicit, in college on campus and subsequently in the workforce. We, at Thakur College of Engineering and Technology, strive to make our campus safe, inclusive and female-friendly,

so we provide top-notch facilities for women on our campus. To start with, security is the main concern these days, so all the floors in our college are well-equipped with high class video surveillance and are also distributed with floor peons. Any female employee or student who has complaints/suggestions can go to the grievance cell, which is functional for the whole day. The women's washroom has an automatic sanitary napkin dispenser that can be used by women by inserting a small amount of money into the machine. They also have changing rooms. Gym and common room for girls are also available in the campus. There also girl representative in every department for smooth functioning.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional Information	https://www.tcetmumbai.in/WDC.html

7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation: Solar energy   Biogas plant Wheeling to the Grid   Sensor-based energy conservation Use of LED bulbs/ power-efficient equipment

D. Any 1of the above

File Description	Documents
Geotagged Photographs	View File
Any other relevant information	View File

7.1.3 - Describe the facilities in the institution for the management of the following types of degradable and non-degradable waste (within a maximum of 200 words)

In Solid Waste management system dry waste are placed in GREEN labelled and transported to BMC. Such bins are kept in front of the canteen, beside the food stalls in the campus and other prominent places. Recyclable materials are placed in separate bins. Wet waste are placed in BLUE labelled bins.

For E-waste Management System Unusable, irreparable or redundant IT and Electronics equipment are identified by the respective Laboratory In-charge and are declared as obsolete. Depending upon the nature, intensity of usage, maintenance cost, serviceability, obsolescence in terms of technology, up-

gradation of technology etc., the related items are classified by the Lab In-charges with the help of Lab Assistant for the purpose of disposal of these Items. 6-S designed to enhance effectiveness and efficiency of Laboratories.

1S – SORT (Organization) : Take out unwanted items

2S- SET IN ORDER (Orderliness) : A place for everything and everything in its place

3S- SHINE (Cleanliness) :The area is cleaned at the work is performed

4S- STANDERDISE (Standardized Clean-up) : Maintain a high standard of housekeeping

5S-SUSTAIN (Sustaining the discipline): It is a habit and continually improved.

6S-Safety (Accident Prevention): Maintain safe work environment

File Description	Documents
Relevant documents like agreements/MoUs with Government and other approved agencies	No File Uploaded
Geotagged photographs of the facilities	View File
Any other relevant information	No File Uploaded

7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus	D. Any 1 of the above

File Description	Documents
Geotagged photographs / videos of the facilities	View File
Any other relevant information	No File Uploaded

7.1.5 - Green campus initiatives include

7.1.5.1 - The institutional initiatives for greening the campus are as follows: 1. Restricted entry of automobiles 2. Use of bicycles/ Battery-powered vehicles 3. Pedestrian-friendly pathways 4. Ban on use of plastic 5. Landscaping	C. Any 2 of the above

File Description	Documents
Geotagged photos / videos of the facilities	View File
Various policy documents / decisions circulated for implementation	View File
Any other relevant documents	No File Uploaded

7.1.6 - Quality audits on environment and energy undertaken by the institution

7.1.6.1 - The institution's initiatives to preserve and improve the environment and harness energy are confirmed through the following: 1. Green audit 2. Energy audit 3. Environment audit 4. Clean and green campus recognitions/awards 5. Beyond the campus environmental promotional activities	E. None of the above

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	No File Uploaded
Certification by the auditing agency	No File Uploaded
Certificates of the awards received	No File Uploaded
Any other relevant information	No File Uploaded

7.1.7 - The Institution has a disabled-friendly and barrier-free environment: Ramps/lifts for easy access to classrooms and centres Disabled-friendly washrooms Signage including tactile path lights, display boards and signposts Assistive technology and facilities for persons with disabilities: accessible website, screen-reading software, mechanized equipment, etc. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading materials, screen reading, etc.	**C. Any 2 of the above**

File Description	Documents
Geotagged photographs / videos of facilities	[View File](#)
Policy documents and brochures on the support to be provided	**No File Uploaded**
Details of the software procured for providing assistance	**No File Uploaded**
Any other relevant information	**No File Uploaded**

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e. tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities (within a maximum of 200 words).

"Education is the most powerful weapon that you can use to change the world", hence, the Extension Work Team of TCET is working toward providing Basic Education & One-to-one Counselling Sessions for underprivileged kids with the motto - "Reach to Unreached". There are certain students who come from poor socio-economic backgrounds & can't afford tuition or even basic education. Therefore, we offer Online Education on all subjects and Tutoring Session to such students, ranging from grade 1 to grade 10. In addition to that, webinars and seminars on a variety of topics are taken, including Cleanliness, Personal Hygiene, and much more, to provide personal awareness and development. Linguistic differences are resolved by learning the language our students understand best, in our case, the preferred language is Marathi. Basic Online Education is offered by creating study material for the students in the

form of PPTs and videos on all the subjects. Whereas, One-to-one Counselling Sessions for students who have failed, in 9th or 10th grade, are done by taking up subjects in which they require assistance. Interesting and fun learning sessions are conducted by also creating PPTs. Hence, TCET-EWT strives to provide basic education & holistic development for the unprivileged students.

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	[View File](#)

7.1.9 - Sensitization of students and employees of the institution to constitutional obligations: values, rights, duties and responsibilities of citizens:

Universal Human Values FDP program for the academic Year 2021-22(odd semester) offered by AICTE, was attended by all faculty members. The head of institute addressed the teaching/non-teaching staff on values, rights, duties and responsibilities of citizens by conducting meetings. The Student Induction Program (SIP) was conducted for First year students as per the AICTE guidelines. It is designed to orient F.E./F.T. students about the facilities and infrastructure of ES & H Department and their core departments, student interaction Proficiency Module, professional-social body activities, Holistic-Multidisciplinary Education (HME)with class in-charges, Professional Skills, Activity Based Learning, Proficiency module (Soft Skills), Student centric teaching learning process, evaluation & assessment system, course objective/outcome, learning objective/outcome, ERP. Also enlighten few implemented modules like Universal Human Values, Debate/Public speaking, Creative Arts, Talent Show, Physical Health and related activities (Yoga &fitness), Professional Bodies, and Student Forum through Portfolio building, which will encourage them to participate for overall development. The introduction of Universal Human Values to the students is to make them understand the importance of Family in life, the difference between Body and Self, happiness and Prosperity. Also, to comprehend the real meaning Harmony in family/ society. This helps to improve the mental attitude, confidence, coordination & rapport among the students.

File Description	Documents
Details of activities that inculcate values necessary to transform students into responsible citizens	View File
Any other relevant information	**No File Uploaded**

7.1.10 - The institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic sensitization programmes in this regard: The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff Annual awareness programmes on the Code of Conduct are organized

D. Any 1 of the above

File Description	Documents
Code of Ethics - policy document	View File
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programmes, etc. in support of the claims	**No File Uploaded**
Any other relevant information	View File

7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

TCET, along with the academic performances, understands the importance of co- and extra-curricular activities that help students' holistic development. Celebrating various days throughout the year builds a sense of community. Through Matrubhasha Diwas (21st February), we celebrated our unity in diversity. On Teachers Day (5th September), the birth anniversary of Dr. Sarvapalli Radhakrishanna, the College celebrates by acknowledging the efforts of all the students to provide life-long learning. Engineers day (15th September)

holds the most special place in the heart of TCET, where students aim to demonstrate innovation and technology via an exhibition. Lady Representative of our College every year takes the mantle of celebrating International Women's Day (8th March) to appreciate all the incredible budding women in tech and the women who make all this possible. Promoting fitness through Yoga has been an integral part of our Indian culture. Every year on International Yoga Day (21st June), all students and staff start the morning doing Yoga together. Last but not least, celebrating the most important day of India, the Independence Day (15th August) entire Thakur family (Thakur education group) comes together to celebrate the Azadi and remember the sacrifices of all our brave martyrs.

File Description	Documents
Annual report of the celebrations and commemorative events for during the year	View File
Geotagged photographs of some of the events	No File Uploaded
Any other relevant information	View File

7.2 - Best Practices

7.2.1 - Provide the weblink on the Institutional website regarding the Best practices as per the prescribed format of NAAC

Best Practices in the form of Quality Enhancement in National Initiative Program (Student Exchange Program) and Student Leadership Program was undertaken the details of the same is mentioned in the linkattached.

File Description	Documents
Best practices in the Institutional website	https://www.tcetmumbai.in/Notice/IQAC/Quality%20Enhancement%20in%20NIP%20&%20Leadership%20_Best%20practice.pdf
Any other relevant information	nil

7.3 - Institutional Distinctiveness

7.3.1 - Highlight the performance of the institution in an area distinct to its priority and thrust (within a maximum of 200 words)

Thakur College of Engineering Technology (TCET) was established in the A.Y. 2001-02 with objective of providing quality technical education in tune with international standards and contemporary global requirements. TCET is recognized by All India Council for Technical Education (AICTE) Govt. of Maharashtra and was affiliated to the University of Mumbai (UOM). TCET has attained autonomous status for 10 years w.e.f. July 2019 and adopted Choice Based Credit Grading Scheme with Holistic and Multidisciplinary Education (CBCGS-HME 2020) in the process of curriculum development. In the 20 years of its existence, TCET is one of the leading engineering Colleges in Maharashtra. TCET is ISO 9001:2015 certified since 2017. TCET is a member of National Entrepreneurship Network (NEN) and Confederation of Indian Industry (CII). Along with the academic achievements, the institute provides the platforms for co-curricular and extra-curricular activities which help in the holistic development of students. Student-led clubs, social, cultural, sports activities conducted to inculcate social, moral, ethical and universal values which help them for all round development. TCET has well established T&P cell, HOC cell and R&D cell for students support and their carrier advancement. TCET has Key initiatives like teacher-guardian scheme, book bank scheme and introduction of resource books.

File Description	Documents
Appropriate link in the institutional website	https://www.tcetmumbai.in/Institutional%20Growth.html
Any other relevant information	View File

7.3.2 - Plan of action for the next academic year

Thakur College of Engineering Technology (TCET) is offering the best technical education to aspiring students through the System-Driven-Student-Centric approach. Since last decade, it focuses on education leading to holistic student development as per international graduate attributes. The University Grants Commission (UGC) has conferred "Autonomous Status" for 10 years under the revised UGC graded Autonomy Scheme 2018. TCET has strengthen its program offerings through Program Specific curricula with focus on research in latest technology, Industry curricula through an Employability Enhancement Scheme and

Personality Development model through its Holistic Development Scheme. As per the AICTE Model Curriculum and UGC, the Choice Based Credit Grading Scheme with Holistic and Multidisciplinary Education (CBCGS-HME 2020) includes Scholastic, Co-Scholastic and Non-scholastic Credits. Also credits for specialization offered by the department through MOOC courses and achiever credits for extraordinary achievements. First Year offers courses on Basic and Engineering Sciences with Humanities. The Second Year focuses on Program Specific core subjects. The Third Year offers Domain Specific Professional Electives. The Final Year has multidisciplinary Open Electives. Adoption of new Examination Evaluation Scheme which has In-semester assessment/Innovative examination and Formative/Summative Evaluation methods that would facilitate overall development of budding engineers to become Globally Competent Professionals with Values.