## The Annual Quality Assurance Report (AQAR) of the IQAC (For Affiliated/Constituent Colleges)

#### Part - A

#### 1. Data of the Institution:

Name of the Institution	Lokmanya Tilak College of Engineering
Name of the Head of the Institution	Dr Vivek. K. Sunnapwar
Designation	Principal & Director
Does the Institute function from own campus	Yes
Phone Number	022-27541005 / 06
Mobile	9821221952
Registered e-mail	Principal.ltce@gmail.com
Alternate e-mail	skshinde@rediffmail.com
Address	Sector 4, Koparkhairane, Navi Mumbai - 400709
City	Navi Mumbai
State	Maharashtra
Pincode	400709

#### 2. Institutional Status:

Affiliated / Constituent	Affiliated to the University of Mumbai
Type of Institution	Co-Education
Location	Urban
Financial Status	Self-Financing
Name of the Affiliating University	University of Mumbai
Name of IQAC Coordinator	Dr S.K.Shinde
Phone Number	022-27541005 / 06
Alternate Phone Number	9594170066
IQAC e-mail address	naac.ltce@gmail.com
Alternate e-mail address	principal.ltce@gmail.com
Website	www.ltce.in

#### 3. Website Address:

Institute Website	www.ltce.in
Weblink of AQAR of previous year	NA

#### **❖** Academic Calendar:

Academic Calendar for the current term (link)	http://ltce.in/assets/Acdemic_Calender_2018-
	19_for_Odd_Semster.pdf

#### (i) Accreditation Details:

Cycle	Grade	CGPA	Year of Accreditation	Validity
1 <sup>st</sup> Cycle	B ++	2.95	2017	From 30/09/2017 to 29/09/2022

#### **Date of Establishment of IQAC:**

Date of Establishment of IQAC	13/07/16
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#### 7. Internal Quality Assurance System:

7.1 Quality Initiatives by IQAC during the Year for promoting Quality Culture

Item / Title of the quality Initiative by IQAC	Date & Duration	No of participants Beneficiaries
1. Improvement in teaching learning process- through benchmarking & best practices. By following OBE methodologies. Gearing up for NBA in the near future.	July 2016 to July 2017	15
2.Increase Industry interaction for inputs with regards to curriculum development, state of the art in industry, internships, projects etc.	July 2016 to July 2017	15
3. Improve placements by roping in more industries & conducting job fairs with the help of professional bodies like ISHRAE.	July 2016 to July 2017	15
4. Preparation of AQAR for recording various steps taken to monitor & improve the quality culture.	July 2016 to July 2017	15

### 8. List of funds by Central / State Government (UGC/CSIR/DST/DBT/ICMR/TEQIP/WORLD BANK/ CPE OF UGC)- NO

Institution / Department / Faculty	Scheme	Funding Agency	Year of award with duration	Amount

9. Whether composition of IQAC is as per latest guidelines of NAAC: Yes

Weblink of IQAC formation: <a href="http://ltce.in/assets/IQAC.pdf">http://ltce.in/assets/IQAC.pdf</a>

10. No of IQAC meetings held during the Year: 03 Minutes are uploaded on website.

### 11. Whether IQAC received funding from any agencies to support its activities during the year. - No

If Yes then Amount Rs. Year:

12. Significant contributions made by IQAC during the Year

Teaching Learning Process	Provision of LCD'S in 8 classrooms for making multimedia classrooms enabling teaching through ICT. Gearing up for NBA in the near future. We have tied up with organizations for aptitude & soft skills training of students.
Project Based Learning	We encourage SAE car building competition in SAE BAJA, SUPRA & FORMULA 1in which students from all branches participate. In April 2018, our students participated at Maryland, USA.
<ul> <li>Projects based on Social themes</li> </ul>	Two groups have been given project on i) Sand cleaning ii) Sky saver iii) Sedating tiger using drones These groups will work with civic bodies namely NMMC & others.
Industry-Institute     Interaction	Project competition organized by ISHRAE in which students get funding. ISHRAE job fair for placements in core mfg. companies. MOU with Red- Hat technologies for various value-added courses.
Upgradation of laboratories	Laboratories in all departments have been upgraded to the state-of-the-art technologies as per syllabus. Supporting software's also have been purchased.

### 13. Plan of action chalked out by IQAC in the beginning of the academic year towards quality enhancement and the outcome achieved by the end of the academic year.

•	A -1-i
Plan of Action	Achievements / Outcomes
1. Applied for NAAC in 2017	Got NAAC with CGPA of 2.95 & B ++ grade in September 2017 and are accredited up to September 2022.
2. Preparing for NBA	We are following OBE methodologies & will apply in the near future.
3. Industry-Institute Interaction	We have been successful in getting internships, projects & better placements. We have also done MOU'S for mutual sharing.
4. Improved pedagogies for better teaching learning.	Upgraded ICT classrooms.

- 14. Whether AQAR was placed before statutory body: Yes.

  Name of the Statutory Body: Governing Body, LTJSS

  Date of Meeting: July 2017
  - 15. Whether NAAC or any other accredited body visited IQAC or interacted with it to access the functioning: NO

**Date: ---**

16. Whether Institutional Data Submitted to AISHE: Yes

Year: 2017 Date of Submission: February 2017

17. Does the Institute have Management Information System: Yes? Brief Description:

The institute has its own ERP system for administrative & academic operations. The following modules are functional.

- (i) Admission: Students enrol on ERP and they have unique ID for the course.
- (ii) Faculty roll / attendance: The biometric attendance is integrated with ERP for salary purpose.
- (iii) Faculty ERP: Each faculty has own login to access and update profile, leave, teaching plan, student attendance.
- (iv) Time tables & student attendance.
- (v) Maintenance applications are forwarded by faculty through this module.

#### Part-B

#### CRITERION I – CURRICULAR ASPECTS

#### 1.1 Curriculum Planning and Implementation

1.1.1 Institution has the mechanism for well-planned curriculum delivery and documentation. Explain in 500 words

The institute is affiliated to University of Mumbai and follows the curriculum prescribed by the university in a systematic way:

Before the start of every academic session, Principal along with the Director and Vice- Principal conducts an IAC meeting with Heads of all the Departments and finalize the Academic Calendar in alignment with the university schedule. Subjects are allocated to the faculties based on their subject expertise and interests well in advance. Time table for every semester is prepared by the respective Time Table coordinators of various departments in consultation with the HODs and the load distribution is informed to the Principal. The university provides the syllabus with evaluation schemes and course objectives for every course. Faculty follows the evaluation scheme mentioned in the syllabus for each course. Course Objectives and Course outcomes of the subjects in accordance with the university prescribed syllabus are decided by the respective subject in charge in consultation with the HOD. Teaching plan and the assignments for the semester are prepared by the respective subject in charge before the start of the new Performance of the students in laboratory experiments are timely assessed and graded according to the performance indicators. Depending on the evaluation scheme, two class tests for 40% and 80% syllabus are conducted per semester taking in to consideration the COs defined for each course to evaluate the students. The result analysis of the internal assessment is done and proper measures are incorporated to improve the performance by arranging remedial classes for the weaker students and giving additional assignments/tasks to the brighter students. Course files are maintained by faculty members which contains Academic calendar, Individual timetable, Teaching plan, Assignments, Class test question papers, University question papers, question banks, Quiz, Performance details etc. Remedial classes are conducted for slow learners. In addition to traditional teaching methods, video lectures, NPTEL lectures, OHP, PowerPoint presentations, projects, case studies, surveys etc are being conducted. Guest lectures are regularly arranged to bridge the gap in the prescribed curriculum. An IAC meeting is conducted at the end of the semester to conclude the academic session. At the end of every semester course exit feedback is taken from the students and analysed for proper measures. The faculty in charge maps the course outcome with the program outcomes to ensure the attainment of the curriculum. Students are encouraged to do final year projects in industries thereby giving them the exposure to the recent trends in industries. Students are encouraged to undergo industrial internships and industrial visits during vacation periods. Students are given training in various software's so as to enhance global employment opportunities. Special emphasis is given on the development of the overall personality of the students through the conduction of various personality development programmes. Students are encouraged to participate in NSS and other social activities so as to enable them to be socially responsible citizens. Seminars, value added courses and industrial visits are arranged to enrich the curriculum. Orientation programmes for the new courses are arranged by the institute in consultation with BOS of the University.

<b>1.1.2 Certifi</b>	1.1.2 Certificate/ Diploma Courses introduced during the Academic year						
Name of	Name of	Date of introduction	focus on employability/	Skill development			
the	the	and duration	entrepreneurship				
Certificate	Diploma						
Course	Courses						

Red Hat India Pvt.Ltd.		24	4/11/201	1/2017 one year		n employability		certification of Red Hat Linux		
NPTEL	-		AN2016( EEK	(4/8/12)	YES		Y	ES		
1.2 Academi					<u>'</u>		ų.			
					uring the Aca	•				
Programn		Date	of Intro	duction	Course	with Code	Date o	f Introd	uction	
Cod	le									
NA				_	_			_		
1.2.2 Progra	ammes i	n which	Choice	Based Cr	edit System (	CBCS)/Electiv	e course	e system	L	
_					-	ng the Academi				
Name of Pro		es	UG	PG		lementation of	<b>CBCS</b>	/ UG	PG	
adopting Cl					Elective Co					
Bachelor of	-	-	UG	-		for Third year		UG	-	
(Electronics	Enginee	ring)				gital Control Sy	stems,			
D 1 1 6	Б .	•	TIC		Microwave l	Engineering		TIG		
Bachelor of	-	-	UG	-	students/ UE	for Third year		UG	-	
(Electrical E Bachelor of E			UG			or Third year st	tudonts/	UG		
(Computer E	_	_	UG		1. Multimed	•	ludeins/	UG		
(Computer L	ingineeri	ng)			2.Advanced	•				
					2.114 (4.11664					
Bachelor of	Engineer	ring	UG	-	09/07/2018 1	or Third year st	tudents/	UG		
(Electronics		C		TV and Video Engineering, Data			Data			
Telecommun						and Encryptio	n, Open			
Engineering)	)				source techn					
					communicat	ion lab				
Bachelor of 1	Engineer	ino	UG		09/07/2018 1	For Third year st	tudents			
(Mechanical	Enginee	ering)			05/07/2010 1	or rima your st	iaaciits			
Already ado			st year, 2	2017 for S	econd Year					
						troduced durin	g the y	ear	<u>'</u>	
No of Studen		Certifica				Diploma Cour				
23		MICRO	SOFT T	echnology	Associate					
Registered -:	3/15	NPTEL								
Certified -51		NITEL								
1.3 Curricu		ichment	t							
				ransferabl	le and life skil	ls offered during	g the ve	ar		
Value added			1		ntroduction	Number			lled	
Raspberry Pi					33 (Electronics)					
TAACT Cou	rse on D	rives &		25 <sup>th</sup> Mar	ch 2018	3 (Electr	rical)			
Controls										
PHP				04/08/20		09 (Com				
1.National	level	Comprehensive 27-6-17 to 4-7-2			7 to 4-7-2017	165 (Me	165 (Mechanical)			
Automobile		Develo	opment							

MITCOON 27187 _Lokillariya Tilak	College of Elig.	meering _AQ	AR_OCIODEI 2018		
Internship (CADI)program					
2. Piping Engineering: Scope in					
industry	22-09-2017		195		
3 National level Comprehensive					
Automobile Development	09-01-2018 to	16-01-2018	175		
Internship (CADI)program					
4. Workshop on Ansys APDL					
5 National level Comprehensive	23-01-2018 to	31-01-2018	210		
Automobile Development			1.70		
Internship (CADI)program	07-07-2018 to	13-07-2018	150		
6.National Level Drone					
Development Internship	07-07-2018 to 13-07-2018		20		
			30		
1.3.2 Field Projects / Internships un	l der taken dur	ing the vear			
Project/Programme Title			nrolled for Field Projects / Internships		
J C	Electronics		J 1		
1. Design and Implementation of War Fie					
Robot along with gas sensor and Land	Mine Detector				
2. Automatic Speed Control of Vehicle in	Restricted		3 Project groups) have enrolled for		
Areas		outhouse Projects to various industries.			
3. Fire Detection and Alarm System					
		17 students ha	ve opted for Summer Training at various		
		field locations			
Internships – Summer Training		1. Reliance Gl	obalcom Ltd.		
		2. Eledia Tech			
		3. Hindustan Coca Cola Beverages Pvt. Ltd.			

#### Electrical Engineering

- **1.** Power efficient smart system for homes & office appliances using PWM technique.
- **2.** Electric torque vectoring for electric vehicles.
- **3.** IoT based design and development of fault passage indicator in medium voltage distribution system
- **4.** Evaluation of volumetric concentration of ferrofluid used in high power transformers
- **5.** Design and testing of reactors
- **6.** Design and performance of 3 phase double layer induction motor
- 7. Low tension underground cable fault analysis.
- **8.** Cost-effective single-phase grid tie photo voltaic inverter

Internships – Summer Training

- 30 Students (08 Project groups) have enrolled for Field Projects to various industries.
- 36 students have opted for Summer Training at various field locations as follows:
- 1. MAHATRANSCO, Kalwa

4. Connect well5. Jaywanti Industries

7. Build My Project

2. SAMCON industrial controls pvt. Ltd

6. B2 Jobs Consultancy Service

- 3. Blue Star Ltd., Mumbai
- 4. Greater Mumbai Milk Scheme, Worli dairy
- 5. Century Rayon, Shahad
- 6. Rashtriya chemicals & fertilizers ltd.
- 7. Bharat Petroleum Corporation Ltd. Mumbai refinery.
- 8. BARC, Mumbai
- 9. Brihan Mumbai Electric Supply & Transport (BEST)
- 10. Ashok Electro-Mech Industries, Thane
- 11. Hindustan Petroleum Corporation Limited, Chembur
- 12. Siemens, Worli Mumbai

		13. Deepak Fertilisers and Petrochemicals Corporation Ltd.,					
		MIDC Area, Taloja 14. Mazagon Dock Shipbuilders Ltd.					
			14. Mazago	n Dock Snipbuildei	's Lta.		
	Electronics	& Telec	communicat	ion Engineering			
1. Automatic fault dete	ection on railway track						
(Mumbai central railw	ay)		4				
2. Telephone defence	production, switching a	access					
product			15				
	Computer Engineering						
Web Development/A	Android						
App/Networking/SA	.P		15				
	l	Mechan	nical Engineering				
Field Project			36				
Internship			94				
1.4 Feedback System	m						
1.4.1 Whether struct	ured feedback receiv	ed from	all the stak	eholders.			
1) Students	2) Teachers	3) Em	ployers	4) Alumni	5) Parents		
Yes	Vac	Vec		Voc	Vac		
ies	Yes	Yes		Yes	Yes		

1.4.2 How the feedback obtained is being analysed and utilized for overall development of the institution? (maximum 500 words)

Feedback form/formats are designed for the stakeholders. This includes faculty feedback, alumina feedback, student feedback, course exit survey, etc.

Faculty feedback from the students for the respective course is taken twice in a semester on various teaching/learning aspects and it is analysed by the HODs and corrective measures if any, are informed to the respective faculties for further improvements.

Course exit feedback and program exit feedbacks are taken to analyse the understanding capability of the students. Feedback about the infrastructural facilities are taken from the final year students at the end of the program for improving the lab facilities, if any. The feedback so obtained is analysed for further improvement. Feedback from the parents are taken by interacting with them during Parent Teacher Meet. Feedback is taken from alumni for suggestions or improvements in the curriculum. Feedback from the final year students are taken for their suggestions in improving the curriculum and it is conveyed to the Chairman, BOS of the respective programmes of University of Mumbai. Feedback from faculties are also taken for their suggestions in syllabus revision. Feedback is also collected from the companies. This feedback is discussed in meeting of training and placement cell. Library has predesignated feedback forms which are kept on the circulation counter and open to fill-up by any user as per their wish. The collected data is entered in excel sheet and is presented in front of library committee for review and discussion. We have also installed a suggestion box which is accessible to all the stake holders so that they can give their feedback/ suggestions for improvements, if any.

LTJSS team conducts the exercise of student feedback every year. We have a system of taking feedback from students on infrastructure and also subject wise teachers. This is a feedback on 5-point scale, which measures parameters like Subject knowledge, Expression, Teaching aids used, methodology etc. which is analysed by our management for taking appropriate decisions for improving the infrastructure and also quality of teachers. The alumni feedback and exit feedbacks are taken from all students. From these forms we are able to make out whether the proper teaching learning process is in place. Also, this process enables the institute to improve in the areas where ever necessary. Every semester junior faculties evaluation is processed by senior faculties, subject experts and inform to the faculties for enhancing their skills. The

CRITERION II -TEACHING-LEARNING AND EVALUATION

feedback is key tool which triggers in continuous improvement in the quality of education. The feedback is taken from students in order to analyse and implement as per their needs. Also, feedback is taken from experts and external examiners on quality of our students. Based on the faculty feedback the probationers and regular faculty are counselled for the lacunae. Based on the above feedbacks and suggestions received we take corrective actions to complete the loop.

	iaeni Enroi	ment and	Profile			
2.1. 1 D	Demand Ratio					
	ne of the	<u> </u>	<i>y</i>	Number of applications	Studer	nts Enrolled
Prog	gramme l	Number of	seats available	received		
Comput	ter Engg		120	CAP round by DTE		121
	rical Engg		60	CAP round by DTE	42	_
	onics Engg 60	)		CAP round by DTE	11	
	ronics &					
Telecon	nmunicatio					
n l	Engg 60	)		CAP round by DTE	42	
Mechar	nical Engg 12	20		CAP round by DTE	96	
Mechar	nical Engg					
	II 60	)		CAP round by DTE	42	
Electi	ronics &					
Telecon	nmunicatio					
n E	Engg II 60	)		CAP round by DTE	37	
Mechar	nical Engg					
(F	PhD) 06	5		22	04	
Mechar	nical Engg					
(	(PG) 18	3		CAP round by DTE	2	
2.2 Cat	tering to Stu	dent Diver	sity			
			•	rent year data)		
2.2.1. S	Student - Full  Number of stude	l time teac	Number of students enrolled in the institution	Number of full-time teachers available in the institution	Number of full- time teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
<b>2.2.1.</b> S	Student - Full	l time teac	her ratio (cur Number of students enrolled	Number of full-time teachers	time teachers available in the institution teaching only	teaching both UG
<b>2.2.1. S</b> Year FE	Number of stude in the institution 391	l time teac	Number of students enrolled in the institution (PG)	Number of full-time teachers available in the institution teaching only UG courses	time teachers available in the institution teaching only PG courses	teaching both UG and PG courses
Year FE Comput	Number of studing the institution	l time teac	Number of students enrolled in the institution (PG)	Number of full-time teachers available in the institution teaching only UG courses	time teachers available in the institution teaching only PG courses	teaching both UG and PG courses
Year FE Comput	Number of stude in the institution ter Engg	l time teac	Number of students enrolled in the institution (PG)	Number of full-time teachers available in the institution teaching only UG courses	time teachers available in the institution teaching only PG courses	teaching both UG and PG courses
Year FE Comput FE SE	Number of stude in the institution 391 ter Engg	l time teac	Number of students enrolled in the institution (PG)	Number of full-time teachers available in the institution teaching only UG courses	time teachers available in the institution teaching only PG courses	teaching both UG and PG courses
Year FE Comput FE SE TE	Number of stude in the institution 391 ter Engg 121 118	l time teac	Number of students enrolled in the institution (PG)	Number of full-time teachers available in the institution teaching only UG courses	time teachers available in the institution teaching only PG courses	teaching both UG and PG courses
Year FE Comput FE SE TE BE	Number of stude in the institution 391 ter Engg 121 118 115 130	l time teac	Number of students enrolled in the institution (PG)	Number of full-time teachers available in the institution teaching only UG courses	time teachers available in the institution teaching only PG courses NA	teaching both UG and PG courses 18
Year FE Comput FE SE TE BE Electric	Number of stude in the institution 391 ter Engg 121 118 115	l time teac	Number of students enrolled in the institution (PG)	Number of full-time teachers available in the institution teaching only UG courses	time teachers available in the institution teaching only PG courses NA	teaching both UG and PG courses 18
Year FE SE TE BE Electric FE	Number of stude in the institution 391 ter Engg 121 118 115 130 cal Engg	l time teac	Number of students enrolled in the institution (PG)	Number of full-time teachers available in the institution teaching only UG courses	time teachers available in the institution teaching only PG courses NA	teaching both UG and PG courses 18
Year FE Comput FE SE TE BE Electric FE SE	Number of stude in the institution 391 ter Engg 121 118 115 130 cal Engg 42	l time teac	Number of students enrolled in the institution (PG)	Number of full-time teachers available in the institution teaching only UG courses	time teachers available in the institution teaching only PG courses NA	teaching both UG and PG courses 18
Year FE Comput FE SE TE BE Electric FE SE TE	Number of stude in the institution 391 ter Engg 121 118 115 130 eal Engg 42 51	l time teac	Number of students enrolled in the institution (PG)	Number of full-time teachers available in the institution teaching only UG courses	time teachers available in the institution teaching only PG courses NA	teaching both UG and PG courses 18

FE	11				1
SE	17	-			
TE	14	_			
BE	25	NA	11	NA	
	onics & Telecommunicat		**	F 17. Z	
FE	42				
SE	39				
TE	61				
BE	53	NA	10	NA	
Mecha	anical Engg	•			
FE	96	3			
SE	96	2			
TE	191				
BE	196		24	02	03
Mecha	anical Engg II	•		·	·
FE	42				
SE	43				
TE	53				
BE	57		22	NA	
Electro	onics & Telecommunicat	ion Engg II		<u> </u>	<u>.</u>
FE	37				
SE	34				
TE	37				
BE	37		10	NA	
Total	1884		127		

### 2.3 Teaching - Learning Process 2.3.1 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of	Number of teachers	ICT tools and	Number of ICT	Number of	E-resources
teachers on roll	using ICT (LMS, e-	resources	enabled	smart	and
	Resources)	available	classrooms	classrooms	techniques
					used
10 (ETRX)	10	Projector,	1 seminar hall	Nil	e-journals, e-
		Computer,			books,
		Internet Facility			NPTEL
24 (COMP)	24	Projector,	2 classrooms and		NPTEL,
		Computer,	1 seminar hall		Blog, College
		Internet Facility			website,
					subscription
					to
					ScienceDirect
					, IEEE, e-
					journals, e-
					books, online
					datasets
15 (EXTC)	15	Projector,	1 seminar hall	Nil	e-journals, e-
		Computer,			books,

		Internet Facility		NPTEL
11 (ELECT)	11	MS Word 01	Nil	Online 24hrs
		MS Excel		internet;
		Power Point		Wi-fi;
		Internet access		E- library
		PDF Board		
		Printer		
		USB ports		
		Intranet		
		Lan		
43 (MECH)	22	Projector room	Nil	E-journals, e-
				books etc
17(FE)	17	Projector, 01 au	idio visual Nil	Video lectures
		Computer, Lang	uage lab	
		Internet Facility		

2.3.2 Students mentoring system available in the institution? Give details. (maximum 500 words)

Yes, Teacher Guardian Scheme is implemented in the institute wherein 15 to 20 students are assigned to a faculty member who acts as their mentor for the entire programme duration. Mentor regularly interacts with the students and monitor their academic performance and attendance. Students are counselled by the mentors, class advisors, subject faculties and HOD for improving their academic performance and attendance. Mentors and Class Advisors counsel the students regarding their performance and schedule additional lectures/practical's. At first year level, student's academic and personal issues of concern are well looked after by the class advisor/mentors. The critical cases are handled by first year in charges. This way the students realize their responsibilities at the early stage itself. Mentoring system is followed departments from the second year onwards. The students are given guidance for career, personal, besides academic issues. A special arrangement also, is made available to the students to deal with psychosocial issues arising in cases like single parenting, bread earner in the family etc. For higher semesters, the mentors allocated to the students will council same group of students for three years i.e. the same set of students will be monitored and counselled till they have passed the course. The meetings of mentorship are conducted every month, in which students meet their mentors for academic and personal issues. The students who have less attendance and who have missed their internal tests are paid special attention from mentors side. Even the students with many issues are asked to call parents for parents- mentor meetings. The mentor is also responsible to provide counselling to the student and provide guidance regarding personal and academic issues. The mentor keeps track on their improvements and counsels them accordingly. The role of the mentor is to nurture the students and guide them for any issues they are coming across. Students with personal/family problems if any, are given counselling and support by a professional counsellor. A large number of students who perceive the professional course are quite focussed, still they may fall short of score to be promoted to above sections. Such students are given counselling by the mentors and the subject teachers and remedial lectures are conducted. Students are supported and guided both in co-curricular and extracurricular activities. The mentors of the class discusses with each and every student individually and supports them in all the possible ways to enrich their academic performance. The mentors contacts the parents and educates them, if required about their wards performance, and the academic programmes of the college as well as the support system and the monitor system the student and parents. The mentors always keeps a check on the attendance of the student, the marks/grades obtained in the internals & externals examinations, and regarding his/her candidature in the campus placement and provides remedial coaching.

Number of students enrolled in the institution	Number of fulltime	Mentor: Mentee Ratio
	teachers	

	1884			134			1:14	
2 4 Tanahan D	mafila s	and Ouglity						
2.4 Teacher P		-time teachers appointed	d duri	ng the vear				
No. of sanctio positions		No. of filled positions		Vacant positions			ns filled during rent year	No. of faculty with Ph.D.
23 (COM	P)	24		NIL		04		02
09 (ETRX		10		NIL		NIL		04
18 (EXTO		19		NIL		NIL		02
11 (ELEC		11		03		NIL		01
43 (MECI		43		NIL		NIL		08
19(FE)		17		02		NIL		04
	rds, rec dies du	ecognitions received by to ognition, fellowships at String the year) of full-time teachers receiving	tate, N	lational, Inter		onal leve	Name of the awar	rd,
		national level, international lev	vel				fellowship, receiv Government or re bodies	cognized
2017-18		heeba P.S.			Pro	sociate ofessor	1) Fellow mem IETE 2) Emerging L Award, at High leadership mee 2018 organized Venus foundati 3) Organizing committee men 14th World Coron Applied Sc Engineering & Technology	eader her Educati et HELA h by hon. hber, hference ience,
2017-18		rerana Shrivastava			Pro	sistant ofessor	Received an Av Research Exce Global Summi domain of Wir Adhoc Networ	llence at t in eless
2017-18	Mr. N	Aohd. Farhan				sistant ofessor	Book Entitled "Electronic De Circuits" inclu CBCS Syllabu Mumbai Unive	ded in s of
2017-18	Dr. R	avindra Duche			Pro	ofessor	Copyright on "assignments for Engineering and Technology stu	Creative or nd

2017-18	Dr. C M Wankhade	Assistant Professor	Minor Research Grant of Mumbai university)
2017-18	Mrs. Shilpa Kapse	Assistant Professor	Minor Research Grant of Mumbai university)
2017-18	Mrs. Rekha Sonune	Assistant Professor	Minor Research Grant of Mumbai university)

2.5 Evalua	2.5 Evaluation Process and Reforms						
2.5.1 Number of days from the date of semester-end/ year- end examination till the declaration of							
results during the year							
Program me Name	Programm e Code	Semester/ year	Last date of the last semester-end/ year- end examination	Date of declaration of results of semester-end/ year- end examination			
Eine Vee	EE	I	30/12/17	12/02/18			
First Year	FE	II	1 2 27 2	19/07/18			
		III IV	19/12/17 08/06/18	31/01/18 06/08/18			
		V	14/12/17	31/01/18			
		VI	11/06/18	06/08/18			
Electrical		VII	18/12/17	23/02/18			
Engg.	ELECT	VIII	28/05/18	07/07/18			
		III	19/12/17	23/01/18			
		IV	08/06/18	24/07/18			
		V	14/12/17	23/01/18			
		VI	11/06/18	24/07/18			
Electroni		VII	18/12/17	26/02/18			
cs Engg.	ETRX	VIII	28/05/18	26/07/18			
		III	13/12/17	23/01/18			
Electroni		IV	08/06/18	24/07/18			
cs &		V	14/12/17	23/01/18			
Telecom		VI	11/06/18	24/07/18			
municatio		VII	18/12/17	23/02/18			
n Engg.,	EXTC	VIII	28/05/18	11/07/18			
		III	19/12/17	31/01/18			
		IV	08/06/18	27/07/18			
		V	14/12/17	31/01/18			
		VI	11/06/18	27/07/18			
Mechanic	) (Figure	VII	18/12/17	08/03/18			
al Engg.,	MECH	VIII	28/05/18	26/07/18			
		III	19/12/17	22/01/18			
		IV	08/06/18	24/07/18			
Computer		V	08/12/17	22/01/18			
Engg.,	COMP	VI	30/05/18	24/07/18			
	COMP	VII	12/12/17	23/02/18			

		VIII	28/05/18	06/07/18
- [				

University results are declared within 45 days after the completion of examination.

### 2.5.2 Reforms initiated on Continuous Internal Evaluation (CIE) system at the institutional level (250 words)

The institute has a college level Exam committee and a department level internal exam committee. The exam committee works under the supervision of the Head of the institute. The institute exam committee takes the overall responsibility of conducting the end semester examination and the evaluation process of answer sheets and preparing the results. Every department has an internal exam committee responsible for the preparation of Timetable, setting of the question paper, declaration of the results of internal tests. After evaluation of internal tests, the answer sheets are shown to the students for any grievances. The grievances of the students are considered and looked into at the department level. The average of the two internal tests are considered for the internal assessment marks. The main reforms initiated by the exam cell committee is the timely declaration of the results and the moderation of the question papers. For the continuous evaluation process, internal tests, assignments, quiz, presentations, lab work, seminars etc are taken into consideration. Term work marks are given to the student depending on the continuous performance in the internal assessment. The rubrics for each practical and tutorial are based on the parameters: performance, lab ethics, self-learning initiative, conceptual understanding, punctuality and attendance.

### 2.5.3 Academic calendar prepared and adhered for conduct of Examination and other related matters (250 words)

Before the start of every academic session, Principal along with the Director and Vice- Principal conducts an IAC meeting with Heads of all the Departments and finalize the Academic Calendar in alignment with the university schedule. College academic calendar is designed considering all events in accordance with the University academic calendar. In all 15 weeks are planned which mainly include commencement date, closing date of the term, dates of internal tests I and II, college festivals, submissions, oral / practical exams etc. Schedule for internal exams and tentative dates for University theory and practical exams are displayed in academic calendar. Curricular and extra-curricular activity dates, exam schedules and other activity dates are displayed in the academic calendar. Dean Academics is in charge of academic monitoring cell. Academic monitoring cell is responsible for ensuring proper academic calendar and teaching learning process. It monitors all parameters right from attendance, (75 % attendance is mandatory as per University rules), assignments, practical's / labs, internal tests. List of defaulter students is notified fortnightly and the parents are informed. Teachers are supposed to maintain course files of their subjects. All assignments are given in first two weeks, so that students can plan and complete the assignments in time. Parent teacher meeting date is also mentioned in the academic calendar. Faculty conducts lectures and practical's as per the timetable in alignment with the academic calendar. Exams and result declaration are strictly followed on the dates mentioned in the academic calendar.

#### 2.6 Student Performance and Learning Outcomes

## 2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

Yes, the Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in the website:

https://www.ltce.in/

0 /	٦Τ	`	4	c	4 1 4
/ h	/ F	<b>7</b> 288	percentage	$\Omega$ T	students
4.0.2		uoo	porcontugo	$\mathbf{v}_{\mathbf{I}}$	bludelits

2.0.2 1 das percentago er soudents									
Programme	Programme	Number of students appeared in the	per of students appeared in the Number of students passed in						
Code	name	final year examination	final semester/year						
			examination						
???? EL	???? Elec	?? ????	????	??????????					

ECT	trical??En			
	gg			
	Electroni			93.18
ETRX	cs	4.4	41	
EIKA	Engineeri	44	41	
	ng			
	Electroni			94.6
	cs &			
	Telecom			
EXTC	municatio	131	124	
	n			
	Engineeri			
	ng			
	Computer			
COMP	Engineeri	139	134	96.40
	ng			
MECH	Mechanic	220	229	71.25
MECH	al	320	228	

#### 2.7 Student Satisfaction Survey

### 2.7.1 Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

Institute has designed a questionnaire in google forms and the results & details are provided in the following link,

 $https://docs.google.com/forms/d/1RGb9uvfu\_IrHvMLn8BHOG\_PiO8B52dc2En5EGUo2sYc/edit\#responses$ 

https://docs.google.com/spreadsheets/d/1BOEs8yZ2IAhIB9Kw24HJL9N-

4lxlyBNaoapeorrFSw0/edit#gid=1420185647

#### CRITERION III - RESEARCH, INNOVATIONS AND EXTENSION 3.1 Resource Mobilization for Research 3.1.1 Research funds sanctioned and received from various agencies, industry and other organisations Nature of the Project Name of the Duration Total grant Amount received during the sanctioned Academic year funding Agency Major projects Minor Projects (Minor research grant ?? University received by 2 faculty ??????? ??of??Mumb ??????lakh members of ai Mechanical dept) Minor (Minor research grant University of received by 1 faculty 2017-18 0.45 lakh 0.45 lakh Mumbai member of Electronics dept) Minor (Minor research grant University of received by 6 faculty 2017-18 0.89 lakh 0.89 lakh Mumbai members of EXTC dept) Dhan vallabh 1.25 lakh 1.25 lakh trust Interdisciplinary 1.10 lakh 1.10 lakh 2017-18 Sane bros **Projects** Gulf Oil 0.70 lakh 0.70 lakh 0.60 lakh 0.60 lakh Math Bros Industry sponsored **Projects** Projects sponsored by the University/ College LTCE College Sponsored 2017-18 3.80 lakh 3.80 lakh Management Project (Formula SAE car) College Sponsored LTCE Project (SAE team TT 2017-18 0.20 lakh 0.20 lakh Management car) College Sponsored LTCE Project (SAE team 0.49 lakh 2017-18 0.49 lakh Management SUPRA car) College College resource Utilised Projects sponsored by (Intranet 6 months the University/ College Departmental (2017-18)Project)

Students Research

**Projects** 

	than com	pulsory										
•	College)											
	ational Pro											
Any of	ther (Spec	cify)										
Total												
3.2 In	novation	Ecosyste	m: N	il								
3.2.1 V	Vorkshop	ps/Semin	ars C	onduc	ted o	on Intellectu	al Proj	perty	Rights	(IPR) and Industry-		
Acade	mia Inno	ovative p	ractio	es dur	ing t	the year						
Title	of Works	hop/Semi	inar			Name of the	e Dept.			Date(s)		
1					-					-		
3.2.2 A	Awards for	r Innovati	ion w	on by 1	Instit	ution/Teache	rs/Rese	earch	scholars	/Students during the year: Nil		
Title	of the	Nam	e of tl	ne		Awarding	Da	ate of	Award	Category		
inno	vation	Aw	ardee	:		Agency						
1		-				-		-		-		
3.2.3 N	No. of Inc	ubation c	entre	created	d, sta	rt-ups incuba	ated on	camp	us durin	ng the year; Nil		
Inc	cubation (	Centre			]	Name				Sponsored by		
-				-					-	-		
Nan	ne of the	Start-up		N	Jatur	e of Start-up			Da	ate of commencement		
-				-					-			
3.3 Re	search P	ublicatio	ns an	d Awa	rds							
3.3.1 I	ncentive	to the tea	acher	s who	rece	ive recogniti	ion/awa	ards				
State				National				Interna	tional			
-				21	1				35			
3.3.2 I	Ph. Ds aw	arded di	ıring	the ye	ar (a	pplicable fo	r PG C	ollege	, Resea	rch Centre) 01		
	Name of	the Depa	rtmen	t			]	No. of	o. of Ph. Ds Awarded			
	Mechanic	cal Engin	eering	3					1			
3.3.3 I	Research	Publicat	ions i	n the 3	Jour	nals notified	on UC	GC we	ebsite di	uring the year		
	Depar	rtment		No. of	Pub	lication		Average Impact Factor, if any				
Nati			,	21 Tota	al							
onal												
	Comput	er Engg			11							
	Mechani	ical			10							
	Engg				10							
Inter	Electron	ics &			8							
natio	Telecom	n Engg			0							
nal	Electrica	al Engg	4									
	Electron	nics		2								
	Engg				2							
										<u>—————————————————————————————————————</u>		
3.3.4 I	3.3.4 Books and Chapters in edited Volumes / Books published, and papers in											
Nation	nal/Interr	national (	Confe	erence	Pro	ceedings per	Teach			· ·		
	$\Box$	Departmer	nt					N	o. of pul	blication		

	Computer Engg ( Springer book Chapter )		Com	Computer Engg ( Springer book Chapter )					
	,		l						
		he publication s/ Web of Scie				verage			
Title of the paper	Name of the author	Title of the journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self-citations			
Novel approac h to informat ion security manage ment of confiden tial and propriet y informat ion using image steganog raphy	Dr. Ravindra Duche	Journal of Fundamental and Applied Sciences	2018		LTCE				
A book chapter titled: Captioni ng the Images: A Deep Analysis	Ms. Chaitrali Chaudhari	Springer AISC Series on Springer Link: 'Computing, Communicati on and Signal Processing' 464886_1_E n (Chapter - 100)Copyrig ht Year 2019, Copyright Holder Name Springer	2018		LTCoE, Koparkhaira ne				

		Nature				
		Singapore				
		Pte Ltd.,				
Automot	Ms. Shikha		2017		LTCE	
Automat		Information	2017		LTCE	
ic and	Pranesh	and				
Intellige nt	Gupta	Communicati				
Integrate		on				
d		Technology				
System		for				
for		Intelligent				
Leakage		Systems				
Detectio		(ICTIS 2017)				
n in		- Volume 1.				
Pipes for		ICTIS 2017.				
Water		Smart				
Distribut						
ion		Innovation,				
Network		Systems and				
Using		Technologies				
Internet		, vol 83.				
of		Springer,				
Things		Cham				
Failure	Dr	Case studies	2017		LTCE	
analysis	Chandrabab	in	2017		LICE	
of	u.d, Dr Dalvi	Engineering				
carbon	S D, Dr	failure				
steel	Satav S M, Prof	analysis 9				
roller shaft of	Vijoykumar.	(2017) 118- 128 Elsevier				
continuo	v ijo y Kaimai.	120 Else vier				
us pad						
steam						
machine						
•						
Thermal	Dr Mrs		Vol 49, Issue	2018	LTCE	
analysis of	Dhanawade K H	Heat Transfer	7, 697-615,			
rectangu	K 11	Research, Begel House,				
lar fins						
with						
different						

					_				
shapes									
of lateral									
perforati									
ons by									
forced									
convecti									
on.									
Estimati	Dr Yakkun		2018				LTCE		
ng	V.K., Prof	al 2018							
Hydroge	Kalamkar	(Springer							
n	Rohan.	cham tieup)							
storage		_							
characte									
ristics of									
Li									
ANODE									
LiBH2									
using									
sever									
type									
apparatu									
S.									
Reductio	Dr Yakkun		2018 (Tie	up			LTCE		
n of	V K, Dr Te	li 2018 (Role	with						
custome	S N.	of IE in	Springer)						
r quality		INDUSTRY	1 0 /						
cost		4.0							
using six		PARADIGM							
sigma		)							
Uncertai	Prof Mrs	ICSTEESD-					LTCE		
							LICE		
nty of	Shweta	2018 (Tie-up							
measure	Matey	with							
ment-		Springer)							
An									
overvie									
W									
3.3.6 h-in	dex of the I	nstitutional Public		ng tl	ne year.	(based	on Scopu	s/ Wel	b of science)
Title of the	Name of	Title of the	Year of		ndex	Number	of	Instit	utional affiliation
paper	the autho	r journal	publication			citations			entioned in the
						excludin	-	publi	cation
						citations	5		
Novel	Dr.	Journal of	2018	-		3		LTCE	Ξ
approach t	to Ravindr	a Fundamental							
information	n Duche	and Applied							
security		Sciences							
manageme									
nt of									
aonfidaga:	a1								

confidential

propriety					
information					
using					
image					
_					
steganogra					
ph <u>y</u>					
Review of	Ms. Shilpa	Biomedicine	2018	2	 
Pre-	Joshi	and	2010	2	
processing	000111	Pharmacotherap			
Techniques		y international			
for Fundus		journal, Elsevier			
Image					
Analysis  Detection of	Ms. Shilpa	Biomedical	2018	2	 
Hard	Joshi	and	2010	2	
Exudates		Pharmacolog			
Based on		y Journal			
Morphologica		y Journal			
1 Feature Extraction					
A Critical	Ms. Shilpa	International	2018	2	 
Review of	Joshi	journal of		-	
Red Lesions		diabetes in			
Detection		developing			
Algorithms using Fundus		countries,			
Images		Springer,			
Transient	Mrs.Madhw	IEEE	4 <sup>th</sup> April	H -205	 
Analysis of	i Kumari	Transactions	2018	i -6.809	
Three-Phase		On Power			
High-Power		Electronics,			
VSI for		Vol. 33, No. 4,			
hybrid electric		April 2018			
vehicle					
Multi Year	Mr. Ninad	IEEE Xplore	11-13TH		 
Tariff	Totre	International	April 2018		
Structure		Conference on			
Impact On		Innovative			
Financial		Technologies In			
Status of		Engineering 2018(ICITE18)A			
Electric Utility		pril 11th -13th			
		2018			
		Hyderabad			
Impact of	Mr. Ninad	IEEE Xplore	12-13 th		 
Various	Totre	International	June 2018		
Factors On		Conference on	Nagpur		
Tariff		Smart Electric			
During Multi		Drives and			
Year Tariff		Power			
Period		System(ICSEDP1			

### MHCOGN 27187 \_Lokmanya Tilak College of Engineering \_ AQAR \_ October 2018

		8) June 12th- 13th 2018 Nagpur			
Improvement of ORPD Algorithm for Transmission loss minimisation and Voltage control using UPFC by HGAPSO approach.	Ms. Shilpa Kapse	Jounal of Institution of Engineers (India);Serie s B, Springer Publication, http://doi.org/1 0/1007/S40031- 018-03491-1, published online 14th July 2018.	14 <sup>th</sup> July 2018	h- index 6	No of downloads -14
Performance Analysis of Bipolar MG Topologies with Input Switch charging & Inductive charging method. (ICISIM) by JNEC.	Mrs. Neelam Pinjari	IEEE Digital Xplore, 5th -6th October 2017 Aurangabad	5-6 th oct 2017		 
Analysis & Comparative study of various charging methods implemented for SSMG.	Mrs. Neelam Pinjari	In Process for publication in Springer Proceedings, 11Th to 13th December 2017 at IIT Bombay.	11-13 <sup>th</sup> Dec 2017		 
Improvement of ORPD Algorithm for Transmission loss minimisation and Voltage control using UPFC by HGAPSO approach.	Ms. Shilpa Kapse	Jounal of Institution of Engineers (India);Serie s B, Springer Publication, http://doi.org/1 0/1007/S40031- 018-03491-1, published online 14th July 2018.	14 <sup>th</sup> July 2018	h- index 6	 
Optimal Location and sizing		IETE Journal OF Research (TIJR	20 <sup>th</sup> June 2018	H-index 18	 

of UPFC to solve the reactive power dispatch problem under unbalanced conditions.		1491808) Taylor & Francis accepted on 20th June 2018				
Transient Analysis of Three-Phase High-Power VSI for hybrid electric vehicle	Mrs.Madhw i Kumari	IEEE Transactions On Power Electronics, Vol. 33, No. 4, April 2018	4 <sup>th</sup> April 2018	H -205 i index - 6.809	1	LTCE
Optimal Location and sizing of UPFC to solve the reactive power dispatch problem under unbalanced conditions.		IETE Journal OF Research (TIJR 1491808) Taylor & Francis accepted on 20th June 2018	20 <sup>th</sup> June 2018	H-index 18		
Automatic detection of vascular structure in retina images	Ms. Shilpa Joshi	International journal of control theory and applications (Scopus indexed)	2017	2		
Color & texture feature extraction for content based image retrieval	N Jain, DSS Salankar	IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE) e-ISSN	2014	7	18	
A SI model for social media influencer maximizati	Jyoti Sunil More	Applied computing and informatics (Elsevier)	2017(In Press)		RAIT Mumbai	2

on								
		ation in Seminar			_			
No.	of Faculty	International		ional level		te level	Local level	
	Attended Seminars/ Workshops		18		10		18	
Presented	papers	18	-		-		-	
Resource		-	5		5		-	
2 1 Exton	sion Activition	ng						
3.4.1 Nur commun	nber of exten	sion and outread Government Or					• •	
Title of the Activiti es	Title of Organising unit/ agency/ he collaborating agency activiti			teachers <b>c</b> osuch activit	ies p	Number of participate activities		
1. Tree Plantati on	NMMC		04			51		
2. Voter registra tion	150 Airoli		03			100		
Waste to compos	NMMC			04	04		50	
4. Blood donatio n	NMMC			02			100	
		gnition received	for extension	n activities	from Gov	ernment	and other	
	ed bodies dur the Activity	Award/recogniti	on	Award	ding bodies	s No. o	of Students	
One Weel residentia	x NSS camp	Grace marks		Unive Mum	•		30	
Two-whe	eler training	Recognition for	support	Unite	d way		20	
		ating in extension grammes such as						
_			Name of Number of teache			rs Number of students		
year	Organisir	ng unit/ agency/	Name of	Number of	of teachers	Number	of students	
year Name of the schem	_	ng unit/ agency/ ting agency	Name of the activity	Number of coordina activities			ated in such	

ही सेवा '					
"Road Safety"	सारथी सु	रक्षा Rall dem ation	onstr	04	46
2 5 C-1	1 - 1 42 NY1				
	laborations: Nil			1 6 14 1	
		orative activities for	resear	cn, faculty exchange	e, student exchange during
the yea	re of Activity	Participant So	nurgo of	f financial support	Duration
Ivatu	- Activity	Farticipant Sc	Juice O	i illialiciai support	Duration
3 5 2 Li	inkages with inst	titutions/industries fo	r inter	nshin on-the-igh t	raining, project work,
	$\mathbf{c}$	lities etc. during the		nsmp, on-the-job t	ranning, project work,
Natur	Title of the	Name of the partner	•	Duration	participant
e of	linkage	institution/ indus		(From-To)	Puritipuni
linkag		/research lab with co	•		
e		details			
		Govardhan Consul	tancy,	15/06/2017	15/07/2017
Indust	Internship	Dombivali			
ry		Cisco Systems, Bar	ndra,	01/06/2018	20/07/2018
		Mumbai			
	Wes Tech Pr			11/06/2018	13/07/2018
		Equipment India Pvt.			
		Ltd.			
		JSW Steel, Bandra,		10/12/2017	24/01/2018
		Mumbai			
		Maxgen		01/12/2017	02/06/2018
		TechnologiesPvt.L	td.		
		Maxgen		01/12/2017	02/06/2018
		TechnologiesPvt.L	td.		
		Maxgen		01/12/2017	02/06/2018
		TechnologiesPvt.L	td.		
		DreamZ Vision		11/06/2018	
		DreamZ Vision		11/06/2018	
		Tata Institute of		06/06/2018	06/08/2018
		Fundamental Resea	arch		
		Trivia Software's		18/12/2018	14/01/2018
		Reliance Jio Infoco	om	8/06/2018	06/07/2018
		Padeco, Santacruz,		09/06/2018	05/07/2018
		Mumbai			
		Govardhan Consul	tancy.	15/06/2017	15/07/2017
		Dombivali	,		
		Cisco Systems, Bar	ndra.	01/06/2018	20/07/2018
		Mumbai			
		Wes Tech Process		11/06/2018	13/07/2018
		Equipment India P	vt		

		Ltd.		
Indust	Project Work	Diversified Business Solutions Private Ltd. Andheri (East) Mumbai	July 2017	April 2018
		Diversified Business Solutions Private Ltd. Andheri (East) Mumbai	July 2017	April 2018
		DNIT Corporation, Belapur	July 2017	April 2018
		Corporate Ladder Consultants Private Limited, Mulund West	July 2017	April 2018
		Brihan Mumbai Corporation, Parel	July 2017	April 2018
		DNIT Corporation, Belapur	July 2017	
				April 2018

3.5.3 MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Organisation	Date of MoU	Purpose and	Number of students/teachers participated
	signed	Activities	under MoUs
ATS Infotech	24 <sup>th</sup> September,	Value added	Initiated
	2018	courses for	
		students &	
		faculty	
Red Hat Academy	24 <sup>th</sup> November,	Value added	01 batch of 20 students completed a
	2017	courses	course on Linux OS.
AICTE Margdarshan,	1 <sup>st</sup> February	Mutual sharing	One-week sttp conducted on machine
with VJTI as Mentor	2017	between	learning in September 2017.
		mentor (VJTI)	
		& mentee	
		institutes.	
MSEDCL	01/09/17	Demonstration	Visits are arranged every year.
		of HVDC	
Treezec – E-Solutions	09/08/2017	Android,	09 students.
Pvt. Ltd		Digital	
		Marketing, Php	
		, Dot Net	
		Training + soft	
		skills &	
		Aptitude	
		+Internship	

CRITERION IV – INE	RASTRU	CTURE AN	D LEARN	NING RES	OURCE	ES	
4.1 Physical Facilities							
4.1.1 Budget allocation,	excluding	salary for in	frastructı	ıre augmer	tation d	uring th	e year
Budget allocated for	r infrastruc	cture	Budg	et utilized f	or infrast	tructure o	levelopment
augmenta	ition						_
13.00,00,0	000/_				1,30,47,2	25/_	
4.1.2 Details of augment	tation in i	nfrastructure	facilities	during the	year		
Facilities					Existin	ıg	Newly added
Campus area					10 600 S	qM	
Class rooms					34	_	
Laboratories					76		
Seminar Halls					6		
Classrooms with LCD fac	cilities						
Classrooms with Wi-Fi/ I	LAN						
Seminar halls with ICT fa					6		
Video Centre	-						
No. of important equipme	ent's purch	nased (> 1-0 la	kh) during	2 3	34 Equip	nent	
the current year.	P •	(_ 2 0 10	-, -, -, -, -, -, -, -, -, -, -, -, -, -			88,078)	
Value of the equipment p	urchased d	luring the vear	(Rs. in		5,40,03,3		
Lakhs)		<i>J</i> - <i>J</i> - <i>M</i>			, -,,		
Others					9 Roon		
					Other fac	ility	
				I			
4.2 Library as a Learnii	ng Resour	rce					
4.2.1 Library is automa			v Manage	ment Syste	m -ILM	<u>S</u> }	
Name of the ILMS		of automation					of automation
software	partially						
Koha		Partially		3.22.05	.000		2012 - 13
4.2.1 Library Services:							
	F	Existing	Newl	ly added		-	Fotal
	No.	Value	No.	Value	No		Value
Text Books	33,939	33,939	33,939	33,939	33,939		3,939
Reference Books		101,88,607		101,88,607			01,88,607
Reference Dooks	07	101,86,007	07	101,00,007	101,00,0	1	01,00,007
e-Books	494	494	494	494	494	1	94
Journals		2,15,391		2,15,391	2,15,391		,15,391
e-Journals	34,433	34,433	34,433	34,433	34,433		34,433
	34,433		34,433	34,433	· · · · · · · · · · · · · · · · · · ·		
Digital Database	1 04 02	1,04,03,998	1 04 02	1,04,03,99	1,04,03	,ソソδ	1,04,03,998
	1,04,03, 998			0,04,03,99			
	<b>ラブ</b> ð		998	O			
CD & Video							
	<del> </del>	-	+	_	-	-	
Library automation	-	-	+		<u> </u>		
Weeding (Hard & Soft)	-	-	<b> </b>	<u> </u>	_	-	
.,							

4.3 IT Ir	nfrastruc	ture								
4.3.1 Tec	hnology	Upgradatio	n (overall)	)						
	Total Comp uters	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Available band width (MGBPS)	Others	
Existing	627		627		627		627		627	
Added	24		24		24		24		24	
Total	627	627	627	627	627	627	627	90 mbps	627	
4.3.3 Fac	ility for o	e-content					ON 50 MBPS	1'		
		e <b>-content</b> tent develor	ment facil	ity	Provide the	link of t	he videos and n	nedia centre a	and	
					recording facility					
4.3.4 E-c	ontent de	eveloped by	teachers	such as: e-I	G-Pathshala	a, CEC (	under e-PG-Pa	athshala CE	C (Under	
Graduat	e) SWAY	AM other N	<b>MOOCs pl</b>	atform NP	TEL/NMEI(	CT/any o	ther Governm	ent initiative	es &	
institutio	nal (Lea	rning Mana	ngement S	ystem (LM	S) etc					
Name of teacher	the	Name of	f the modu	-	Platform on v module is dev		Date of la	nunching e - o	content	
-										

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4.4 Maintenance of	4.4 Maintenance of Campus Infrastructure								
4.4.1 Expenditure in	4.4.1 Expenditure incurred on maintenance of physical facilities and academic support facilities,								
excluding salary component, during the year									
Assigned budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	4.4.2 Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website, provide link)						
			Laboratories, library and computers are upgraded as per the guidelines of syllabus issued by University of Mumbai. A central purchase committee invites the application for laboratory equipment up gradation, repair and maintenance. Library invites the book and journal requisition from all the faculties for various subjects in the curriculum. A central library committee is formed to address the various						

52000000/-	24729138/-	7500000/-	issues and smooth functioning. Number of computers on the campus are as per the student's ratio and guidelines of AICTE. Computers, inter net service, browsing center is maintained by system administrator and IT facility maintenance in charge. Cleanliness and hygiene are maintained in class rooms and all the places through housekeeping staff. Sports complex is open to all the students. Facilities are available for various sports and is maintained by sports facility in charge. Various competitions and Annual Sports Events are organized in sports complex facility. Annual budget is allocated for the purchase, repair and maintenance and housekeeping facility. Budget is approved after scrutiny and approval of board of governance and local management committee.
3200000/-	2+12/130/-	750000/-	/1/00TJ/-

CRITERION V - STUDENT SUPPORT AND PROGRESSION								
5.1 Student Support								
5.1.1 Scholarships and Financial Support								
	Name /Title of the scheme	Number of students	Amount in Rupees					
Financial support from institution	-	-	-					
Financial support from	n other sources							
a) National	GOI Scholarship EBC	Proposal Submitted to RO DTE	-					
b) International		-	-					

# 5.1.2 Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability	Date of	Number of students	Agencies involved
enhancement scheme	implementation	enrolled	
Guest Lecture on overview of Android Development	26/09/17	30	Mr. Anilkumar Nayak & Mr. Vikra
program			
Workshop on Electronics	10/8/2017-	28	Mr. Abhishekh Mahajan, Proto
Designing and PCB making.	11/08/2017		-

			Electronic
Workshop on Raspberry pi and IoT	16/3/2018- 17/03/2018	27	Ms.Pratiksha Pandao Eledia
Value added course on PHP	10/09/17	09	Treezec- e-solution Pvt Ltd.

5.1.3 Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the	Number of benefited	Number of benefited	Number of students	Number of
	scheme	students by Guidance for Competitive examination	students by Career Counselling activities	who have passed in the competitive exam	students placed
2017- 18	Guest Lecture on One step towards your dream job		30	-	10
2017- 18	Guest Lecture on Career Insights		30		08
2017- 18	Guest Lecture on Pursuing Higher Education	28			
2017- 18	GATE Classes	40	-	-	-
2017- 18	Career Development	512	16	-	-

### 5.1.4 Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year : NIL

Total grievances received	No. of grievances redressed	Average number of days for grievance redressal
_	-	-

#### **5.2 Student Progression**

5.2.1 Details of campus placement during the year

5.2.1 Details of cam	pus piacei	nent auring	me year				
On campus			Off Campus				
Name of	Numbe	Number	Name of	Number of Students	Number of Students		
Organizations	r of	of	Organizations	Participated	Placed		
Visited	Student	Students	Visited				
	S	Placed					
	Partici						
	pated						
Tata	124	2	L&T Ltd	8	1		
Communication							
Allerin Tech	34	4	Neosoft	89	1		
HGS	56	2	Sanmar Group	23	0		

RK Edu App	83	7	Bitwise	45	1
Quinnox	56	2	Keyence	56	1
Kirloskar Chillers	33	1	Greysoft	32	0
Cosmos Aircon	33	1	Torrent Power	24	1
Stulz	33	1	Indiamart	23	3
RMS	33	1	Bulk MRO	12	2
Bonafide HVAC	33	1	Zeus Learning	67	1
HTL Aircon	33	1	WIPRO	24	4
Ozone AC	33	4	L&T	87	11
			Technologies		
VAV AC	33	1	Nikhil Comfort	45	3
Nutect Engg	33	1	Syntel	34	4
Pentagon	33	2	Reliance Jio	56	3
Anshutech AC	33	1	DXC	34	4
Humidin	33	1	Hexaware	33	3
Bailiwick India	33	1	Techflow	12	4
Pawanputra Engg	33	1	Textronics	89	1
MSD Controls	33	2	Nexus Solution	54	0
Machin Fabrik	87	5	JC Gupta &	23	4
			Asso		
Pepperfry	67	5	Digilife	34	2
Reliance Retail	34	17	A-eberle	27	2
Rivigo	36	16	Rein Labs	34	11
Maple Digital	33	2	Sterling &	14	1
			Wilson		
Geekay Infotech	67	2	Aswa Insulation	16	1
V2S Solution	23	0	Clover Infotech	23	2
			CSS India	15	2
			Capgemini	65	3
			Joist's Engg	32	2

5.2.2 Student progression to higher education in percentage during the yearYearNumber of students enrollingProgrammeDepartmentName of institution

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of Programme admitted to
2017-18	12	LTCE	Mechanical Engineering	University of Southern California Northern Illinois University Clemson University Northern Arizona University	Industrial Engineering, Mechanical Engineering
2017-18	11	LTCE	Computer Engineering	In Process  National College of Ireland  In Process  RMIT University	(299/98)  National College of Ireland  In Process  IELTS -6.5

GATE		2+4+8		Nishant Patil-EC18S520 EC18S52072452	072157, Supriya Mane-
SLET			-		-
SET			-		
NET		qu	alifying -		or the exam
	lents qualifying in state/ n <u>F/SLET/GATE/GMAT/CA</u> Items	AT/GRE/TOFEL		ate Government Se	
				4.North Colorina State University	3 Master of Engineering Management
				3.La trobe International University, Australia	2.Management Information System
				2.North Eastern State University, Boston, US	1.Information Technology.
2017-18	05+03*(*-in progress)	LTCE	ELECTRONICS	1.Eillinois Institute of Technology, Chicago, US.	MS
				San Jose State University	MS
				Northeastern University	Infromation System
				Technology	Telecommunic ation Technology
				Rochester Institute of	Master of Science in
2017- 18	4	LTCE	EXTC	National College of Ireland Galway	MS
				In Process	In Process
				In Process	In Process
				In Process In Process	IEITS-7/9 In Process
				1.0	Toefl-96/120
				In Process	GRC-300/340
				In Process	In Process
				In Process	In Process
				Australia	

GMAT		Mohd. Tossif-EC18S52078182, Sondkar Pranjal-EC18S52077007 Kshitij Zope- EC18S52079150, Sayli Chavan-EC18S52059318 Bhakti Kadam- EC18S52072524, Shweta Puro-EC18S52060370 Akanksha singh- EC18S52080047, Rushabh Pathak-EC18S52061320 Patkar Shruti- EC18S52062397, Vinayak Dalvi-EC18S52058076 Shivam Shukla- EC18S52072195, Jamadar Vasim- EC18S52072095 Shomit Saxena- EC18S52079154, Divya Vispute- EC18S52080211 Amod Dalvi- EC18S52076032, Rahul Loke-EC18S52071085
	2	
CAT		G 1' Pl - 1 - 2022005 P ''
GRE	4+12	Sayli Bhutkar-2033085, Rajkumar Gosai- 1801647 Ruta Mangle -553000863, Deependra Singh- 2597102 Satej Rane-2860032, Tejshree Arote-3694328 Atharv Chitre-117798, Chitra Nair-0570817 Akash Tambe-2481234, Amod Nagpure-
TOFEL	2	Sayli Bhutkar-2033085, Rajkumar Gosai- 1801647 Ruta Mangle -553000863, Deependra Singh- 2597102 Satej Rane-2860032, Tejshree Arote-3694328 Atharv Chitre-117798, Chitra Nair-0570817 Akash Tambe-2481234, Amod Nagpure-
Civil Services		
State Government Services	2	Sanket Patil-890085720
IELTS	4	Sayli Bhutkar-193124, Isha Barot-383810 Pooja Thorat-220566, Shefali Puhan
CET MBA	4	-

5.2.4 Sports and cu	lltural activities / competitions orga	nnised at the institution level during the year
Activity	Level	Participants
Solo Singing	Institutional	16
Solo Dancing	Institutional	13
To the Culture		
(Solo All style,		
Breaking and Rap		
Battle)	Institutional	24
Group Dance	University	54
Fashion Show	University	52
		College team
		Caption: Amay Patil LTCOE.
	University	Reached up to Semi-final
		Winner: S.E. EXTC
Open Cricket	College	Runner: B.E. EXTC
		Winner: B.E. COMP
Box Cricket		Runner: BE MECH
		25 teams from Mumbai and pune suburbs
		Winner: Bharti Vidyapeeth, Kharghar
	Inter college	Runner: S. M. Shetty college Powai.
		Winner: EXTC
Open Football	College	Runner: Mechanical

		Winner: Electronics
Volleyball	College	Runner-up: Mechanical
		Singles:
		Winner- Nageshwar Prajapati
		Runner up: Pratik Hosalkar
		Doubles:
		Winner- Manas and Pranav
Badminton	College	Runner up: Pratik and Ravi
		Winner: SE Electrical
Kabaddi	College	Runner up:TE Mech.
		Winner: Shekh (COMP)
Carrom	College	Runner up: Dinesh Harakmode(EXTC)
	<del>-</del>	Winner: Soham Gosavi (Electrical)
Table Tennis	College	Runner: Shravan Shinde (Mech.)
		Winner : Anish Dabholkar (FE)
Chess	College	Runner up: Suraj Shinde

#### **5.3 Student Participation and Activities**

5.3.1 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	Name of the award/	National/	Sports	Cultural	Student ID	Name of the
	medal	International			number	student
2017-18	Reached up to Semi	University	Open	-	-	College team
	final		Cricket			Aditya Ghadge
						and team
						(EXTC)
						LTCOE.
						Reached up to
						Semi-final
2017-18	Winner and Runner	College	Open	-	-	Winner: S.E.
			cricket			EXTC
						Runner: B.E.
						EXTC
2017-18	Winner	College	Open	-	-	Winner: EXTC
			Football			
2017-18	Runner-up	College	Badminto	-	-	Singles:
			n			Runner-up:
						Pratik Hosalkar
						(EXTC)
2017.10		G 11				
2017-18	Runner-up	College	Carrom	-	-	Runner-up:
						Dinesh
						Harakmode
						(EXTC)

### 5.3.2 Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

Student council is constituted as per the University norms every year, through a properly set procedure. A committee consisting of the Director, Principal, Vice-Principal, Deans, Heads and previous student council

member, duly form a new council of students. The Dr. Avinash Sarode, Dean of Student affairs is looking after all the process of the student council.

#### **Selection Procedure**

The set criteria for the selection of council is followed based on their academics and managing abilities. Students are the interviewed by the committee, to select the student council members. The Student council members for the academic year 2017-18 are as follows:

#### **Student Council consists of**

General Secretary, Cultural Secretary, Technical Secretary, Sports Secretary, Ladies Representative

#### **Activities of Student Council**

The activities of the student council are diverse in nature; comprising of the Sports, Cultural and Technical programs held during the year. Wide variety of sports activities are supported, for participation at the Intercollege, university and state level competitions.

Representation of students on academic & administrative bodies/committees of the institution.

#### **Computer Society of India (CSI)**

CSI is a professional body for the computer and IT, is a largest body in the nation and is also linked with the IEEE Society. The Institutional membership, since 2011 encourages various activities such as workshops, seminars, CSI conducted National and International Conferences and Industry Fair every year. Student Chapter with a large number of members conduct several programs like workshops, technical events and projects. There are more than 100 student members, actively participating in the CSI activities.

Computer Engineering Students Association (CESA) is departmental committee which provides the students and teachers of computer department various curriculum as well as extracurricular events and opportunities. CESA started its one of the active association students since 2007. It also enhances their technical skills through guest lectures, seminars, workshops etc. The vision of CESA was acknowledged by our Director, Principal, Vice-Principal and H.O.D in their speeches. The biggest hit of the CESA was "EXCEPTIS", DEPARTMENTAL FEST which is executed in the year 2017-18. It gave all the students and faculties a platform to showcase their talent. CESA has also started with departmental News Bulletin of computer dept. which later explored into computer Departmental Magazine called EXCELSIOR

#### **ISHRAE**

Indian Society of Heating Refrigeration Engineer, Local Chapter was formed in 2007 under the guidance of Dr. Kavita Dhanawade. Under ISHRAE Industrial visit have been conducted & student get the opportunity to apply for funding for their project (only for ISHRAE member). Last year JOB JUNCTION was conducted at LTCE, in which numerous jobs offers were given to final year students.

#### **SAE Club**

TEAM TT RACING is the student design team from LTCOE under the guidance of Prof. Ajay Kashikar, which functions under the SAE LTCE COLLEGIATE CLUB and represents the institute at National and International Off-road Motorsport competitions.

#### AeroCLUB LTCE

AeroCLUB LTCE is student venture of the students of Lokmanya Tilak college of engineering. AeroCLUB LTCE is a society of engineering students who design, fabricate and test RC (Remote Control) Aircraft and Buggies.

#### **MESA**

MESA (Mechanical Engineering Students Association) of LTCOE is one of the very active association of student formed in 2007, which is always keeping the student and faculty updated by conducting various seminars, workshops and lectures from industrial experts in the college premises.

#### **SCEE**

Student Council of Electrical Engineering (SCEE) provides platform to the students to show their talent in organizing and participating in various activities. SCEE provides a platform to students to add some more positive angles to their personalities so that they can become better human beings. It also enhances their technical skills through guest lectures, seminars and workshops from experts. SCEE always have been focused on offering many opportunities for academic and professional development, both individually and collectively to the students of the department.

#### **EESA**

Electronics Department has a student activity forum(Electronics Engineers Students Association) which has been formed with the view to promote various activities like guest lectures, seminars and workshops from experts. EESA provides a platform for the students to showcase their technical talent thereby enhancing their overall personality

#### **Electronics and telecommunication department** has IETE ISF and ETSA committee.

#### **IETE ISF**

IETE ISF organizes various event for the students. It provides the platform to explore their idea & got the chance to interact & boost their confidence. We make them introduce to the modern technologies as well as the various resource person & experts in the field of engineering. Every year students of IETE ISF celebrates TELEIOS & Founder's Day (1<sup>st</sup> Feb).

#### **ETSA**

Electronics & Telecommunication Engg Students Association (ETSA) is our departmental committee which contribute in conducting various technical & non-technical events in the department. Student working under ETSA conducts various competition & organizes department level program like Teacher's day, farewell to final year various sports activities etc.

#### **ELC**

English literature club (ELC) of LTCE promotes activities to enhance Communication Skills. Club motivates students to improve and practice their English skills which are necessary for career development in engineering world.

#### Women's Development Cell

WDC, Lokmanya Tilak College of Engineering has a group of passionate feminist stalwarts, out with a gender lens. WDC has earned the reputation of being liberal space. WDC finds its true power in initiating conversations on pressing social issues, student's grievances, to disciplinary framework for students.

#### NSS

NSS unit of college is mainly involved into activities which will enhance students' social skills and make them perfect person to live in the society. NSS normally conducts different social activities like blood donation camp, Tree plantation camp and book donation camps.

#### **5.3 Alumni Engagement**

### 5.3.1 Whether the institution has registered Alumni Association? Yes/No, if yes give details (maximum 500 words): Yes.

ALTEA [Association of Lokmanya Tilak College of Engg. Alumni (Reg No. - MAH/1032/08 Thane)]is established in the year 2008 for maintaining liaison with Alumni all over the world and to involve them with the development of the Institute. One faculty coordinator along with dept coordinators works for ALTEA cell. The foremost responsibilities Of The ALTEA:

- •Create the list of the alumni of respective department right from the first batch.
- •Plan, implement and promote alumni programs that support the ALTEA strategic Plan
- •Ensure accurate and complete alumni database records including their contact, biographical and career information
- •Establish and build relationships with a wide range of alumni as well as local, regional, National and International alumni chapter
- •Educate graduating students about alumni benefits and engage them in programs
- •Partner with various offices of the Institute to spearhead the introduction of alumni involvement in the growth and continued leadership of the college.
- •Collaborate closely with Industries and enable increased support from alumni, and provide platforms and programs for such support

**5.3.2** No. of enrolled Alumni: 1793 (2017-18)

**5.3.3** Alumni contribution during the year (in Rupees):

5.3.4 Meetings/activities organized by Alumni Association:

#### CRITERION VI -GOVERNANCE, LEADERSHIP AND MANAGEMENT

#### **6.1 Institutional Vision and Leadership**

### **6.1.1** Mention two practices of decentralization and participative management during the last year (maximum 500 words)

- (I) Our institute has encouraged & facilitates Industry interaction through MOUs. These MOUs are brought by individual departments as per the field of their specializations. Here the departmental heads are given freedom to choose & sign MOUs which are for mutual benefit. The management supports such initiatives .The benefits accrued from this activity are projects, internships, R & D, consultancy, value added courses, incubation centres, aptitude coaching and so on. The MOUs are signed with premier educational institute or with eminent Industry. Last year we signed MOU with VJTI under AICTE, Marg darshan scheme, wherein we are one of the mentee institute. The MOU enables mutual sharing of resources for students and faculty. We have conducted STTP under this banner on the topic of machine learning, which was open to faculty of Mumbai, Pune & Nashik. We have also signed MOU with Red Hat Technologies which enable the students to learn different technologies. The MOU with Siemens Ltd is in process for incubation centre. The management is facilitating these activities by supporting in terms of subletting of infrastructure & also financially if required. The purchases related to lab equipment is handled by Heads directly in consultation with our directors based at Nagpur.
- (II) One more decentralized activity is Project Based Learning. Our management encourages and supports PBL. Our departmental heads are given freedom for carrying out this activity. Our Mechanical Engineering department students are enthusiastic about SAE car building competition wherein a group of interdisciplinary branches participate. This is a very prestigious competition & a learning platform for students. Our management supports financially every year for this event. Last year our students participated in this event at Maryland, USA. The management supported this activity by sanctioning car transport charges to & fro.

#### 6.1.2 Does the institution have a Management Information System (MIS)?

Yes/No/Partial: Partial

Yes

#### **6.2 Strategy Development and Deployment**

### 6.2.1 Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

#### **Curriculum Development:**

The institute is affiliated to the University of Mumbai & therefore follows the syllabus designed by the University. However, the University representatives of our institute & other faculty members give inputs in the syllabus revision process. The revision takes place every 3 years. In addition to the syllabus we believe in holistic development of the students. We have formed IQAC for the purpose & also take suggestions from Industry experts.

#### Teaching and Learning:

We are following OBE methodologies & soon will be applying for NBA accreditation under Tier-II group institutions. To make learning more effective we have choice-based credit and grading system of examinations. We have devised new teaching pedagogies for different category of students. We ensure a perfect blend of classroom teaching & ICT enabled teaching so that the students are motivated all the times. We ensure state of the art lab facilities, Computational facilities, Library & also competent faculty.

#### **\*** Examination and Evaluation:

We follow University examination scheme of 80:20 wherein 80 % weightage is given to end semester exam & 20 % weightage is given to internal test. This scheme of continuous assessment ensures proper learning & outcomes. The University scheme provides us with various heads of evaluation such as assignments, presentations, term work, practical etc. These heads of exams and evaluation enables formative assessment.

We also calculate course outcomes with direct & indirect assessment methods to ensure effective learning.

Research and Development:

The Institute has research centre in Mechanical & Computer Engineering affiliated to the University of Mumbai. Through the research centre 3 candidates have already passed out in Mechanical Engg. Further 8 candidates are pursuing Ph D in Mechanical & 8 candidates in Computer Engineering. The criteria for completing Ph.D. In Mumbai University is minimum 3 publications in reputed peer reviewed journals. Our faculty invariably gets minor research grant from the University of Mumbai every year. We have 7 patents from our faculty. Our faculty has published few books from reputed publishing houses like Wiley , Lambert etc.

Library, ICT and Physical Infrastructure / Instrumentation:

The Institute has library space in excess of AICTE norms with adequate seating capacity of about 200. We have about 40,000 volumes & 10000 + titles. In addition, we are equipped with 10000 + e-books & also multimedia room. We also subscribe Elsevier, IEEE online journals. We have 8 ICT enabled classrooms, 5 seminar halls with state-of-the-art PA systems. We have 2.63 acres of land & 22000 sq. ft built up area which is in excess of norms as per AICTE. We Have 4 seminar halls with 90 seats & 1 auditorium with 300 seats. The campus has 650 + computers all LAN connected. The campus is wi-fi connected. The labs are state of the art with all modern equipment's. There are research labs in Mechanical and Computer Engg dept.

Human Resource Management:

Teaching faculty requirement is decided as per AICTE student faculty ratio. The cadre ratio is also as per AICTE norms. The nonteaching staff requirement is at the discretion of the management to meet the needs of departments.

Industry Interaction / Collaboration:

The institute has constituted IQAC Cell & it has Industry representatives for suggestions with regards to curriculum development & other academic activities. Our training & placement cell continuously strives for networking with industries for placements & internships. The Institute has signed MOU with many reputed companies like Red Hat Academy, Microsoft, Synergy consultants, Geometric software & MOU with Siemens is in process. These MOU'S are signed for mutual benefits, mainly for value added courses, Certification courses, internships, incubation centres & projects.

❖ Admission of Students:

Our admissions are done strictly as per DTE, Govt of Maharashtra mandate as per CET / JEE scores. The institute comes under linguistic minority category (Hindi Speaking Minority) therefore 51 % students allotted belong to minority. The rest of the students come from diverse backgrounds in CAP allotment process of DTE, Maharashtra.

- 6.2.2: Implementation of e-governance in areas of operations: The payment of salary to the faculty and staff is done through electronic clearance & deposited in the bank. The payment of student fees is also received through NEFT/RTGS mandates. Payment to affiliating bodies & other stake holders is also done online through portals.
  - Planning and Development: Planning & Development is done at Sanstha level. The institute is planning to go for autonomy through NAAC-NBA-Permanent Affiliation processes. To achieve these benchmarks the management is giving all possible inputs to improve teaching learning process, improve placements etc. The institute has also planned for NIRF / ISO / QS rankings in the near future.
  - Administration: The institute has a sound administration which percolates from our Sanstha at Nagpur. The delegation of work / orders is from directors at Nagpur to Principals & subsequently to Heads of units.
  - Finance and Accounts: The institute has a chief finance & accounts officer who keeps track of expenses. The department is responsible for receiving student fees & disbursements of funds as & when required. The annual record of audit & balance sheet is properly maintained.
  - Student Admission and Support: The institute strictly does admissions as per DTE, Govt of Maharashtra mandate and participates in CAP process as mentioned earlier. As the students come

from diverse backgrounds the are eligible for scholarships & free ships as per govt rules. The institute supports the students throughout the course duration through grooming them with aptitude / soft skills, supporting them financially for projects, paper publications, supporting them for sports & other cultural activities. The students of BE are also given GATE coaching by our own faculty at subsidized fees.

Examination: The examination scheme comes under the University purview. Currently the University offers choice-based credit-based grading system of examination, wherein the students have choice of department level & institute level electives during third & final year. The BE course is of 4 years duration with 8 semesters. Other exam heads like term work, practical, oral, internal tests are as per the University scheme.

•	are as per the University	scheme.				
<b>6.3 Fac</b>	ulty Empowerment Str	ategies				
		financial support to attend al bodies during the year	conferen	ces	/ workshops and tow	ards
Year	Name of teacher	Name of conference/ workshop attended for which financial support provided		nich	the professional body membership fee is	Amount of support
Prof Ajay Kashikar 2018 (Mech)		Participated in Formula SAE competition at Maryland, USA as faculty advisor.	SAE		Travelling Assistance of Rs 1.25 lakh by managemen t.	
6.3.2 N	umber of professional	development / administrat	ive trainir	ng p	rogrammes organize	ed by the
College	for teaching and non-	teaching staff during the y	ear: Nil			
Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	Dates (from-to	)	No. of participants (Teaching staff)	No. of participants (Non-teaching staff)
	-	-	-		-	_
6.3.3 No		g professional development				rogramme,

Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development	Number of teachers who attended	Date and Duration
programme		(from – to)
FDP on "Foundation Program in		oth M 1 1 2th
ICT for Education"	4	8 <sup>th</sup> March to 12 <sup>th</sup> April 2018
FDP on "Pedagogy for Online and		1
Blended Teaching-Learning Process		3 <sup>rd</sup> May to 18 <sup>th</sup> June
	4	2018
One Week STTP on "IOT,		
Raspberry Pi and Python		
Programming"	17	2711 2010
	17	2-7 July 2018
		14-15 September
Two-day FDP on " Machine	8	2017

Learning and its Applications"		
Practical Approach and Hands on		
Training for Hadoop – Big Data	13	9-10 January 2018
One Week STTP on "Hands on		
Python Training"	2	1-5 January 2018
AICTE-ISTE sponsored		
STTP on "Open Data Science with IOT	2	25-30 June 2018

6.3.4 Faculty and Staff recruitment (no. for permanent/fulltime recruitment):

Teac	hing	Non-teaching		
Permanent	Fulltime	Permanent	Fulltime/temporary	
106 (Permanent)	106	49 (Permanent)	49	
26 (Adhoc)	26	32 (Adhoc)	32	

#### **6.3.5** Welfare schemes for

	Leave, PF, Gratuity
Teaching	
	Leave, PF, Gratuity
Non-teaching	
	Travel concession, Projects
	finance, Insurance
Students	

#### **6.4 Financial Management and Resource Mobilization**

### **6.4.1** Institution conducts internal and external financial audits regularly (with in 100 words each)

The institute conducts internal audit every year during the month of march. This is done by a professional chartered accountant.

External audit is done by visiting committees like AICTE, DTE & LIC of University of Mumbai. The University of Mumbai has appointed third party for the purpose in the past.

## 6.4.2 Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year (not covered in Criterion III)

Name of the non-government funding	Funds/ Grants received in	Purpose
agencies/ individuals	Rs.	-
(ii) The management of LTJSS	Rs 3,80,000 /-	LTJSS supported the participation in car building competition i.e. Formula SAE, which was held at Maryland, USA during April 2018 by paying the transport charges to & fro. A group of 15 students attended the event.
Dhanvallabh Trust	Rs 1.25 lakh	
Sane bros	Rs 1.10 lakh	
Gulf oil	Rs 70,000/-	
Math bros	Rs 60,000/-	

Scantech laser	Rs 20,000/-	Car building events
Tikitar	15,000/-	
Leonine Engg	Rs 20,000/-	
Ultra lube	Rs 25,000/-	
Dosti builder	Rs 25,000/-	

**Total corpus fund generated** : 8.5 lakh

#### **6.5 Internal Quality Assurance System**

#### 6.5.1 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External			Internal
	Yes/No	Agency	Yes/No	Authority
			Yes	Dean Academics of
				Sanstha & team of
				Professors of
Academic				Sanstha.
			Yes	Director of Sanstha,
Administrative				CAFO of Sanstha.

#### **6.5.2** Activities and support from the Parent – Teacher Association (at least three)

The parent-teacher meeting is conducted every year during Induction programme of FE. Parent meet is also organized for informing parents & counselling.

#### **6.5.3** Development programmes for support staff (at least three)

Nil

#### **6.5.4** Post Accreditation initiative(s) (mention at least three)

- (i) Gearing up for Permanent affiliation
- (ii) Applying for NBA accreditation in near future

#### 6.5.5

- a. Submission of Data for AISHE portal: (Yes)
- b. Participation in NIRF: (No)
- c. ISO Certification : (No)
- d. NBA or any other quality audit : (No)

6.5.6 Number of Quality Initiatives undertaken during the year

0.00	over 1 tamber of Quality initially es and station during the year			
	Name of quality initiative by	Date of conducting	Duration (fromto	Number of
Year	IQAC	activity	)	participants
	Aptitude & soft skills			
201	coaching to students of final	27 <sup>th</sup> August to 1 <sup>st</sup>		
8	year	September 2018	6 days	125
201			Internships during	
7	Internships & mock interview	During the year	vacations	250
201				
7	Probationer's review	01/11/17	2 days	30

## CRITERIONVII – INSTITUTIONAL VALUES AND BEST PRACTICES 7.1 - Institutional Values and Social Responsibilities 7.1.1 Gender Equity (Number of gender equity promotion programmes organized by the institution d

Title of the programme	gramme Period ( <b>from-to</b> )		Participants	
	(Full Day)	Female	Male	
Road safety program	5 March 2018	65		
Self defence program	5 March 2018	50		
Skin and dental care	6 March 2018	95		
Awareness on breast cancer	8 March 2018	120	00	

7.1.2 Environmental Consciousness and Sustainability/Alternate Energy initiatives such as: Percentage of power requirement of the College met by the renewable energy sources Quotations have been received from various suppliers and submitted to the Management

Title of the Activity	Organising unit/ agency/	Number of teachers co-	Number of st
	collaborating agency	ordinated such activities	participated is
			activities
Tree plantation	NSS unit	04	50
Blood donation camp	NSS unit and local Hospital	05	40
Voter ID registration desk	NSS unit	02	20
Seminar on Traffic rule safety	NSS and United way NGO	05	46
Road safety awareness seminar	Sarthi suraksha and NSS unit	05	46
Road safety awareness Rally	NSS unit	05	46
Inter college Poster Competition			
on Road safety	NSS unit	05	60
Swachh bharat awareness rally			
and skit in adopted area	NSS Unit	05	46
Special camp	NSS	5	32

7.1.3 Differently abled (Divyangjan) friendliness

Items Facilities	Yes/No	No. of Beneficiar
Physical facilities	Yes	NA
Provision for lift	Yes	NA
Ramp/ Rails	Yes	NA
Braille Software/facilities	NA	NA
Rest Rooms	Yes	NA
Scribes for examination	NA	NA
Special skill development for differently abled students	NA	NA
Any other similar facility	NA	NA

#### 7.1.4 Inclusion and Situatedness

the year)

Enlist most important initiatives taken to address locational advantages and disadvantages during the year

Year	Number of	Number of	Date and	Name of the	Issues	Number
	initiatives to	initiatives taken	duration of the	initiative	addressed	participa
	address	to engage with	initiative			students
	locational	and contribute				staff
	advantages and	to local				
	disadvantages	community				

Planned in October 2018 and April 2019

#### **7.1.5** Human Values and Professional Ethics

Code of conduct (handbooks) for various stakeholders

L	litle	Date of Publication	Follow up (maximum 100 words
	NA	NA	NA

Activity	Duration (fromto)	Number of particip
Heartfulness relaxation and Meditation		

#### 7.1.7 Initiatives taken by the institution to make the campus eco friendly:

- (i) Tree plantation
- (ii) Segregation of waste
- (iii)Rain water harvesting
- (iv) Waste to compost
- (v) Energy audit

#### 7.2 : Best Practices :

- (i) Emphasis on formative assesment
- (ii) Encouragement & support for Project based Learning
- (iii) Planning for permanent affiliation of the University of Mumbai
- (iv) Choice based credit & grading system of examinations offered by University of Mumbai
- (v) NBA accreditation is on the anvil.
- (vi) Institute has its own ERP system

8 Name Dr S K Shinde

(vii) Fairly good Industry interaction through MOU'S of corporates.

#### 8.0 Future Plans of action for next academic year

As far as short term goals are considered we are planning to apply for additional UG courses as available in the perspective plan of the University of Mumbai . We are also planning to add few interdesciplinary PG courses . We have also applied for additional seats of Ph.D. In Mechanical Engg for which we may get approval. Presently we have 15 seats & we have applied for 25 more seats. Presently we have research centre to conduct Ph.D. In Mechanical & Computer Engg. We are planning to create research atmosphere in the institute. Therefore lot of initiatives to improve Industry interaction are being take. Our T & P cell is roping in more and more industries for mutual benefits . The benefits in the form of placements , internships , live projects , R & D projects and incubation centres are expected . We already have collegiate clubs of professional bodies like ISHRAE, CSI,IETE etc. We intend to strengthen the ties. We are following outcome based education methodology for better learning outcomes & placements. We also ensure holistic grooming of students through employability enhancement schemes consisting of aptitude , english , communication , foreign language & core competence.

In the long run we aim to be become institute with excellence having full fledged research facilities. We will go step by step towards autonomy.

Name Dr VK Yakkundi

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Signature of the Coordinator, IQAC	Signature of the Chairperson, IQAC