



# **SELF STUDY REPORT**

**FOR**

**2<sup>nd</sup> CYCLE OF ACCREDITATION**

**LOKMANYA TILAK JANKALYAN SHIKSHAN  
SANSTHA'S LOKMANYA TILAK COLLEGE OF  
ENGINEERING**

**SECTOR 04 KOPAKHAIRANE**

**400709**

**[www.ltce.in](http://www.ltce.in)**

**Submitted To**

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

**January 2023**

# 1. EXECUTIVE SUMMARY

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## 1.1 INTRODUCTION

Lokmanya Tilak College of Engineering is founded by a Nagpur-based trust known as Lokmanya Tilak Jankalyan Shikshan Sanstha (LTJSS). The Sanstha was established in 1983, by Honourable Dr. Satish Chaturvedi. At present, there are 28 educational institutes run by the Sanstha in Nagpur. The Sanstha derives its philosophy from the magnanimous mathematician, educationist, social reformer Lokmanya Bal Gangadhar Tilak, who dedicated his life for the cause of Swaraj. Lokmanya Tilak College of Engineering was established in 1994, approved by the All India Council for Technical Education, New Delhi, recognised by the Govt. of Maharashtra and is affiliated to the University of Mumbai. Within the span of 28 years of its inception, LTCE has grown leaps and bounds in terms of popular courses being offered at U.G., P.G. and Ph.D. level. Two of its branches viz., Mechanical and Electronics and Telecommunications have been prior accredited by NBA.

The Institute runs the Under-graduate Programmes in Mechanical Engineering, Computer Engineering, Electronics & Telecommunication Engineering, Electrical Engineering, Electronics Engineering, Computer Science & Engineering (Data Science), Computer Science & Engineering (Artificial Intelligence & Machine Learning) and Computer Science & Engineering (IoT & Cyber Security Including Blockchain Technology). Institute also offers Post-graduate Programmes and Doctoral Programmes in Mechanical Engineering and Computer Engineering. In accordance with the NEP, the institute is also offering Minors and Honors programs on emerging fields including AI & ML, Data Science, Cyber Security, IoT, Blockchain, etc., as per the guidelines of University of Mumbai, wherein students can opt for various courses of their interest in addition to their core branch of studies.

The faculty is encouraged to upgrade their qualifications with an emphasis on Research & Development, so that they become successful educators in maintaining sustainable quality of employable Engineers. The Institute has memberships of professional bodies like IEEE, ISTE, SAE, IETE, CSI, ASME, ISHRAE etc., which help the faculty and students in their professional endeavours and goals. The Institute is well equipped with state of the art laboratories and library. Training and Placement Cell of the institute is successful in providing employment and internships to maximum number of students. The Institute has produced several Gold Medalists in University of Mumbai. Apart from imparting quality education in classrooms and laboratories, the college also organises various seminars, symposia and workshops for the benefits of students, teachers and engineering fraternity. The National Level Conference and Tantragnyan, a National Level Project competition are two such annual events. The strength of the Institute is its proactive students who participate in various high profile international competitions. All the Engineering departments have students' associations. The *Zephyr* is the Institute's sports, technical and cultural festival, wherein students from across Navi Mumbai and Mumbai region participate. The college also runs an annual magazine *Catharsis*, where achievements of the Institute, students and faculty along with their creative work are published. Lokmanya Tilak College of Engineering stands steadfast in its mission of continuing efforts for the betterment of its students and society.

### **Vision**

To create technically competent and ethically responsible professionals capable of providing efficient solutions to the contemporary world.

## **Mission**

**We aim to excel in our continual efforts, towards being one of the most recognized institutions, by:**

- Providing a conducive environment comprising high-end infrastructure and state-of-the-art laboratory facilities wherein the students, faculty and staff can collectively enhance their technical potential.
- Encouraging innovation through research activities for the benefit of society.
- Developing competent professionals responsive to change in technology.

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

### **Institutional Strength**

- Adequate infrastructure as per the norms.
- State of art laboratories with latest equipments and softwares.
- Highly experienced and qualified faculty with excellent teaching skills.
- Well managed library with ample collection of books, e-books, e-journals etc.
- State of art auditorium and Department seminar halls with multimedia facility.
- Institute has a lush green campus.
- Offering Honours/ Minor Program under University of Mumbai
- Conducive environment for growth of academics, research culture, social awareness, as well as sports and cultural activities.
- Skill development and personality development programmes for students.
- FDPs / STTPs / Workshops / Conferences for the benefit of faculty members.
- Research publications by faculty members and students.
- Curriculum enrichment by Value added courses, NPTEL, Coursera, seminars, workshops, etc.
- ERP system for smooth functioning of administrative and academic activities.
- Demographic advantage due to prime location and good connectivity.
- The Institution has 500 Mbps (1:1) Internet connectivity with fiber optic backbone and provides campus wide networking to all terminals besides dedicated computer laboratory with specialized software and strong hardware support.
- Fully Wi-Fi enabled campus.

### **Institutional Weakness**

- Scope for increasing number of patents.
- Industry supported laboratories needs to be increased.
- Less number of consultancy assignment

### **Institutional Opportunity**

- There is scope for inter-disciplinary research and new trends in multidisciplinary professional

education.

- New trends in teaching methods can be adopted.
- Explore the benefits of various R&D as well as faculty development policies available through various funding agencies.
- Exchange of knowledge across borders.
- Skill enhancements with industry.
- To get autonomous status for academic flexibility.
- Increase the companies visiting the campus for placements.

### **Institutional Challenge**

- Rigidity of academic structure and curriculum since our institute is affiliated to state University.
- Coping up with rapidly changing technologies
- Limited time available during academics for industrial training/internships
- Placements in core industries.
- Competition amongst other mushrooming and existing institutes in the area.

## **1.3 CRITERIA WISE SUMMARY**

### **Curricular Aspects**

Vision, Mission and Objectives of the college is communicated to stake holders through college website, brochures, notice boards, college magazines, lab journals, orientation programmes etc. The institute is affiliated to University of Mumbai (UoM) and follows the curriculum prescribed by the university. The institute develops action plan in every semester for effective implementation of the syllabus. Academic flexibility is provided to the students by offering elective courses prescribed by the university. In addition to the prescribed curriculum, college provides additional skill oriented programmes by means of value added courses, seminars, workshops, industrial visits, internships etc. for enabling the students for better job opportunities. Institute conducts Internal Assessments for the continuous evaluation process as per the curriculum of UoM. The institute takes care of gender equality and also inculcate ethical values and social responsibilities among faculty members and students. Feedback from the stake holders are regularly taken for the overall improvement.

Faculty members of the institute actively participate in the syllabus revision process through respective Board of Studies (BoS) of the university and gives suggestions for the curriculum. Few of the faculty members are working as Chairman/ members of BoS, Academic Council and research recognition committee of the University.

### **Teaching-learning and Evaluation**

All the admissions of the institute are governed by the rules and regulations of Directorate of Technical Education (DTE), Govt. of Maharashtra. To maintain the quality of teaching learning process, student teacher ratio is maintained as per the guidelines of University and AICTE.

Teaching learning process at LTCE provides better opportunity to students with diversified economic and social backgrounds as well as intellectual capability. Utilization of ICT tools and modern teaching methods facilitates students to learn and understand technological concepts in depth. Institute motivates students to gain technical knowledge through internships, workshops, webinars, projects, value added programs and

professional training. Availability of open source study material, simulation softwares, etc. inculcates the innovative and research culture among the students. Students are actively participating in organizing technical events, conferences, project competitions, hackatons, debates, etc. and are encouraged to participate in such activities conducted by other institutes and organizations. Students are exposed to latest technology development, commercial and global perspective, entrepreneur ability, competitive environment, etc. with these platforms. As per the syllabus prescribed by UoM, the internal assessments and end semester examinations are conducted

in every semester. To address the students grievances, the internal assessment answer sheets are shown to the students for redressal.

The 12 Program Outcomes (POs) defined by NBA are displayed on the institute website, department notice boards, laboratories, students journals, college brochure etc.

Program Specific Outcomes (PSOs) and Program Educational Objectives (PEOs) have been defined and stated after discussion and involvement of stakeholders. They are also displayed on the institute website, department notice boards, laboratories, students journals, college brochure etc.

The Course Outcomes (COs) for each course is defined in the University curriculum and the attainments are evaluated by each faculty at the end of each semester and year respectively.

The result analysis of each course in every semester is done by the respective faculty. An online students satisfaction survey is conducted every year for overall improvement.

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

Institute makes sincere effort to inculcate research culture by conducting workshops, faculty development program, training, internship programs, etc. Institute has research centers in Mechanical Engineering and Computer Engineering departments approved by university. The centers are well equipped by labs with computing facilities and with internet facility having access to online journals, and are open to all students irrespective of discipline. Institute has approved research guides for appropriate guidance to Ph.D candidates. All departments undertake projects from industries. MoUs are signed with firms to develop the laboratories, to facilitate research/project/internship/training/practical session and give exposure to innovative tools and techniques. Faculty members and students are motivated to publish their research work in conferences, journals, books etc. Institute gives assistance to students for study in abroad, preparations for competitive exams such as GATE, GRE, etc. Institute also motivates students for national and international competitions such as ROBOCON, ROBOWAR, Car Racing (Formula SCHNELL Racing), BAJA, etc. Institute has Entrepreneurs Development Cell for future entrepreneurs. Institute has always been striving to sensitize young minds about social issues and help them to become good citizens. The sensitization is done for the issues like: Pandemic awareness - COVID appropriate behaviour, Women safety and security, Health consciousness and Yoga awareness, Environment awareness, Swachh Bharat etc. The institute has an active NSS cell which regularly organizes various programs like Blood Donation camp, Tree plantation, Swachh Bharat etc.

### **Infrastructure and Learning Resources**

The institute has well equipped classrooms and laboratories as per AICTE guidelines. There are 178 rooms, out of which 32 are reserved for ICT enabled classrooms and 69 for laboratories and the remaining are categorized for other facilities. The other facility rooms are for HoD cabin, tutorial, medical room, girls common room, reading room, workshop and departmental library. The institute has adequate reserved rooms and still areas for conducting different indoor activities and organizing yoga programs. Institute has an indoor air-conditioned auditorium of 317sq.m area with a seating capacity of 350, and it is well equipped with ICT facilities. The

auditorium is suitable for conducting indoor events. The placement talk, conferences, expert talk etc is arranged by every department regularly in the auditorium. In addition, the institute has five seminar halls well equipped with ICT facilities with seating capacity of 90 each. The institute has a common canteen facility and has a green open ground of 1250 sq.m area with an open stage suitable for cultural, sport activities etc.

The Institute library is well equipped with textbooks, a reference section, and e-resources digital and multimedia room. The library has spread across 653.68 sq.m of the area and has adequate seating capacity. Library resources are upgraded regularly in terms of the number of titles and volumes as per the syllabus and on request from students and faculties. The library functioning is automated through the library management software (ILMS) KOHA 3.22.05.000 version in 2012-13. There are a total of 34854 books, 72 Journals, IEEE/Springer/ Science direct e-Journals, 10000 e-books, and 800 multimedia resources, 20 NPTEL lecture series CDs as on June 2022. The usage of e-resources and library resources is tracked through the Accession database.

The institute frequently updates the IT facilities such as, provision of computers, internet connection and Wi-Fi services. There are 925 computers connected by LAN. The entire college campus is connected with Wi-Fi, and it is available round the clock throughout the year. The internet is supported by the three service providers, Tata Telecom Services 300 MBPS, Vodafone Services 50 MBPS, and Airtel Services 30 MBPS.

### **Student Support and Progression**

The students at the entry level are made familiar to the facilities, concessions, scholarships and opportunity to build their personality through proper counseling and orientation program. State and central government provides funds for certain category and the weaker section students for the reserved seats. Special provisions are available to the physical disabled students. The support from the Management, Faculty and staff facilitates a conducive environment, enabling the students to participate in the academic, co-curricular, extra curricular, exposure to industry, preparing them for higher studies and career building to the budding engineers. A student council is elected every year consisting of active managerial skills and talents to lead several events and make it successful. The Dean Student Affairs untiringly supports the student for all the activities, with motivation and guidance to students. Regular career guidance, coaching and training is provided by the training and placement cell, so that the student can face the competitive world. Coaching for competitive exams and preparing the students for interviews have improved our higher studies/employment scenario. Several efforts to enhance the education through professional bodies and student centric clubs, committees, student councils, social activities, and due exposure to the outer world for students to work as individual or team can be seen from the achievements and awards. The women are given opportunity for women empowerment through women development cell. The student exhibit their talent, managerial skills and creativity through participation in curricular and cocurricular activities.

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

Hon'ble Chairman and LTJSS team of stalwarts is dedicated to provide state of the art technical education to the budding engineers who are future leaders of India. LTCE vision, mission and quality policy are in line with that of sanstha. Institute has academic excellence cell, feedback systems and various committees like local managing committee / internal academic council to monitor and evaluate the policies and plans. Management has stringent formats for faculty appraisals through which the performance is judged. At the same time management is liberal in giving appreciations and other incentives to performers. Academic audit is done to assess the performances. Institute get annual budget for growth and development of departmental facilities under various heads, approved by our governing body and through government grants to generate revenues through research

and consultancies. Internal Quality Assurance Cell is established by the institute. QMS for faculty deals with aspects like, faculty recruitment process, Qualification upgradation, STTPs/ Workshops/ conferences/ FDPs, Academic review/Probationer's review, Student feedback, Train the trainer philosophy, Industry interaction for achieving required quality in teachers. Similarly QMS for students deals with aspects like, Academic monitoring cell, CBGS / CBCGS examination systems of University of Mumbai, Parent teacher guardian mentoring, Weak student mentoring, Out of syllabus / extra mural learning, Attainment of COs, Alumni feedback / Exit feedback, Project based learning, Placements etc. For IQAC process, alumni, Professors from IIT's, University boards of studies, Industry stalwarts etc. supports the institute and also ensure alignment of requirements by regulatory bodies. The communication to the stake holders is through college website, notices, through T&P blogs, Departmental blogs, google spreadsheets, presentations etc.

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

Clean and Green Practices implemented by the institute aim at achieving eco-friendly and sustainable environment within the institute campus. The Green initiative is driven by the 'LTCE Senegy Sustainability Cell' which runs the activities like plantatation, Energy conservation & use of renewable energy like Solar system, Rain water harvesting, Waste management etc.

Building techno-commercial sustainable systems for students support and progression is significantly important for all educational institutions. The institute strengthens the support for student's self learning through curricular/ extra-curricular activities at National and International level. The institute support the involvement of students to the cultural, and social environment of the institution and aids to develop their leadership qualities.

## 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the College	
Name	Lokmanya Tilak Jankalyan Shikshan Sanstha's Lokmanya Tilak College of Engineering
Address	Sector 04 Kopakhairane
City	Navi Mumbai
State	Maharashtra
Pin	400709
Website	<a href="http://www.ltce.in">www.ltce.in</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Vivek K. Sunnawar	022-27541005	9821221952	022-2754779 3	principal.ltce@gmail.com
IQAC / CIQA coordinator	Subhash K. Shinde	022-27541006	9594170066	022-2754779 3	skshinde@ltce.in

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

<b>Recognized Minority institution</b>	
If it is a recognized minority institution	Yes <a href="#">minoritydoc_LTCE.pdf</a>
If Yes, Specify minority status	
Religious	No
Linguistic	Hindi
Any Other	No

<b>Establishment Details</b>				
<b>State</b>	<b>University name</b>	<b>Document</b>		
Maharashtra	University of Mumbai	<a href="#">View Document</a>		
<b>Details of UGC recognition</b>				
<b>Under Section</b>	<b>Date</b>	<b>View Document</b>		
2f of UGC				
12B of UGC				
<b>Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)</b>				
<b>Statutory Regulatory Authority</b>	<b>Recognition/Approval details Institution/Department programme</b>	<b>Day,Month and year(dd-mm-yyyy)</b>	<b>Validity in months</b>	<b>Remarks</b>
AICTE	<a href="#">View Document</a>	03-07-2022	12	
AICTE	<a href="#">View Document</a>	03-07-2022	12	

<b>Recognitions</b>	
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

<b>Location and Area of Campus</b>				
<b>Campus Type</b>	<b>Address</b>	<b>Location*</b>	<b>Campus Area in Acres</b>	<b>Built up Area in sq.mts.</b>
Main campus area	Sector 04 Kopakhairane	Urban	2.63	19202

## 2.2 ACADEMIC INFORMATION

<b>Details of Programmes Offered by the College (Give Data for Current Academic year)</b>						
<b>Programme Level</b>	<b>Name of Programme/Course</b>	<b>Duration in Months</b>	<b>Entry Qualification</b>	<b>Medium of Instruction</b>	<b>Sanctioned Strength</b>	<b>No.of Students Admitted</b>
UG	BE,Computer Engineering	48	HSC	English	120	118
UG	BE,Mechanical Engineering	48	HSC	English	120	5
UG	BE,Electrical Engineering	48	HSC	English	60	25
UG	BE,Electronics And Telecommunication Engineering	48	HSC	English	60	51
UG	BE,Computer Science And Engineering Data Science	48	HSC	English	60	54
UG	BE,Computer Science And Engineering Artificial Intelligence And Machine Learning	48	HSC	English	60	52

UG	BE,Computer Science And Engineering Iot And Cyber Security Including Blockchain Technology	48	HSC	English	60	57
PG	ME,Computer Engineering	24	BE	English	9	0
PG	ME,Mechanical Engineering	24	BE	English	18	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	5				2				102			
Recruited	5	0	0	5	1	1	0	2	32	70	0	102
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
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				27
Recruited	17	10	0	27
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				51
Recruited	33	18	0	51
Yet to Recruit				0

### **Qualification Details of the Teaching Staff**

<b>Permanent Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	5	0	0	1	1	0	5	21	0	33
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	20	56	0	76
UG	0	0	0	0	0	0	0	0	0	0

<b>Temporary Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
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

<b>Part Time Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	
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

<b>Details of Visting/Guest Faculties</b>					
<b>Number of Visiting/Guest Faculty engaged with the college?</b>	<b>Male</b>		<b>Female</b>		<b>Total</b>
	0	0	0	0	0

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

<b>Programme</b>		<b>From the State Where College is Located</b>	<b>From Other States of India</b>	<b>NRI Students</b>	<b>Foreign Students</b>	<b>Total</b>
<b>UG</b>	Male	279	3	0	0	282
	Female	80	0	0	0	80
	Others	0	0	0	0	0
<b>PG</b>	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0

<b>Provide the Following Details of Students admitted to the College During the last four Academic Years</b>					
<b>Category</b>		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>
SC	Male	20	44	35	19
	Female	2	10	6	7
	Others	0	0	0	0
ST	Male	2	2	1	0
	Female	0	0	0	1
	Others	0	0	0	0
OBC	Male	29	56	73	54
	Female	14	17	15	16
	Others	0	0	0	0
General	Male	225	318	321	408
	Female	63	87	44	86
	Others	0	0	0	0
Others	Male	7	19	14	11
	Female	1	6	5	2
	Others	0	0	0	0
Total		363	559	514	604

### **Institutional preparedness for NEP**

1. Multidisciplinary/interdisciplinary:	<p>The Institute is affiliated to the University of Mumbai and follows the curriculum prescribed by the University. Multidisciplinary and interdisciplinary courses have been integrated into the curriculum by the University for holistic development. Academic programmes are redesigned to include Multidisciplinary /Interdisciplinary courses as Institute level optional courses. In accordance with the NEP, the institute is also offering Minors and Honors programs on emerging fields including AI &amp; ML, Data Science, Cyber Security, IoT, Blockchain, etc., as per the guidelines of University of Mumbai, wherein students can opt for various courses of their interest in addition to their core branch of studies.</p>
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	<p>This enables the students to acquire knowledge, skills, attitudes and values of other disciplines and enhances their learning in a wider spectrum. In addition, our institute has started three new Undergraduate Programmes in emerging areas. It can be said that the institute is proactively working towards implementation of the suggestions given in the NEP.</p>
<p>2. Academic bank of credits (ABC):</p>	<p>LLTCE is a member of the National Academic Depository which is a government endeavor to offer an online repository for all academic awards under the Digital India Programme. Institute will formally register in the ABC portal as soon as the resolution is being approved by the higher academic bodies. The pedagogical approach of the institution is student centric where the faculty pedagogical approaches are constructivist, inquiry-based, reflective, collaborative and integrative. Summative and Formative assessments and assignments are used to evaluate the student's learning outcome.</p>
<p>3. Skill development:</p>	<p>The vision of the Institute is promoting Value-Based Quality Education; hence the college takes efforts to inculcate positivity among the learners. The institute offers various value-added courses, workshops, seminars etc., to enhance the skills of the students. They are motivated to participate in various project competitions, hackathons etc., to develop their innovative skills. Every department has student associations wherein students get an opportunity to showcase their talents and develop their managerial skills. The Institute Innovation Cell (IIC) of the college regularly organizes various workshops and seminars by eminent persons from industry and academia for the overall skill development of the students. The college celebrates National festivals like Independence Day, Republic Day etc. and also observes various days, like World Aids Day, Woman's Day, Environment Day, commemorating the Death and Birth Anniversaries of National leaders etc., helps in imbibing the good qualities of the students. Mentoring students is also one of the practices of the institution, to enable students to explore entrepreneurship skills and future employment pathways after graduation, and help them get the maximum benefit out of their studies.</p>
<p>4. Appropriate integration of Indian Knowledge</p>	<p>Knowledge of Indian languages is essential to</p>

<p>system (teaching in Indian Language, culture, using online course):</p>	<p>understand the rich heritage of India. Regarding the adoption of Indian languages, the college has various clubs for Indian languages like Hindi, Marathi etc., which organize various programs to encourage learners to understand the cultural values and heritage permeated by the literary works in respective languages.</p>
<p>5. Focus on Outcome based education (OBE):</p>	<p>LTCE has implemented Outcome Based Education (OBE) with clearly stated Programme Outcomes (PO), Programme Specific Outcomes (PSO) and Course Outcomes (CO). All the courses are designed with outcomes centered on various levels of cognitive abilities namely, remembering, understanding, applying, analyzing, evaluating and creating. Apart from the domain-specific skills, learning outcomes at all levels ensure social responsiveness and ethics, as well as entrepreneurial skills so that students contribute proactively to economic, environmental and social well-being of the nation. The Course Objectives are also aligned to the PO-PSO philosophy. All course syllabi have been designed with due consideration to macro-economic and social needs at large so as to apply the spirit of NEP.</p>
<p>6. Distance education/online education:</p>	<p>Due to Covid -19 pandemic, educational institutions in the country have increasingly been involved in using the digital platforms for engaging classes, conducting conferences and meetings. Keeping in view of the convenience of the students, the various technological tools used by the faculty members especially during the pandemic lockdown are Google Classroom, Zoom, Google meet etc. Using videos as teaching and learning aids, Group collaboration and interactions, assignments and revisions as well as the online exams and assessments have been conducted, are some of the institutional efforts towards blended learning. Faculty members are encouraged to offer MOOC courses at LTCE which promotes the blended learning system of learning.</p>

### Institutional Initiatives for Electoral Literacy

<p>1. Whether Electoral Literacy Club (ELC) has been set up in the College?</p>	<p>YES</p>

<p>2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?</p>	<p>Sl No Name of The Member Department Designation                      1 Dr. Devidas Chikhale Electronics &amp; Telecommunication Faculty Coordinator                      2 Avdhoot Mhatre Electronics &amp; Telecommunication Student Coordinator                      3 Mr. Vikas Kshirsagar Electronics &amp; Telecommunication Faculty Member                      4 Preeti Pawar Electronics &amp; Telecommunication Student Member                      5 Mr. Bhadane Mahesh Mechanical Engg Faculty Member                      6 Devesh Lad Mechanical Engg Student Member                      7 Ms. Chaitrali Chaudhari Computer Engg Faculty Member                      8 Adarsh Rai Computer Engg Student Member                      9 Advait Chandorkar Computer Engg Student Member                      10 Dr. Nitin Jain CSE (IOTCSBT) Faculty Member                      11 Samarth Gawade CSE (IOTCSBT) Student Member                      12 Sakshi Kamble CSE (IOTCSBT) Student Member                      13 Mrs. Vrushali Bendre CSE (Data Science) Faculty Member                      14 Lucky Mishra CSE (Data Science) Student Member                      15 Sanchita Mandare CSE (Data Science) Student Member                      16 Atharve Ghadi Basic Science Student Member                      17 Shubham Patil Electrical Engg Student Member                      18 Sarthak Patil Electrical Engg Student Member                      19 Dhaatrish Bhagat Electrical Engg Student Member</p>
<p>3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.</p>	<p>Electoral Literacy Club celebrated voter's day on 25th Nov 2021, in which a number of faculty and students participated. The programme was chaired by the Principal LTCE; the students were administered voter's pledge. The students are encouraged regularly to register as voters. The election officers are extended all the help in this regard</p>
<p>4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.</p>	<p>A batch of students was encouraged and guided to undertake a research project, which deals with a secured online voting system deploying Block-chain Technology. The NSS unit undertakes awareness programs for students to participate in electoral process.</p>
<p>5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.</p>	<p>It has been observed that mainly the First Engineering students who have just entered 18th year of age, do not have awareness for enrolling as a voter. However, some students know about enrolling through the National Voter Portal. The ELC and NSS</p>

runs a campaign for registering eligible students as voters through online and offline modes.

## Extended Profile

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### 1 Students

#### 1.1

Number of students year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
2040	2114	1952	2216	2375

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the 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: 175

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the 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
109	105	125	136	159

### 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
2037.03	839.09	1167.18	1237.73	1207.61



## 4. Quality Indicator Framework(QIF)

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### Criterion 1 - Curricular Aspects

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#### 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:**

**LTCE is affiliated to University of Mumbai(UoM) and has developed and deployed following process for effective delivery of curriculum:**

**The academic calendar with date of commencement of the academic session, the duration of the semester, practical exam schedule and End Semester Examinations which is provided by the UoM is taken as a base for preparing a curriculum delivery plan. A well-structured academic calendar in line with the UoM academic calendar is prepared by the IQAC (Internal Quality Assurance Cell) along with action plan for conducting various academic activities.**

**The Head of the Department allocates the courses to the faculty members based on expertise and preference given by the faculty members. Class wise and Course wise time tables are prepared for effective planning and delivery of courses and the same will be shared with faculty members and students. Each faculty prepares a complete course plan before the commencement of the semester in accordance with the academic calendar.**

**Faculty members impart the curriculum through student-centric learning methods, such as assignments, workbooks, peer learning, mini projects, NPTEL lectures, group discussions, workshops, quiz, role-play, seminars, projects, industrial visits, etc., and innovative teaching methods such as Google classroom, Flipped Class, Webinars, Tech talks, Seminars, etc. besides the regular/traditional chalk and talk methods. Add-on courses for improving placement is implemented through a participative learning program.**

**The IQAC conducts periodic reviews about the effective implementation of the course delivery through Knowledge review and Process review. IQAC performs academic audit and collects feedback from the students on curriculum delivery twice a semester to identify gaps. Faculty members with less feedback will be mentored after identifying the root cause by senior faculty members and HoD for improvement and best practices followed by the faculties with more than 90% feedback are collected shared with others.**

**Adherence is monitored through periodic audit by IQAC Team. Depending on the evaluation scheme as per the university guidelines, two class tests for 40% and 80% syllabus are conducted per semester taking into consideration the COs defined for each course to evaluate the students. The internal assessment dates, the result declaration dates and the tentative dates for End Semester Examination for first year and higher semester students are mentioned in the academic calendar and every department adheres to the dates mentioned in the academic calendar.**

**Online lectures and virtual labs were conducted during the pandemic situation. Online tests were conducted for internal and external assessments. An IAC meeting is conducted at the end of the**

semester to conclude the academic session.

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

## 1.2 Academic Flexibility

### 1.2.1 Number of Add on /Certificate/Value added programs offered during the last five years

**Response:** 85

File Description	Document
Upload supporting document	<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/ Add-on/Value added programs as against the total number of students during the last five years

**Response:** 46.18

#### 1.2.2.1 Number of students enrolled in subject related Certificate/ Add-on/Value added programs year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
1599	400	1134	1142	665

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 into the Curriculum

**Response:**

The curriculum effectively integrates cross-cutting issues relevant to professional ethics, gender, human

values, environment and sustainability, which leads to a strong value- based holistic development of students. Various activities are organized throughout the year as part of the curriculum that helps students in their endeavour.

**i) Gender Sensitivity:** Gender-related activities are an integral component of various programs. Students are sensitized and encouraged to work towards gender equity from a cross-cultural perspective. Gender sensitization camps are organized in and around the rural areas, nearby villages that include, women's importance in society and their rights, human rights, child rights, gender justice, and gender equality. AICTE's curriculum under the orientation program along with the wide range of community outreach programs that include health and hygiene camps, and social awareness program, enables exposure to real-life situations are carried out on annual basis. LTCE annually organizes cultural fest, debate competitions, tech fests, seminars, guest lectures, and exhibitions that help in gender sensitization among students.

**ii) Environment and Sustainability:** LTCE's strong community-orientated work culture promoted by the NSS unit, which involves the integration of Swachhata Abhiyan, education and healthcare, agriculture, and bio-agricultural practices, innovation, and human values, is recognized as sustainable environmental activities. LTCE attempts to undertake diversified activities related to Water, Waste Management, Renewable Energy, Agriculture, and Environmental and Green Technology. Environment awareness camps, seminars, workshops, guest lectures, and industry visits are organized. Environment Day, Energy Conservation Day, and World Meteorological Day are annually observed. The environmental and sustainability course is also a part of the curriculum.

**iii) Human Values and Professional Ethics:** Few faculty members obtained training from the workshop organized by AICTE on Universal Human Values. Professional ethics is a subject included in the curriculum . Apart from this co-curricular activities on professional ethics are conducted periodically.

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

**Response:** 69.31

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

**Response:** 1414

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 (Yes or No)**

**Response:** Yes

<b>File Description</b>	<b>Document</b>
Upload supporting document	<a href="#">View Document</a>

## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1 Enrolment percentage

**Response:** 61.8

##### 2.1.1.1 Number of students admitted year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
363	312	231	391	455

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

2021-22	2020-21	2019-20	2018-19	2017-18
567	567	567	567	567

#### File Description

#### Document

Upload supporting document

[View Document](#)

Institutional data in the prescribed format

[View Document](#)

#### 2.1.2 Percentage of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (Exclusive of supernumerary seats)

**Response:** 26.81

##### 2.1.2.1 Number of actual students admitted from the reserved categories year - wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
75	72	53	81	89

##### 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
270	270	240	300	300

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<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:** 18.72

## 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 using ICT tools

**Response:**

LTCE adopts student centric methods to make the Teaching Learning process more effective for the holistic development of students through Experiential learning, Participative Learning and Problem solving Methodologies.

The following activities have been adopted by the faculty members:

**Experiential learning:**

- Laboratory Sessions : Curriculum was designed in such a way that sufficient emphasis is laid on hands-on experiments required for comprehensive understanding of the subjects. and oriented towards skill development .
- Industrial visits: Study without practical approach is not considered as worth in this challenging and competitive environment. Keeping that in mind we always take our students to various industries in order to make them understand the classroom concepts in a better way.
- Field works and Internships: The main motto of field works/Internships are educational and career development opportunities, providing practical experience.
- Industry Oriented Mini Projects: Students are encouraged to take up industry oriented application in his/her field of interest in their respective branch/field.
- Community outreach programme: Students are taken to community visits under social innovation and practice.
- Students are encouraged to demonstrate their acquired skills by participating in events like Smart India Hackathon, Avishkar, BAJA-SAE, etc. The College also organizes a Project Competition Tantrayyan every year in which maximum students participates.

### Participative Learning:

- Expert Talks, Workshops and seminars: Students are encouraged to participate in workshops expert talks and seminars organized by various professional societies, esteemed institutes and industries.
- Group Discussions and Role plays: The purpose of a group discussion is not to win an argument but it is to help each group member explore and discover personal meanings of a text through interaction with other people. In the Language lab students will get an opportunity to participate in group discussions. To improve the students presentation skills and communication skills our language lab makes students to do role plays

### Problem Solving Methodologies:

- Developing Models in Engineering and Science: Science often involves the construction and use of a wide variety of models and simulations to help develop explanations about natural phenomena.
- Project Based Learning : Project Based Learning is a teaching method in which students learn actively by engaging in real-world and personally meaningful projects.

LTCOE emphasis on ICT infusion in pedagogy to improve learning, motivate and engage learners, promote collaboration, foster enquiry and exploration, and create a new learner centered learning culture. Faculty members utilize three types of ICT tools such as

1. Generic tools for learning : Starting from productivity tools to simulation & modelling to access, extend, transform and share information e.g. Licenced and open source software for lab and Projects.
2. Content-based resources : to access vast source of educational resources that effectively can be integrated with the curriculum objectives e.g MHRD-NMEICT, NPTEL-SWAYAM, Blogs, NDL, SPOKEN TUTORIAL
3. Interactive instructional courseware: Self-paced learning materials e.g Google Class Room, LMS, Video Lecture, Course material in website etc

The integration of ICT with teaching and learning has produced following key advantages:

- Explore and represent information dynamically and in many forms
- Become socially aware and more confident
- Communicate effectively about complex processes

File Description	Document
Provide Link for 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 / required positions for teaching staff/ full time teachers year wise during the last five years:**

2021-22	2020-21	2019-20	2018-19	2017-18
109	105	125	136	159

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

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

**Response:** 20.35

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

2021-22	2020-21	2019-20	2018-19	2017-18
33	28	24	22	22

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

As per the University of Mumbai prescribed syllabus the internal/external assessment consists of Two Internal Tests, Term Work, Oral, Practical and End Semester Theory Examination.

- Academic calendar of the institute provides planned dates of internal assessment tests, and term work submission. Academic calendar is made available to students at the start of every semester.
- Internal assessment consists of two tests and term work assessment. External assessment consists of oral, practical and end semester examinations.
- Internal tests are conducted on 40% syllabus with 20 Marks each as per University guidelines.

Average of two test marks are awarded to students. Test papers are shown to students by concern teacher to understand where they have made mistakes. This will help them rectify and improve. If any discrepancies are reported by the students, then such are resolved by the concern faculty immediately. Retest is conducted for 15 marks (75%) for the students who missed the examination due to medical reasons as per University guidelines.

- The evaluation of the term work is based on the performance and evaluation of experiments, assignments and case studies on a regular basis. As per above performance metrics concern students are aware of their Term Work assessment marks. Mostly 25 Marks are awarded. Mini Projects and few subjects may have term work of 50 marks.
- After the end of Term work submission, immediately oral and practical examinations are conducted as per guidelines of University of Mumbai. Internal and External Examiners will conduct this examination and they will evaluate the students' performance separately. Average of their marks is awarded to students.
- End Theory Examination are conducted as per schedule declared by University of Mumbai. After the declaration of results, if students want a photocopy of the answer sheet in case of discrepancy then such students have to apply within the stipulated time approved by University of Mumbai. Failed students can apply for Revaluation of their answer sheets by applying in the stipulated period as per University guidelines.
- Then such papers are reevaluated and results are declared as per University norms.
- In this way LTCE exhibits transparency in internal/external assessment and grievanceredressal system is time- bound and efficient.

File Description	Document
Provide Link for 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 and attainment of POs and COs are evaluated

#### Response:

For achieving the vision and mission of the Institute the Outcome Based Education (OBE) has been adapted as per the guidelines laid down by Approving and regulatory authorities.

The CBCS curriculum has been implemented as per the directions of affiliating university. In line with OBE Program Specific Outcomes (PSOs), Program Outcomes (POs) and Course Outcomes (COs) are evolved. The Vision, Mission, Program Educational objectives and Program Specific Outcomes has been framed by the departments by collecting review of all stakeholders maintaining consistency with Institute Vision and Mission. The Program Outcome as defined by NAAC and NBA are followed.

Course Outcomes (COs) are defined for every course, and are statements that describe the competencies gained by the student through the course. Every CO is aligned to one or more POs, and is measured at the end of the course, through various assessments, designed specifically to effectively measure the CO and contribute to the PO that it is mapped to. The number of COs for a course is not fixed, and may have about six COs. When COs are well defined, the CO-PO mapping becomes redundant, as one can map the CO to the PO through comprehending the essence of the CO. However, the strength of the mapping is dependent

on the course instructor and this component, necessitates the need to have the CO-PO mapping together with its strength.

After finalization of PEOs, POs/PSOs of the respective departments are published on institute website. The sample link is [https://ltce.in/com\\_dep\\_about](https://ltce.in/com_dep_about)

#### Attainment of COs

CO attainment levels are measured based on the results of the internal assessment and external examination conducted by the university. This is a form of direct measurement of attainment. Based on the assessments the rubrics are developed for the attainment of COs

**Overall CO attainment level:** Overall CO attainment level = 20% of CO attainment level in Internal Assessment tests + 80% of CO attainment level in End Semester Examination

#### Attainment of POs

##### Programme Outcomes (POs):

Program Outcomes (POs) are one step broader statements than COs that describe what students are expected to know and be able to do upon the graduation.

It is required to compute the attainment levels for PSOs in addition to computing attainment of POs. Program outcomes and 'program specific outcomes' are attained through the attainment of COs. This is called direct attainment of POs and PSOs.

##### Steps for attainment of Programme Outcomes (POs):

Prepare the COs and POs mapping matrix for each course (starting from I- Sem. to VIII- Sem.) Prepare the Course- PO matrix for all courses. It is the average PO values, obtained in CO-PO mapping matrix, for each course

Calculate the PO attainment values using the Course-PO matrix and overall CO attainment value for course

**Overall PO attainment values-** It is computed by adding direct PO attainment and indirect PO attainment values in proportion (as per the regulations).

**Direct PO attainment-** It is the average of individual PO attainment values

**Indirect PO attainment:** For determining indirect attainment of POs, SAR suggests the activities such as student exit surveys, employer's survey, co-curricular activities, extra-curricular activities etc.

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

## 2.6.2 Pass percentage of Students during last five years

**Response:** 95.55

### 2.6.2.1 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
577	703	582	590	619

**2.6.2.2 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
601	703	583	618	709

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

**2.7 Student Satisfaction Survey****2.7.1 Online student satisfaction survey regarding teaching learning process****Response:** 3.69

<b>File Description</b>	<b>Document</b>
Upload database of all students on roll	<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:** 17.21

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

2021-22	2020-21	2019-20	2018-19	2017-18
9.9	0.86	5.1	0.7	0.65

**File Description**

**Document**

Upload supporting document

[View Document](#)

Institutional data in the prescribed format

[View Document](#)

### 3.2 Innovation Ecosystem

**3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge**

**Response:**

Institution has created an Ecosystem for Innovations through various cells like institute Innovation cell (IIC), Training and Entrepreneurship Cell , and various students chapters like ISTE, CSI, IEEE, ISHARE, IETE, ASHRAE etc. .For creation and Transfer of knowledge. LTCE has signed MoUs with various organizations. The academic and research expertise of the LTCE continually contribute to the Innovation Ecosystem through breakthrough solutions and suggestions for solving real life problems, and also motivates students to become Entrepreneurs.

**Institute Innovation Cell (IIC)**

**Major focus of IIC:**

- To create a vibrant local innovation ecosystem. start-up supporting mechanism in HEIs.
- To prepare institute for ATAL Ranking of Institutions on Innovation Achievements Framework.
- To establish Function Ecosystem for Scouting Ideas and Pre-incubation of Ideas. Develop better Cognitive Ability for Technology Students.

**Functions of IIC**

- To conduct various innovation and entrepreneurship-related activities prescribed by Central MIC in time bound fashion.
- Identify and reward innovations and share success stories.
- Organize periodic workshops/ seminars/ interactions with entrepreneurs, investors, professionals and create a mentor pool for student innovators.
- Network with peers and national entrepreneurship development organizations.
- Create an Institution's Innovation portal to highlight innovative projects carried out by institution's faculty and students.
- Organize Hackathons, idea competition, mini-challenges etc. with the involvement of industries.

### Training and Entrepreneurship Cell (TEC)

Several training programs are organized in order to enhance the employability and entrepreneurship skills of the students. The TEC Cell regularly organizes several activities such as Mock Aptitude test , Mock Group Discussion(GD), Personal Interview(PI), Soft skill Workshops and Motivational Seminars for the Employability Enhancement of the students.

The TEC Cell of the college adopts a dynamic approach with an objective to achieve an all-round and multifaceted personality development for its students. With firm belief in the approach, students are encouraged to develop their personal, interpersonal, professional, innovation and entrepreneur skills.

### Student Chapters

The institute has various student chapters and bodies through which students organizes various workshops, seminars, project competitions, etc.

File Description	Document
Provide Link for 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:** 151

#### **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
52	36	26	19	18

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: 0.14

##### 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
7	4	2	5	6

File Description	Document
Upload supporting document	<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: 0.67

##### 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
30	19	10	23	35

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

### 3.4 Extension Activities

#### 3.4.1 Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the last five years.

##### Response:

LTCE organizes and participates in various extension activities to promote the Institute- Neighborhood-Community network. Major emphasis is given to student engagement, service orientation, and the holistic development of students. The neighborhood community has technically and economically weaker section and to alleviate this, the institute sensitizes, educate, and aware that community in a holistic way.

The NSS Cell of our college organizes several programs like blood donation camps, education awareness, tree plantations, Swachata Abhiyan, plastic ban, health and hygiene camps, social awareness programs, etc.

Students also participate in various patriotic events with enthusiasm, be it the celebration of Independence Day, or Republic Day. Institute organizes regular activities on social & environmental issues including seminars, invited talks by social figures, orientation programs, celebration of Yoga Day, etc.

Some annual events are as follows:

- Every Year, programs are organized where students and staff participate voluntarily in community-based activities in the neighborhood.
- Various awareness programs, such as workshops, cleanliness, green environment & tree plantation, and gender sensitization, are also organized.
- Efforts to build up relations and tie up with organizations/NGOs to carry forward humanitarian work in the future.
- Develop a passion and brotherhood towards community, affected people/animals, and destitute. Involving local people and youths in Institute's outreach and extension activities.
- Developing skills and aptitude among the students and local community for problem-solving. The skills developed include social skills, communication skills, management skills, leadership skills, analytic skills, perceptual skills, etc.

**Impact on Community:** Institute maintains excellent harmony with the local community. The generosity of our management reflects in terms of the social services extended to the community during Covid 19 pandemic. The impact is also reflected in terms of campus beautification, Youth empowerment, gender equity, health and education campaign, environmental enrichment and conservation.

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

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

##### Response:

LTCE is conscious of its role in campus community connection, well-being of its neighborhood and has initiated a number of community development activities. Due to the tireless and selfless efforts LTCE accolades several awards and recognitions from Govt and Govt recognized bodies. The details are

Name of the activity	Name of the Award/ recognition Institution	Name of the Awarding for government/ government recognised bodies	Year of award
Students Support	Academic Excellence	IIE/FCRIT	2021-22
Students Support	Adarsh Shikshak	MRSS	2021-22
Avishkar Research Convention 16 , 2021-22	district level winner	University of Mumbai/ Gov. of Maharashtra	2021-22
university of Mumbai Avishkar Research Convention 2021-22	Selection round	University of Mumbai/ Gov. of Maharashtra	2021-22
university of Mumbai Avishkar Research Convention 2021-22	Final Round	University of Mumbai/ Gov. of Maharashtra	2021-22
university of Mumbai Avishkar Research Convention 2020-21	Selection round	University of Mumbai/ Gov. of Maharashtra	2020-21
university of Mumbai Avishkar Research Convention 2020-21	Final Round	University of Mumbai/ Gov. of Maharashtra	2020-21
Students Activities Achievement	Achiever	ISHRAE	2020-21
Students Support	Best Teacher	Kalasadhana	2020-21
Indo-Global Education Summit & Expo 2017	Award for Research Excellence	The Indus Foundation	2017-18
Research Excellence and Academic Awards	Best Women Researcher Award	CSERD Dehradun, UK , India	2017-18
88th International Research Awards on Engineering, Science and Management	Best Researcher Award	IOSRD India	2018-19
contribution, Leadership Excellence and Accomplishments	Emerging Leader in Engineering	Venus International Foundation	2018-19
Mastek's Deep Blue Project Competition-2022	winner of the competition	Mastek privet company	21-22

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

**3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organised in collaboration with industry, community and NGOs)**

during the last five years

**Response:** 60

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

2021-22	2020-21	2019-20	2018-19	2017-18
11	9	17	15	8

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<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:** 28

File Description	Document
Upload supporting document	<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 Availability of adequate infrastructure and physical facilities viz., classrooms, laboratories, ICT facilities, cultural activities, gymnasium, yoga centre etc. in the institution**

**Response:**

The infrastructure is well equipped for classroom and laboratories. There are 178 rooms, 32 are reserved for classrooms and 69 for labs and the remaining are categorized for other facilities. The other facility rooms are for tutorial, medical, girls common room, reading, workshop, meeting room, department library and project room. The institute has adequate reserved rooms and stilt areas for conducting different indoor activities and organizing yoga programs.

Departments have ICT based classrooms as per student strength and the number of labs as per AICTE norms. The classroom and labs size is as per an AICTE requirement. ICT facility includes LCD projector, screen and PA system and common WiFi facility. Each department has ICT facility equipped seminar hall with a seating capacity of 100.

The college has a common canteen facility. Institute has a green open ground of 1250 Sq. M area with dias suitable for cultural, sport, gymnasium etc. Every year, annual cultural and sports events are conducted in the institute campus. The institute conducts cultural activities like Independence Day Celebration, Republic Day Celebration, Ganesh Festival, Navratri Celebration, Marathi and Hindi Bhasha Divas, Farewell to final year students and freshers welcome in ground, auditorium, and stilt area. There is a provision of Gymkhana (Gymnasium) for indoor games and few fitness equipment.

Institute has an indoor air-conditioned auditorium of 317 Sq.M area with a seating capacity of 350, and it is well equipped with ICT facilities. The auditorium is suitable for conducting indoor events. The placement talk, expert talk etc is arranged by every department regularly in the auditorium.

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

**4.1.2 Percentage of expenditure, excluding salary for infrastructure augmentation during last five years (INR in Lakhs)**

**Response:** 24.72

**4.1.2.1 Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)**

2021-22	2020-21	2019-20	2018-19	2017-18
18.32	7.87	310.67	188.21	1079.16

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

## 4.2 Library as a Learning Resource

**4.2.1 Library is automated using Integrated Library Management System (ILMS), subscription to e-resources, amount spent on purchase of books, journals and per day usage of library**

**Response:**

The Institute library is well equipped with textbooks, a reference section, and e-resources digital and multimedia room. The library has spread across 653.68 Sq.M of the area and has a seating capacity of 200. The library's working hours are 8:30 am to 6 pm. During the exam, the reading room is open till 9 pm. The library has a multi-media room for accessing e-resources with a seating capacity of 30 users. Internet connectivity is provided to all computers.

Library resources are upgraded regularly in terms of the number of titles and volumes as per the syllabus and on request from students and faculty members. The library functioning is automated through the library management software (ILMS) KOHA 3.22.05.000 version in 2012-13. There are a total of 34854 books, 72 Journals, IEEE/Springer/ Science direct e-Journals, 10000 e-books, and 800 multimedia resources, NPTEL lecture series CDs as on June 2022. The total library expenditure towards the purchase of the Books, Journals, e-Journals and e-books is Rs 38,79,922 in FY2017-18; Rs 15,68,226 in FY-2018-19; Rs 14,66,569 in FY 2019-20; Rs 20,61,585 in FY 2020-21 and Rs 83,8990 in FY2021-22. The usage of e-resources and library resources is tracked through the Accession database. Library maintains a record of daily accession of library resources in a register. The average daily accession count for library resources is 65 till June 2022. Institute has a tie up with IIT Bombay Library for accessing their resources.

The library has an advisory committee for smooth functioning. The Library Committee is composed of faculty representative from all the departments as executive members of the committee and the Librarian as member secretary of the same. The committee is chaired by one of the committee members deputed by the Principal.

File Description	Document
Provide Link for 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

**Response:**

The IT facilities at institute includes provision of computers, internet connection and Wi-Fi services. There are 925 computers on the campus. Each department has separate computer labs and computers are provided as per the intake. The computer facility is upgraded as per the requirement from time to time. All computers are connected through LAN and Internet connection is provided.

The entire college campus is connected with Wi-Fi, and it is available round the clock throughout the year. The Wi-Fi facility is available to all the bonafide students of the college and the employees. Routers are installed on each floor and controlled by a central controller. The frequency of the router is 2.4 to 5 GHz. The connectivity to the Wi-Fi is password protected. The Wi-Fi password is provided by the system administrator. The institute internet facility is supported by three ISDN lines (1:1) like, Tata Telecom Services 300 MBPS, Vodafone Services 50 MBPS, and Airtel Services 30 MBPS. Through internet facility, students and employees can access all educational resources available on world wide web.

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

#### 4.3.2 Student – Computer ratio (Data for the latest completed academic year)

**Response:** 2.28

##### 4.3.2.1 Number of computers available for students usage during the latest completed academic year:

**Response:** 894

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

### 4.4 Maintenance of Campus Infrastructure

#### 4.4.1 Percentage of expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the last five years (INR in Lakhs)

**Response:** 76.26

##### 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
1717.96	611.39	913.49	865.69	839.39

<b>File Description</b>	<b>Document</b>
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<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 Government and Non-Government agencies during last five years

**Response:** 50.95

5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government and Non-Government agencies year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
1042	1155	1015	1063	1175

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

#### 5.1.2 Capacity building and skills enhancement initiatives taken by the institution include the following

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

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

File Description	Document
Upload supporting document	<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:** 57.43

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
2030	1989	1094	566	464

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 has a transparent mechanism for timely 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:** A. All of the above

File Description	Document
Upload supporting document	<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:** 33.02

##### 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
288	285	216	99	126

##### 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
577	703	582	590	619

File Description	Document
Upload supporting document	<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 (eg: JAM/CLAT/GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

**Response:** 77.63

#### 5.2.2.1 Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ Judicial Services/Public Prosecution services/All India Bar Exams/State government examinations) year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
36	30	20	20	12

#### 5.2.2.2 Number of students appearing in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT,GRE/ TOFEL/ Civil Services/ State government examinations) year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
50	44	26	20	12

File Description	Document
Upload supporting document	<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:** 2

#### 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
0	0	01	01	0

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:** 6.6

#### 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
10	02	6	10	5

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:**

The LTCE Alumni Association aims to link alumni to the institution, develop synergistic plans to support the institution and achieve its vision, and to enable the institute to add value to all its stakeholders. Alumni cell was established in 2018 to maintain a good linkage between institute and alumni. The alumni association is having registration No. MAHA 1032/08, DATED 17/09/2008. The main objective is to enroll all alumni as members of the association and facilitating active participation of the alumnae in appropriate activities, events, and initiatives of the Institute. The alumni association helps in building a

network of the alumni and helps in being in touch with the corporate world. The Alumni Association provides an avenue for sharing their intellectual, career and professional experience not only with the teachers but also with the present students.

The Following are the activities carried out with the help of Alumni.

**Curriculum Enrichment:** Alumni are involved for giving talks on recent trends in industry.

**Interactive Sessions:** The alumni association helps in holding interactive sessions to motivate current students about the employability and educational opportunities abroad. They share their opinions in social networks, blogs and forums.

**Industry connect:** Alumni helps in establishing MoUs with industries. The Alumni extend their guidance for students.

**Mentorship:** Alumni can play an active role in voluntary programs like mentoring students in their areas of expertise. To utilize the rich experiences of old students of the college for the benefit. To assist the students in securing suitable jobs.

**Placements/ References:** The alumni network of a college is one of the biggest sources of placement opportunities to the students. Alumni can help students in referring to companies and get placed at their respective organizations. The Alumni conduct mock personal interviews and job oriented training.

**Generosity:** The association also plays a significant role in contributing help to the students. Another activity of the Alumni is they donate trees for making the institute environment green. Major visible additional activity of the alumni is by providing donations to the college.

**Administration:** Alumni are members in IQAC and provides inputs for imparting quality system adaptive to recent trends and requirements of industry.

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

## Criterion 6 - Governance, Leadership and Management

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### 6.1 Institutional Vision and Leadership

**6.1.1 The governance and leadership is in accordance with vision and mission of the institution and it is visible in various institutional practices such as decentralization and participation in the institutional governance**

**Response:**

**Vision:**

To create technically competent and ethically responsible professionals capable of providing efficient solutions to the contemporary world.

**Mission:**

We aim to excel in our continual efforts, towards being one of the most recognized institutions, by:

Providing a conducive environment comprising high-end infrastructure and state-of-the-art laboratory facilities wherein the students, faculty and staff can collectively enhance their technical potential.

Encouraging innovation through research activities for the benefit of society.

Developing competent professionals responsive to change in technology.

The institution follows a democratic mode of governance where different stakeholders participate and actively contribute in its administration to impart value based education which carry significant benefits to the society. The governing board includes recognized administrators, academicians and faculty delegates. The Governing Body delegates authority to the Principal who, thus conveys the obligations at various levels. The Heads of Departments, the Conveners of various committees and the concerned coordinators or in-charges play significant roles in framing the institutional policies and deploying the same. Institute keeps a balance between compliance with regulatory matters and keeping a track of continuous progress. Along with this, we look forward to long term sustainability by forming a strategic direction towards attaining excellence.

The institute practices decentralization in all academic and administrative activities. It has various academic and administrative committees to monitor, plan and execute smooth functioning.

**Administrative Decentralization:**

Board of Governance consists of Management Representatives, Industry Experts, Eminent Educationists, Principal and other Faculty members, who hold the responsibility of planning and strategy development institutional budget, holistic growth of the institute and other miscellaneous activities.

The Principal directs departmental heads to set up the yearly departmental requirements. The HoD, in consent with faculty members of the department, submits the requirements, depending upon the need of curriculum and industry trends. The Principal forwards the consolidated report to the management for

approval. The institute receives the sanctioned budget from management.

### Academic Decentralization:

There are different committees with well-defined functions. A committee of administrative members and faculty members work for the holistic development of the Institute. Its responsibilities are:

- Prepare the Academic Calendar before the start of the semester.
- Monitor the academic work of the institution.
- Keep a track of the Syllabus coverage.
- To monitor records of academic activities.
- To make arrangements for the conduct of University Examinations
- To take active measures for research and training progress.

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

## 6.2 Strategy Development and Deployment

### 6.2.1 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, deployment of institutional Strategic/ perspective/development plan etc

#### Response:

Administrative Setup is according to following hierarchy:

As per the university/ government guidelines, IQAC Cell, Antiragging Cell etc. are active in the institution. Apart from these, there are various committees functioning to provide support to the academic and administrative cells.

Service Rules: Our Institute follows the service rules according to the UGC and AICTE norms. Recruitment process is carried out according to the norms of the University, a body composed of university representative, management representative, Principal, external subject experts, interviews and shortlist the candidates by his/her performance in the interview. The teaching and non-teaching staff have the benefits of PF, Insurance and other benefits as applicable.

Grievance redressal committee is functioning which comprises Principal, HoDs' and teacher's representative, eventually handling various issues of faculty, staff and students. Suggestion/complaint box is kept near the Principal office/Admin office for the same. The website has a link to collect the grievances

in online mode. Also, we follow a student mentor scheme, through which the students can communicate the matters through proper channels. The Institute has formed all the required committees like Anti Ragging Committee, Internal Complaint Committee, Women Development Cell etc, to aid all the stakeholders.

#### **Strategic Plan: Ensuring Effective Governance**

- To review the smooth running of the administrative activities of the college, discussing approval of new programs.
- To review the examination results (Internal as well as External) of all programs; result analysis and their improvement strategies.
- To approve the upgradation & maintenance of the Infrastructure of the Institute.
- To review the budget allocated for different purposes and their expenditure etc.
- Promotion of various faculty career advancement programs, approval for posts, study leaves etc.
- To review the Placement activities, Collaborations with Industry and R&D programs.
- Reviewing the Performance appraisal of faculty backed with the discussions and suggestions given by faculty for improvements in the college.
- To provide support for conducting Cocurricular and Extracurricular activities.
- To review the awards and scholarships for students
- Evaluation of Institute's performance and benchmarking Institutional strategic goals setting
- Establishing E-Governance
- Leadership development through decentralization
- Establishing internal audit committee

Deployment: The plans articulated by the management and principal are communicated to the target groups like faculty, students, staff and other stakeholders through meetings, mails and other forms of communication. The organizational procedure manual guides all the activities through well-defined policies and procedures for each of the activities.

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

#### **6.2.2 Implementation of e-governance in areas of operation**

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

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

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

### 6.3 Faculty Empowerment Strategies

#### 6.3.1 The institution has effective welfare measures and Performance Appraisal System for teaching and non-teaching staff

Response:

List of Welfare measures for Teaching Staff:

- Service Rules are provided as per the norms.
- EPF Scheme is provided for all eligible members as per the norms.
- Maternity leave is provided as per the rules.
- Time relaxation after the Maternity leave.
- Periodic health checkups during medical camps.
- Professional and other skill development trainings are imparted.
- Library facility, canteen facility is available.
- Study leave for doing PhD work.

List of Welfare measures for Non-teaching staff:

- Service Rules are provided as per the norms.
- EPF Scheme is provided for all eligible members as per the norms.
- Maternity, Medical and Earned leaves provided as applicable for eligible members.
- Non Teaching staff is involved during conduction of competitive exams at College campus.
- Periodic health checkups during medical camps.
- Professional and other skill development training are imparted.

File Description	Document
Provide Link for 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: 0

##### 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
0	0	0	0	0

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

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

**Response:** 18.83

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

2021-22	2020-21	2019-20	2018-19	2017-18
43	35	60	33	16

#### 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
78	73	70	68	70

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

Our institute is a self-financing private institute affiliated to University of Mumbai. It has a distinct financial policy, for utilizing the funds optimally, for academic, administrative and research activities. The institute has self sufficient funds generated from admission fees and other miscellaneous incomes. In case of emergencies, the management supports by providing the finance. In the activities like infrastructure

upgrade or maintenance, the management always extends necessary support. Financial planning is done at the beginning of the academic year well in advance with efficient budgeting involving all the Heads of Academic Departments and Administrative Sections. Apart from the admission fee, the minor resource mobilization is done through Research Grants, Sponsorship Grants from University for different activities. Consultancy etc. The management reviews all the financial activities through scrutiny of budgets and expenses in every quarter. Through centralized purchase, the funds are monitored and utilized in an effective manner.

The institute has appointed an external auditor who is a professional C.A. The agency does an annual audit of all our financial transactions and submits balance sheets and other statements. The agency gives following statements annually as on 31st March 1) Establishment expenses 2) Miscellaneous expenditures 3) Other miscellaneous receipts 4) Advance to staff 5) Schedule of fixed assets 6) Schedule of lab equipment 7) Income and expenditure account for the year 8) Balance sheet 9) Statement of significant accounting policies. The institute also does internal audits during the last week of March every year. The accounts department staff and admin staff does the inventory and checks cash availability as on 31st March. The audit conducted by CA is in accordance with auditing standards of India. Audit includes the examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. It also includes assessing the accounting principals used and significant estimates made by the management, as well as evaluating the overall financial statement presentation.

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

## 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:**

**Strategies:** IQAC shall evolve mechanisms and procedures:

- To develop timely, efficient and progressive performance of academic and administrative activities.
- To develop significance and quality of academic and research programmes, equitable access to and affordability of academic programmes for various sections of society.
- To incorporate modern methods of teaching and learning.
- To setup credibility of evaluation procedures
- To develop the adequacy, maintenance and functioning of the support structure and services.
- To regularly monitor & support Research Facilities and networking with other institutions.

The two examples of practices institutionalized as a result of IQAC initiatives are as follows: The IQAC

lead efforts to the successful implementation of modern technology in the Institute's administrative functioning through ICT and automation of admission and examination processes, upgradation of WiFi and LAN facilities, have significantly contributed to an enhanced quality of teaching-learning experience especially in the pandemic situation.

The Institute IQAC led alternative sources of energy using solar plant, especially enhancement of solar power.

File Description	Document
Provide Link for 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); Feedback collected, analysed and used for improvements**
- 2.Collaborative quality initiatives with other institution(s)/ membership of international networks**
- 3.Participation in NIRF**
- 4.any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA, ISO Certification etc**

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

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

## Criterion 7 - Institutional Values and Best Practices

### 7.1 Institutional Values and Social Responsibilities

#### 7.1.1 Measures initiated by the Institution for the promotion of gender equity and Institutional initiatives to celebrate / organize national and international commemorative days, events and festivals during the last five years

**Response:**

“Freedom cannot be achieved unless women have been emancipated from all kinds of oppression.” — Nelson Mandela.

To promote gender equity, our institution established Women Development Cell with the motto of “*Helping women discover their wings*“. The cell aims to empower girl students and faculty to enhance their understanding of issues related to women and to make the college campus a safe place for girls and women and to address the practical issues related to the welfare and equal opportunities for women faculty and students. All the students were encouraged to participate in various Technical Workshops, Seminars and Smart India Hackathon without any gender discrimination.

**Commemorative days, events, and festivals:** The college believes in celebrating commemorative days, events, and festivals in college. It is an integral part of learning and building a strong cultural belief in a student. The College makes tremendous efforts in celebrating the national and international days, events, and festivals throughout the year. Institution celebrates/ organizes national and international commemorative days, events, and festivals. National festivals play an important role in planting seed of Nationalism and Patriotism among people of India. Our institution celebrates these events with great enthusiasm to commemorate the ideology of nationalism and to pay tribute to our great National Leaders. The Faculty, Staff and Students of the institution all come together under one umbrella to celebrate these occasions and spread the message of Unity, Peace, Love and Happiness throughout. The institution celebrates every year Republic day, Independence Day, Gandhi Jayanti, International Yoga day, Women’s day celebrations, Engineers Day, Lokmanya Tilak Jayanti, Teachers day, Chhatrapati Shivaji Jayanthi etc.

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

File Description	Document
Upload supporting document	<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

File Description	Document
Upload supporting document	<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 diversity and Sensitization of students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)**

**Response:**

**Tolerance and Harmony towards Cultural, Regional, Communal factors**

Based on the lines quoted “There is no religion better than love, no color better than the color of happiness and no language better than the language of compassion”, the institute puts lot of efforts/initiatives in bringing an inclusive environment. The students and staff of this institute are from different cultural background and from different states. The staff and students belong to different communities like Hindus, Muslims, Christians etc. being their mother tongues different like Hindi, Marathi etc. The institution believes that “Line of control should be a garden, a place of art and cultural festival.” and a very effective approach to maintain tolerance and harmony even though they belong to different communities and with different culture by organizing the events which bring the harmony and integrity among the students. The students actively participate in various extracurricular activities including Dance, Street Plays, Social Awareness programs, Orchestra, Fine Arts, Drama, Elocution, Quiz, , etc. Constitution day is celebrated sensitizing students about the Constitution of India and also creating awareness about practicing social harmony. Faculty members and students take pledge to preserve unity, integrity and security of the Nation.

**Linguistic factors:**

Various completions on regional languages are conducted.

**Socio-economic & other diversities**

Faculty members are assigned as mentors, who are providing support to students in all aspects including

guidance to apply for scholarship from Government (economic backward class, free scholarship for the schedule caste and schedule tribe and other backward classes) / Non- Government organization. Nearly 60% of the students got employment and supporting their families. The institute strives for uplifting the students and their families socially and economically.

The college takes pride in the fact that apart from preparing sound academic foundation of student community; the college constantly works upon to develop them as better citizens of the country. In this regard, apart from imparting professional, legal education, inculcates a feeling of oneness among the student community through various practices and programs. Various faculty members are involved in organizing activities that not only initiate but also motivate the students to adopt various practices that promotes “Unity in Diversity” of our motherland. Institute ensures that the students participate very enthusiastically in all activities. The college has strived forward with great effort to increase the level of awareness and appropriate practices amongst the students with regard to celebrating Engineers Day, Teachers Day, Independence Day, Republic Day etc.

**Fundamental Duties and Rights of Indian Citizens:** The College has organized various academic and co-curricular activities for the propagation of the Fundamental Duties and Rights of the Indian citizens.

**Constitutional Obligations:** The students have participated in various activities. All these have been organized to promote the awareness about various constitutional and legal obligations. Further, apart from the above mentioned activities, the college has also organized student centric activities like Paper-Poster Making and Essay competition, which have always received huge participation from the students and promoted their awareness about various aspects of Indian citizenship.

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

##### **1. Title of the Practice: LTCE Green Initiative**

##### **2. Objectives of the Practice**

Environmental issues bring about thoughtful questions on the roles of Institutes in society. Irrespective of whether they are contributing to a better environment or worsening it, Institutions have to acknowledge environmental or green issues through impact research and measurement. Based on the approach LTCE

has significant Green Initiatives to,

- Promote sustainability by creating awareness
- Expert talks about environmental problems and possible solutions
- Deploy eco-friendly technologies for greening and cleaning our campuses

### 3. The Context

The main contexts are (i) Water Management, (ii) Waste management, (iii) Energy (conservation and generation) and (iv) Landscaping and tree plantation.

### 4. The Practice

- **Water management:** Rain water harvesting structures are in place which collects the roof top rain water and discharges it to ground with the capacity of 2000 ltr. The pipelines are constructed from rooftop to ground floor bore, for collecting the shed water in the institute. This water is used for cleaning and gardening purpose.
- **Waste management:** E-waste generated is first reused in the campus itself. The institute follows the guidelines from NMMC regarding waste handling and management.
- **Energy conservation:** The Internal stakeholders takes all measures to save the power. More than 80% lighting requirements are met through LED sources.
- **Use of renewable energy:** Interactive solar power generating system of 277 KW is provided on the roof top of the academic buildings. With the installation of this system 70 to 75% of the total electricity requirement is met.
- **Efforts for carbon neutrality:** By conserving and reusing energy, the need for excessive use of fossil fuels can greatly reduce, thus reducing carbon emissions. Installing solar panels helps in reducing carbon emissions. The installation of 277 kW solar power systems has saved the amount of carbon dioxide released into the air. Thus, the emission of carbon dioxide is well controlled with these efforts in the institute to achieve carbon neutrality.
- **Plantation:** Every year plantation drives are organized by the institute for lush and green campus.

### 5. Evidence of Success

- **Water Management:** In the rainy season, around 100 litres water per day is collected in the borewell. Water conservation awareness initiatives are taken by NSS. Sensor based water pump operation is in functioning.
- **Waste management:** The canteen waste of 5 kg/day is given to NMMC separately as per contract between canteen and Corporation. 5 to 10 kg dry and wet waste collected from laboratories, classrooms, cabinets per day and it is handed over to NMMC for further treatment after segregation.
- **Solar System:** 5000 kWh/month equivalent electrical energy is generated by rooftop solar plant.
- **Landscaping and Trees:** LTCE has Total 15000 kg Carbon Sequestered/annum by landscaping and planting around 700 trees in the campus. On the occasion of World Meteorological Day, the trees were tagged by Quick Response (QR) codes.

### 6. Problems Encountered and Resources Required

The Green Initiative provides a platform of environmental knowledge and research for truly transformative

change. Cost for implementation sometimes puts barrier for immediate deployment.

## **Best Practice- II**

1. **Title of the Practice:** Student support systems for holistic development.

### **2. Objectives of the Practice**

The heart of holistic education should address the various dimensions of the personality of the whole person, i.e., physical, emotional, intellectual and spiritual personalities and in a nut shell KNOWLEDGE-SKILL-BEHAVIOR, “The basic mantra of OBE”. Holistic education values and encourages learning both inside and outside the classroom, enables the development of confident, well-rounded graduates who are prepared to serve as the next generation of creative thinkers and leaders.

### **3. The Context**

Engineering education has to rethink and develop teaching systems. The students must have the 3C’s (Curiosity & Creativity, Collaboration and Compassion) for prospective future. Institute put efforts for holistic development of students from the pre-engineering studies till graduation. The activities organized are categorized into,

- Activity Based Learning
- Technology Based Learning
- Project Based Learning

### **4. The Practice**

a) Activity Based Learning (ABL): The institute offers learning through various ABL activities such as to enhance research ability, team work, communication, leadership, time management, moral and ethical development etc. Through ABL, we provide multiple platforms to students in form of domain activities, quizzes, debates, hackathons, seminars and workshops etc. to make them industry ready.

b) Technology Based Learning (TBL): To bridge the gap between curriculum and Industry expectation, we have introduced TBL through IIC. Students are encouraged towards self-learning platforms to learn at their own pace in their area of interest through NPTEL, Coursera etc. to strengthen the foundation and improve employability.

c) Project Based Learning (PBL): PBL integrates knowing and doing where in students not only learn knowledge and elements of the core curriculum, but also apply what they know to solve authentic problems and produce results that matter. Through PBL students take advantage of advanced computing tools to produce high quality, collaborative products.

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

**i) Projects Research Grants through ASHRAE/ISHRAE Apex Bodies**

The ISHRAE Students LTCE Chapter and ASHRAE LTCE STUDENT BRANCH are active in the multidisciplinary mode. These two chapters provides research funding to the students for research projects, industrial visits, internships, quiz competitions, seminars, panel discussion etc. [https://ltce.in/activities\\_ASHRAE\\_Report](https://ltce.in/activities_ASHRAE_Report)

[https://ltce.in/activities\\_ISHRAE\\_Report](https://ltce.in/activities_ISHRAE_Report)

## ii) Students Associations and student's chapters

LTCE has various student associations and chapters at departmental and IIC Cell at Institute level. NSS unit organizes social programs beneficial to the society. Training and Placement Cell provides placement assistance, internship opportunities to the students.

## iii) Curricular and Cocurricular Platforms for Students Activities

Annual events like Cultural Zephyr, Sports Zephyr provides leadership and management opportunities to students by managing institutional events. [https://ltce.in/activities\\_zephyr\\_cultural](https://ltce.in/activities_zephyr_cultural)

## iv) Technical Level Platforms for Students Activities

Institute supports Aavishkar Research Convention, Smart India Hackathon etc. to help the students to demonstrate the UG major and mini projects at University and State level. Institute organizes Annual technical fest for students to present their project ideas, innovations, paper presentations etc.

## 6. Problems Encountered and Resources Required

The foremost challenges faced are time management by students and faculty at par, loss of academics, timely submission of academic work.

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

Lokmanya Tilak College of Engineering, Navi Mumbai provides UG, PG and PhD education and research opportunities in new frontiers of Engineering and Technology with special focus towards Leadership and Innovation. The focus of the Institution is to empower students with sound technical knowledge and skills

to make them creators and fit for highly competitive global industrial market. We have well-equipped labs, workshops and libraries to help the students in attaining the highest standards in academics, research and professional skills. We believe in providing a supportive environment to our students according to their interests. The societies like IEEE, CSI, ISTE, IETE, ISHRAE, etc. work as strong platforms for the enhancement of their skills. The infrastructure facilities combined with a group of competent and dedicated faculty members contribute to the outcome based teaching learning process. We always strive for providing an environment in which students' capabilities and potential can be fully developed. Our efforts in trying to be a link between academia and industry have fructified into some significant achievements. We are committed socially too; the record of achievements in social projects is testimony to this. This century belongs to "Professionals with Creative Brains". It will be our endeavour to nurture such brains here. All the concerned are welcome to join our journey which we have undertaken to become "A Centre for Excellence!"

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

## 5. CONCLUSION

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### Additional Information :

- LTJSS approach to education is an uncompromising pursuit towards achieving excellence through Human Resources, and infrastructure to generate peak synergy among academicians, professionals, technocrats and students for the task of Nation building. Our thrust areas are all round personality grooming of the students, rigorous practical training in laboratories and workshops, co-curricular activities and personal attention to student counseling.
- The college is known for its quality of students, its praise-worthy technical support to industries and for its well-qualified faculty possessing post graduate and doctoral qualifications. The Institute has organized number of National and International level conferences.
- Institute motivates all faculty members, and students for paper publications/ patents
- Remedial classes are conducted for the students to improve the performance of students in all the subjects. These classes are conducted for students having poor performance i.e. for slow learners. During remedial classes subject content are again taught with more simplification and related difficulties are solved. These classes facilitate one to one interaction between teacher and students.
- Advanced teaching-learning tools are used for content delivery of syllabus. Industry persons are also invited for delivering some of the topics of few courses. Content delivery of syllabus is blended with NPTEL, Google Classrooms, Virtual Labs, etc.
- Creative activity is included in laboratory which is an additional content apart from curriculum in which some technical activities are conducted as per the interest of the students.

### Concluding Remarks :

Lokmanya Tilak College of Engineering was founded to provide "Holistic" technical education. We are fully committed to provide the Nation a technical manpower through quality education. The Institute has a glorious history of more than 28 years of rich academics and research. We always strive for providing an environment in which students' capabilities and potential can be fully developed. Our efforts in trying to be a link between academia and industry have fructified into some significant achievements. We are committed socially too; the record of achievements in social projects is testimony to this. This century belongs to "Professionals with Creative Brains". It will be our endeavour to nurture such brains here. All the concerned are welcome to join our journey which we have undertaken to become "A Centre for Excellence!"

## 6.ANNEXURE

### 1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																														
1.2.1	<p><b>Number of Add on /Certificate/Value added programs offered during the last five years</b></p> <p>Answer before DVV Verification :</p> <p>Answer After DVV Verification :85</p> <p>Remark : DVV input as per supporting documents</p>																														
1.3.2	<p><b>Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)</b></p> <p>1.3.2.1. <b>Number of students undertaking project work/field work / internships</b></p> <p>Answer before DVV Verification : 1806</p> <p>Answer after DVV Verification: 1414</p> <p>Remark : Revised values considering V! to VIII semester students.</p>																														
1.4.1	<p><b>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 (Yes or No)</b></p> <p>Answer before DVV Verification : Yes</p> <p>Answer After DVV Verification: Yes</p>																														
2.1.2	<p><b>Percentage of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (Exclusive of supernumerary seats)</b></p> <p>2.1.2.1. <i>Number of actual students admitted from the reserved categories year - wise during the last five years</i></p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>75</td> <td>72</td> <td>43</td> <td>73</td> <td>80</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>75</td> <td>72</td> <td>53</td> <td>81</td> <td>89</td> </tr> </tbody> </table> <p>2.1.2.2. <b>Number of seats earmarked for reserved category as per GOI/ State Govt rule year wise during the last five years</b></p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>270</td> <td>270</td> <td>270</td> <td>270</td> <td>270</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	75	72	43	73	80	2021-22	2020-21	2019-20	2018-19	2017-18	75	72	53	81	89	2021-22	2020-21	2019-20	2018-19	2017-18	270	270	270	270	270
2021-22	2020-21	2019-20	2018-19	2017-18																											
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2021-22	2020-21	2019-20	2018-19	2017-18																											
75	72	53	81	89																											
2021-22	2020-21	2019-20	2018-19	2017-18																											
270	270	270	270	270																											

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
270	270	240	300	300

Remark : DVV input as per data template.

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)***

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
13.10989	0.86	5.1	0.7	0.65

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
9.9	0.86	5.1	0.7	0.65

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

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**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
60	36	26	19	18

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
52	36	26	19	18

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

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18

19	22	10	11	14
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Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
7	4	2	5	6

**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**

**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**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
30	19	10	23	35

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
30	19	10	23	35

**3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organised in collaboration with industry, community and NGOs) during the last five years**

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
16	13	18	15	8

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
11	9	17	15	8

**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.**

Answer before DVV Verification : 165

Answer After DVV Verification :28

5.1.4	<p><b>The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases</b></p> <ol style="list-style-type: none"> <li>1. <b>Implementation of guidelines of statutory/regulatory bodies</b></li> <li>2. <b>Organisation wide awareness and undertakings on policies with zero tolerance</b></li> <li>3. <b>Mechanisms for submission of online/offline students' grievances</b></li> <li>4. <b>Timely redressal of the grievances through appropriate committees</b></li> </ol> <p>Answer before DVV Verification : A. All of the above Answer After DVV Verification: A. All of the above</p>																														
5.2.1	<p><b>Percentage of placement of outgoing students and students progressing to higher education during the last five years</b></p> <p>5.2.1.1. <b>Number of outgoing students placed and / or progressed to higher education year wise during the last five years</b> Answer before DVV Verification:</p> <table border="1" data-bbox="308 790 1046 925"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>288</td> <td>285</td> <td>216</td> <td>99</td> <td>126</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="308 1003 1046 1137"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>288</td> <td>285</td> <td>216</td> <td>99</td> <td>126</td> </tr> </tbody> </table> <p>5.2.1.2. <b>Number of outgoing students year wise during the last five years</b> Answer before DVV Verification:</p> <table border="1" data-bbox="308 1216 1046 1283"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	288	285	216	99	126	2021-22	2020-21	2019-20	2018-19	2017-18	288	285	216	99	126	2021-22	2020-21	2019-20	2018-19	2017-18					
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5.2.2	<p><b>Percentage of students qualifying in state/national/ international level examinations during the last five years (eg: JAM/CLAT/GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)</b></p> <p>5.2.2.1. <b>Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ Judicial Services/Public Prosecution services/All India Bar Exams/State government examinations) year wise during last five years</b> Answer before DVV Verification:</p> <table border="1" data-bbox="308 1682 1046 1816"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>36</td> <td>30</td> <td>20</td> <td>20</td> <td>12</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="308 1895 1046 2029"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>36</td> <td>30</td> <td>20</td> <td>20</td> <td>12</td> </tr> </tbody> </table> <p>5.2.2.2. <b>Number of students appearing in state/ national/ international level examinations</b></p>	2021-22	2020-21	2019-20	2018-19	2017-18	36	30	20	20	12	2021-22	2020-21	2019-20	2018-19	2017-18	36	30	20	20	12										
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2021-22	2020-21	2019-20	2018-19	2017-18																											
36	30	20	20	12																											

(eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT,GRE/ TOFEL/ Civil Services/ State government examinations) year wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18

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**

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*

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	02	01	0

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	01	01	0

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
32	02	20	30	32

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
10	02	6	10	5

Remark : Revised values considering that 1. Events cannot be split into activities. 2. Events held on same day to be considered as one only

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
8	105	125	2	0

Answer After DVV Verification :

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

Remark : Revised values excluding Internet bills, these cannot be considered. HEI has not provided relevant documents to support their claim.

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
102	56	104	33	41

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
43	35	60	33	16

**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
78	73	70	68	70

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
78	73	70	68	70

Remark : DVV input considering 1. programmes of duration as per UGC/AICTE duration 2. A teacher attending multiple programmes will be counted once in a year

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

**1. Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected,**

	<p><b>analysed and used for improvements</b></p> <ol style="list-style-type: none"> <li><b>2. Collaborative quality initiatives with other institution(s)/ membership of international networks</b></li> <li><b>3. Participation in NIRF</b></li> <li><b>4. any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA, ISO Certification etc</b></li> </ol> <p>Answer before DVV Verification : B. Any 3 of the above Answer After DVV Verification: B. Any 3 of the above</p>
7.1.2	<p><b>The Institution has facilities and initiatives for</b></p> <ol style="list-style-type: none"> <li><b>1. Alternate sources of energy and energy conservation measures</b></li> <li><b>2. Management of the various types of degradable and nondegradable waste</b></li> <li><b>3. Water conservation</b></li> <li><b>4. Green campus initiatives</b></li> <li><b>5. Disabled-friendly, barrier free environment</b></li> </ol> <p>Answer before DVV Verification : A. 4 or All of the above Answer After DVV Verification: A. 4 or All of the above</p>
7.1.3	<p><b>Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following</b></p> <ol style="list-style-type: none"> <li><b>1. Green audit / Environment audit</b></li> <li><b>2. Energy audit</b></li> <li><b>3. Clean and green campus initiatives</b></li> <li><b>4. Beyond the campus environmental promotion activities</b></li> </ol> <p>Answer before DVV Verification : A. All of the above Answer After DVV Verification: A. All of the above</p>

## 2.Extended Profile Deviations

ID	Extended Questions																				
1.1	<p><b>Number of teaching staff / full time teachers during the last five years (Without repeat count):</b> Answer before DVV Verification : 109 Answer after DVV Verification : 175</p>																				
2.1	<p><b>Expenditure excluding salary component year wise during the last five years (INR in lakhs)</b></p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>2754</td> <td>1919</td> <td>2392</td> <td>2316</td> <td>2177</td> </tr> </tbody> </table> <p>Answer After DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>2037.03</td> <td>839.09</td> <td>1167.18</td> <td>1237.73</td> <td>1207.61</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	2754	1919	2392	2316	2177	2021-22	2020-21	2019-20	2018-19	2017-18	2037.03	839.09	1167.18	1237.73	1207.61
2021-22	2020-21	2019-20	2018-19	2017-18																	
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2037.03	839.09	1167.18	1237.73	1207.61																	

