



# **SELF STUDY REPORT**

**FOR**

**1<sup>st</sup> CYCLE OF ACCREDITATION**

**TERNA ENGINEERING COLLEGE**

**PLOT NO-12, SECTOR -22, OPP. NERUL RAILWAY STATION, PHASE-II,  
NERUL(W)  
400706**

**<https://www.ternaengg.ac.in>**

**Submitted To**

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

**May 2023**

# 1. EXECUTIVE SUMMARY

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## 1.1 INTRODUCTION

Terna Engineering College (TEC) established in the year 1991, under the aegis of Terna Public Charitable Trust (TPCT). The Institution offers BE, ME and PhD (Bachelors, Masters and doctoral) level degree programs in various streams spread over a sprawling campus in 2.5 acres. The facilities are state-of-the-art equipment. The exceedingly talented and enthusiastic teaching faculty are the hallmark of the Institution. Students are educated for an optimistic professional life and as lifelong learners. Spacious computer labs, lecture halls, beautiful lawns, seminar hall, library ensure the students a learning time at the Institution. Terna Engineering College has become synonymous with learning and the better placements. In a short period, the Institution has emerged as one of the prestigious educational institutions in this location. Students from all parts of the state are ambitious to see themselves in this institution.

With the best teaching faculties available on campus, inspiration for students is just a lecture away. The faculty with their diversified backgrounds supports students gain a wider perspective of global best practices. They share a distinctive relationship with students which is characterized by openness, approachability, and warmth.

### Vision

To deliver value-added quality education to the aspiring students, meeting stringent requirements of the changing technology, industry, business and society as a whole.

### Mission

To provide an environment of academic excellence and adopt appropriate teaching – learning processes to produce competent and skilled engineers to meet global challenges.

## 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

### Institutional Strength

1. Terna Public Charitable Trust's Terna Engineering College has had a rich legacy in the field of education since 1991.
2. Virtuous governance is driven by the expertise and insight of distinguished personalities from academia and industry on the board of Governing Body.
3. Academic excellence is typified by qualified, competent and committed faculty members.
4. Infrastructure meets the academic research and student support needs.
5. State-of-the-art laboratories, a well-equipped library, and universal access to a Wi-Fi facility.
6. Financial sustainability and administrative autonomy support the continued growth of the institution.
7. An equipped training and placement cell with highly competitive and dedicated faculty to impart right to the students from 2nd year onwards to make them employable. More than 59 per cent of students are placed in reputed organizations like Oracle, TCS, Wipro, Glenwood Systems, Infosys, Jio, Godrej,

Everest Industries, Ola Electric, HCL, Cyient, Deloitte, and others.

8. The Institution identifies as a “Knowledge Centre” in Maharashtra.
9. The Institution has a Memorandum of Understanding (MoU) with various organizations that included ICT Academy, SMC, CEMS, B &R, Excel-R, Anet, Prolific etc.
10. Two laboratories are specially established by the Institution in collaboration with IIT, Bombay and AICTE. Centre of Excellence for Electromagnetics developed under AICTE scheme and E-Yantra/TechRobo lab is developed under outreach program funded by the Ministry of Education and hosted at IIT Bombay. The students are involved to carry out industry specific IoT and robotics related projects in these laboratories. In-house faculty members will act as mentors along with the experts from the respective organizations stationed on the campus.

### **Institutional Weakness**

1. Limited and no scope for starting new programs due to the prevailing regulations of UGC and MHRD.
2. Lack of funding from national organizations for nurturing advanced research. The Industry Institution Interface can be enhanced further.
3. The Institution could fully utilize the potential in terms of research and development.
4. Lack of structured entrepreneurship promotional activities on the campus.
5. Participation of alumni in the overall development of the Institution to be improved.

### **Institutional Opportunity**

1. The Institution can emerge as a role model in the fields of engineering education by adopting the best andragogical tools.
2. The Institutions management committee enjoys a strong relationship with entrepreneurs and is leveraging the same towards realizing the objectives and the characteristics expected of a higher educational institution.
3. The rich experience and diversity of the faculty can help the institution in moving forward in establishing programs, facilities, and resources without much delay.
4. A strong alumni base of the institution can be involved to bequeath to the institution toward excellence and help in the journey of being listed among most preferred Institution in the state.

### **Institutional Challenge**

1. Ensuring the quality of the faculty by attracting knowledgeable manpower who are willing to take an academic career path.
2. The institution is not able to pursue cutting-edge research due to limited resource funding from national funding agencies.
3. There is a need for change in strategies and processes for improving the results of the students.
4. Urgent measures are needed to review the course content to make them relevant to the present-day industry requirements.
5. Poor schooling of the students and lack of basic knowledge on some subjects create a problem in the progress of the curriculum.
6. Enhancing the communication and employability skills of the students has become a major challenge in the present-day industry requirements.

## 1.3 CRITERIA WISE SUMMARY

### Curricular Aspects

TEC follows University of Mumbai curriculum. Based on the University Academic Calendar, the college prepares academic calendars year-wise, followed meticulously. Midterm and Semester End Examinations are conducted as per the schedule specified by the University. The institution is well equipped with smart classrooms, spacious and state-of-the-art computer labs, audio-visual and other ICT facilities which make the delivery of the curriculum attractive and easier to students. Apart from the regular curriculum, Certification Programs are conducted to make students industry ready. From last five year, more than 25 Certification Programs were conducted for students of various branches of engineering. This facilitated them to acquire new skills. The Institution has various professional bodies like CSI, IETE, IEEE, ASHRAE, ISTE etc. in which students become active members from their 2nd Year.

TEC integrates and promotes cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability by conducting various activities on and off the campus for their holistic development.

All project works, Industrial Visits and Internships are employed as a part of the curriculum for elevating the learning experience of students. In the year 2017-2022, 2324 Project works, Industrial Visits and Internships were done by students which facilitated them get exposed to the external creation. TEC programs are offered and operated with strong linkages to the workplace and inculcate a sense of service in our students and create future leaders.

TEC feedback mechanism has reputable the integrity of the system, infused self-assurance among both faculty and students, increased active participation by inspired persons, enhanced common trust and given a stimulus to the educational commitment and sanguinity.

### Teaching-learning and Evaluation

TEC has healthy approach to the reality that the students come from diverse backgrounds with different learning capabilities. TEC identifies the need to present the latest tools, particularly in view of the present generation of students who are natives of technology. According to State Government regulations, the admissions procedure is conducted through Central Admission Process of State of Maharashtra complying with all statutory norms of the concerned regulatory/ governing agencies including DTE Maharashtra and affiliating University. The TEC maintains a respectable enrolment rate of 83.63 percentage and a respectable reserved category proportion of 47.3.

TEC has well-qualified and experienced faculty. The student-faculty ratio is maintained as per norms. The Institute keeps the faculty-student ratio of 1:17.42. Faculty prepares the teaching timetables as per UoM academic calendar.

The faculty upholds a course file that comprises a copy of the syllabus, course objectives, outcomes, notes, question papers with keys, sample answers and assignment scripts and attainments. The Chalk and Talk methods, PPTs, NPTEL Videos, Workshops, Guest lectures by experts from various areas, ICT Resources are all used in the teaching-learning process to benefit students for better learning. Apart from regular teaching-

learning methods, TEC conducts diverse events beyond the syllabus plan like Mini Project Development, Project Exhibition, Best field work competition etc., TEC has a practice of classifying additional learning capabilities of the students. Remedial and tutorial classes are conducted for slow learners.

Advanced learners are provided training for GATE, competitive examinations, and additional training sessions on cutting-edge technology. An apparent system is used for conducting examinations and evaluation processes. 96.98 pass percentage has been maintained for the last five years. All academic, co-curricular and extracurricular activities are monitored by the Institute's IQAC, which is supported by senior faculty members. It also makes sure to give faculty members and students all the support they need to improve teaching and learning.

### **Research, Innovations and Extension**

The institute has received 9,48,288 Rs funds during 2017-18 to 2021-22 from various organizations. Principal investigators are provided with necessary instructional facilities and resources. TEC respectable ecosystem for providing invention in the Teaching & Learning process by conducting various active learning methods, model-based learning etc; which helps in the quick transfer of knowledge. In support of the Teaching-Learning process, 50 National Seminars / Conferences / Workshops on Research methodology, IPR and Entrepreneurship have been conducted during the last five years. 58 research papers are published in notified UGC CARE journals and 116 number of books/chapters in edited volumes/ book published in national and international conference proceedings in last five year.

TEC has a well-structured policy for research promotion. So, there is a significant boost in the number of publications over the last 05 years leading to several 58 publications in reputed journals & all faculty have participated in various National & International conferences.

All departments are enthusiastically involved in activities of various extensions, TEC accept extension & outreach activities like social awareness, blood donation camps, and gender sensitization programs throughout the year as per systematic plans. TEC has several collaborations with organisations and institutes of National & International repute for its holistic growth. In total institute has 27 MoUs with academic organisations and industries like ICT Academy, CEMS, SMC, B & R, ANET etc.

### **Infrastructure and Learning Resources**

TEC has built an impressive state-of-the-art infrastructure. Through this, the TEC endeavours to provide ample opportunities for the student's academic, well-being, and cultural growth. The college has 31 spacious, ventilated, and well-furnished classrooms, 7 tutorial halls, 58 well-equipped and well-maintained laboratories, and Seminar Hall. TEC also entered MOU, with Lofti Zadeh and developed Centre of Excellence for Youth Empowerment to conduct research activities. More than 12% of expenditure excluding the salary component is utilized for infrastructure and academic support facility during the assessment period.

Central Library offers its users various types of information services such as 'Web Based Current Awareness Services', 'Web OPAC', 'Newspaper Clippings', and Digital Library for Digital Collections Seminar & Conference Alerts. Reference/Bibliographical Services. Book Bank Scheme privileges for Reserved Category students (SC/ST students). Central library comprises sections namely lending, circulation, reading, reference, reprography, stack area, and digital library sections. Barcode Technology is used in transactions. The library

has registered membership with IEEE, ASME, ASCE, Springer Nature, Knimbus, e-shodhshindhu, NDL India to extend its services by providing e-resources to staff and students.

TEC aims at providing futuristic facilities to the students to make them utilize the resources in the best possible manner. The computer laboratories are relocated to new premises to be under one roof. The laboratories at the new location have cutting-edge facilities with a very impressive ambience. The student-computer ratio has been 5.17 for the past 5 years. At present, a total of 590 computers were available for students. More than 87% of expenditure is utilized to maintain academic and physical facilities.

### **Student Support and Progression**

TEC demonstrates highest admiration for the overall development and progression of the students. Each year of fresher's induction program is organized as per UoM guidelines for 1st-year students before the commencement of the semester, which includes different modules like awareness of UoM regulations, attendance, credits, campus rules and regulations, best practices, anti-ragging, anti-drug, Grievance Redressal Committee, ICC, health & yoga, career opportunities, and certification programs to make the students acquainted with TEC and its surroundings. Services like guidance on government and non-government scholarships, bridge courses, life skills, yoga, ICT programs, tutorials, remedial classes, and basic foundational skill programmes for slow learners and advanced skill-based certification programmes for fast learners are provided on the campus as well encouraged them to participate in project competitions, various hackathons at state and national level. The institute recognises and encourages meritorious students with rewards, and overall toppers are felicitated with cash prizes and "Late Dr. Chandrakaladevi Padamsinha Patil Memorial Scholarship". 53.29 percent of students benefited from scholarships and fee benefits provided by the Government and Non-Government agencies during the last five years.

Institute provides information about competitive examinations such as GATE, CAT, GRE, TOEFL, IELTS and offers career counselling, soft skills training, and entrepreneurial skills through eminent resource persons to enhance the employable & career opportunity for the students. 10.86 Percentage of students benefitted from guidance for competitive examinations and career counselling offered by the Institution during the last five years. More than 8 percentage of attended students qualified in state/national/ international level examinations during the last five years.

More than 5000 students in the last five years are trained on ICT tools, online courses such as MOOCs, SWAYAM, NPTEL courses, and various add-on programs. They get an opportunity of becoming members of different professional bodies like CSI, IETE, IEEE, ASHRAE, ISTE etc. TEC conducts various literary, extracurricular, games, and sports activities as part of various celebrations, like National Day, Annual Day, Sports Day, and Techno-Cultural Fests. 10 students have received awards in sports and cultural competitions. Alumni play a crucial role in raising awareness of the latest industry trends and how additional training programmes can be tuned to meet the industry's needs.

### **Governance, Leadership and Management**

TEC aims to impart excellence engineering education to the students and endeavours to achieve excellence with the help of the suggestions given by the members of the Governing Body. Eminent personalities from industries are regularly invited to TEC to prepare the students for immediate employment by enriching their skills, promoting education, developing entrepreneurial skills, and building good industry-institute interaction. TEC

provides different welfare measures to the teaching and non-teaching staff, like group insurance, PF, ESI, maternity leaves and medical facilities. During the last 5 years, TEC has organised 35 FDPs and given financial support to nearly 5% of the faculty to attend FDPs, workshops, and different professional memberships. Financial audits are done to see that there is discipline and transparency. Internal and external audits are conducted regularly to monitor the mobilization and optimal utilization of the resources. The institute has received recognitions like NBA and has also participated in NIRF. IQAC conducts periodic audits to identify gaps and recommends various measures to be implemented to improve academic and administrative quality.

### **Institutional Values and Best Practices**

TEC is a diverse, talented community united by passion for learning and quest for more. Institute believes to deliver quality education, that strives to meet the stringent requirements of students, industry, business and society as whole. Our endeavour is to excel in education and improve, elevate, develop and deliver program and courses, which transcend the expectations and requirements of students. TEC is committed in totality towards planning and developing activities and programs with total commitment and involvement of all student and staff.

TEC continuously upgrades the knowledge and skills of all our employees through a planned development of staff for content updating and training in professional skills using industry connects. Being focused at the overall development of the students, the institute is keen to develop positive culture through skilled faculty members, appreciations and opportunities to bright students and hand holding of slow learners.

Faculty uses the ICT based audio visual techniques to teach effectively. The digital platform like ERP and LMS are available for the faculties to record and upload their video lectures. Apart from classroom teaching, institute is keen about participative and experiential learning methods. Institute has 27 MoUs with leading Hardware and Software Organisations to improve industry orientation in learning.

To meet our above said commitment, TEC offers education of the highest quality. Its curriculum presents a broad array of exceptional offerings in Engineering & Technology studies. TEC encourages students to make a difference on our campus, in the state and around the world by catering various platforms to groom their curricular and extra-curricular activities. Institute initiated Cultural, Sports, Technical activities through various programs like Resonance, Spartech, Avalon, SPICMACAY, TEDx, Radio Tarang. TEC has Professional body membership and Student's Chapter, IEEE, CSI, ASCE, IETE etc.

Empowerment of stakeholders like students/faculty/alumni through enhanced teaching-learning experience and productive feedback. TEC has E-Cell, Industry Institution Interface to increase placement, entrepreneurs through signed MoU's to sustain global competition. Recycling practices, Solar panels, Save Energy, academic integrity and foster value education for social, environmental and moral consciousness. TEC works on ICT enabled processes.

## 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the College	
Name	TERNA ENGINEERING COLLEGE
Address	Plot No-12, Sector -22, Opp. Nerul Railway station, Phase-II, Nerul(W)
City	Nerul Navi Mumbai
State	Maharashtra
Pin	400706
Website	<a href="https://www.ternaengg.ac.in">https://www.ternaengg.ac.in</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Lakshmappa Ragha	022-61115444	9969852599	022-61115400	principal@ternaengg.ac.in
Professor	Shilpa Kharche	022-8652222867	9220838311	022-61115400	shilpakharche@ternaengg.ac.in

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details



State	University name	Document
Maharashtra	University of Mumbai	<a href="#">View Document</a>

Details of UGC recognition		
Under Section	Date	View Document
2f of UGC		
12B of UGC		

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	<a href="#">View Document</a>	02-06-2022	12	

Recognitions	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Plot No-12, Sector -22, Opp. Nerul Railway station, Phase-II, Nerul(W)	Urban	2.5	17088.73

## 2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Computer Engineering	48	HSC	English	180	180
UG	BE,Civil Engineering	48	HSC	English	60	33
UG	BE,Mechanical Engineering	48	HSC	English	120	21
UG	BE,Mechatronics Engineering	48	HSC	English	60	35
UG	BE,Electronics Engineering	48	HSC	English	60	51
UG	BE,Electronics And Telecommunication Engineering	48	HSC	English	120	112
UG	BE,Information Technology	48	HSC	English	60	60
UG	BE,Artificial Intelligence And Data Science	48	HSC	English	60	60
UG	BDes,Design	48	HSC	English	30	0
UG	BDes,Design	48	HSC	English	30	4
PG	ME,Computer Engineering	24	BE BTech	English	18	0
PG	ME,Electronics Engineering	24	BE BTech	English	9	0
PG	ME,Electronics And Telec	24	BE BTech	English	18	0

	ommunicatio n Engineering					
PG	ME,Informat ion Technology	24	BE BTech	English	18	0
Doctoral (Ph.D)	PhD or DPhil ,Computer Engineering	36	ME MTech	English	10	0
Doctoral (Ph.D)	PhD or DPhil ,Electronics Engineering	36	ME MTech	English	10	0
Doctoral (Ph.D)	PhD or DPhil ,Electronics And Telecom munication Engineering	36	ME MTech	English	10	0
Doctoral (Ph.D)	PhD or DPhil ,Information Technology	36	ME MTech	English	10	0

**Position Details of Faculty & Staff in the College**

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	7				7				58			
Recruited	4	3	0	7	5	2	0	7	38	20	0	58
Yet to Recruit	0				0				0			
Sanctioned by the Management/Soci ety or Other Authorized Bodies	9				11				88			
Recruited	7	2	0	9	7	4	0	11	44	44	0	88
Yet to Recruit	0				0				0			

<b>Non-Teaching Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				53
Recruited	45	8	0	53
Yet to Recruit				0

<b>Technical Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				40
Recruited	35	5	0	40
Yet to Recruit				0

### Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	10	5	0	6	5	0	3	5	0	34
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	1	0	0	6	1	0	76	58	0	142
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male		Female	
	Others		Total	
	4		0	
	0		0	
	4			

**Provide the Following Details of Students Enrolled in the College During the Current Academic Year**

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	2301	0	0	0	2301
	Female	677	0	0	0	677
	Others	0	0	0	0	0
PG	Male	6	0	0	0	6
	Female	10	0	0	0	10
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	8	0	0	0	8
	Female	9	0	0	0	9
	Others	3	0	0	0	3

**Provide the Following Details of Students admitted to the College During the last four Academic Years**

Category		Year 1	Year 2	Year 3	Year 4
SC	Male	30	25	34	37
	Female	13	13	12	13
	Others	0	0	0	0
ST	Male	15	12	19	20
	Female	3	3	4	4
	Others	0	0	0	0
OBC	Male	41	45	47	43
	Female	17	10	17	25
	Others	0	0	0	0
General	Male	295	268	241	316
	Female	88	71	76	87
	Others	0	0	0	0
Others	Male	94	75	89	59
	Female	12	21	24	19
	Others	0	0	0	0
Total		608	543	563	623

**Institutional preparedness for NEP**

1. Multidisciplinary/interdisciplinary:	<p>TEC, specially emphasize on providing students with the necessary skills and knowledge to become self-reliant and independent. An all-inclusive education approach enables students to reach their full potential, make intelligent decisions and achieve academic excellence. It boosts students; self-confidence so they can face life's trials confidently and courageously. TEC introduces multidisciplinary and interdisciplinary studies to conform with the first pillar of the National Education Policy 2020 "Education for All" and ensures access to excellence education. Short-term and vocational courses are established to equip students with the necessary skills and knowledge to become self-sufficient.</p>
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2. Academic bank of credits (ABC):	The institution is open to create the digital infrastructure proposed by NEP to store its students' academic credits earned from various higher education institutes within the country. However, before implementation, the institution needs approval from the university. As a student-centred institution, the faculty adopts a constructive, research- based, reflective, collaborative and integrative approach to pedagogy.
3. Skill development:	TEC prioritises the development of student's skills. Students have prearranged opportunities to organise workshops and seminars to develop technical skills. Students partake in corporate internships and job shadowing to develop their entrepreneurial skills. Field trips and visits to industry and local businesses are organised to give students an insight into the corporate world. Team building activities and problem-solving exercises help students develop life skills. TEC encourages students to participate in extracurricular activities to develop their creativity and social skills. Guest speakers are invited to talk to students about their experiences and on how to mature their skills. Mentorship programmes, Collaborations and partnerships with numerous organisations help students develop their skills and gain valuable insights from experienced professionals. Access to career guidance and training and internships from Semester 1 helps them identify their strengths and weaknesses and develop a plan for their future. TEC also encourages its students to participate in community service projects to develop their leadership and communication skills.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	As of now, contemplating in introducing teaching in Indian Language, culture, using online course.
5. Focus on Outcome based education (OBE):	Outcome-Based Education (OBE) has been implemented in our Institute since 2013 to impart education through student centric approach and follow outcome-oriented teaching learning process. In line with OBE, Program Outcomes (POs), Program Specific Outcomes (PSOs), Program Educational Objectives (PEOs) and Course Outcomes (COs) have been formulated for all the UG programs as well as for PG programs except PSO.PEOs are broad statements that describe the graduates' career accomplishment after 3 to 5 years of graduation. POs



	<p>are aligned with the Graduate Attributes defined by NBA. PSOs are specific and relevant to a particular program. COs are direct statements drafted for every course that describe the competencies gained by the student through the course. POs, PSOs and COs are published in the college website, syllabus book, Course Plan and laboratory manuals and briefed at the start of the semester in the classes and class committee meetings. POs and PSOs are also displayed at prominent places in the classrooms, laboratory, faculty rooms and department library. It is also disseminated to the stake holders such as Faculty, Alumni, Parents and Employers through surveys. Every CO is aligned to one or more POs, and is measured at the end of the course, which contributes to the PO that it is mapped to COs for a course is measured by the Evaluation Scheme, where the assessment tools are categorized into Direct and Indirect.</p>
6. Distance education/online education:	<p>TEC offers study materials and lecture notes to students via the college website and Google Classrooms. Flipped classrooms and blended learning are encouraged at TEC.</p>

## Extended Profile

### 1 Students

#### 1.1

Number of students year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
3049	2940	2530	2546	2427
File Description		Document		
Institutional data in prescribed format		<a href="#">View Document</a>		

### 2 Teachers

#### 2.1

Number of teaching staff / full time teachers during the last five years (Without repeat count):

Response: 263

File Description	Document
Upload Supporting Document	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>

#### 2.2

Number of teaching staff / full time teachers year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
175	166	157	148	157

### 3 Institution

#### 3.1

Expenditure excluding salary component year wise during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
641.5	736	1009	1011	961

File Description	Document
Upload Supporting Document	<a href="#">View Document</a>

## 4. Quality Indicator Framework(QIF)

### Criterion 1 - Curricular Aspects

#### 1.1 Curricular Planning and Implementation

##### 1.1.1

**The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment**

**Response:**

Terna Engineering College (TEC) is affiliated to University of Mumbai (UoM), approved by AICTE since 1994 and follows the curriculum prescribed by UoM. The university publishes the academic calendar for each semester. UoM academic calendar mainly focuses on the date of commencement of term, and the number of instructional weeks, schedule of commencement of theory/oral practical exam, semester-end examination and commencement of next term.

The Internal Quality Assurance Cell (IQAC) monitors the effective delivery of the curriculum through a well-planned and documented process. It passes the concepts to College Development Committee (CDC). The CDC includes representative of the Management, the HODs and senior faculties. The planned curriculum is implemented by the HOI, HODs, the Timetable Committee members. They prepare/ draws up a detailed timetable which efficiently deploys the units of time for academic and co-curricular activities, i.e. theory, practical, tutorial, sports, value education/expert talks thereby ensuring a balance amid the diverse engagement of student's participation. The faculty members prepare and document detailed teaching plan and notes in compliance with the academic calendar. Every faculty member ensures to conduct lecture/practical as per teaching plan. IQAC also regularly monitors the progress of the teaching-learning process. Mentoring system is rigorously followed to enhance the academic performance of students. The all-inclusive performance of the student is continuously monitored and guided. HOIs meetings and Parents' meetings are other forums where the progress of the delivery of the curriculum is regularly monitored, and necessary modifications are introduced. IQAC considers the feedback of students, faculty & parents' as good practices.

TEC strictly follows the UoM academic calendar to conduct examinations. The timetable for the Mid exams is displayed in advance in institute and departments academic calendars. The internal examination-related activities like the question paper, evaluation of the answer scripts, posting of marks in ERP for students are implemented in a systematic and time-bound way, firmly adhering to the university academic calendar. TEC is well equipped with ICT enabled classrooms, spacious and state-of-the-art computer labs, which are extensively used by faculty in day-to-day teaching to make the delivery of the curriculum attractive and easier to students. A good voluminous library with more than 35000 books enhances the learning environment. Interactive teaching is promoted through students' participation in group discussions. Subject expert lectures delivered by distinguished resource persons from academics and industry on topics related to the curriculum and industry requirements further intensify students' learning experience.

## 1.2 Academic Flexibility

### 1.2.1

**Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)**

**Response:** 21

File Description	Document
Institutional programme brochure/notice for Certificate/Value added programs with course modules and outcomes	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 1.2.2

***Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years***

**Response:** 7.38

1.2.2.1 Number of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
197	210	128	308	153

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 1.3 Curriculum Enrichment

### 1.3.1

***Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability in transacting the Curriculum***

**Response:**

TEC firmly believes in promoting an inclusive value-based educational community. Hence, integrates and promotes the crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability by conducting various activities on the campus and off campus to enhance professional competencies among students which helps in their holistic development.

#### **Professional Ethics and Human Values:**

- Matures an in-depth understanding of the good practices, that supports students to knowledgeable choices which particularly imperative in their personal life and professional life.
- Affords an overview of the numerous challenges that every professional come across when performing their tasks.

#### **Gender Sensitization:**

- Provides overall guidance to the peer group in integrating/mainstreaming gender in all activities at TEC in the form of focused group discussions, debates, poster-making competitions, workshop, health check-ups, marathon etc.
- Provides an integrated and interdisciplinary approach to understanding the social and cultural, limitations of gender that shapes the experiences of women and men in the society.
- Generates awareness regarding equality in law, social system, and democratic activities.

TEC student's male: female ratio is about 3.35. To facilitate a gender-sensitive environment, TEC initiated ICC -Internal Complaints Committee in the year 2019 which generates awareness through lectures, seminars, talks, workshops, events, and debates. Female gender is motivated to participate and enrol in all activities of NSS as it develops strength, confidence, and leadership qualities in them. It also deals with the complaints from girl students and resolves them through effective counselling.

#### **Environment and sustainability:**

Environmental Management consents students in practicing a justifiable life and employ natural resources efficiently. The awareness of it enables students to have a collective effort to solve environmental snags that are faced in our day-to-day life. Environmental Management part of UoM enables students to comprehend our environmental problems and find solutions to maintain sustainability. Through this course, students learn about

- 1.Environmental issues in India.
- 2.Sustainable development and energy scenario.
- 3.Global warming, acid rains and hazardous waste.
- 4.Environment managements roles and functions.
- 5.Environment quality management and corporate environment responsibility.

Students participate in the programs like Tree Plantation, Awareness Rallies through NSS etc. conducted to sensitize protect the environment to public.

### **1.3.2**

**Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)**

**Response:** 76.22

**1.3.2.1 Number of students undertaking project work/field work / internships**

Response: 2324

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 1.4 Feedback System

### 1.4.1

*Institution obtains feedback on the academic performance and ambience of the institution from various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website*

**Response:** A. Feedback collected, analysed, action taken& communicated to the relevant bodies and feedback hosted on the institutional website

File Description	Document
Feedback analysis report submitted to appropriate bodies	<a href="#">View Document</a>
At least 4 filled-in feedback form from different stake holders like Students, Teachers, Employers, Alumni etc.	<a href="#">View Document</a>
Action taken report on the feedback analysis	<a href="#">View Document</a>

## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1

##### Enrolment percentage

**Response:** 83.63

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

2021-22	2020-21	2019-20	2018-19	2017-18
624	560	575	639	698

##### 2.1.1.2 Number of sanctioned seats year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
783	723	732	732	732

#### File Description

#### Document

Institutional data in the prescribed format

[View Document](#)

Final admission list as published by the HEI and endorsed by the competent authority

[View Document](#)

Document related to sanction of intake from affiliating University/ Government/statutory body for first year's students only.

[View Document](#)

#### 2.1.2

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

**Response:** 47.3

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



2021-22	2020-21	2019-20	2018-19	2017-18
154	135	208	184	195

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

2021-22	2020-21	2019-20	2018-19	2017-18
392	362	366	366	366

File Description	Document
Institutional data in the prescribed format	<a href="#">View Document</a>
Final admission list indicating the category as published by the HEI and endorsed by the competent authority.	<a href="#">View Document</a>

## 2.2 Student Teacher Ratio

### 2.2.1

**Student – Full time Teacher Ratio**  
(Data for the latest completed academic year)

**Response:** 17.42

## 2.3 Teaching- Learning Process

### 2.3.1

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

**Response:**

TEC provides an active platform for students to develop the latest skills, knowledge, attitude, aptitude, and values to make them promising engineers for the industry.

#### **Experiential Learning**

TEC set robotics laboratory by collaborating with IIT-Bombay to make students have experiential

learning in their courses.

- TEC has established a laboratory named as E-yantra lab, Apple Lab, TI Lab within the campus in collaboration with IIT Bombay, Nimap Infotech Pvt. Ltd, RedHat, Bricks and Bytes Ltd, Texas Instrument. to prepare students with hands-on experience on the contents by better delivery of the curriculum. Regular industrial Visits are organized to enhance experiential learning while visiting the industry.
- TEC has EPIC (Engineering Product Innovation Centre) an innovative laboratory set up in collaboration with Phi Education. The students actively involved in the product development activities in this laboratory.

#### **Problem-solving methods:**

- TEC is identified as a centre of learning to impart new technologies to students in collaboration with ICT Academy, Zybook, Emona, Every Circuit and Virtual labs.
- TEC has signed up MOUs with Nimap Infotech Ltd. which have enhanced students/faculty in developing actual app/solution/etc.
- Students take up internships/ trainings in Prolific, CEMS and SMC which bridge the gap between theoretical concepts and the practical applications.

File Description	Document
Upload Additional information	<a href="#">View Document</a>

## **2.4 Teacher Profile and Quality**

### **2.4.1**

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

**Response:** 100

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

2021-22	2020-21	2019-20	2018-19	2017-18
175	166	157	148	157

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts)	<a href="#">View Document</a>

**2.4.2**

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

**Response:** 19.05

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

2021-22	2020-21	2019-20	2018-19	2017-18
34	34	32	27	26

File Description	Document
List of faculties having Ph. D. / D.Sc. / D.Litt./ L.L.D along with particulars of degree awarding university, subject and the year of award per academic year.	<a href="#">View Document</a>
Institution data in the prescribed format	<a href="#">View Document</a>
Copies of Ph.D./D.Sc / D.Litt./ L.L.D awarded by UGC recognized universities	<a href="#">View Document</a>

## 2.5 Evaluation Process and Reforms

**2.5.1**

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

**Response:**

TEC internal assessment process is as per the formative and cumulative evaluation approaches to measure student achievement. It is as follows:

- **Formative Process:** Attendance record, classroom interactions, assignments, project work, field visits, laboratory sessions, mini project.
- **Cumulative Process:** Two Internal assessment Tests

IAT exam schedule is given by UoM and is communicated to the students well in advance. To ensure proper conduct of IAT exams, question papers are prepared in accordance with Bloom's Taxonomy by the course in-charges along with the scheme of evaluation and a solution key. Questions are mapped with the course outcomes and bloom's level.

The QIC coordinator verifies the quality of the questions and necessary changes are done if needed. After this process, the course in-charges submitting the verified question paper to department exam coordinator.

Evaluation is completed by the course-handling faculty members within 03 days from the date of examination. The corrected answer scripts at random are verified by the QIC Coordinator to ensure the standard evaluation process. The corrected answer scripts are available with course in-charge and is shown to students for self-verification and if any grievance is raised, it is addressed immediately. The Assignments along with the submission date are given to students by the respective faculty members in such a fashion that they must solve the assignment themselves by self-learning methods. The marks obtained by students in the IAT tests are displayed on the ERP, students can view through personal account. Internal Practical examinations are held once a semester. Internal faculty evaluate the experiments based on viva-voce, journals, records and program outputs. The faculty maps the questions with course outcomes and Bloom's Taxonomy is applied to both assignment questions and experiments given in the practical examination.

#### **External Assessment:**

For first and final year courses, the assessment is at the University through the Centralized Assessment Process. However, for second- and third-year courses, the assessment is through institute level Central Assessment Process. In addition, feedback in the form of course exit survey is obtained from the students once in every semester.

File Description	Document
Upload Additional information	<a href="#">View Document</a>

## **2.6 Student Performance and Learning Outcomes**

### **2.6.1**

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

#### **Response:**

Curriculum courses are the building blocks of the program. The program outcomes are achieved through the courses. Each course has its own contents which inculcate some skills and expertise in the learner at the end of the course. Demonstration of the Knowledge and skill acquired by the learner is basically the course outcomes. Course outcomes are necessarily be observable and measurable. Course outcomes (COs) are defines the minimum requirements the learner has to fulfil to complete the course as well as should be the reasons why learner has to choose the course. Clearly defined outcomes enable teachers and students to keep track of the progress. Mumbai University has defined COs for all the courses based on which the COs are stated. TEC ensures that the course outcomes are achieved by training the students through theory, practical, presentations, assignments, seminars, quizzes, workshops, mini and major projects.

Program Specific Outcomes (PSOs) are defined to enhance the skills core to the program. These reflect the specific domains in the program in which students will demonstrate expertise.

Dissemination of (POs) and (PSOs):

POs and PSOs are disseminated to all the stakeholders of the programs through various mediums like institute website (www.ternaengg.ac.in), internal MIS (ERP), lab journals, teaching plan, outdoor-Boards at prominent places, survey forms, laboratories, faculty rooms, department office, orientation / induction programmes, department meetings, presentation of lesson plan in the first lecture.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 2.6.2

*Attainment of POs and COs are evaluated.*

**Explain with evidence in a maximum of 500 words**

**Response:**

Evaluation is the important process in any closed loop system to assess the outcomes and implement the corrective action wherever required to achieve effectiveness. (Program outcomes) POs, Program specific outcomes (PSOs) and course outcomes (COs) are evaluated periodically through their attainment calculation. TEC adapt assessment tools in evaluating student's ability in application of learned skills in continuous assessment like IATs, Practical's, End semester examination, assignments, Projects (Mini and Major) under direct assessments and surveys under indirect assessment. One of the major components of PO and PSO calculations is CO's. The attainment calculation method is follows:

CO Attainment: CO attainment is calculated using theory exams, practical performance, presentations, assignments, seminars, quizzes, workshops, mini and major projects. The details of the tools are as follows:

1. Internal Assessment (20 % Weightage)
  - Internal Assessment Tests
  - Practical
  - Assignments
  - Other Components
2. University Exams (80 % Weightage)

The calculation of attainment of COs is based on thresholds set by department. Thresholds are set mostly on the basis of class average in case of internal assessment. However, due to the diversity of the courses, the flexibility is given to the subject teacher to set proper thresholds. Similarly, thresholds are defined for

university exams also. The levels are defined based on the thresholds.

Mainly three levels are defined, Level 1, Level 2 and Level 3 which are the percentage number of students who achieves the set threshold. After determination of levels, the percentage attainment is calculated. The percentage attainment is used to calculate the PO attainment according to the mapping of the COs with PO's. For PO calculation, 20 % weightage to internal assessment and 80 % weightage to university exam is assigned.

PO attainment calculation: PO attainment is calculated using direct and indirect assessment method.

1. Direct assessment method: (80 % Weightage)
  - Internal Assessment (20%)
  - University Assessment (80 %)
2. Indirect assessment methods: (20 % Weightage)
  - Program Exit Survey
  - Faculty Survey
  - Course Exit Survey
  - Extra- Curricular and Co- curricular activities

PO attainment through direct tools: COs defined for all subjects are mapped with PO's. The COs are calculated for individual subjects as explained earlier. The mapping levels are '1', '2' and '3' which corresponds to 'Low', 'Medium' and 'Significant' respectively. The CO attainment value is used to calculate the PO attainment based on the mapping. Similarly, final year projects are considered for PO attainment calculation. The weightages specified are exemplary and flexible to the departments in the tolerance of  $\pm 10\%$ .

PO attainment through indirect tools: PO reflects the quality of graduates at the time of graduation. Therefore, PO attainments are calculated through surveys such as Program Exit survey, Course Exit survey and Faculty survey. Also, the participation of the students in co-curricular and extra-curricular activities is considered for PO attainment calculation as it reflects the qualities of the graduates. PSO attainment is calculated similar to PO attainment using direct and indirect tools.

File Description	Document
Upload Additional information	<a href="#">View Document</a>

### 2.6.3

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

**Response:** 96.98

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

2021-22	2020-21	2019-20	2018-19	2017-18
659	626	445	499	498

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

2021-22	2020-21	2019-20	2018-19	2017-18
684	630	451	523	524

File Description	Document
Institutional data in the prescribed format	<a href="#">View Document</a>
Certified report from Controller Examination of the affiliating university indicating pass percentage of students of the final year (final semester) eligible for the degree programwise / year-wise.	<a href="#">View Document</a>
Annual report of controller of Examinations(COE) highlighting the pass percentage of final year students	<a href="#">View Document</a>

## 2.7 Student Satisfaction Survey

### 2.7.1

#### Online student satisfaction survey regarding teaching learning process

**Response:** 2.99

File Description	Document
Upload database of all students on roll as per data template	<a href="#">View Document</a>

## Criterion 3 - Research, Innovations and Extension

### 3.1 Resource Mobilization for Research

#### 3.1.1

*Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)*

**Response:** 8

**3.1.1.1 Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)**

2021-22	2020-21	2019-20	2018-19	2017-18
0	5	3	0	0

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 3.2 Innovation Ecosystem

#### 3.2.1

**Institution has created an ecosystem for innovations, Indian Knowledge System (IKS), including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident**

**Response:**

TEC focuses on modernizations by entering MoUs with prominent industry & institutions. The objective is to provide a comprehensive and integrated range of support including mentoring, training programs, networking, and an array of other benefits. The initiatives taken up by TEC towards effective knowledge transfer to the students are mentioned:

- TEC conducts Innovative Teaching Methodologies like spaced learning, teaching strategies and methods are to improve academic outcomes and address real problems to promote equitable learning. Industrial visit to industries exposes our students to cutting edge technology and opens the door for internship.
- TEC setup an E-yantra Robotics laboratory laboratory to transform students experiential learning of their courses by doing innovative projects under the guidance & supervision of faculty as well as resource person online. This facility paves way for students to have participative learning.



- TEC has an MoU with many software and hardware industries which provides the best platform for building coding skills to facilitate students to encounter the industry prerequisite.
- TEC has an MoU with B & R, ICT Academy, SMC, Excel-R which benefits students improve knowledge by conducting workshops and events and also makes students improve innovatively.

File Description	Document
Upload Additional information	<a href="#">View Document</a>

### 3.2.2

*Number of workshops/seminars/conferences including on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship conducted during the last five years*

**Response:** 50

**3.2.2.1 Total number of workshops/seminars/conferences including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
22	14	6	6	2

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 3.3 Research Publications and Awards

### 3.3.1

**Number of research papers published per teacher in the Journals notified on UGC care list during the last five years**

**Response:** 0.22

**3.3.1.1 Number of research papers in the Journals notified on UGC CARE list year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
5	11	11	13	18

File Description	Document
Link to the uploaded papers, the first page/full paper(with author and affiliation details)on the institutional website	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 3.3.2

**Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years**

**Response:** 0.2

**3.3.2.1 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
16	07	10	04	16

File Description	Document
Institutional data in the prescribed format	<a href="#">View Document</a>
Copy of the Cover page, content page and first page of the publication indicating ISBN number and year of publication for books/chapters	<a href="#">View Document</a>

## 3.4 Extension Activities

### 3.4.1

**Outcomes of Extension activities in the neighborhood community in terms of impact and sensitizing the students to social issues for their holistic development during the last five years.**

**Response:**

TEC has constituted the NSS unit to inculcate social responsibility and ethical values among the students. The faculty and volunteers participate in several extension activities conducted to uphold social justice, citizen involvement, and accountability in the development of the neighbourhood. The prominent activities are Tree plantation, Blood donation camp, Health check-up camps, Road Safety awareness, Street plays, Cleanliness drive, waste management awareness, Patriotism & Nationalism promotion,

Flood relief activities, walkathons for a cause. etc. **Impact of these extension activities has enhanced the social responsibility of the students and willingness to contribute to the value-based society.**

The NSS unit make a significant impact on TEC and community by organizing various activities related to diverse social issues with the support of faculty and volunteers. Through this for which TEC received so many certificates of appreciation from various organizations

File Description	Document
Upload Additional information	<a href="#">View Document</a>

### 3.4.2

**Awards and recognitions received for extension activities from government / government recognised bodies**

**Response:**

TEC NSS has carried out various extension activities outside the campus – in and around. Noble activity does not require high octane publicity. Yet some recognition will boost the motto of the NSS volunteers. Time and again TEC NSS won laurels and appreciation from state government and government approved agencies. Furthermore, appreciation from local police for the involvement of student's civic nationalism.

The prime objective of carrying out the extension activities is to enable the student community to be socially responsible and share their joys and sorrows of the deprived section of the society and help them to irradiate their problems in the best possible way.

The extension activities are carried out in multiple ways through various agencies which include NSS, Department Club, Professional bodies, Photography club, Tedex, Spicmacay, Festival celebration such as Raksha bandhan and Technical Club.

The students of TEC have carried out various social service programs which include camps in surrounding rural areas, blood donation camps, Flood relief Camps, Cleanliness drive, Free Health check- up camps etc.

File Description	Document
Upload Additional information	<a href="#">View Document</a>

### 3.4.3

***Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community during the last five years.***

**Response: 28****3.4.3.1 Number of extension and outreach Programs conducted in collaboration with industry, community, and Non- Government Organizations through NSS/ NCC etc., year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
03	02	10	10	03

File Description	Document
Photographs and any other supporting document of relevance should have proper captions and dates.	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>
Detailed report for each extension and outreach program to be made available, with specific mention of number of students participated and the details of the collaborating agency	<a href="#">View Document</a>

**3.5 Collaboration****3.5.1**

*Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.*

**Response: 24**

File Description	Document
List and Copies of documents indicating the functional MoUs/linkage/collaborations activity-wise and year-wise	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## Criterion 4 - Infrastructure and Learning Resources

### 4.1 Physical Facilities

#### 4.1.1

The Institution has adequate infrastructure and other facilities for,

- teaching – learning, viz., classrooms, laboratories, computing equipment etc
- ICT – enabled facilities such as smart class, LMS etc.

**Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc (Describe the adequacy of facilities in maximum of 500 words.)**

#### Response:

Learning develops and comprehends the greatest potential in one's personality. It requires constant effort, determination, commitment, and target orientation. TEC firmly believes in the dreams and the inspiration and professional achievement of the student.

TEC endeavours to provide ample opportunities for the academic, well-being, and cultural growth of the students. The management of TEC is committed to providing state-of-the-art facilities to better experience of teaching-learning. Feedback from various stakeholders is taken annually and required renovation and modifications are made to see that the students have a conducive learning environment.

**Classrooms:** The college has 31 spacious, ventilated, and well-furnished classrooms, 7 tutorials rooms. They are built as per the specifications prescribed by the AICTE and the affiliating university UoM.

**Laboratories:** 58 laboratories are well-equipped and well-maintained not only for carrying out curriculum-oriented experiments but also to carry out research activities.

Laboratories are equipped with the latest equipment and software. Institute has specialized facilities such as Apple Multimedia Lab, Amazon Web Services (AWS) lab, 3D Printing, Texas Instruments lab, LabVIEW Lab and Industry standard CNC lab. Total 7 number of Workshops and 2 drawing halls are available to develop hands-on skills of students. TEC has adequate ICT-enabled seminar halls to organize conferences, seminars, and workshops for students and faculty members.

The Institute has a well-furnished Air-conditioned State of the art Auditorium having a seating capacity of 500. It is used to conduct guest lectures, seminars/conferences and symposia as well as facilitates conduction of technical events.

College has established Incubation Centre to provide start-ups with guidance, Technical support, infrastructure and facilitating host of other resources. College has various Labs such as Centre of Excellence for Electromagnetics, Centre of Excellence for Youth Empowerment, Lofti Zadeh Centre of Excellence, E-Yantra Lab which are established under various MOUs and by funds received from AICTE.

TEC is an authorized Center for Swayam with a colossal setup of 8 tb of videos related to all streams and

courses of engineering. Students can access all the videos without internet inside the campus

For project-based learning, there is an Engineering Product Innovation Centre (EPIC), which is furnished with computing and other hardware facilities for the students to work on their projects.

Administrative Offices include Principal and HOD Cabins, Department offices, Placement Office, Exam Control Office, Central Store. Other amenities including Boys & Girls Common Rooms, Staff Rooms, First Aid and Sick Room, Cafeteria, Photocopy Centre, Wash Rooms for staff, boys and girls on each floor, etc.

On campus hostel facility is available for boys and girls. Rooftop solar energy generation of 136 KWp is installed on the college building.

TEC provides Turf, quadrangle, indoor badminton court for outdoor and indoor sports and gymnastics activities. Yoga events have also been conducted in Turf.

File Description	Document
Upload Additional information	<a href="#">View Document</a>

#### 4.1.2

***Percentage of expenditure for infrastructure development and augmentation excluding salary during the last five years***

**Response:** 12.25

**4.1.2.1 Expenditure for infrastructure development and augmentation, excluding salary year wise during last five years (INR in lakhs)**

2021-22	2020-21	2019-20	2018-19	2017-18
10	9	71	203	241

File Description	Document
Institutional data in the prescribed format	<a href="#">View Document</a>
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for infrastructure augmentation should be clearly highlighted)	<a href="#">View Document</a>

## 4.2 Library as a Learning Resource

### 4.2.1

*Library is automated with digital facilities using Integrated Library Management System (ILMS), adequate subscriptions to e-resources and journals are made. The library is optimally used by the faculty and students*

#### Response:

The objective of the Learning Resource Centre is to provide information services and access to bibliographic, full-text digital and printed resources to support the informational need of TEC in an appropriate and comfortable environment.

TEC library has a 35000 plus collection of Text Books and Reference books. Library is automated in the areas like circulation, cataloging, report generation using SOUL library software an internationally accepted library management system version 3.0 since 2010. There are dedicated terminals (OPAC System) for searching the library collection and Rack index. Book bank facility is also available which has more than 3300 books sponsored by Thane Book Bank, UoM Book Bank and Prerana AICTE Scheme.

E-Resources subscription of the library include lifetime access to e-ShodhSindhu and National Digital Library of India (NDL India). Annual subscriptions are bought for IEEE POP ALL + ASPP, ASME, ASCE, Springer Nature & Knimbus.

The institute regularly spends on books, journals and e-resources. In the last 5-year period from 2017-18 to 2021-22 INR.23.06 lakhs were spent on purchase of books, INR 16.33 lakhs was spent on purchase of journals and INR. 71.15 Lakh was spent on e-resources.

Per day library is utilized by more than 200 students for reading and studying purpose, more than 60 books are issued and returned back in a day.

File Description	Document
Upload Additional information	<a href="#">View Document</a>

## 4.3 IT Infrastructure

### 4.3.1

**Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection**

*Describe IT facilities including Wi-Fi with date and nature of updation, available internet bandwidth within a maximum of 500 words*

**Response:**

TEC facilitates innovative conveniences in IT to the students to utilize the resources in the best possible manner. The laboratories are cutting-edge facilities with a very remarkable environment. TEC evaluates the IT requirements from time to time and does the needful. The campus is Wi-Fi enabled. The students and faculty members are encouraged to utilize e-learning resources.

- TEC systems are connected (Specs) with speed ILL (Internet Lease Line) Bandwidth of 300Mbps LAN/wi-fi leased.
- Institute has 24 Wi-Fi Access points. Additionally, faculty are provided with MiFi devices on need basis for teaching.
- TEC has ICT enabled classroom with 7 classrooms have audio video recording facility.
- Total Number of Systems: 560 desktops and 30 Laptops for students and 130+ Laptops for faculty
- QualCampus ERP system – Learning resources, curriculum, lesson plan, recorded lectures, assignments, and assessments along with employee services are made available online through ERP system. Similarly, students can view their attendance, assessment marks, upload Lab Journals, assignments,
- Lynxe Learning Management System (LMS) for first year engineering enhancing the teaching and learning experience. During COVID pandemic interactive learning e-books from Zybook and Matlab Campuswide with Grader were made available through the LMS to students of all semesters.
- E- Library contents are made available to the students and faculty 24x7.
- **Firewall Details:** High-End “Next Generation SOPHOS XG-430” UTM/Firewall device is upgraded from Cyberoam 200i firewall, with throughput of 45 Gbps. Sophos XG Firewall combines the best of both Astaro and Cyberoam technologies, delivering an unprecedented level of innovation to next-generation firewalls.
- **Routers:** Two Cisco 2901/K9: Cisco 2901 w/2 GE,4 EHWIC,2 DSP,256MB CF,512MB DRAM, IP Base, 2-Port Serial WAN Interface Card HWIC-2T, cables.
- **Network Switches:** Institute has 30 Network switches with following configurations CISCO Catalyst 2960S GigE 4 x SFP, CISCO SG350-28-K9-IN, CISCO CBS350-24T-4G-IN, D-Link 1024D
- **CCTV Surveillance System:** Two NVR: DS-7608NI-E1, DS-7604NI-E1/4P Five IP Camera DS-2CD2110F-I, Two IP Camera DS-2CD2042WD-I, Seven Dahua IP Camera DH-IPC-HF5241EP
- **Operating System Software:** Windows 10/8.1/7/Vista/XP Campus and Mac OS X SNOW LEOPARD 10.6.4 20 Licences along with open source CentOS/ Fedora and Ubuntu
- **Application Softwares:** Institute has 41 application software’s out of which 31 are academically licensed including softwares such as MatLab, LabVIEW, PTC Creo, Automation Studio, CNC Machine Software. Remaining 10 are open source.

File Description	Document
Upload Additional information	<a href="#">View Document</a>



**4.3.2****Student – Computer ratio (Data for the latest completed academic year)****Response:** 5.17**4.3.2.1 Number of computers available for students usage during the latest completed academic year:**

Response: 590

File Description	Document
Purchased Bills/Copies highlighting the number of computers purchased	<a href="#">View Document</a>

**4.4 Maintenance of Campus Infrastructure****4.4.1***Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, during the last five years (INR in Lakhs)***Response:** 25.58**4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year wise during the last five years (INR in lakhs)**

2021-22	2020-21	2019-20	2018-19	2017-18
195	198	312	211	199

File Description	Document
Institutional data in the prescribed format	<a href="#">View Document</a>
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for maintenance of infrastructure should be clearly highlighted)	<a href="#">View Document</a>

## Criterion 5 - Student Support and Progression

### 5.1 Student Support

#### 5.1.1

*Percentage of students benefited by scholarships and freeships provided by the institution, government and non-government bodies, industries, individuals, philanthropists during the last five years*

**Response:** 53.29

**5.1.1.1 Number of students benefited by scholarships and freeships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
1769	1613	1384	1267	1157

File Description	Document
Year-wise list of beneficiary students in each scheme duly signed by the competent authority.	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

#### 5.1.2

*Following capacity development and skills enhancement activities are organised for improving students' capability*

1. Soft skills
2. Language and communication skills
3. Life skills (Yoga, physical fitness, health and hygiene)
4. ICT/computing skills

**Response:** B. 3 of the above

File Description	Document
Report with photographs on Programmes /activities conducted to enhance soft skills, Language and communication skills, and Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**5.1.3**

**Percentage of students benefitted by guidance for competitive examinations and career counseling offered by the Institution during the last five years**

**Response:** 10.86

**5.1.3.1 Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
313	389	252	256	255

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**5.1.4**

*The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases*

- 1.Implementation of guidelines of statutory/regulatory bodies**
- 2.Organisation wide awareness and undertakings on policies with zero tolerance**
- 3.Mechanisms for submission of online/offline students' grievances**
- 4.Timely redressal of the grievances through appropriate committees**

**Response:** B. 3 of the above

File Description	Document
Proof for Implementation of guidelines of statutory/regulatory bodies	<a href="#">View Document</a>
Details of statutory/regulatory Committees (to be notified in institutional website also)	<a href="#">View Document</a>
Annual report of the committee motioning the activities and number of grievances redressed to prove timely redressal of the grievances	<a href="#">View Document</a>

**5.2 Student Progression**

**5.2.1**

**Percentage of placement of outgoing students and students progressing to higher education during the last five years**

**Response:** 59.15

**5.2.1.1 Number of outgoing students placed and / or progressed to higher education year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
335	442	284	274	278

**5.2.1.2 Number of outgoing students year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
659	626	445	499	498

<b>File Description</b>	<b>Document</b>
Number and List of students placed along with placement details such as name of the company, compensation, etc and links to Placement order(the above list should be available on institutional website)	<a href="#">View Document</a>
List of students progressing for Higher Education, with details of program and institution that they are/have enrolled along with links to proof of continuation in higher education.(the above list should be available on institutional website)	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**5.2.2**

***Percentage of students qualifying in state/national/ international level examinations during the last five years***

**Response:** 8.89

**5.2.2.1 Number of students qualifying in state/ national/ international level examinations year wise during last five years (eg: IIT/JAM/NET/SLET/GATE/GMAT/GPAT/CLAT/CAT/ GRE/TOEFL/**

**IELTS/Civil Services/State government examinations etc.)**

2021-22	2020-21	2019-20	2018-19	2017-18
22	20	23	24	10

File Description	Document
List of students qualified year wise under each category and links to Qualifying Certificates of the students taking the examination	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**5.3 Student Participation and Activities****5.3.1**

**Number of awards/medals for outstanding performance in sports/ cultural activities at University / state/ national / international level (award for a team event should be counted as one) during the last five years**

**Response:** 10

**5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
1	0	1	6	2

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**5.3.2**

**Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions)**

**Response:** 8.4

### 5.3.2.1 Number of sports and cultural programs in which students of the Institution participated year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
06	05	00	15	16

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 5.4 Alumni Engagement

### 5.4.1

**There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services**

#### Response:

TEC has a registered Alumni Association, “Terna Engineering College Alumni Association”, under the Societies Registration Act, registration number **Maha/202/2023**. The Alumni Association provides an interface for establishing a link between the alumni, staff, and students at the institute. TEC alumni are presently occupied in various positions across the globe and proving their spirit in all spheres of engineering. TEC is enormously gratified of every member of its alumni. Most of them are successful in their careers such as jobs, higher education and in the field of entrepreneurship. The alumnus shares their experiences, and knowledge and advise the students through alumni meets and number of alumni guest lectures which forms a strong bond between the passed-out students and the current batch students. Inviting them to inspire young minds through alumni meet and guest lectures has proven to be highly beneficial, as students are seen to relate to their seniors thereby helping them to progress in their respective expertise.

The alumni communicate through a single platform at <https://alumni.ternaengg.ac.in/> . Through this web portal, the alumni can help students get placed at their respective organizations. Also, alumni can help students to get internships from their respective organizations. On this platform we have 4000+ alumni connections which are working successfully in various fields and professions across the world since from last 28 years. Here are some notable alumni of TEC, Nerul.

1. Rajaram Lembhe, Wing Commander Indian Air force, currently posted in Elite Institute which work on weapon integration project like BRAHMOS MISSILE, SPICE BOMB, and various weapons integrated on SUKHOIn30 MKI AIRCRAFT.
2. Ami Shah, Co-founder at Zandra Healthcare | Visiting Faculty at IIMB | Mentor at L-Incubator | Ex-CBFC Advisor
3. Manoj Karthikeyan, Director at CodeArray Technologies Pvt Ltd

4.Pradeep Garge, Senior Manager at Capgemini America Inc

File Description	Document
Upload Additional information	<a href="#">View Document</a>

## Criterion 6 - Governance, Leadership and Management

### 6.1 Institutional Vision and Leadership

#### 6.1.1

*The institutional governance and leadership are in accordance with the vision and mission of the Institution and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance and in their short term and long term Institutional Perspective Plan.*

#### **Response:**

TEC was established under the aegis of the Terna Charitable Trust in the year 1991. TEC is synonymous in good practices learning, placements and entrepreneurship. In a short span of time, TEC has emerged as one of the prestigious educational institutions in this location. The faculty members are the driving force for the student's excellence and inspiration to learn. The faculty with their diversified backgrounds supports students and empower towards national development and global employability by gaining a wider perspective of the industry. Faculty share a distinctive relationship with students which are characterized by openness, approachability, and warmth.

#### **VISION**

To deliver value added quality education to the aspiring students, meeting stringent requirements of the changing technology, industry, business and society as a whole.

#### **MISSION**

To provide an environment of academic excellence and to adopt appropriate teaching- learning processes to produce competent and skilled engineers to meet global challenges.

#### **The main objective of the mission is:**

The Vision and Mission statements define TEC distinctive characteristics in terms of addressing the needs of students and that of society in general. TEC has the objective to impart quality engineering education to students.

The Management Committee of TEC intentions at leveraging and comprehending the objectives expected of a HEI professional education. The rich experience and diversity of the of the Management support TEC transfer forward in establishing honesty, integrity, sincerity, and knowledge which are quite (relatively) essential for a healthy society. The Governing Body of the college is a composition of experts from both academia and industry along with management., actively involved in policymaking for the benefit of the students. Governing Body also hosts four successful entrepreneurs who have developed niche products and created a market for their businesses.

A College Development Council (CDC) consisting of HODs and representatives from the Management Committee headed by the HOI prepares policies and strategies for the successful implementation of the curriculum.



The HODs deliberate the plans with their respective department staff members to accomplish excellence. The HR of TEC has adopted a proactive approach to attaining all-inclusive education which leads to the all-around development of students.

## 6.2 Strategy Development and Deployment

### 6.2.1

*The institutional perspective plan is effectively deployed and functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules, and procedures, etc*

#### **Response:**

The objectives of TEC are to impart eminence education to students and to prepare them with employable and entrepreneurship skills. TEC develops various strategies for achieving the vision and mission of the Management & TEC, enriching the teaching-learning process, and Industry Institution Interface created through training and placement cell. One such strategic plan is strengthening Industry Interaction Interface.

The goal of TEC is to produce skilled and competent professionals through quality technical education and to prepare them for immediate employment and entrepreneurship. Industries engross these knowledgeable professionals and enhance their production capabilities by contributing to the recent technologies. To produce proficient graduates ready for the industry, the college always strives to improve industry-institute interaction. Eminent personalities from industries are regularly invited to the campus to enrich the students. To build a good and vibrant industry institute interaction and to promote education and entrepreneurship, TEC has entered a various Memorandum of Understanding (MoU's) of hardware and software with various organizations such as Excel-R, Prolific, CEMS and SMC to enrich and enhance industrial knowledge of students.

### 6.2.2

*Institution implements e-governance in its operations*

- 1. Administration**
- 2. Finance and Accounts**
- 3. Student Admission and Support**
- 4. Examination**

**Response:** A. All of the above

File Description	Document
Screen shots of user interfaces of each module reflecting the name of the HEI	<a href="#">View Document</a>
Institutional expenditure statements for the budget heads of e-governance implementation ERP Document	<a href="#">View Document</a>

## 6.3 Faculty Empowerment Strategies

### 6.3.1

**The institution has performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression**

**Response:**

#### **PERFORMANCE APPRAISAL SYSTEM**

To ensure an effective Performance Appraisal System is in place, TEC and the employee ensure that the job responsibilities and requirements as well as the performance expectations are understood and interpreted in the right manner. Considering the financial position and performance of TEC, the Performance Evaluation and Appraisal System is completed in a systematic manner for all the Teaching and Non-Teaching Staff at the end of every academic year usually in the month of July. The summary of interactions and the observations of the panel are noted and, accordingly, a recommendation is made for the grant of increments. The committee consists of the HOI, the Management Representative, and the Head of the Department. TEC strongly believes that the outcome of this process must be comprised of shared communication, constructive criticism, and healthy discussions on strengthening institutional growth and finding probable solutions for the same, as well as the inclination to realistically make sincere efforts to achieve a definite objective soon. This has also directly or indirectly shown considerable enhancement in the initiatives and achievements of the employees, thereby contributing to the continued growth of TEC. Benefits passed on by TEC to teaching staff through CAS (Career Advancement Scheme).

File Description	Document
Upload Additional information	<a href="#">View Document</a>

### 6.3.2

**Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years**

**Response:** 4.86

**6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
5	5	8	16	5

File Description	Document
Institutional data in the prescribed format	<a href="#">View Document</a>
Copy of letter/s indicating financial assistance to teachers and list of teachers receiving financial support year-wise under each head.	<a href="#">View Document</a>

**6.3.3**

*Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years*

**Response:** 46.85

**6.3.3.1 Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
130	55	118	49	57

**6.3.3.2 Number of non-teaching staff year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
31	03	36	00	00

File Description	Document
Institutional data in the prescribed format	<a href="#">View Document</a>
Copy of the certificates of the program attended by teachers.	<a href="#">View Document</a>

## 6.4 Financial Management and Resource Mobilization

### 6.4.1

**Institution has strategies for mobilization and optimal utilization of resources and funds from various sources (government/ nongovernment organizations) and it conducts financial audits regularly (internal and external)**

#### **Response:**

**Internal audit:** TEC has internal audit process, and conducts periodic audits in various aspects like revenue audits etc. It is a continuous process to work the systems and processes in harmony. Internal auditors go through the risk management governance and internal control processes. They deal with issues important to the survival and prosperity of the organization.

**External audit:** External auditors review the internal control mechanism, accounting policies and standards, financial analysis and prepare statements. It involves effective management of internal controls and strengthens operations. When an external auditor identifies a significant issue with the accounts, they will provide the managers with an “audit management letter” which records any issues with solutions. The final Annual Audited Accounts are kept before the Board of Management/General Body for discussion and approval.

#### **Mobilization and Optimal Utilization of Resources:**

The mobility of the fund is in the right direction, and then the progress will be as expected otherwise ineffective. TEC has well-defined and systematic strategies to ensure the utilization of resources. It holds a well-coordinated approach to the optimal utilization of funds and resources. HOI and the various committees of TEC monitor the use of resources.

**Mobilization of Funds:** The major financial resources of TEC are the fee collected from students and donations from the management and finances generated. In addition to these, efforts are made to mobilize additional finances to meet institutional needs and growth. Merit scholarships and trophies are instituted to honour outstanding students out of the donations collected from individuals or institutions.

**Optimal utilization of resources:** Financial Planning is exercised well in advance for the Management with efficient Budgeting, after involving all the Academic Departments and Administrative Sections of TEC. Every year TEC prepares a budget, which involves projected revenue, expenditure, and capital expenditure to manage and plan the funds effectively. Preparing the budget includes the department requirements including co-curricular and extracurricular activities. After reviewing the budget with HOI, the final consolidated budget is forwarded to the Managing Committee of Management for approval.

TEC Management supports financially in case of need and in times of financial inadequacies and review the financials through budgets V/s actual regularly, which will ensure monitoring of the effective and efficient use of financial resources.

## 6.5 Internal Quality Assurance System

### 6.5.1

**Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities**

#### **Response:**

IQAC of TEC was established in 2023 in accordance with the NAAC guidelines. The IQAC of TEC has opportunities to get inputs from various stakeholders and brings changes in the whole process to achieve academic excellence. Internal Quality Assurance Cell (IQAC) has contributed significantly to institutionalizing quality assurance strategies and processes.

#### **FUNCTIONS OF IQAC**

- Development and application of quality benchmarks/parameters for the various academic and administrative activities of TEC.
- Enabling the creation of a learner-centric environment conducive to quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning.
- Arrangement of feedback responses from students, parents and other stakeholders on quality-related institutional processes.
- Organization of inter and intra-institutional workshops, seminars on quality-related themes promotion of quality circles.
- Documentation of the various programmes/activities leading to quality improvement.
- Development of quality culture in TEC
- Preparation of the Annual Quality Assurance Report (AQAR) to be submitted to NAAC based on the quality parameter going forward.

File Description	Document
Upload Additional information	<a href="#">View Document</a>

### 6.5.2

**Quality assurance initiatives of the institution include:**

- 1.Regular meeting of Internal Quality Assurance Cell (IQAC); quality improvement initiatives identified and implemented**
- 2.Academic and Administrative Audit (AAA) and follow-up action taken**
- 3.Collaborative quality initiatives with other institution(s)**
- 4.Participation in NIRF and other recognized rankings**
- 5.Any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA etc.**

**Response:** B. Any 3 of the above

<b>File Description</b>	<b>Document</b>
Quality audit reports/certificate as applicable and valid for the assessment period.	<a href="#">View Document</a>
NIRF report, AAA report and details on follow up actions	<a href="#">View Document</a>
NIRF report, AAA report and details on follow up actions	<a href="#">View Document</a>
Link to Minute of IQAC meetings, hosted on HEI website	<a href="#">View Document</a>

## Criterion 7 - Institutional Values and Best Practices

### 7.1 Institutional Values and Social Responsibilities

#### 7.1.1

**Institution has initiated the Gender Audit and measures for the promotion of gender equity during the last five years.**

*Describe the gender equity & sensitization in curricular and co-curricular activities, facilities for women on campus etc., within 500 words*

#### **Response:**

TEC promotes gender sensitization through co-curricular activities like seminars, guest lectures, poster exhibitions, counselling etc. The ICC has been established to sensitize and prepare students with issues related to gender sensitization, and women empowerment. The ICC ensures that posters promoting gender equity & sensitization are placed on the notice boards and celebrates Woman's Day every year to teach strong empowering quality and capacity building amongst girl students. TEC organizes programs like "Rights of Women in Domestic Laws." Cyber security awareness programs related to the safety and security of women employees and students are conducted periodically. ICC has organized many events such as essay writing, drawing, poster, slogan writing competitions under the banner of "Gender equality today for better tomorrow". TEC has a dedicated Counselling Centre and good mentoring system for the students to promote a culture of respect and equality for the female gender. TEC also pays sincere attention to empowering the girls with health-care, physical, moral, cultural and skill development of students. TEC celebrates the national festivals with all grandeur Independence Day and Republic Day. Management addresses the staff members and the students on these special occasions by inculcating noble thoughts amongst them.

The birth anniversary of Dr. Mokshagundam Vishvesvaraya is celebrated as "Engineers' Day" on the 15th of September every year. The departments organize various technical competitions on this occasion. The students take an active lead in celebrating Teachers' Day on the 5th of September every year to commemorate the birth anniversary of Dr. Sarvepalli Radha Krishnan, National Mathematics Day is celebrated on the 22nd of December every year to commemorate the birth anniversary of Sri Srinivasa Ramanujan International Women's Day is celebrated on the 8th of March by the Internal Complaint Committee (ICC) to instil confidence and self-discipline in girl students and faculty.

National Youth Day is celebrated on the 12th of January every year to motivate youth through the way of life and ideas of Swami Vivekananda. Various competitions are conducted in which students participate with great enthusiasm. ICC has conducted marathon with themes as Self Love and Cyber bullying. TEC has been successful in caring for its diverse students and staff population harmoniously in its efforts to steadily achieve its vision and mission.

File Description	Document
Upload Additional information	<a href="#">View Document</a>

**7.1.2**

**The Institution has facilities and initiatives for**

- 1. Alternate sources of energy and energy conservation measures**
- 2. Management of the various types of degradable and nondegradable waste**
- 3. Water conservation**
- 4. Green campus initiatives**
- 5. Disabled-friendly, barrier free environment**

**Response:** A. 4 or All of the above

<b>File Description</b>	<b>Document</b>
Geo-tagged photographs/videos of the facilities.	<a href="#">View Document</a>
Circulars and report of activities for the implementation of the initiatives document	<a href="#">View Document</a>
Bills for the purchase of equipment's for the facilities created under this metric	<a href="#">View Document</a>

**7.1.3**

**Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following**

- 1. Green audit / Environment audit**
- 2. Energy audit**
- 3. Clean and green campus initiatives**
- 4. Beyond the campus environmental promotion activities**

**Response:** A. All of the above

<b>File Description</b>	<b>Document</b>
Report on Environmental Promotional activities conducted beyond the campus with geo tagged photographs with caption and date	<a href="#">View Document</a>
Policy document on environment and energy usage Certificate from the auditing agency	<a href="#">View Document</a>
Green audit/environmental audit report from recognized bodies	<a href="#">View Document</a>

**7.1.4**

**Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance**



**and harmony towards cultural, regional, linguistic, communal socioeconomic and Sensitization of students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)**

**Response:**

TEC conducts several programs for providing an all-encompassing environment to create awareness amongst the students and staff members about their social, cultural, economic, political and institutional rights. It is the culture of TEC to come up with creativities for promoting tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic, and other diversities. TEC conducts various events to enhance positive interaction among students of different cultural backgrounds, also organizes various cultural programs to celebrate the cultural diversity of India. Students from various regional and cultural backgrounds participate in such programs and present their regional or cultural folk songs and dances. Ganesh Chaturthi, Marathi Bhasha Diwas, Hindi Diwas, Ras Garbha during Navratri along with commemorative days like Independence Day, Republic Day, Teachers' Day, Engineers' Day. Every year NSS Cell conducts Special Camps in villages for NSS volunteers with a direction towards various social issues impacting the lives of the people.

Various cultural activities are conducted to promote communal harmony in which students involve with great enthusiasm. TEC constituted the following committees as per the norms: Grievance redressal Committee, Anti-Ragging, Internal Complaint Committee, Committee for SC /ST for the well-being and to address the grievance of students and staff at TEC. The purposes of these committees are displayed on TEC website and information is disseminated to the students through orientation and induction programs. Many special talks and guest lectures on vigilance awareness are conducted to sense their responsibilities as citizens. TEC ensures that students participate willingly in all the above-stated activities which facilitate an inclusive environment.

File Description	Document
Upload Additional information	<a href="#">View Document</a>

## 7.2 Best Practices

### 7.2.1

**Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual**

**Response:**

#### **Best Practice 1**

**Name of Practice:- Engineering Product Innovation Center (EPIC)**

- 1. Title of the practice:** Engineering Product Innovation Center (EPIC)
- 2. Objectives of the practice:**

- Create culture of project based learning
- Projects built by students enhances the skills of students and makes them more employable
- Develops a culture of innovation

### **3. The Context**

The Awareness of EPIC is to enable students to conceptualize their projects.

EPIC is envisioned to be an eco-system that incubates required Lab Facility for all projects, dedicated mentoring, online and in person mentoring. The fundamental to design this system was to make sure Students learn and work with mentors and completes the desired tasks of the project. “Learning” was an important factor hence relevant courses were given access and relevant in person “Mentor Sessions” were designed for the project Teams.

### **4. The Practice**

EPIC Operation was alienated in Cycles spread over 03 Cycles starting from 6th Semester. The first cycle was focused on “Project Selection” and designating Learning Tasks to the Project Teams. The Project list is provided by industry mentors and categorized according to qualification level. Industry Mentors suggested to bifurcate and allow only teams that have certain level of Technical Aptitude to choose difficult project. Hence all teams need to appear in the Technical Aptitude test to qualify for the project. Teams with marks above threshold can select the difficult project. The Second Cycle begins once the Project Selection is concluded. All teams are assigned the Learning Material and assignments to be submitted. This cycle continues with start of 7th Semester and first Project Day is marked with In Person Industry Mentor meeting with Students, Guide and Project Coordinator. This Meeting outcome is “Tasks List” for complete project. Each Team need to submit the response to given task on given certain deadlines. A Communication thread is opened to each task in the Project portal. Once the Industry Mentor is satisfied with work done in the task, Mentor marks it as resolved. Once all the tasks are completed, Project is considered to be completed. Along with Final Year Projects, EPIC is open for all the teams working on Innovative projects and participating in National and International Level competitions.

### **5. Evidence of Success**

Team “e-Netra” won 5 Lac INR as Product Development Fund from DST & Texas Instruments Innovation Challenge 2017. E Netra formed a start up and fund was utilized to make Industry grade product. Promising prototypes of “Prosthetic Arm”, Table Tennis training Robot, Epilepsy Seizure Detection System and Knee Assist Device are in process of converting into Industry level product.

### **6. Problems encountered and resources required**

Time to time, We were required to procure special hardware’s in specific projects as requested by Mentors. Few hardware’s were expensive and available only at International market. TEC approved these funds once Industry Mentors validated the requirements. Students needed floor assistance in EPIC to help them in trivial issues such as Soldering/Coding issues/Issues with Microcontrollers etc. To resolve this, TEC appointed 03 Floor Engineers to be available in EPIC.

## Best Practice 2

### LynxE Virtual Learning

1. **Title of the practice:** LynxE Virtual Learning

2. **Objectives of the practice:**

To enhance the Teaching Learning process

To aid students with 24x7 learning beyond academic engagement as well

To provide students with Virtual Labs and latest smart hybrid teaching learning technology

To aid teachers with latest virtual labs to enhance the quality of the labs

### 3. The Context

The use of LynxE was the step towards enhancing the student engagement and imparting quality content and specialized Virtual Labs under LynxE from First Year to Final Year Engineering students across all the Departments. The Idea is to give students different dimension to learn other than Classroom Learning. The blend of LynxE offerings were well suited for overall growth of the students.

### 4. The Practice

Virtual Learning has been one of the aspects that has been brought in focus since last 01 year. TEC has envisioned to make the Virtual Learning as an essential part of the education being imparted to its student.

The LynxE LMS has features such as Simplified Content which contains the 3D Visualized concepts. Every Concept is explained in a manner to make sure it it's well perceived. Second is Instructor Led Training, A recorded session of each Unit becomes a handy one in order to learn it from Instructor. This supports and clears out any doubt of students. Students can watch 3D concepts and Recorded Instructor Lead Videos any number of times.

**LynxE Integrated Virtual Labs** are having the significant impact in Institutes Virtual Learning and to overall Teaching Learning Process. **LynxE Virtual Programming lab** recorded 90 thousand submissions across our both Institutes (TEC- Nerul Campus and COE, Osmanabad Campus). We conducted 28 real Labs in our LynxE Virtual Programming Lab across all departments. It Covered major programming languages from C Programming, Java, DBMS, PHP to ruby rails etc. **Circuit Simulation Lab** was popular as it gives a multiple outputs and helped them to visualize. **Remote Electronic Hardware Lab** was used for students to use sophisticated and On Campus Software. **MATLAB Grader** and Machine Design Online virtual Labs enabled students for better learning.

**Terna Interactive Zybooks (By Wiley India)** are a also offered in LynxE integrated services.

### 5. Evidence of Success

We have seen the utilization go high on regular interval. Students have utilized the Virtual Labs beyond

academic hours. We have the analytics feature that shows the daily utilization report in LMS. LynxE Virtual Programming lab recorded 90 thousand submissions across our both Institutes (TEC- Nerul Campus and COE, Osmanabad Campus).

## 6. Problems encountered and resources required

Adaption was a challenge initially but once it started professors were comfortable. Adaption of Virtual labs was a challenge for students as well but later, it was comfortable. Constant orientation and assistance in using it helped students to use it effectively.

File Description	Document
Best practices as hosted on the Institutional website	<a href="#">View Document</a>

## 7.3 Institutional Distinctiveness

### 7.3.1

**Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words**

**Response:**

**Design and Development of solar Air Conditioning System for TEC campus to reduce Carbon emission**

TEC believes of its responsibility towards sustainability of environment and supports all such good practices faculty and students wish to exertion of the same. One of such activities which has enabled to brand a worthy impact at comprehensive level is supported by TEC in reducing carbon footprint. TEC assignation in the direction of implementation of the Solar based Air Conditioning System campus wide as the first step.

Dr C M Choudhari, HoD, Mechanical Engineering Department, has successfully implemented Solar Air Conditioning System in his department. The same Solar Air Conditioning System will be implemented in campus of Terna Engineering College phase wise which will be helpful in cutting down carbon emission.

The demand for air conditioning is increasing due to the effects of climate change and global warming. If we still rely on conventional electric air conditioning it will be harmful in future because electricity is generated from fossil fuels, the greenhouse gas emission would continuously worsen global warming, and in turn the demand of air conditioning would be further increasing. Also the rate of electricity has increased by 8-10% which will continue increasing in the future. So in order to reduce global warming and the greenhouse gas emission effect we should adopt the renewable method for the generation of electricity which in turn reduces the cost of electricity by conventional way. Therefore, this project focuses on the design and development of solar powered air-conditioning system. The solar energy is

received by the PV module and transform into electrical energy. The electrical energy is then being regulated by charge controller. As the electrical energy coming from the PV module is in DC, inverter will convert it into AC as the compressor needs AC to operate. A solar on grid Air Conditioning system was designed for 3 Ton capacity. The solar Air Conditioning system required 18kwh/day, assuming 8 hours of continuous working. These energy demands is fulfilled using 8 panels with generating capacity of 11.390kwh/day and the rest of the energy is supplied by grid as shown in following figure. After successful implementation of this project, we propose a similar system for entire engineering campus of TEC.

Total 45 conventional electric air conditioning units of 1 Ton capacity is available in campus. Cost per Ton of solar on grid Air Conditioning system is approximately Rs 1,40,000/-. Therefore the project cost for total 45 conventional electric air conditioning units of 1 Ton capacity replaced by solar on grid Air Conditioning system will be approximately Rs 63,00,000/-in TEC campus. This will save large electricity consumption approximately by Rs 35,00,000/- per year. Therefore, Total cost invested will be recovered in two years span with green initiative. This will help to get 225 mertric tons of Carbon Foot Print (0.02 metric tons:24 kWh of electricity at 0.85 kgCO<sub>2</sub>e/kWh).

File Description	Document
Appropriate web in the Institutional website	<a href="#">View Document</a>

## 5. CONCLUSION

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### **Additional Information :**

Terna Engineering College (TEC) has made significant efforts to provide exceptional educational resources by establishing itself as an authorized IIT Remote Centre. This prestigious designation allows TEC to collaborate with the renowned Indian Institutes of Technology (IITs) in delivering top-notch training and orientation programs for teachers. By leveraging the expertise and resources of the IITs, TEC ensures that its faculty members receive the latest knowledge and skills in their respective fields, enabling them to deliver high-quality education to their students.

In addition to its partnership with the IITs, TEC extends its support to the administration and facilitation of various examinations conducted by esteemed organizations such as UPSC, MPSC, and private institutions. TEC's commitment to providing a seamless examination experience is reflected in its provision of both online and offline examination modes, catering to the diverse needs of candidates.

TEC's engagement with government programs goes beyond examinations, as the college actively participates in various initiatives aimed at fostering skill development, conducting research projects, and advancing education. By offering its expertise, resources, and facilities to these programs, TEC demonstrates its dedication to contributing to the broader educational landscape and supporting the growth and success of students and professionals alike.

Through its role as an authorized IIT Remote Centre, its involvement in examination administration, and its collaboration with government programs, Terna Engineering College exemplifies its commitment to providing exceptional educational opportunities and resources to its students and the wider community.

### **Concluding Remarks :**

Terna Engineering College (TEC) demonstrates a strong commitment to providing a quality education to its students. By aligning its curriculum with the University of Mumbai's standards, TEC ensures that students receive a comprehensive and up-to-date education. The college's focus on industry readiness is evident through the certification programs and practical experiences offered to students.

TEC's efforts to promote cross-cutting issues and holistic development among students reflect its dedication to shaping well-rounded individuals. The integration of project works, industrial visits, and internships provides valuable exposure to the external world, preparing students for future challenges.

The college's teaching and learning practices, supported by modern facilities and qualified faculty, contribute to a conducive learning environment. The emphasis on research, innovation, and extension activities further enriches the academic experience at TEC.

TEC's infrastructure and learning resources, including well-equipped classrooms, laboratories, and a comprehensive library, contribute to a nurturing learning environment. The college also promotes student support and progression through various programs, scholarships, and career counseling services.

Governance, leadership, and management at TEC are focused on continuous improvement and transparency.

The college's commitment to institutional values and best practices is evident in its efforts to upgrade faculty skills, provide opportunities for student development, and foster industry collaborations.

Terna Engineering College (TEC) stands as an institution dedicated to delivering quality education, fostering all-round development, and preparing students for success in their chosen fields.

## 6.ANNEXURE

### 1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																				
1.2.1	<p><b>Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)</b></p> <p>Answer before DVV Verification :</p> <p>Answer After DVV Verification :21</p> <p>Remark : Input edited as per the supporting documents</p>																				
3.3.2	<p><b>Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years</b></p> <p><b>3.3.2.1. Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year wise during last five years</b></p> <p>Answer before DVV Verification:</p> <table><tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr><tr><td>21</td><td>7</td><td>34</td><td>33</td><td>21</td></tr></table> <p>Answer After DVV Verification :</p> <table><tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr><tr><td>16</td><td>07</td><td>10</td><td>04</td><td>16</td></tr></table> <p>Remark : Input edited as per the supporting documents</p>	2021-22	2020-21	2019-20	2018-19	2017-18	21	7	34	33	21	2021-22	2020-21	2019-20	2018-19	2017-18	16	07	10	04	16
2021-22	2020-21	2019-20	2018-19	2017-18																	
21	7	34	33	21																	
2021-22	2020-21	2019-20	2018-19	2017-18																	
16	07	10	04	16																	
3.5.1	<p><b><i>Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.</i></b></p> <p>Answer before DVV Verification :</p> <p>Answer After DVV Verification :24</p> <p>Remark : Input edited as per the supporting documents</p>																				
5.1.2	<p><b><i>Following capacity development and skills enhancement activities are organised for improving students' capability</i></b></p> <p><b><i>1. Soft skills</i></b></p> <p><b><i>2. Language and communication skills</i></b></p> <p><b><i>3. Life skills (Yoga, physical fitness, health and hygiene)</i></b></p> <p><b><i>4. ICT/computing skills</i></b></p> <p>Answer before DVV Verification : A. All of the above</p> <p>Answer After DVV Verification: B. 3 of the above</p>																				



Remark : Input edited as per the supporting documents

5.1.4

***The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases***

1. **Implementation of guidelines of statutory/regulatory bodies**
2. **Organisation wide awareness and undertakings on policies with zero tolerance**
3. **Mechanisms for submission of online/offline students' grievances**
4. **Timely redressal of the grievances through appropriate committees**

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: B. 3 of the above

Remark : Input edited as per the supporting documents

5.3.2

**Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions)**

**5.3.2.1. Number of sports and cultural programs in which students of the Institution participated year wise during last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
42	10	00	02	02

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
06	05	00	15	16

Remark : Input edited as per the supporting documents

6.3.2

**Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years**

**6.3.2.1. Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
6	6	9	16	5

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
5	5	8	16	5

Remark : Input edited as per the supporting documents

**6.3.3 Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years**

**6.3.3.1. Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
143	120	217	77	133

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
130	55	118	49	57

**6.3.3.2. Number of non-teaching staff year wise during the last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
31	03	36	00	00

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
31	03	36	00	00

Remark : Input edited as per the supporting documents

## 2.Extended Profile Deviations

ID	Extended Questions																				
1.1	<p><b>Number of students year wise during the last five years</b></p> <p>Answer before DVV Verification:</p> <table><tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr><tr><td>3049</td><td>2940</td><td>2530</td><td>2546</td><td>2427</td></tr></table> <p>Answer After DVV Verification:</p> <table><tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr><tr><td>3049</td><td>2940</td><td>2530</td><td>2546</td><td>2427</td></tr></table>	2021-22	2020-21	2019-20	2018-19	2017-18	3049	2940	2530	2546	2427	2021-22	2020-21	2019-20	2018-19	2017-18	3049	2940	2530	2546	2427
2021-22	2020-21	2019-20	2018-19	2017-18																	
3049	2940	2530	2546	2427																	
2021-22	2020-21	2019-20	2018-19	2017-18																	
3049	2940	2530	2546	2427																	
2.1	<p><b>Number of teaching staff / full time teachers during the last five years (Without repeat count):</b></p>																				

Answer before DVV Verification : 265

Answer after DVV Verification : 263