

INSTITUTIONAL ACCREDITATION SELF STUDY REPORT (NAAC)

SARASWATI College of Engineering



Saraswati College of Engineering
Plot No. 46, Sector 5, Near MSEB Sub Station, Kharghar, Navi Mumbai 410210

INSTITUTIONAL ACCREDITATION

SELF STUDY REPORT



Submitted to

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
(NAAC)**

An Autonomous Institution of University Grants Commission
P.O.Box No.1075, Agarbhavi
BANGALORE- 560072



**Saraswati College of Engineering,
Kharghar**

An ISO : 9001:2008 Certified Institute

(Approved by A.I.C.T.E., D.T.E., Affiliated to University of Mumbai, Mumbai)

Address:

Plot No.- 46, Sector No.- 5, Behind MSEB Sub Station,
Kharghar, Navi Mumbai-410210, Maharashtra.

Email: registrarsaraswati@gmail.com

Website: www.sce.edu.in

Phone: 022-27743706 to 08, Fax : 022-27743712

Engineering Programme	Technical Training	Research	Publication	
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Ref No: SCOE/Admin/2016/469

Date:-29/08/2016

To,
Dr. Ganesh Hegade,
Assistant Advisor,
National Assessment & Accreditation Council,
P.O. Box. No. 1075, Opp: NLSIU,
Nagabhavi, Bangalore-5600072,

Track ID:- MHCOGN26250

Subject: - Covering letter for Submission of hard copies & soft copy of Self Study Report (SSR) for assessment & accreditation 1st cycle 2016-17

Ref:- Mail dated – August 26, 2016.

Respected Sir,

With reference to your mail on 26th August 2016, we are submitting five hard copies & one soft copy (CD) of SSR along with the DD of applicable fees of Rs. 345000/- for the 1st cycle of assessment & accreditation. We have gone through the entire requirement stated by you in the mail & the mandatory inclusions are also taken care of.

We request you to kindly accept the Self Study Report. We would like to have your visit earliest possible. The convenient dates for our institute are 20th October 2016, 10th November 2016 or 10th December 2016. Institute is eager to welcome the peer team.

Thanking you,

With Best regards



Dr. Manjusha Deshmukh
Principal

Saraswati Education Society's
Saraswati College of Engineering, Kharghar

Campus:

Plot No - 46, Sector 5, Behind MSEB Sub-Station, Near Utsav Chowk, Kharghar, Navi Mumbai - 410 210, (Maharashtra, India)
Tel.: 022 - 27743706 / 07 / 08 / 09. Fax: 022 - 27743712. Email: registrarsaraswati@gmail.com
Website: www.scoe.edu.in / www.rvoit.edu.in

a (Saraswati Education Society) endeavor
(Approved by AICTE, Regg. by Maharashtra Govt. DTE, Affiliated to Mumbai University
An ISO 9001-2008 Certified Institute



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Preface

Saraswati Education Society

Saraswati Education Society (SES) was instituted by great visionary Mr. Prithviraj Deshmukh in the year 2004, with a clear vision of "Learn, Live, Achieve and Contribute ". With this vision, the members of this society dedicated themselves and continue to establish and promote high quality technical education and research facilities. Saraswati Education Society manages educational institutes from Pre-primary to Post-graduation. The society is committed to provide best of the facilities at its every educational premise and Saraswati College of Engineering is no exception.

The first institution, Saraswati College of Engineering (SCOE) was set up by SES in 2004 to provide world class engineering education in Kharghar and to inculcate the spirit of social relevance among young students. It offers UG courses in six branches and PG courses in four branches of engineering.

Society believes in simplicity with quality and understands the ground realities. In an educational setup SES knows and realizes the expectations and requirements of various stake holders, be it parents, students, faculty, industry and nation as the ultimate stakeholder.

SES believes in living up to the expectations of all stakeholders and keep striving for the same at Saraswati College of Engineering as well.

Saraswati College of Engineering

(An ISO 9001- 2008 certified Institute)

Saraswati College of Engineering (SCOE) is a premier Engineering institution, established for the purpose of imparting state of art technical education to newly aspired engineers of the 21st Century. Saraswati college of Engineering is an ISO 9001- 2008 certified Institute, a quality driven institute, striving hard for sustainable QMS. SCOE plans to be a leading research organization with a vision of creating a knowledgeable society. The foundation of Saraswati College of Engineering was laid on 17th September 2004. The growth of any worthwhile endeavour, especially in the field of education depends to a considerable extent on the selfless service and dedication of the people working for it. Well defined policies, dedicated and experienced work force, a fully equipped library and state of art laboratories are few of the strong points which are worth mentioning.

SCOE has an excellent academic ambience with a calm and peaceful environment for teaching and learning process. SCOE believes in serious academic pursuit and encourages original and innovative thinking with regard to national and internationally relevant ideas, policies through intellectually stimulating debates and discussion at all levels. The institute has built its reputation with dedicated goal of adding value of life and professional standards. Saraswati college of Engineering has Research and Development cell to promote research culture among students and faculty. Today, the campus vibrates with not only curricular activities but also with myriad activities like international conferences, symposia, conventions, student competition, conclaves, short term industry relevant programme, cultural activities etc.

SCOE, a centre of learning, where knowledge fuels the desire for distinction, has always pioneered in serving the changing needs of industry.

Saraswati College has lush green surroundings creating healthy atmosphere for better learning environment and studies. The college provides transportation facility (Pick-up & Drop) from Campus to Kharghar station for students and faculty. Library with adequate number of books and titles and spacious well facilitated reading room for students and faculty is a special feature of Saraswati college of Engineering. It also includes Digital library with national & international journals and Internet facility. The college campus is WI-FI Enabled with 100 MBPS internet Facility. The campus of Saraswati college of Engineering

has Students Amenities like Cafeteria, Boys rest rooms, Girls rest rooms, Lift facility, hygienic and safe drinking water, sports facilities, gymkhana, first aid room with bed, stretcher, wheel chair etc. The college has Training & Placement Cell with 100% Placement Assistance, which arranges various Job fairs, many training and placement activities throughout the year for better employability of students.

Value added training includes specific Add-on program endeavours like, ‘Nurture’ laying special focus on the Soft skill development & Communication for furthering the learning of all our students right from FE till BE. Importance is given to Personality development and counselling is given as per individual student case & requirement. Special care is taken since many of the students come from vernacular medium while other students also need professional guidance. Development of entrepreneurial skills too is very much encouraged at SCOE.

The college has 100 KVA Back-up Power Supply for uninterrupted power supply. Various Cultural activities are arranged for students throughout the year. The college has its annual social gathering “Nakshatra”, which is an attraction to all students where students get chance to showcase their talents.

College has spacious classrooms with adequate illumination & ventilation and facilities.

College also has well equipped laboratories & workshop, spacious drawing halls, Computer Centre with Open Source Platform. Xerox & printing facility within college premises are available for students. SCOE has some of the most talented and dedicated teachers who come from the best institutions around India. “Brightest Minds to Mentor the Best Brains”. It is said that the growth of an organization lies in the hands of the quality of the human resource it adheres. Especially in the field of the education it is even more evidently felt as the Educational institutes have the responsibility to nurture the young brains and sensitive minds with creativity and knowledge. Saraswati College of Engineering has got experienced Head of the departments and section heads who are capable enough to nurture the careers of the students in right directions by catering the right inputs and requisites for such a growth.

In Saraswati college of engineering the middle administration level is very strong, committed and communicative. It is a responsible team which is entirely dedicated towards the well-being of the organization and the students who are tomorrow’s budding talent outputs offered to the society by our organization.

All the Head of the departments are actively engaged in organizing various student centric programmes so that the creative and instinctive capacities of the students are positively challenged to bring out the best in them. As a part of the professional and personal commitment, the Head of the departments actively engage themselves in the parent-teacher meets to find out the strength and weakness areas which can further be worked out for the betterment of departments. There is a keen and active interest put by these team leaders in the placement activity organized for students. Conducting of Soft skill & communication related sessions, mock interviews etc. under 'Nurture' program, for students is encouraged by every department, so as to enhance chances of good placements.

Team spirit is the soul of all the activities conducted by organization and this middle administration team in the form of Head of the departments and Section heads works selflessly as per the directions given by Principal and management to bring out the best out of the given constraints. The Head of the departments play a very important role in shaping the administration and the academics of the department so as to provide an excellent, professional environment conducive to the growth of the institution. Their responsibility includes governance at the department level towards the smooth and strict conduction of academics, extension and maintenance of the classroom and Laboratory facilities as per the norms of DTE / AICTE as well as University of Mumbai.

Learner centric environment is maintained very qualitatively by ensuring effective student counselling, feedback system from all stake holders, quality circles, QIP, special attention to slow learners.

Soft skill sessions are also undertaken with in 'Nurture' cell along with Human Resource as a part of Faculty development & learning.

The institution takes pride in having such a talented, dedicated and selfless team leaders. We assure the parents that the future of the students lies in the safest and most experienced creative heads.

On successful completion of three years, the institute helps the final year students to explore placement opportunities by inviting companies for campus recruitment. The institute has well organized Placement Cell, which is in constant touch with industry. The goal of Training & Placement Cell is to provide employment opportunities & training to students in leading organizations. Training and placement cell provide the students information, advice and counselling as they determine their career objectives and prepare for job search. Every year eminent

companies participate in the campus placements, offering different profiles to the students. The institute's placement record has been 90 %, with the salaries matching the best of the industry standards.

Intake Details

UNDERGRADUATE COURSES:

Sr. No.	Branch	Sanctioned Intake	Shift
1	Electronics And Telecommunication Engineering	120 Seats	I st
2	Civil Engineering	120 Seats	I st
3	Civil Engineering	60 Seats	II nd
4	Computer Engineering	60 Seats	I st
5	Mechanical Engineering	120 Seats	I st
6	Mechanical Engineering	60 Seats	II nd
7	Information Technology	60 Seats	I st
8	Automobile Engineering	60 Seats	I st

POST GRADUATE COURSES

Sr. No.	Branch	Sanctioned Intake
1	Electronics And Telecommunication Engineering	18 Seats
2	Mechanical Engineering	18 Seats
3	Civil Engineering	18 Seats
4	Computer Engineering	18 Seats

Indian Society for Technical Education (ISTE) CHAPTER

ISTE stands for Indian Society for Technical Education. SCOE has ISTE institutional membership IM 1601. ISTE also granted us "ISTE student chapter MH-147".

Institute of Electrical and Electronics Engineers (IEEE) CHAPTER

IEEE is the world's largest professional association dedicated to advancing technological innovation and excellence for the benefit of humanity. IEEE and its members inspire a global community through IEEE's highly cited publications, conferences, technology standards, and professional and educational activities. IEEE stands for the Institute of Electrical and Electronics.

Executive Summary

Executive Summary

Criterion I: Curricular Aspects

Saraswati college of Engineering is affiliated to University of Mumbai. College follows the curriculum and syllabus structure designed by university of Mumbai. There is involvement of faculty in syllabus revision process of university. Senior faculty are members of board of studies. College sends suggestions to Board of studies, University of Mumbai for requisite changes in the syllabus as per the feedbacks received from all stake holders. For the effective implementation of the curriculum, college and all departments define the educational objectives of the course and the program, stating the required outcome. This is made in line with the university guidelines.

To bridge the gaps found in recorded mapping of the outcome, the college plans, curriculum enrichment activities like Add on courses, seminars, training sessions, industrial visits, workshops, internship activity etc. as described in criteria one.

Academic flexibility is achieved by offering advanced electives to final year students. All faculty members meticulously prepare their teaching plan, for effective delivery of content in the classroom. All above implementation is based on various values based activities regarding , moral and ethical values, better quality education and placement and community development.

Criterion II: Teaching –Learning and Evaluation

‘Best teaching and learning practices’ is the special feature of Saraswati College of engineering. It focuses on providing solid academic experiences to its students which contributes to their personal and professional development. Well experienced and qualified faculty members are always striving hard for excellence in academics. All well-defined processes related to teaching and learning are implemented as per the QMS. The vital features of teaching and learning are quality circle, QIP, slow-learner identification and remedial measures, proctor system, remedial lectures for failures. Add on courses are conducted for supplementing the syllabus and enriching the content. Workshops, seminars, trainings are conducted inside the campus and in industries, for increasing the employability of students. Admission standards for distinctive categories (SC/ST, OBC, Women, Differently abled, economically weaker and Minority sections) are all followed accurately as elaborated in detail in criteria II.

The quality of teaching is monitored through feedback which is obtained from the students to assure quality in teaching and learning process. Student’s academic progress is monitored regularly by a well-designed and executed proctor program

Due to the strategies and practices monitored at SCOE, the perceived trends in admissions over the last few years show a consistent upward trend.

At SCOE, the quality teaching and learning practices along with value addition courses run by all departments have resulted in good placements. More attention is provided to the weak learners and specific measures are taken to improve the quality of such students. Project based learning is the key focus area in practical knowledge improvement of students. Due to the QMS, college has designed and implemented proper processes for carrying out the students' performance evaluation. The university guidelines are followed to carry out the examinations and evaluations. Well documented evaluations are analysed on periodic basis to map the learning outcome.

Criterion III: Research, Consultancy and Extensions

Saraswati College of Engineering has been recognized as a research oriented centre. The Research and development cell is formed to monitor and address the issues of research and its roles and objectives are well defined.

Under the Research and development cell, the institution takes measures to facilitate smooth progress and implementation of research scheme and takes efforts in developing scientific temper and research culture and aptitude among students. Faculty involvement in active research projects and collaborative research activities are encouraged. Workshops, training programmes are organised by the institution with focus on building research culture among staff and students as explained in criteria III.

Prioritised research and expertise is available with the institute. Efforts are taken to attract researchers. Resource mobilization, budget, seed money for research, financial provisions are made available, to support students research projects. Interdisciplinary research also, is taken care of, by the research and development cell. The institution ensures use of library resources, equipment's, research facilities, grants or finances to faculty and students. College also encourages faculty members to publish their research work in referred journals and present their work in National and International conferences. Research publication achievements and awards are provided to motivate the faculties and students.

More than 14 faculty members are pursuing PhDs from reputed Universities. Policies to promote consultancy, use of available expertise, and facilities for consultancy services are well defined, along with the policies in sharing income generated through consultancy and its use for institutional development under extension and outreach Programme.

The institute has collaborations and twenty two MoUs with many industries and research institutes nationally and internationally in multidisciplinary domains.

Initiatives of the institution and its students in community participation, social activities, research work for underprivileged is encouraged. Industry -institution – community interaction is emphasized and has contributed to creation of academic facilities in the Institution and eminent scientists/participants have also contributed to the events organized by the college.

Criterion IV: Infrastructure and Learning Resources

The institution has adequate infrastructure for supporting the teaching and learning processes. The institution has sufficient and well equipped laboratories special purpose equipment's, tools, computers and software. The classrooms have ICT facilities which offer a conducive environment to nurture the quest for knowledge. There is an auditorium equipped with high tech facility and is used for conducting seminar conferences and other important technical Events. Library has reference books, text books, periodicals, newspapers, magazines and other relevant resources. Stream wise national and international journals and publications are been subscribed every for fostering research culture in the campus. The computer labs are furnished with the latest computer configurations linked through LAN. Value added services like intranet, 24x7 Wi-Fi connectivity, and audio –visual aids, email. Sport facilities for all round development of the students are available in campus.

There are play grounds for outdoor games like box cricket, volleyball, football, tennis, basketball. Facility for indoor games like chess, carom, table tennis and badminton is also made available. In addition well-furnished gymnasium is available. The institute has centralised administrative office and separate accounts section to assist efficient services to students and carry out administrative and accounting functions. The institute has its own fleet of buses and the transportation facility is made available to students and staff to commute from nearby places in the radius of 20 km at reasonable cost. This ensures timely and safe pick up and drop facility to students and staff.

Criterion V: Student Support and Progression

Saraswati College of Engineering ensures smooth execution in regard to its admission procedure which is highlighted in the brochure published every year. Information about scholarships and other financial aid is given to the needy and backward students. Students' participation in national, international curricular, extracurricular activities and sports facilities are provided by the Institute. The Institute takes tremendous Efforts to facilitate entrepreneurial skill among the students.

Full Support and guidance is provided to the students in preparing for competitive exams, career guidance, training and placement of students, identifying job opportunities and preparation for interviews.

‘Nurture cell’ as a specific initiative & endeavour of SES and SCOE, provides counselling services to the students for related career, academic, personal, professional and psychosocial aspects & queries.

Being a technical institute, special stress is laid to develop the communication, confidence of students through conducting Group discussions, personal interviews and other activities. This starts right from the First Year and goes up to the Final year at SCOE.

Saraswati College of Engineering recognizes the right of all students to work and study in an environment free from harassment, bullying and unlawful discrimination. Processes are in place for staff and students to make complaints and raise their grievances with the College. The Institute recognizes their complaints and feedback forms an important part of ongoing quality and service improvement. Feedback is always welcome and the College is committed to effectively resolve the grievances. As explained in criteria V.

Ragging is totally prohibited in Saraswati College of Engineering, inside and / or outside the campus. Students and women’s grievances cell, anti-ragging, and sexual harassment issues are redressed and the Institution also takes care of the welfare schemes which are made available to the students.

Criterion VI: Governance, Leadership and Management

This criterion deals with the role of top management, Principal and Faculty in design and implementation of its quality policy and plans. It also includes the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time. It also highlights the practices of the college to groom leadership at various levels, and decentralization of work at various levels. In this part of SSR Governing body decisions for sustainable academic development in the institute are included. As explained in criteria VI.

Saraswati College has implemented a very nice structure to groom the leadership among the faculty. It has got the best faculty empowerment strategies. The college promotes a culture of participative management. The resolutions made by the Management Council in the last year and the status of implementation of such

resolutions is been explained in this criterion. Saraswati has got best of its policies for deployment of duties and grievances and grievance redressal committee. Saraswati College has got the best feedback mechanism from all the stake holders. IQAC is formed in the college for policy decisions. The criterion discusses about the QMS and its effective implementation in the Saraswati.

Criterion VII: Innovations and Best Practices

The campus is spread within lush green peaceful ambience. The institution has environmental awareness and has realised energy conservation practices, use of renewable energy, water harvesting, and plantation to make the campus eco-friendly. Institute conducts green audit of its campus and facilities.

Some of the pioneering practices announced during last four years are plastic free environment and go green, Research and development cell for research requirements, Nurture-cell for student counselling, soft skill and personality development, Entrepreneurship programs, faculty seminars, encouragement for higher studies, identification of training needs & soft skill sessions, further staff development seminars under faculty development program, continuous performance monitoring, mentorship program, course plan, remedial classes for the students. E-learning, and MOU's with industries have also been included.

Some of the innovative practices introduced during last four years are paperless office, research and development cell, faculty seminars, encouragement for higher studies, faculty development programs, continuous performance monitoring, mentorship program, course plan, remedial classes, e-learning, MoUs with industries, latest and sophisticated equipment added every year and entrepreneurship cell.

The best practices of the institute are online student feedback System, Quality enhancement initiatives for development of Faculty, Outcome based education learning system, Quality Management System, mentorship program, QIP program, Quality circle, slow learner identification, advance learner grooming and improvement measures etc. as explained in criteria VII.

*The SWOC Analysis
of The Institution*

SWOC Analysis of the Institute

STRENGTHS: -

1. Qualified and experienced faculty.
2. Good results.
3. Effective teaching learning process with innovative methods.
4. Special efforts for Skill development and add on courses offered to students.
5. Participative management at all level.
6. Published research papers by faculty and students.
7. Distinctive efforts for Personal & professional development of students
8. Student centric environment.
9. Well-equipped laboratories with latest technology equipment and software's.
10. Ethical, stable, proactive & conducive environment for holistic development of the Institute.
11. Easily approachable location of the institute from industrial zone.

WEAKNESSES:

1. Less number of funded Research and Development projects & patents.
2. Large variance in quality of students at entry level
3. Weak communication & presentation skills of students, affecting placement activity.
4. Gap between University syllabus and industry needs.
5. Less consultancy projects.

OPPORTUNITIES

1. NBA accreditation, permanent affiliation with University of Mumbai, Autonomy.
2. Developing Incubation center under Entrepreneurship Development cell.
3. International Collaborations with institutes and universities.
4. Research center under different Programs.
5. Job opportunities for students in nearby industrial zone.
6. Developing a dedicated R&D center for interdisciplinary research.

CHALLENGES

1. Improving the quality of entry students.
2. Located in educational hub with competition spirit.

3. Faculty retention and supply of high quality teachers & Doctorates in Engineering.
4. Time &venue management for learning beyond syllabus, by students and faculty.
5. Nurturing communication & personality development of students coming from comparatively vernacular & rural set-up.
6. Changing attitude & interest level of students towards Engineering.

*Profile of
The Institution*

Profile of the Affiliated College

1. Name and Address of the College :

Name :	Saraswati College of Engineering Kharghar, Navi Mumbai	
Address :	Plot No.46, Sectors, Near Ustav Chowk, Behind MSEB Sub station, Kharghar, Navi Mumbai.	
City :	Pin :410210	State :Maharashtra
Website :	www.sce.edu.in	

2. For Communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr. Manjusha Deshmukh	022-27743703/04/05/06/07/08	7738677011	022-27743712	Principal.scoe@gmail.com
Vice-Principal	-	-	-	-	-
Steering Committee Coordinator	Dr. Seema V. Lathkar	022-27743703/04/05/06/07/08	9819142608	022-27743712	Seemavlat hkar@gmail.com

3. Status of the Institution:

Affiliated College	✓
Constituent College	
Any other (specify)	

4. Type of Institution:

a. By Gender

For Men	
For Woman	
Co-education	✓

b. By Shift

Regular	✓
Day	
Evening	

5. It is a recognized minority institution?

Yes	
No	✓

If yes specify the minority status (Religious/linguistic/ any other) and provide Documentary evidence. NA

6. Sources of funding:

Government	
Grant-in-aid	
Self-Financing	✓
Any other	

7.

a. **Date of establishment of the college:** 13/09/2004 (DD/MM/YY)

b. **University to which the college is affiliated /or which governs the college (If it is a constituent college.)** University of Mumbai

c. Details of UGC recognition:

Under Section	Date, Month & Year	Remarks(If any)
i. 2 (f)	-	The institute is self-financed and un-aided.
ii. 12 (B)		

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section / clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year	Validity	Remarks
AICTE	File No. 06/07/MS/Engg./2004/021	23/08/2004	1year	Extension of Approval is given by AICTE ,after acceding the required documents every year
	File No. 06/07/MS/Engg/2004/021	15/6/2009	1year	
	No. Western Region, Maharashtra/1-1630347/EOA	23/8/2010	1year	
	No. Western Region, Maharashtra/1-1630347/2010/EOA	8/10/2010	1year	
	No. Western /1-396067332/2011/EOA	8/9/2011	1year	
	No. Western /1-68633910/2012/EOA	10/5/2012	1year	
	No. Western /1-1371793912/2013/EOA	19/3/2013	1year	
	No. Western /1-2018709972/2014/EOA	27/6/2014	1year	
	No. Western /1-2453954784/2015/EOA	28/4/2015	1year	

F.No. Western/1- 2809555040/2016/EOA/Corrigendu m-2	12/05/16	1 year	
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(Enclose the recognition/approval letter)

8. Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?

<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
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If yes, has the College applied for availing the autonomous status?

<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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9. Is the college recognized

a. By UGC as a College with Potential for Excellence (CPE)?

<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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If yes, date of recognition: NA (dd/mm/yyyy) AICTE, Government of Maharashtra.

b. For its performance by any other governmental agency?

<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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If yes, Name of the agency and

Date of recognition: ... NA (dd/mm/yyyy)

10. Location of the campus and area in sq.mts:

Location * Metro	Kharghar, Navi Mumbai
Campus area in sq. mts.	8943.553 sq.m.(2.21Acres)
Built up area in sq. mts.	15542.5 sq.m.

(* Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

a. Auditorium/seminar complex with infrastructural facilities: YES, AVAILABLE Auditorium seating capacity 350. Seven Seminar halls with seating capacity 200 each.

b. Sports facilities YES, AVAILABLE

- Playground AVAILABLE
- Swimming pool NOT AVAILABLE
- Gymnasium AVAILABLE

c. Hostel NOT AVAILABLE

- Boys' hostel (NIL)

- i. Number of hostels NA
- ii. Number of inmates NA
- iii. Facilities mention available facilities) NA
 - Girls’ hostel (NIL)
- i. Number of hostels NA
- ii. Number of inmates NA
- iii. Facilities (mention available facilities) NA
 - Working women’s hostel (NIL)
- i. Number of inmates NA
- ii. Facilities (mention available facilities) NA
- d. Residential facilities for teaching and non-teaching staff (give numbers available — cadre wise) NOT AVAILABLE
- e. Cafeteria — AVAILABLE Health centre – AVAILABLE

First aid: Inpatient, Outpatient, Emergency care facility, Ambulance available

Health centre staff – AVAILABLE

Qualified doctor:	Full time		Part time	✓
Qualified Nurse: -	Full time		Part time	✓

- f. Facilities like banking, post office, book shops - AVAILABLE at walking distance
- g. Transport facilities to cater to the needs of students and staff –AVAILABLE
Eight buses are available with subsidised cost for students and free for faculty.
- h. Animal house - NOT APPLICABLE
- i. Biological waste disposal- NOT APPLICABLE
- j. Generator or other facility for management/regulation of electricity and voltage: AVAILABLE, 250 KVA DG set available for complete campus.
- k. Solid waste management facility - Not available
- l. Waste water management –Sewage treatment plant available
- m. Water harvesting - AVAILABLE

12. Details of programmes offered by the college (Give data for current academic Year 2015-16)

S r. N o.	Progr amme Level	Name of the Programme Course	Duration	Entry Qualific ation	Medium of instructi on	Sanction ed approve d Student strength	No. of Stude nt Admit ted
		Mechanical Engineering Shift – I	4 Years	12 th /CE T/JEE	English	120	127
		Mechanical		12 th /CE	English	60	60

1	UG	Engineering Shift – II	4 Years	T/JEE			
		Civil Engineering Shift – I	4 Years	12 th /CE T/JEE	English	120	122
		Civil Engineering Shift – II	4 Years	12 th /CE T/JEE	English	60	56
		Computer Engineering	4 Years	12 th /CE T/JEE	English	60	58
		Automobile Engineering	4 Years	12 th /CE T/JEE	English	60	49
		Electronics & Tele Compunction Engineering	4 Years	12 th /CE T/JEE	English	120	59
		Information Technology	4 Years	12 th /CE T/JEE	English	60	46
	Total				660	577	
2	PG	Mechanical Engineering	2 Years	UG		18	16
		Civil Engineering	2 Years	UG		18	18
		Computer Engineering	2 Years	UG		18	8
		Electronics & Tele Compunction Engineering	2 Years	UG		18	6
	Total				72	48	

13. Does the college offer self – financed Programmes?

<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
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If yes, how many? (06 UG Shift-I, 02 UG Shift-II and 04 PG Programmes)

14. New programmes introduced in the college during the last five years if any?

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Number	01 UG, 04 PG
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15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programs. Similarly, do not list the departments offering common compulsory subjects for all the programs)

Faculty	Department	UG	PG	Research
Engineering	Mechanical Engineering	Mechanical Engineering	Mechanical Engineering Shift – I	-
	Civil Engineering	Civil Engineering	Civil Engineering Shift – I	-
	Computer Engineering	Computer Engineering	Computer Engineering	-
	Automobile Engineering	Automobile Engineering	-	-
	Electronics & Tele Compunction Engineering	Electronics & Tele Compunction Engineering	Electronics & Tele Compunction Engineering	-
	Information Technology	Information Technology	-	-

16. Number of Programmes offered under

- a. Annual system

NIL

- b. Semester system

12

- c. Trimester system

NIL

17. Number of Programmes with

- a. Choice Based Credit System - CBGS

12

- b. Inter/Multidisciplinary Approach

NIL

- c. Any other (specify and provide details)

NIL

18. Does the college offer UG and/or PG programmes in Teacher Education?

<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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If yes, Year of Introduction of the programme(s).....
(dd/mm/yyyy) and number of batches that completed the programme

- a. NCTE recognition details (if applicable)

NA

Notification No.:

Date: (dd/mm/yyyy) Validity:

- b. Is the institution opting for assessment and accreditation of Teacher Education Programme separately?

<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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19. Does the college offer UG or PG programme in Physical Education?

<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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If yes,

- a. Year of Introduction of the programme(s)..... (dd/mm/yyyy) and number of batches that completed the programme
- b. NCTE recognition details (if applicable)
 Notification No.:
 Date: (dd/mm/yyyy)
 Validity:.....
- c. Is the institution opting for assessment and accreditation of Physical Education Programme separately?

	Yes	✓	No
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20. Number of teaching and non-teaching positions in the Institution

Positions	Teaching faculty								Non-teaching Staff		Technical staff	
	Professor		Associate Professor		Assistant Professor		Lecturer		M	F	M	F
	M	F	M	F	M	F	M	F				
Sanctioned by UGC/University State Government Recruited	06	04	09	13	21	43	0	0	77	11	17	02
Yet to recruit	--	--	--	--	--	--	--	--	--	--	--	--
Sanctioned by Management/society or other authorized bodies Recruited	03	0	1	0	32	42	0	0	29	0	06	02
Yet to recruit												

*M-Male *F-Female

21. Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
D.Sc./D.Litt.	0	0	0	0	0	0	0
Ph.D.	05	04	01	03	01	01	15
Ph.D Pursuing	0	0	02	04	0	03	09
M.Phil.	0	0	0	0	0	0	0
PG	01	0	06	06	20	39	72
Total Permanent	06	04	09	13	21	43	96

Staff							
	10		22		64		96
Temporary teachers							
Ph.D.	03	0	0	0	0	02	05
Ph.D Pursuing	0	0	0	0	03	01	04
M.Phil.	0	0	0	0	0	0	0
PG	0	0	01	0	27	38	66
PG Pursuing	0	0	0	0	02	01	03
Total Temporary Staff	03	0	01	0	32	42	78
	03		01		74		78
Part – Time /Visiting Teachers							
Ph.D.	01	01	0	0	0	0	02
M.Phil.	0	0	0	0	0	0	0
PG	0	0	0	0	09	05	14
Ph.D. pursuing	0	0	0	0	01	0	01
Total Visiting Lecturer	01	01	0	0	10	05	17
	02		0		15		17

22. Number of Visiting Faculty /Guest Faculty engaged with the College.:17

23. Furnish the number of the students admitted to the college during the last four years Furnish the number of the students admitted to the college during the last four.

Categories	2011-2012		2012-2013		2013-2014		2014-2015		2015-2016	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
SC	73	28	89	25	84	25	99	37	89	23
ST	13	2	11	2	14	1	16	1	26	4
OBC	100	37	110	41	122	31	140	44	158	37
General	277	99	368	90	367	85	295	53	379	77
Others	68	21	54	26	71	22	64	11	69	22

24. Details on student’s enrolment in the college during the current academic year: 2015-2016

Type of students	UG	PG	M. Phil	Ph. D.	Total
Students from the same state where the college is located	864	44	NIL	NIL	908

Students from other states of India	20	4	NIL	NIL	24
NRI students	NIL	NIL	NIL	NIL	NIL
Foreign students	NIL	NIL	NIL	NIL	NIL
Total	884	48	NIL	NIL	932

25. Dropout rate in UG and PG (average of the last two batches)

UG: 3.17%

PG:0%

26. Unit Cost of Education

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

(a) including the salary component-84560 Rupees

(b) excluding the salary component-27419 Rupees

27. Does the college offer any Programme/s in distance education mode (DEP)?

<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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If yes,

a) is it a registered Centre for offering distance education programmes of another University

<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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b) Name of the University which has granted such registration.

Number of programmes offered

Not Applicable

c) Programs carry the recognition of the Distance Education Council.

NA

<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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28. Provide Teacher-student ratio for each of the programme/course offered

Automobile Engineering	14:1
Civil Engineering(shift I)	15:1
Civil Engineering (shift II)	16:1
Computer Engineering	15:1
Electronics and Telecommunication Engineering	15:1
Mechanical Engineering (shift I)	15:1
Mechanical Engineering (shift II)	14:1
Information Technology	15:1

Post graduate Programme:

Computer Engineering	12:1
Electronics and Telecommunication Engineering	12:1
Mechanical Engineering	12:1
Civil Engineering	12:1

- 29. Is the college applying for Accreditation (Cycle 1)**
- Re-Assessment: Not applicable
(Cycle 1 refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to reaccreditation)
- 30. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)**
- Cycle 1: (dd/mm/yyyy) Accreditation
Outcome/Result.....
- Cycle 2: (dd/mm/yyyy) Accreditation
Outcome/Result.....
- Cycle 3: (dd/mm/yyyy) Accreditation
Outcome/Result.....
- * Kindly enclose copy of accreditation certificate(s) and peer team report(s) as an annexure.*
- 31. Number of working days during the last academic year.**
- 32. Number of teaching days during the last academic year**
(Teaching days means days on which lectures were engaged excluding the examination days)
- 33. Date of establishment of Internal Quality Assurance Cell (IQAC)**
IQAC ...10/07/2015..... (dd/mm/yyyy)
- 34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC.**
- AQAR (i)Not applicable..... (dd/mm/yyyy)
AQAR (ii) (dd/mm/yyyy)
AQAR (iii) (dd/mm/yyyy)
AQAR (iv) (dd/mm/yyyy)
- 35. Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/descriptive information)**
Institute is ISO 9001:2008 certified organization

STEERING COMMITTEE MEMBERS

Srl. No	NAME OF STAFF	DESIGNATION
1	Dr. Manjusha P. Deshmukh	Chairman
2	Dr. Seema S. Lathkar	Coordinator
3	Mr. Upendra W. Mate	Member
4	Mrs. Sheetal Bhujade	Member
5	Mr. Prashant D. Ingle	Member
6	Mr. Madan M. Jagtap	Member
7	Mrs. Anuradha Dandawate	Member
6	Mrs. Vijaya Waghmare	Member
7	Mrs. Shilpa Kevate	Member

CRITICAL REVIEW COMMITTEE

Srl. No	NAME OF STAFF	DESIGNATION
1	Dr. Bharti A. Joshi	Dean Academics & HoD Comp.
2	Mr. S. N. Teli	Dean Administration
3	Dr. Fauzia Siddiqui	HoD Mechanical Engg.
4	Mrs. Sheetal Bukkawar	HoD Ex TC
5	Mrs. Roshni John	HoD Civil Engg.
6	Mr. T. Z. Quazi	HoD Automobile Engg.
7	Mrs. Vaishali Jadhav	HoD IT
8	Dr. Suhas Sabnis	Head R & D

DEPARTMENTAL NAAC COORDINATORS

Srl. No	NAME OF STAFF	DESIGNATION
1	Mrs. Sayali Chaudhari	Science & Humanities
2	Mrs Pooja Somani	Civil Engg.
3	Mrs Megha Pande	Ex TC Engg.
4	Mr Madhukar Sorte	Mech. Engg.
5	Mr. Sagar Khatavkar	Automobile Engg.
6	Mrs. Vrushali Patil	I T

Sr. No	Abbreviation	Terminology
1	ACC	Academic Co ordination Committee
2	AICTE	All India Council for Technical Education
3	AMC	Annual Maintenance Contract
4	ARC	Application Reception Centre
6	BARC	Bhaba Atomic Research Centre
7	BRNS	Board of Research in Nuclear Sciences
8	CAD	Computer Aided Design
9	C-DAC	Centre For Development of Advanced Training
10	CESA	Computer Engineering Students Association
11	CSI	Computer Society of India
12	DSE	Direct Second Year of Engineering
13	DST	Department of Science and Technology
14	DTE	Directorate of Technical Education
15	EDP	Entrepreneurship Development Program
16	EDC	Entrepreneurship Development Cell
17	ETSA	Electronics and Telecommunication Students Association
18	FDP	Faculty Development Program
19	GATE	Graduate Aptitude Test in Engineering
20	GRE	Graduate Record Examination
21	HOD	Head of Department
22	ICAST	International Conference on Advanced Science and Technology
23	ICT	Information and Communication Technologies
24	IEEE	Institute of Electrical and Electronics Engineers
25	ISHRAE	Indian Society for Heating Refrigeration and Air-conditioning Engineering
26	ISTE	Indian Society for Technical Education
27	ISO	International Organisation for Standardization
28	LAN	Local Area Network
29	LIC	Local Enquiry Committee
30	MESA	Mechanical Engineering Students Association
31	MOU	Memorandum of Understanding
32	NAAC	National Assessment and accreditation Council
33	NBA	National Board of Accreditation
34	NCETAES	National Conference on Emerging Technologies and Applications in Engineering
35	NSS	National Service Scheme
36	OHP	Overhead Projector
37	OPAC	Online Public Access Catalogue
39	PTM	Parent Teacher Meeting
40	PUC	Pollution Under Control

41	QIP	Quality Improvement Program
42	QMS	Quality Management System
43	RACE	Reliable Automotive Council of Engineers
44	SAE	Society of Automotive Engineers
45	SAIT	Students Association of Information Technology
46	SAMEER	Society for Applied Microwave Electronics Engineering & Research
47	SE	Second Year of Engineering
48	STTP	Short Term Training Program
49	SQL	Structured Query Language
50	TE	Third Year of Engineering
51	TFWS	Tuition Fees Waiver Scheme
52	TOEFEL	Test of English as a Foreigner Language
53	USSC	University Staff Selection Committee

Criteria-wise Inputs

Criterion I: Curricular Aspects

1.1 Curriculum Planning and Implementation

1.1.1 State the vision, mission and objectives of the institution, and describe how these are communicated to the students, teachers, staff and other stakeholders.

Vision

To become centre of excellence in engineering education and research.

Mission

To educate students to become quality technocrats for taking up challenges in all facets of life.

Quality Policy

We at **Saraswati College of Engineering** are committed to impart continual quality education & training leading to degree in Engineering. We would demonstrate continual improvement by complying with requirements, monitoring our abilities and implementation of Quality Management System.

We aim to provide a platform for Research and Development by understanding and meeting industrial needs by developing technical skills, leadership quality, inter personal skills and upholding the importance of professionalism and ethical practices.

The Quality policy is supported by quality objectives and is communicated through various modes of channels such as notices, websites, brochure and understood within the institution and is reviewed by management time to time for continued suitability.

Quality Objectives

- To become a capable Educational & Research organization.
- To make students of Saraswati College of Engineering globally competent with leadership qualities.
- To endeavor hard for holistic development of student, through co-curricular, extracurricular activities, trainings and industrial exposure for evolving industry ready technocrats.
- To offer better carrier openings by improving employability and enterprising skills of students.
- To impart quality education to the students to become Centre of excellence.
- To offer wide platform to students and faculty for research through collaborative activities like MOU's with well-known national and international organizations.

1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).

The institution effectively plans for meaningful implementation of curriculum, by deploying following action plan:

Planning for the semester:

- University of Mumbai provides curriculum and prescribes academic calendar for each semester. Based on the university calendar institute prepares its academic calendar which includes all the activities at institute level in-line with the mission and vision.
- Load Distribution given by the HOD is finalized and approved by Academic Dean & Principal. Time table is prepared as per the faculty load distribution.
- Academic coordinator of respective department prepares academic calendar as per the activities planned for the students and faculty.
- Intensive time tables are planned in the beginning of semester and at the end of semester as per need of syllabus.
- As per the planned load distribution all the faculties prepare for the subject notes, Course files, assignments, question banks, lecture plans, audio-visual aids, expert lectures, and industrial visits.
- The observation of the lectures is done by regular monitoring through HOD, Academic Coordinator, Class Teachers, Academic Coordinating Committee and Dean Academics.
- To ensure the quality of teaching and learning process in the class and labs, feedback from students are taken twice in a semester. Hurdles or problems are understood & teachers are guided for improvement.
- Requisite trainings are planned by the academic committee members for the faculty's improvement.
- Projects for UG/PG are planned as per the expertise available and student's interest area. Project progress is monitored at regular frequency.
- HR department takes care of faculty recruitment before the commencement of semester.
- As per syllabus requirements, store section takes care of purchase of equipment/ Consumables, maintenance/repairs/calibration of existing equipment.
- Faculty maintains course file which contain following information:
Academic calendar, individual time table, syllabus, teaching notes, assignment/ tutorial questions, transparencies/PPT hand outs, class test question papers, university question papers.

Deployment of Action Plan:

- Course files are prepared, and lectures are conducted by respective faculty, as per the schedule.

- Academic control committee observes classes and controls the quality of teaching learning process.
- Syllabus coverage is reviewed and a report of completion status is submitted to Principal at the end of every month by HOD.
- Information about student's progress and punctuality is conveyed to parents.
- Internal assessment test, submission of term work is conducted as per schedule.
- Feedback from stakeholders are taken and reported to authority for appropriate steps to be implemented.

1.1.3 What type of support (procedural and practical) do the teachers receive (from the University and/or institution) for effectively translating the curriculum and improving teaching practices?

Course syllabus development:

College has representation in Board of Studies of various programs, which facilitates inclusion of views of faculties and advisory committee members of college at university level as mentioned in 1.1.6. Senior faculties of the institutes are a part of syllabus revision committee of university of Mumbai. Faculties of each department are deputed to participate in orientation/refresher course of revised syllabus.

Faculty Development Programs:

Faculty from every department are encouraged to participate in various FDP, STTP, Seminars, Workshops, Conference, and Quality improvement program (QIP) and industrial trainings to enrich their knowledge and teaching skills. Faculties are encouraged to publish their research work in various national/international journals and conference. College organizes many FDP programs regularly in association with various technical organizations like ISTE, IETE, and IEEE. Industrial trainings for faculty are also promoted by college in different streams. College had deputed 25 faculty members from all streams for WIPRO training certification MISSION-10X. Induction programs for new faculty are arranged every year as mentioned 2.4.3.

Quality Circle:

Every Discipline has various quality circle defined whose objective is

- To enhance the quality of knowledge imparted in the classroom, laboratories.
- Knowledge sharing among the faculty in the quality circle.
- To improve the results by following common agenda for dealing of content.
- Developing teaching aids/tools like PPT, Videos, Notes, monographs, question bank etc.
- Exposure of members to industry/ expert from academics, for better output.
- Consultation with senior professors is solicited for value added activities.

Teaching Aids:

Contemporary teaching aids such as LCD, OHP, CD's and DVD's are used for an effective transfer of the subject content to the students. Internet facility is available across the campus for better teaching learning process.

Library:

Institute is equipped with Centralized library with 26428 number of books and 4917 number of titles and subscribed national and international e-journals in different disciplines. Faculty can easily access these facilities for preparing their teaching resource material. Digital library in the college is also a good helping hand for delivering quality lectures.

All departments have developed departmental library from which books can be made available for teachers' reference.

Laboratories:

Laboratories are well equipped with advanced technology equipment for better delivery of practical aspects of subject.

Research:

Faculties from all departments are encouraged to submit research proposals to different research and funding organizations. They are also encouraged for doctorate programs.

1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other statutory agency.

Institute is ISO certified under ISO 9001:2008. All Academic processes are well established and implemented. Quality objectives for academic processes are reviewed after every year and measures are taken to improve the quality in Academics.

- **Appointment of faculty with subject experience:** HR section takes care of appointing senior qualified and experienced faculties.
- **Continuous monitoring on process:** Academic monitoring committee reviews teaching learning process and teaching methods and proper suggestions are given for improvement if required.
- **Continuous evaluation:** Assignments, Tutorials and Practicals are assessed by faculty throughout the semester for continuous improvement in students.
- **Specialized Training:** Training need identification is done by HR and departments for deciding the type of training to be imparted to faculty.
- **Review of teaching methods:** Review of teaching methods skills, content and implementation is monitored on regular basis by analyzing progress reports and feedbacks from students.
- **Feedback:** Feedback is taken from students twice a semester and if not found adequate then counselling of faculty is done by principal for improvement in performance.

- **Action for improvement:** Counselling meetings are conducted for faculty with less feedback and suggestions are given in specific areas of improvement.
- **Work load distribution:** Work load for every semester is done well in advance based on faculty competency, teaching experience, expertise, result analysis and feedback of students.
- **Proctor system:** Proctors are assigned for a group of students who takes care of the difficulties of the students to improve academic performance and their overall wellbeing.
- **Faculty Meetings:** Departmental meetings are organized regularly to review the progress of teaching learning and to solve problems if any.
- **Teaching aids:** Modern teaching aids such as LCD/OHP/CD's/DVD's are utilized for an effective delivery of the subject to the students. Internet facility available across the campus to support teaching learning process.
- Special attention to slow learners and remedial classes for failures and DSE students are also taken care of.
- Leased line of 100 MBPS internet facility is available for faculty and students.

1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalization of the curriculum?

- Institute has advisory board which comprises of experts from industries/academics/research of various disciplines. Meetings are organized by institute every semester to update on current trends in technology and requirements of industries. Their views and guidance are incorporated for value addition to the existing system.
- Eminent personalities from industries work as evaluator for judging projects and technical activities organized by the institute. Students are encouraged to undertake industry sponsored projects at UG/PG Level.
- Internship in industry is compulsory for TE students of all disciplines during vacations.
- Seminars and workshops by expert from industry.
- Industrial visits are arranged to expose the students to industries to bridge the gap between theoretical knowledge and its practical implementation. Site visits are arranged for all UG students.
- MOU's are established with research labs, Institutes and industries
- The Institute/Department is member of various Professional bodies such as ISTE, IE, IEEE, IETE, SAE, ISHRAE, and CSI through which we organizes programs. IIT remote center facility is available to interact with the eminent academicians.

The institution network and interact with beneficiaries such as industry, research bodies and the university by signing MOU's in effective operationalization of the curriculum as listed below

Sr. no	Name of industry/research center	Purpose
01	NIIT	Aptitude test, workshops, seminars to improve the employability of students
02	EMC ² Academic associate	Aptitude test, workshops, seminars to improve the employability of students
03	META-TECHGARAGE	R&D and academics Initiatives
04	INSEEC France	Higher and Future studies.
05	Sanjay Ghodawat Group of Institutions. Kolhapur	R&D and academics Initiatives
06	Kalsekar Technical Campus. New Panvel	R&D and academics Initiatives
07	Lokmanya Tilak, Koparkhairane, Navi Mumbai	R&D and academics Initiatives
08	CADD Center Belapur, Navi Mumbai	Professional Training in designing software's
09	Enviro Abrasion Resistant Engineers Pvt. Ltd. Pune	Research Project, Research Facility and Industrial awareness
10	V-Tech Hydraulics , Navi Mumbai	Hydraulic machine Training
11	Wisdom Career Education	Career counseling for students
12	Dhruv Consultancy Services Pvt. Ltd.	Placement
13	Firefly Networks Ltd.	Networking facility
14	Pruthvi Infotech	Software Training
15	Samrat Machine Tools , Rajkot, Gujrat	Lathe assembly and training programmes
16	AIIMS Infotek Thane	Organizing Industrial Training program and joined publications
17	Azure Skynet solutions Pvt.Ltd.	Organizing Training and Internship
18	CMS IT services PVT. LTD., Kharghar	Workshops, seminars and training courses
19	H.R. Software Solutions, Jalgaon	Workshops, seminars and training courses
20	S. B. Infotech, Nashik	Expert Seminars, Internship Programs and Workshops

Central Advisory Board Year 2015-16

Sr. No.	Name	Designation	Company/organization	Experience	Expertise Area
1	Dr. Sasi Kumar	Associate Director	CDAC	28 Years	E-learning, NLP, artificial intelligence,

					etc.
2	Dr. Preeti Bajaj	Director	G.H.Raisoni College of Engineering	23 Years	Intelligent Transportation System,
3	Dr. V. Raikar	Director	Sanjay Ghodawat Group of Institutions	28 Years	Mechanical Engineering
4	Dr. N. M. Kondap	Director General	Rajashthani Sammelan Higher Education	35 Years	Quality Standards and Accreditation
5	Dr.Sub odh Sant	Chief Manager	Siemens	23 Years	Manufacturing Engineering

Advisory Board					
ELECTRONICS AND TELECOMMUNICATION ENGINEERING					
Sr. No.	Name	Designation	organization	Exp. Yrs.	Expertise Area
1	Mr.Prabhat Saxena	Senior Project Manager	Tech Mahindra Ltd	11	Offshore Delivery management, QA
2	Mr.Anant Hadke	Proposal Manager	Atos Origin India Ltd,	8	Software Design and Development
3	Mr.Kailash Shahane	HR Recruitment Manager	Intravo Technologies Ltd	8	Relationship management
4	Dr.Shirish Sangle	Associate Professor of Sustainable Business	National Institute of industrial Engg	16	resources person in projects of Asia-ITC European Union,
MECHANICAL ENGINEERING					
1	Mr. Sanjay Patil	GM	Mahindra Steels,Khopoli	24	Material Science
2	Mr.Mahesh Joshi	GM	TATAMotors, Mumbai	18	Marketing
3	Mr. Rohan More	Tech, Manager	Tristar International	7	Hydraulics
4	Mr. Faisal Hoda	Manager	GAIL	12	Gas Marketing

5	Mr. M. Shafi	Senior Manager	GAIL	18	Petrochemical Marketing
CIVIL ENGINEERING					
1	Dr.R.A. Hegde	Prof. & Head	MPSTME	32	Geotechnical Engineering
2	L. Janpage	Deputy Chief Engineer	Central Rail Mumbai	14	Construction Engineering
3.	Mr. Ashish Khobragade	Asst. Engineer	CIDCO	15	Structural Engineering
4.	Mr.Karanpal S. Rawat	Sr. Geologist	Reliance Ind. Ltd	08	Reservoir Modelling
5.	Mr.E.G. Pawar	Asst. Engineer	WRD, Govt. of Maharashtra	06	Structural Engineering
INFORMATION TECHNOLOGY AND COMPUTER ENGINEERING					
1	Mr. Rajesh Jain	Scientific Officer(F)	BARC	14	Man-Machine interface, Web based systems
2	Mr. Madhukar B. Kumar	Project Manager	Patni Computers	12	Business Intelligence
3	Mr. Kiran Marekar	Associate Consultant	TCS	14	SAP
4	Mr.Sanjeew Waghmare	Deputy Manager (SDH NMS)	MTNL, Mumbai	14	CDMA Networking
5	Mr. Anurag Joshi	Group Director	Reliance Global Comm.	23	Computer Network
AUTOMOBILE ENGINEERING					
1	Capt. Thakur kamlesh Singh	CEO	Ind-aust Maritime	15	Ship Building
2	Mr.Rashdnla IYadav	Jr. Manager	JSW Steel ltd	26	Cold rolling galvanized
3	Mr. Rafique Pathan	Planning engineer	Hawa valves	10	Flow control valve Manufacturing
4	Mr. Mahesh kumar Mutyaware	GM	Asian Motor	12	Automotive Design
5	Mr. Nitin More	Senior Manager	ThyssenKrup p Ind.Sol.	23	Business Development

Following is the list of Eminent Visitors, those who have visited the department and given valuable inputs.

ELECTRONICS & TELE COMMUNICATION ENGINEERING				
Sr. No	Name	Designation	Company/ Organization	Exp. in years
1	Mr. Manish Bhardwaj	Network Engineer	Azure Skynet	8
2	Mr. Arun Kulkarni	Prof., &HOD IT	TSEC	25
3	Mr. Hariram Chavhan	Asso. Prof.	TEC	17
4	Mr. Sanjay Shitole	Asso.Prof, HOD IT	SNDT	20
5	Mr. Arun Kulkarni	Asso.Prof., &HOD IT	TSEC	25
6	Mr. Anshuman Kak	External business consultant	Secroot Security Solutions (P) Ltd.	8
7	Mr. M. A. Tamboli	Asso.Prof.	KalsekarEngg. College	12
8	Dr. Sanjay Pawar	Principal	U. M.I.T. SNDT women's Univ.	21
9	Dr. Vithal R. Katti	Sr. Scientist	BARC Mumbai	20
10	Dr.Ranjanbala Jain	Professor	VESIT	20
11	Ms. Shalini Mittal	Android OS Trainer	Seed Infotech	6
COMPUTER ENGINEERING				
1	Mr. Vinay Raikar	CEO	Campus Credentials	8
2	Mr. Mainak Biswas	VP	Crypteia Networks	15
3	Mr.Sandip Chatuphade	Trainer	SEED Infotech	10
4	Mr. Arun Kulkarni	Professor & HOD	TSEC, Bandra	20
5	Mr. Bhushan Jadhav	Assistant Professor	TSEC, Bandra	10
6	Dr.Jonathan Hill	Interim Dean	Pace university, New York, USA	15
7	Mr.Tushar Kute	Assistant Professor	Sandip foundation ,Nashik	10
8	Mr. Aniket Mala	Director	Cap Gemini pvt. Ltd	15
9	Mr.Chirag Thakkar	Trainer	Smart Ways	8
10	Mr.Anshuman Kak	External business consultant	SecRoot security solutions	8

11	Mrs.Reshma Khushalani	HR	SEED Infotech	9
12	Mr. Rajesh Jain	Scientific officer	BARC	20
13	Mr.Sasikumar	Associate Director (Research)	C-DAC Mumbai	20
14	Ms.Ankita Khawah	Trainer	ATS Infotech	8
15	Mr. Roy Eddington-charles	Consultant & trainer	RoyEddington-charles associates	20
16	Mr. Sulabh Jain	Expert trainer	Kyrion Technologies	8
17	Mr. Narendra Sharma	Trainer	SEED INFOTECH	8
18	Mr.Vinay Kumar	Trainer	Microsoft	8
MECHANICAL ENGINEERING				
1	Mr.Deb Mukhopadhyay	Research Scientist	BARC	25
2	Mr. Vinayak Khatawate	Asst. Prof.	PIT, Panvel	18
3	Dr.Vijay Kumar	Asso.Prof.	DJSCOE,Vile Parle	23
4	Dr.S.M.Khot	Principal	FCRIT, Vashi	24
5	Mr. Kamble	Asst. Prof	SIOT,Lonavala	16
6	Mr. Rajesh Bhutkar	HOD	SPCOE	23
7	Mr. Abdul Razak Honutagi	Director	AIKTC , Panvel	30
8	Dr.Dalvi	Asso.Prof	LTCOE, Koparkhairane	15
9	Mr.Bony Davis	Area Manger	IBMS, Bajaj Electricals	15
10	Mr.Atul Patil	Managing Director	IKSC, Knowledge Bridge	20
11	Mr. Bhavesh Mehta	Deputy General Manager	Reliance Industry	18
CIVIL ENGINEERING				
1	Dr. R. A. Hegde	Prof. & Head	MPSTME	32
2	Mr. U M. Paranjpe	Sr. Engineer	Rural Development(NGO)	25
3	Mr.Anant Anad Patil	Senior Manager	BASF	10
4	Mr.Karanpal S. Rawat	Sr. Geologist	Reliance Industries Ltd	08
INFORMATION TECHNOLOGY				

1	Mr.Milind Chaudhari &Vikas sharma	Project head	Nano Cell	7
2	Mr.Anshuman Kak	External business consultant	Secroot Pvt Ltd, Mumbai	8
3	Dr. Sasikumar M.	Associate Director (Research)	C-DAC Mumbai	20
4	Mr.Sreenivasan Iyer	Former scientist	Former scientist ISRO	11
5	Mr.Tushar Kute	Assistant Professor	Sandip foundation ,Nasik	8
6	Mr. Bharat Bhadwkar	System Admin.	HBL Pvt. Ltd,Mumbai	11
7	Mr.Aniket Mhala	Delivery Director	Capgemini India ltd.	15
8	Mr.Shantosh Shingare	Professor	IIT,Mumbai	8
9	Mr. Bhushan Jadhav	Assistant Professor	TSEC, Bandra	10
10	Dr.Jonathan Hill	Interim Dean	Pace university New York ,USA	15
11	Mr.Charles Roy	Trainer	Softtrek info solutions	10
12	Mr. Vinay Raikar	Trainer	Campus credentials	6
AUTOMOBILE ENGINEERING				
1	Mr.Sushil Budgular	Manager R&D	Bajaj Auto Ltd Akordi	15
2	Mr.Rajshekhar Sardogi	Associate professor	Saboo Siddiki College	25
3	Mr.Ramchandra yadav	Principal	ARMIET Polytechnic, Shahapur	6
4	Mr.Atale Mayur	Design Engineer	NRB Bearing , Thane	8
5	Mr.Anand Mahurkar	Head of Department	Krishna and Sauratri Associates	14
ENGINEERING SCIENCES AND HUMANITIES				
1	Dr. Anita Goswami-Giri (NCETAES 11)	HOD , Bandokar college , Thane	Bandokar college , Thane	25
2	Dr. S S.Inamdar	Director	Singhad Education complex	24
3	Dr. Jangum	Principal	Science college, Thane	30
4	Dr. J.G. Bakal	Prinipal	YTCOE College ,Karjat	30

5	Dr. Dimple Dutta	Sr. Scientist,	BARC	15
6	Dr. U.V. Bhosale	Principal	RJIT Varsova	21
7	Dr. V.S. Desale	Professor	Mumbai University	25
8	Dr. Rajendra Deore	Professor	Mumbai University	22
9	Dr. Ajitkumar	Professor	ICT Matunga	19
10	Dr. V.V. Hemasudar	Professor	SIWS, Wadala	18
11	Dr. Manoj Mishra	Professor	Khalsa College Matunga	15
12	Dr. Pandit	Professor	Professor,UDCT.ICT	40
13	Dr. Manik Patvardhan	Professor	Ruia Matunga	15
14	Dr. Anjali Panigrahi	Professor	Chetana Education Bhandra	25
15	Dr. N.M. Kondap	Principal	Science College	40
16	Dr. S.V. Taralkar	Professor	MIT, Alandi	20
17	Dr. M.R. Kurup	Professor	Vaze College Mulund	40
18	Dr. S.C. Thakurdesai	Professor	Gogtae Joglekar College Ratnagiri	30
19	Dr. M.B. Patil	Professor	MIT, Alandi	10
20	Dr. P.N. Pabrekar	Principal	ICELS Motiwala Jhunjuwala College Vashi	32

1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the University? (number of staff members/departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc.

Our institute is affiliated to Mumbai University and bound by its curriculum. The university appoints senior faculty members as members of Board of Studies/Syllabus committee/Syllabus revision committee etc. The senior faculty members of our institute are part of syllabus revision committee of various programmes as listed below:

- Dr. Manjusha Deshmukh – Electronics and Telecommunication Department
- Dr. Bharti Joshi – Computer Department
- Dr. Seema Lathkar – Engineering Sciences and Humanities
- Mr. S N Teli – Mechanical Department
- Dr. Fauzia Siddiqui - Mechanical Department
- Mrs. Roshni John-Civil Department
- Mr. D M Joshi- Civil Department

- Mr. T Z Quazi-Automobile Engineering Department
- Mrs. Shilpa Kewate- Civil Department
- Mrs. Pooja Somani-Civil Department
- Dr. Sunil Rangari- Civil Department
- Mrs. Sheetal Bukkavar- Electronics and Telecommunication Department

Mr. U W Mate, Civil department represented as a member of Board of Studies and Faculty of Technology of Mumbai University.

As per the suggestions received from various stakeholders, faculties suggest the changes in the syllabus to be induced in the process of syllabus revision.

The orientation programmes for revised syllabus in Mathematics for Civil, Automobile and Mechanical department and in Microprocessor and microcontroller for E&TC dept. was organized on behalf of Mumbai University.

The institution has also adopted the concept of Quality circle wherein the suggestions given by members of quality circles are conveyed to the syllabus revision committee for inclusion.

Faculty from all departments are motivated to attend the orientation programs/ refresher courses in different subjects of revised syllabus organized by university of Mumbai.

1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university) by it? If 'yes', give details on the process ('Needs Assessment', design, development and planning) and the courses for which the curriculum has been developed.

Institute is bounded by the curriculum designed by university of Mumbai and adheres to its implementation strictly. Apart from it the institute offers various add on courses and workshops to support the curriculum for the knowledge enrichment and better placement of the students. The details of workshops and add-on courses are as follows:

ELECTRONIC & TELE COMMUNICATION ENGINEERING						
Sr. No.	Title	Process of Identification	Class	Resource person Affiliation	Assessment tools used	No. participants
1	Workshop on "IE3D" (2015-16)	Gap Analysis	BE,ME	Mrs. Shilpa Kharche & Mr. Shishir Jagtap	Test	29
2	PCB Workshop (2015-16)	Gap Analysis	SE, TE	IEEE students Branch	Test	110

3	Workshop on Robotryst (2014-15)	Alumni's suggestion	SE,TE,BE	Mr. Kushank Joshi	Competition between participants	75
COMPUTER ENGINEERING						
1	Cloud Computing	Gap analysis	BE	Mr. Bhushan Jadhav	Objective Type test	35
2	Ethical Hacking	Alumni's suggestion	TE	Mr. Anshuman Kak	Student Feedback	48
3	Nurture	IQAC Feedback	SE	Mrs. Alka Purohit	Student Feedback	75
4	Big Data	Expert Suggestion	TE	Mr. Manish Pillai	Student Feedback	48
MECHANICAL ENGINEERING:-						
1	PRO-E/CATIA	Gap Analysis	SE	IGTR	Feedback	31
2	Ansys (CAE)	Gap Analysis	TE	IGTR	Quiz	39
3	HyperMesh	Gap Analysis	BE	IGTR	Feedback	24
CIVIL ENGINEERING:-						
1	Ferro cement construction	Industry expert suggestion	SE,TE, BE	Mr. U M. Paranjpe & Dr. Rucha Jalwardhini	MCQ Test	70
2	Recent Trends in Concrete Technology	Alumni's suggestion	SE, TE, BE	Cyrus Dordi, Vyasa Rao Ambuja Cement	GD	70
3	ETABS Training	Industry expert suggestion	BE	Mr. Destech Structural Consultants, Mumbai	MCQ Test	35
INFORMATION TECHNOLOGY						
1	One day Hardware Workshop	Gap Analysis	SE	Bharat Bhadwkar	Objective test	50
2	Android OS for mobile devices	Industry Feedback	BE	Mr. Vikas Sharma, Nano Cell	Objective test	56

3	Workshop on cloud computing	Advisory Feedback	TE, BE	Mr.Bhushan Jadhav Thadomal College of Engg.	Objective test	34
4	Workshop on AM –III	Student Demand	SE	Mr.R.Kadam	Student Feedback	30
AUTOMOBILE ENGINEERING:-						
1	Computer Aided Design	Departmental Activity	TE and BE	CAD Center	Mock Test	62
ENGINEERING SCIENCES AND HUMANITIES ENGINEERING:-						
1.	Spoken English & personality development	Gap analysis syllabus, Student's feed back	First year students	Mr. Ram Bhise,	GD	49
2	Soft Skills & Employability Skills	Student's feed back	SE,TE,BE	Mrs. Alka Purohit Dr.Neha Sharma	Employability test through question booklet	50
3	Energia 22 nd June to 6th July 2015	Gap analysis syllabus, Interviews of students,	First year students	Mr. Dhiral Prajapat, Saurabh Khetade, Shubham Gawade,	Personality test,	45
4	“Nurture” Soft skill development program	As per guidance of IQAC	First and second year students	Mrs. Alka Purohit	Communication test	All FE, SE students

1.1.8 How does institution analyze/ensure that the stated objectives of Curriculum are achieved in the course of implementation?

Objective related to Academic Process:

1. The number of lectures conducted per subject per semester for teaching the complete syllabus will be minimum 12 weeks x number of hours per week as mentioned in university scheme for the subject.
2. Ensuring quality of teaching and content so that all students attend more than 75% in a semester.

3. The Results of Internal assessment examination conducted on behalf of university will increase by 10% minimum as compared to the results of internal assessment to previous year for all years of Engineering.
4. Providing fast & satisfactory services to students that will save their time for effective studies.
5. Minimum 25% distinction, in final year engineering of all branches.
6. Results of final year for the academic year will be more than 80% for all discipline.

All faculty members follow a course plan for the successful completion of the syllabus. Academic diary for each course is maintained by each faculty which is periodically evaluated by academic coordinators, Head of dept. and Dean Academics. Regular feedback of all stakeholders are taken into consideration for achievement of course outcomes All the PO's are mapped with the course Outcomes and the gap is analysed .The gaps are bridged by add on courses, seminars and expert lectures.

The Heads of the departments periodically review the progress in the syllabus completion and also the performance of the students. A meeting is conducted at the end of each semester and review of how many objectives are fulfilled and corrective actions and preventive measures to be taken to achieve them in coming year are decided. Results are the indicators of achievement of the objectives of the curriculum. Listed below is data of overall final results of all branches, first class and distinction students of all branches in final year of engineering.

Final year results:

2012-13	2013-14	2014-15	2015-16
84.16%	84.6%	89.67%	Result Awaited

First class and distinction students:

2012-13		2013-14		2014-15		2015-16	
First class	Distinction	First class	Distinction	First class	Distinction	First class	Distinction
201	81	227	107	233	154	Result awaited	

1.2 ACADEMIC FLEXIBILITY:

1.2.1 Specifying the goals and objectives give details of the certificate/diploma/ skill development courses etc., offered by the institution.

Apart from university curriculum, various courses are conducted by each department to upgrade the students' knowledge.

The Goals and Objective of these courses are:

- To develop Technical competence
- To establish Community Development Center to nurture Institutional Social Responsibility.
- To empower students through Entrepreneurship Network Cell

- Value addition: To make them ready for corporate world
- To improve Employment skills of students
- Domain Knowledge improvement

College has a practice to implement add on courses as per the feedbacks received from industry experts, Alumni, students, gap analysis of curriculum provided by University. Also the objectives are specified & mapped at the end of course completion for its achievement. The academic flexibility is also offered by providing electives in final year as mentioned in 1.2.3.

Few of the skill development programs in various department are listed below.

ELECTRONICS & TELECOMMUNICATION ENGINEERING			
Sr. No	Title	Participants	Resource Person
1	Technotrantra (Technical Festival (2015-16)	395	Mrs. Deepa Parashar
2	PCB Design workshop (2015-16)	129	IEEE SCOE students branch members
3	Sixth sense Robotics Workshop (2014-15)	184	Mr. Kelvin & Mr. Mitesh from IIT Bombay.
4	PCB Design workshop (2014-15)	52	IEEE SCOE students branch members
COMPUTER ENGINEERING			
1	Oracle Training (2015-16)	55	Mrs. Diksha k.
2	Soft computing (2015-16)	23	Mr. Arun Kulkarni
3	Linux (2015-16)	25	Mr.Jagjit
MECHANICAL ENGINEERING			
1	Workshop on ‘Vehicle Dynamics’	60	Mr. V. Kumar (Chairman, SAE India Western Section, Pune)
2	Fluid Mechanics and Heat And Mass Transfer	60	Mr. Mukhopadhyay (Research Scientist) BARC, Mumbai
3	seminar on “Advances in IC Engines”	60	Mr. Vijay Ghuge- Asst. Manager Mahindra and Mahindra Mumbai
4	CAD/CAM requirements	60	Mr. Joshi Director of CADGURU
CIVIL ENGINEERING			
1	2 days Workshop on ETABS (2015-16)	35	Mr.Bhausahab Desai DESTECH Structural Consultant

2	Two days' workshop on Geotechnical investigation (2015-16)	100	Dr.R.A.Hegde, Prof. & Head, MPSTME
3	Add on course on 'Ferrocement' (2015-16)	100	Mr. U.M.Paranjpe Jalvardhini Pratishtan
4	Expert Lecture on Concrete Technology (2014-15)	110	Mr. Uttam Bhandare RMC INDIA Ghatkopar
INFORMATION TECHNOLOGY			
1	Workshop on cloud computing (2013-14)	34	Mr.Bhushan Jadhav Thadomal College of Engg.
2	Introduction to Mozilla Firefox (2014-15)	72	Mr.Shantosh ShingareIIT,Mumbai
3	1Week workshop on C and JAVA(2015-16)	55	Mrs.Deepika &Mr.Sandeep Chatuphade, Seed INFOTECH
4	Seminar on PL/SQL(2015-16)	52	Mr.Rohit Barve Assist.Prof at vidyalankar college of Engg.
5	One day Hardware Workshop(2015-16)	50	Bharat Bhadwkar
AUTOMOBILE ENGINEERING			
1	Computer Aided Design	62	CAD Center
2	Aptitude Test and Group Discussion	35	Campus Credentials, Thane
ENGINEERING SCIENCES AND HUMANITIES			
1	Industry Institute Interface School Soft Skills & Employability Skills (2014-15)	TE students	Mrs.Alka Purohit Dr.Neha Sharma
2	Energia-Soft skill training (2014-15)	45	Mr. Naman Shaikh
3	Soft Skill Training "Nurture" (2015-16)	FE students	Mrs.Alka Purohit

1.2.2 Does the institution offer programmes that facilitate twinning/dual degree? If yes, give details –

No. The Institute does not provide any dual degree

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to student's in terms of skill development, academic mobility, progression to higher studies and improved potential for employability:

- Soft skills programs are conducted regularly by the training, placement and career guidance cell (TP & CGC) for enhancing the employability of our students.
- Courses such as Industry Institute Interface, School Soft skills and Employability skills, Spoken English and personality development course (ETNL), Energia, Cloud computing, SQL, Robotics, PCB workshop, CAD designing etc. are conducted to improve the students potential for employability.
- Students are encouraged to undergo internship training from third year onwards during vacation.
- The institute provides academic flexibility to the students in terms of undertaking projects in other departments, industries/ research organizations, thereby encouraging inter-disciplinary work.
- The Students of various programs go for higher studies in India and abroad for which the institute organizes training/guidance session for GATE, GRE and TOFEL, through TP & CGC.
- The students are also guided for competitive exams like MPSC, UPSC, and IES etc.
- Expert lectures, seminars, industrial visit, training session are organized on regular basis to cover the content beyond syllabus and to bridge the gap between academics and industry.
- Academic mobility is facilitated by DTE's scheme for change of discipline after completion of first year engineering as per merit.
- Intensive time tables are planned in the beginning of semester and at the end as per need of syllabus.
- The Institute follows the curriculum offered by Mumbai University which is based on choice based grading system. As per the scheme, third year and final year students of various programs are offered number of electives .The students are given academic flexibility to choose any of the elective specified in the syllabus. The academic flexibility is achieved by offering more number of elective as specialization. The various electives offered are listed below.

Sr. No.	Programs	Year/Semester	Elective offered
1	Civil Engineering	BE/VII	1.Reinforced concrete repairs and maintenance 2.Prestressed concrete
		BE/VIII	1.Advanced repairs and rehabilitation of structures 2.Bridge Engineering
2	Mechanical Engineering	BE/VII	1.Power Plant Engineering (PPE) 2.Operation Research(OR)
		BE/VIII	1.Automobile Engineering 2.Renewable Energy Resources
3	Automobile	BE/VII	1.Transport Management

	Engineering	BE/VIII	1.Vehicle Safety
4	Computer Engineering	TE /VI	1.Project Management
		BE/VII	1.Soft Computing 2. Image Processing
		BE/VIII	1. Digital Forensics
5	Information Technology	BE/VII	1.Multimedia System
		BE/VIII	1.Wireless Sensor Network 2. Software testing and quality assurance
6	Electronics & Telecommunication Engineering	BE/VII	1.Data compression and Encryption
		BE/VIII	1..Telecom Network Management

1.2.4 Does the institution offer self-financed programmes? If ‘yes’, list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

NO

1.2.5 Does the college provide additional skill oriented programmes, relevant to regional and global employment markets? If ‘yes’ provide details of such Programme and the beneficiaries.

Additional skill oriented programmes such as Industry Institute Interface School ,Soft skills and Employability skills, Spoken English and personality development course (ETNL),Energia ,Cloud computing, SQL, Robotics, PCB workshop, CAD designing etc. are conducted to improve the students potential for employability and to update the students with the latest technological development .

1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice? If yes’, how does the institution take advantage of such provision for the benefit of students?

: ---- No ----

1.3 CURRICULUM ENRICHMENT:

1.3.1 Describe the efforts made by the institution to supplement the University’s Curriculum to ensure that the academic programmes and Institution’s goals and objectives are integrated?

Activities like industrial trainings, co-curricular, extracurricular events, site visits etc. are conducted for curriculum enrichment and programmes conducted in each discipline to supplement the university’s curriculum keeping in view the goals and objectives of the Institute.

Curriculum Enrichment

ELECTRONIC & TELE COMMUNICATION ENGINEERING				
Sr.	Events taken in	Activities in	Objective	No. of

No	EXTC Dept.	the Events		Partici pants
1	Workshop on “ Brain Tech Network and Cyber Security Championship” 12-13/02/16	Demonstratio n on different network security tools and protocols	To provide practical knowledge on real CISCO routers and switches	110
2	Expert lecture on Network Security By Mr. Anshuman Kak (09-04-2016)	Demonstratio n on Network security.	Insight on latest tools like Nessus, Wire Shark and SQL map.	20
3	Expert lecture on Wireless network and mobile communication. By Mr. M.A. Tamboli(10-03-15)	Demonstration on Wireless network and mobile communication .	Enhanced knowledge of theory and its applications.	130
4	Sixth sense robotics workshopby Mr. Kelvin & Mr. Mitesh (25-26/09/16)	Demonstratio n on Robotics	To encourage and provide a platform to interview with the latest automation arenas with the robots.	46
COMPUTER ENGINEERING				
1	Oracle Training (2015-16)	Training	To bridge the gap between Theory and Practical	65
2	Seminar on NPL (2015-16)	Seminar	To have hands on practice on network programming	58
3	Workshop on “LINUX”(2013-14)	Training	To have hands on knowledge on Linux	57
4	Seminar on “Webinar on SAN” (2012-13)	Seminar	Knowledge of SAN	54
5	.NET Course (100 Hrs) (2011-12)	practical	To get practical knowledge of dot net.	62
MECHANICAL ENGINEERING				
1	‘Advances in IC Engines’ on 19/03/2013	Seminar	To introduce the students to advances and complexities of present day internal combustion engines	60
2	‘Recent Trends In HVAC’ on	Seminar	To acquaint the students with recent trends and	120

	03/10/2013		challenges in Heating Ventilation and Air Conditioning	
CIVIL ENGINEERING				
1	Introduction to Software AUTOCAD(2015-16)	Seminar	To equip students to compete in global market	118
2	Introduction to Software STAAD Pro (2015-16)	Seminar	To equip students to compete in global market	90
3	Visit to Sewage treatment Plant (2015-16)	Site Visit	To understand processes involved in treatment of wastewater.	145
4	Visit to construction site at marathon Nexzone,Panvel (2015-16)	Site Visit	To give a glimpse of genuine engineering environment	121
5	Construction Management (2014-15)	Expert lecture	For better understanding of site and its organization.	118
INFORMATION TECHNOLOGY				
1	Seminar on Big data Analysis (04/03/2016)	Introduction to big data analytic and need of analytic for today's era and tools used for the same.	To make students aware about Upcoming technology and its opportunity in market	55
2	Seminar on Database Connectivity (05/04/2016)	SQL database connectivity with Asp.net	Knowledge of .net and Java w.r.t. database connectivity	97
3	Seminar on DATA MINING (10/03/2015)	Related to mining and how to retrieve data from large database storage	To make student aware how the mining works on knowledge area.	47
4	Workshop on cloud computing (30-31/08/2013)	Real time example of How to	To improve the knowledge about cloud	34

		generate a cloud and how data is actually accessed from cloud		
5	Seminar on Web Programing (15/03/2016)	Designing server pages with HTML,XML and ASP	To develop Website with database connectivity.	65
AUTOMOBILE ENGINEERING				
1	Industry Expert Interaction	Chassis System Design under Product Life cycle	Awareness of new Trends in Technology	88
2	Software Industrial Expert	Scope of FEA in Automobile Industry	Awareness of software used in Automotive Industry	65
3	Expert Lecture	Fluid Mechanics applied to automotive design.	Knowledge beyond Syllabus	66
4	Expert Lecture	Mechatronics-Tool for making automation.	Industrial applications of mechatronics	53
5	Guest Lecture	Application of Thermodynamics for making heat balance sheet of industrial applications.	To understand concept and application of thermodynamics	69
6	Guest Lecture	Theory of Machines related to power transmissions	Recent trends and development in Machines	51
ENGINEERING SCIENCES AND HUMANITIES				

1	Multidisciplinary national seminar on research avenues science and technology and research methodology (12-13/01/2013)	Lecture on Research Methodology	To Find new research trends in science and technology	100
2	Site visit – Sewage Treatment Plant Kharghar. (10-21/08/2015)	Visit to plant for explaining the sewage treatment of water	Awareness of sewage treatment process	540
3	Guest lecturer in Applied Physics by Dr. Karkare (28/9/2015)	Presentation, question-answer	To prepare students for examination	150
4	Preparation for Engineering Mechanics Prof.S.N. Teli (13/10/2015)	Engineering Mechanics	To clear the basic concepts of the subject EM	160
5	Presentation on fuel cell by Dr. Arpita Pal (29/9/15)	Applied chemistry	To prepare students for examination and to clear the concepts of topic fuel	150

1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?

A student council and department wise student association/chapter is formed in the institute and the views of them are taken into consideration while arranging the expert lectures, add on courses, workshops and seminars. Conferences for paper presentation & poster presentation to update with the latest technologies, aptitude test, personality development, value added training programs, Entrepreneurship development program are also arranged. Departments have student chapters MESA, CESA, ETSA, SAIT, RACE which work in teams for successful programs in departments under which various activities are planned.

Sr. No.	Event details	Objectives
1	PCB Design workshop 14 (2014-2015)	IEEE SCOE students branch members
2	Carrier Development Seminar for BE student (2015-16)	To clearly define their career objectives & available opportunities

3	Aptitude Training	To improve all logics
4	Workshop on Robotics By ETSA Committee. (30-31/08/13)	To provide some key points to students for facing interviews related to atomization.
5	Site visit – Sewage Treatment Plant Kharghar.(10-21/08/15)	Awareness of sewage treatment process
6	Site Visit to Sewage treatment Plant, Nerul(9 – 10/10/15)	To understand processes involved in treatment of waste water
7	Java Training (27-31/07/15)	To improve basic concepts of OOP
8	Computer Aided Design	To update designed skills of TE and BE students
9	‘Leadership Qualities and Initiatives’ on (27/10/12)	To highlight the importance of leadership qualities and decision making in all walks of life
10	Seminar delivered on “Leadership Qualities and Initiatives” by Mr. Ramesh Waghode (Senior General Manager, R&D, M & M)	To highlight the importance of leadership qualities and decision making in all walks of life
11	Seminar on Ambition in youth by Manshakti Kendra, Kharghar (14Aug.2015)	For mental strength of students & increased concentration
12	Seminar on Role of student in quality enhancement of higher education by Dr. P.N. Pabrekar (25thAug.2015)	Exposure to quality in higher education
13	Seminar on aptitude and confidence building (3 rd Sept.2015) by Mr. Vinay Raikar	Confidence building activity
14	Elocution competition	Increased confidence level and vocabulary
15	Workshop on campus to corporate	Understanding of path to corporate
16	Orientation Programme First Year Engineering Students	Knowledge of engineering studies
17	Aptitude and Soft Skill	To know the skills to crack aptitude exams
18	Nurture - soft skill and personality development program	Development of soft skills and personality
19	E-summit By EN Cell	Knowledge of entrepreneurs process

Various Aptitude tests, soft skill trainings, personality development sessions, technical expert lectures and guest lectures are arranged to enrich and organize

the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market.

1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?

Sr. no	Particulars	Initiatives taken and Events organized
1	Gender discrimination	Women Development cell, grievance cell, Co-ed institute
2	Climate change	Plantation drives and go green rally's ,water harvesting and marathon
3	Environmental education	Part of university curriculum, STP plant, Rain water harvesting project, marathon
4	Human rights	Women empowerment programmes, Women Development cell, Cell, grievance redressal cell, Anti Ragging cell
5	ICT	Usage of modern teaching methods and tools.

The college organises Women empowerment programmes, and legal awareness programs every year for girl students and faculty.

The College NSS unit has been formed involving students and faculty in a variety of activities that would have a positive impact on the environment:

1. Women's development cell, Grievances cell, Anti-ragging committee, are formed in the institute, and proctor for a group of 15-20 students are assigned to address their problems.
2. Tree saplings were planted in the Campus and also in the neighboring village.
3. Mumbai university curriculum includes EVS (Environmental sciences) and BCE (Business Communication ethics) as core subject to increase awareness among the student.
4. World Wet land day was celebrated in the college in which awareness about the concept was given to students by experts from outside.

1.3.4 What are the various value-added courses/enrichment programmes offered to ensure holistic development of students?

To ensure the holistic development of students various programs like blood donation, marathon, stress management and special session for personality development are arranged, since the university syllabus does not include moral and ethical values development courses.

Special seminar, lectures of the devotees of the organization like "Manshakti" which is working in the field of spirituality and uplifting the moral, ethical values among the student are arranged.

The students are encouraged to organize Engineers day, birth anniversaries of great leaders, social reformers and national days.

Community orientation programmes like NSS participation along with Carrier development courses, Employable and life skills enhancement courses are also organised in the institute in addition to the subjects specified in the syllabus like communication skills, Basics of communication Engineering. Students are also encouraged to take part in debates, elocution, and group discussion for their personality development. For better career options students have the freedom to choose among the list of elective subject options specified in the syllabus. Some of the Employability and life skills and better career programs are mentioned below.

Employability skill development programs life skills development programs

Sr. No	Name of activity	Date	No. of students Counseled
Employability Skill Development Programs			
1	Seminar delivered on “Leadership Qualities and Initiatives” by Mr. Ramesh Waghode (Senior General Manager, R&D, M & M)	27/10/2012	60
2	Seminar on Ambition in youth by Manshakti Kendra, Kharghar (14Aug.2015)	14/08/ 2015	180
3	Seminar on Role of student in quality enhancement of higher education by Dr. P.N. Pabrekar (25thAug.2015)	25 /08/2015	180
4	Seminar on aptitude and confidence building (3 rd Sept.2015) by Mr. Vinay Ghodawat	3/09/.2015	578
5	Elocution competition	13/10/2015	80
6	Workshop on campus to corporate	2015-16	600
7	Orientation Programme First Year Engineering Students	Every year	All students
8	Aptitude and Soft Skill	2014-15& 2015-16	TE & BE students
9	Nurture - soft skill and personality development program	2015-16	FE & SE students
10	E-summit By EN Cell	2015-16	TE & BE students
Life Skills Development Programs			

1	Marathon organized By SES for Women Safety and Student Wellness	17/09/2013	500
2	Blood Donation Camp on Foundation Day	17/09/2013	15
3	Seminar on Hospitality and Etiquettes	2/09/2015	287
4	The CESA organized Blood Donation Camp in association with D.Y Patil Hospital and Medical College, Navi Mumbai	17/09/2014	75
5	Workshop on 'Self Defense Drive for Women'	17/09/2014	35
6	Marathon(Run for women safety)	17/09/2014	700
7	Vidya Orphanage (donation drive)	15/09/2015	70
8	Marathon(Run for Alcohol free kharghar)	20/09/2015	225
9	Marathon organized by SES for Women safety and student wellness	17/09/2013	500
10	Road safety rally	22/01/2015	400
11	Art of living Course (S+ Course) by Miss Manisha& Mrs. Pratima (Vivekand College)	09/ 2013	53
12	Cancer Awareness for women	8/3/2016	50
13	NSS Day celebration and workshop on personality development	24/09/2015	200
14	Kolhapuri dam(Bhandara construction) at NSS Special camp	11-17/02/2016	26
15	Donation Drive for orphanage and old age home	11-15/01/16	150
16	Self-defense workshop for girls students(FE) by KLM international foundation	8/03/2016	70

1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?

A proper procedure is developed in the institute through which feedback from stakeholders –students, alumni, industrial expert's parents is taken and after analysis it is forwarded to the faculties who represent the institute to the University for Curriculum Development. Based on the feedback various add-on courses are introduced in the institute to meet the latest technology demand as per the suggestions received from various stakeholders, faculties suggest the changes in the syllabus to be induced in the process of syllabus revision.

- Parent Teacher meeting 12/03/2016
- Agenda of meeting: Students attendance, their progress, Add on course and their importance, placements
- Feedback: **Appreciated points**-Good Academic, Adequate supporting activities, positive environment 100% placement assistance, and **Scope for improvement**- effective communication with parents, facilities in the campus.
- Alumni meeting 28/05/2016

- Agenda of meeting: collection of student's data and their current profile, their achievements, suggestions, importance of their contribution for, placements and bond with the Alma mater.
- Feedback: **Appreciated points**-Good Academic, Adequate supporting activities, positive environment 100% placement assistance, and **Scope for improvement**- more add on and industry oriented courses.

1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

The institute along with Training, Placement and Career Guidance Cell organizes various programs for enhancing students employability and analysed through

- Feedback and certificates
- Written and oral tests and the results.
- Projects and presentations and evaluation.
- Performance in placement test and interviews
- End semester results
- Mappings of PO's and CO's
- Employer's feedback
- To initiate corrective action based on it.

1.4 FEEDBACK SYSTEM:

1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

Our institute is affiliated to Mumbai University and bound by its curriculum. The university appoints senior faculty members as members of Board of Studies/Syllabus committee/Syllabus revision committee etc. The senior faculty members of our institute are part of syllabus revision committee of various programmes as listed below:

- Dr. Manjusha Deshmukh – Electronics and Telecommunication Department
- Dr. Bharti Joshi – Computer Department
- Dr. Seema Lathkar – Engineering Sciences and Humanities
- Mr. S N Teli – Mechanical Department
- Dr. Fauzia Siddiqui – Mechanical Department
- Mrs. .Roshni John-Civil Department
- Mr. D M Joshi- Civil Department
- Mr. T Z Quazi-Automobile Engineering Department
- Mrs. Shilpa Kewate- Civil Department
- Mrs. Pooja Somani- Civil Department
- Dr. Sunil rangari- Civil Department
- Mrs. Sheetal Bukkawar

Mr. U W Mate, Civil department represented as a member of Board of Studies and faculty of technology of Mumbai University.

As per the suggestions received from various stakeholders, faculties suggest the changes in the syllabus to be induced in the process of syllabus revision.

The orientation programmes for revised syllabus in Mathematics for Civil, Automobile and Mechanical department and in Microprocessor and microcontroller for E&TC department was organized on behalf of Mumbai University.

Analysis of prerequisites of every syllabus content, designing the course objectives and outcomes and also program objectives and outcomes is done by concerned faculty of departments. Along with proper planning and implementation of curriculum.

The institution has also adopted the concept of Quality circle wherein the suggestions given by members of quality circles are conveyed to the syllabus revision committee for inclusion.

College has representation in BOS of various programs, which facilitates inclusion of views of faculties and advisory committee members of college at university level. Faculties of each department are deputed to participate in orientation/refresher course of revised syllabus.

Vision technical teachers training (T³), techno skills, mission 10x were organized in the institute for curriculum enrichment and teaching skill development

1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If 'yes', how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?

Institute has formulated a mechanism to obtain feedback from students and stakeholders, employers/industries and experts from academician.

- **Students:** Feedback for teaching and learning activity is taken twice a semester. It is an online system. The feedbacks are analyzed and conveyed to faculty members. If the feedback is less for any of the faculty member then he or she is made aware about the lacunas if any, and guided by authorities for improvement.

A student council is formed in the institute and they are a part of decision making process in each program. Students' council members represent their program and conveys their academic issues to the head of the dept. And these are communicated to the university through senior faculty and taken into consideration at the time of syllabus revision

- **Alumni:**

Alumni meet is arranged in the institute every year and their views, suggestion are noted. Based on alumni students suggestion various add on courses are organized in the dept. to meet the industry requirement and making our students employable

- **Parents:**
A Parents teacher meet is organized in each semester and issues related to the curriculum are discussed and their feedback is taken for improvement in teaching activity and facilities in the campus.
- **Employers/ Industries:**
Training and placement cell regularly interacts with the HR of various industries and their feedback is forwarded to the programs heads and corrective action and courses are design to make the student employable
- **Academician/ experts:**
The views expressed by the experts who visit the institute during STTP programs, conferences, add on courses, seminar, guest lecture on the current scenario and requirement of industry are also incorporated.

1.4.3 How many new programmes/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?

Intake table year wise

Due to demand from market one UG course is introduced in the institute. To initiate research activities in the institute PG courses are introduced.

Sr. No.	Type of Course	Name of course	Year of establishment	Approved intake
1	UG	Automobile Engineering	2011	60
2	PG	Mechanical Engineering (Manufacturing System Engineering)	2011	18
3	PG	Electronics and Telecommunication	2011	18
4	PG	Computer Engineering	2013	18
5	PG	Civil Engineering (Structural Engineering)	2013	18

Criterion II: Teaching - Learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 How does the college ensure publicity and transparency in the admission process?

Publicity: The Institute makes surety of its publicity through

- Institute Website: www.sce.edu.in
- Institute prospectus
- Leaflets
- Placement Brochures
- FDP and Student program Brochures
- Web link for International Conference
- Advertisements in Newspapers
- Banners
- Placement Pool Campus Drive invitations
- National level project competition “Avishkar”
- DTE approved Centralized admission center (ARC)
- Regular news in Newspapers
- Facebook page of college and departments etc.

Transparency:

- Display of Policies through websites (Policies related to fee structure, course curriculum, rules and regulation of university and institute).
- Involvement of Student representatives in Academic and Decisions related to co-curricular and Extra-curricular activities for the students.
- Institute conducts the centralize admission process designed by government of Maharashtra and DTE.

2.1.2 Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes of the Institution.

Institute is involved in centralize admission process of DTE and Government of Maharashtra, all the rules, regulation and guidelines for merit admissions for CAP are strictly followed every year.

Institute Level admission percentage is decided by DTE as per the DTE guidelines, Institute has framed its procedure for conduction of management admissions.

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Institute Level admission percentage is decided by DTE as per the DTE guidelines, Institute has framed its procedure for conduction of management admissions.

As per the DTE Maharashtra rules the college admits 20% reservation seats in the management quota.

2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.

Institute follows rules of DTE for all admissions. All comparative data about cut of marks is available on DTE Maharashtra website.

Saraswati College of Engineering FE Percentage Details Academic Year-2015-16(Composite Score)			
Sr.No	UG Programme	Max. Score Of JEE	Min. Score Of JEE
1	Civil Engg Shift I	85.76	11.57
2	Civil Engg – Shift II	69.56	20.34
3	Mechanical Engg Shift -I	87.27	16.94
4	Mechanical Engg Shift-II	78.39	19.97
5	E&TC Engg	75.54	20.78
6	IT	77.29	18.38
7	Computer Engg	82.34	17.43
8	Automobile Engg	89.32	15.28

DSE Percentage Details Academic Year-2015-16			
Sr.No	UG Programme	Max. Score Of JEE	Min. Score Of JEE
1	Civil Engg Shift I	88.63	58.90
2	Civil Engg – Shift II	85.45	64.24
3	Mechanical Engg Shift -I	84.00	57.17
4	Mechanical Engg Shift-II	82.76	61.47
5	E&TC Engg	75.24	52.86
6	IT	72.59	58.88
7	Computer Engg	77.56	57.87
8	Automobile Engg	75.35	54.03

ME Percentage Details			
Academic Year-2015-16(Gate Score)			
1	Civil Engineering	26.67	5.79
2	Comp Engineering	11.67	8.85
3	Mechanical Engineering	0.0	0.0
4	E&TC Engineering	13.35	13.35

Comparison with nearby college: The marks during admission (JEE & 12th standard marks) at entry level are compared with other colleges in table given below for academic year 2015-2016 MGM College of Engineering

Course	SCOE		ACPCOE	
	Min	Max	Min	Max
Civil(Shift –I)	11.57	85.76	-	-
Civil(Shift –II)	20.34	69.56	-	-
E&TC	20.78	75.54	19.83	58.8
Mechanical(Shift –I)	16.94	87.27	30.64	83.07
Mechanical(Shift –II)	19.97	78.39	-	-
Computer	17.43	82.34	35.1	74.08
IT	18.38	77.29	28.51	67.35

2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If ‘yes’ what is the outcome of such an effort and how has it contributed to the improvement of the process?

Analysis of admission process:

The Institute is self-financed, un-aided, private and affiliated to University of Mumbai and governed by AICTE. The admissions are governed by DTE Maharashtra. The Institute follows all the rules and regulations of DTE Maharashtra for admission process and there is no separate mechanism to review this process.

The Institute has an admission cell, which takes care of proper publicity of the institute through different Media like Website, Newspaper, Leaflets, Banners, Prospectus, and Seminars in different institutes.

The admission Cell also takes care of proper counselling of aspirants by arranging information sessions and carrier guidance programs.

B. Analysis of student profile:

The Institute analyses the data of admission every year for a review in terms of its admission process, student profile, quality, quantity, diversity and its variety. Accordingly, quality decision making criteria are proposed for more quality intake in future, which involves fees in instalments for needy, book bank schemes, appreciation, prizes for toppers, up gradation of quality objectives for placement, results, services and infrastructure development.

C. Outcome of assessment of student profile:

Understanding weak learners and arranging foundation classes for them has facilitated in refining their capabilities to understand basic concepts. As an effect, we are able to improve the results.

2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion

SC/ST

OBC

Women

Differently abled

Economically weaker sections

Minority community

Any other

The admission process is administrated by Government of Maharashtra and DTE, all the rules and regulations set by the competent authority are strictly followed.

All the reservation rules and criteria for admissions of SC/ST, OBC, Women, differently abled, economically weaker sections, Minority community, any other are followed as per government norms.

The admissions at College level for management quota is available to students all over India.

Special reservation for J & K students as per DTE's Structure of division of admission seats.

Facilities are provided for differently abled, economically weaker sections, and minority community students as per need and government rules.

TFWS scheme is implemented as per DTE rules.

Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e. reasons for increase / decrease and actions initiated for improvement

Sr. No	Programme	Year	Number of applications (Y)	Number of students admitted (X)	Demand Ratio (X/Y)
UG					
1	Electronic and Telecommunication Engineering	2015-16	120	59	0.5
		2014-15	120	90	0.75
		2013-14	120	126	1.05
		2012-13	120	127	1.05
		2011-12	120	124	1.03
2	Computer	2015-16	60	58	0.966

	Engineering	2014-15	60	48	0.8
		2013-14	60	58	0.96
		2012-13	60	64	1.06
		2011-12	60	62	1.03
3	Mechanical Engineering Shift-I	2015-16	120	127	1.058
		2014-15	120	118	0.98
		2013-14	120	126	1.05
		2012-13	120	127	1.058
	Mechanical Engineering Shift-II	2015-16	60	60	1.0
		2014-15	60	56	0.933
		2013-14	60	60	1.0
		2012-13	60	60	1.0
Mechanical Engineering	2011-12	90	95	1.05	
4	Civil Engineering Shift-I	2015-16	120	122	1.01
		2014-15	120	122	0.975
		2013-14	120	127	1.067
		2012-13	120	127	1.058
		2011-12	120	126	1.05
	Civil Engineering Shift-II	2015-16	60	56	0.93
		2014-15	60	45	0.75
		2013-14	60	60	0.98
5	IT Engineering	2015-16	60	46	0.76
		2014-15	60	32	0.53
		2013-14	60	60	1.00
		2012-13	60	64	1.06
		2011-12	60	57	0.95
6	Automobile Engineering	2015-16	60	49	0.817
		2014-15	60	39	0.65
		2013-14	60	61	1.05
		2012-13	60	63	1.05
		2011-12	60	60	1
7	ME. Computer Engineering	2015-16	18	8	0.44
		2014-15	18	15	0.833
		2013-14	18	18	1
8	ME. Mechanical Engineering	2015-16	18	16	0.88
		2014-15	18	08	0.44
		2013-14	18	18	1
		2012-13	18	18	1
		2011-12	18	17	0.94
9	ME. Civil	2015-16	18	18	1

	Engineering	2014-15	18	17	0.94
		2013-14	18	18	1
10	ME. Electronic and Telecommunication Engineering	2015-16	18	06	0.33
		2014-15	18	07	0.38
		2013-14	18	18	1
		2012-13	18	18	1
		2011-12	18	18	1

Ratio more than one is because of the Tuition Fee waiver Scheme (TFWS) quota.

Reasons of increase /decrease:

Engineering students favor placement jobs instead of going for higher education. The increasing number of colleges and more number of engineering seats are getting available for UG and PG. This fact is influencing the number of admissions taking place.

Market Demand and fluctuations

Divergence of student interests to other upcoming fields

Options of other professional courses available

The college is taking special efforts to increase the admissions and attract the students by

Increasing Training activities.

Increase in number of University Rankers from 1 to 17 (2013-14 to 2014-15)

Increasing number of Placements from 271 to 316 (2013-14 to 2014-15)

Actions:

Proper Counseling of aspirants

Infrastructure development

More placement activities

ISO- Certification of the institute.

More advertisement through various media

Concentration on more quality results

Fast and appropriate services to stakeholders

Initiated NAAC and NBA.

2.2 Catering to Student Diversity

2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

For the differently-abled students (physical disability), Ramp and separate sanitary facilities, lift etc. are provided by the institute. In some instances, the faculty gives extra coaching for a visually impaired and handicap students in the college.

Institute provides following facilities:

- Ramps
- Separate sanitary facilities

-
- Wheel chair
 - Extra coaching, special attention and extra time for writing exam paper as per recommendation from expert
 - Special arrangement in the university and other examinations
 - Additional support for students through proctor system
 - Appointment of Counselor for the students,
 - Institute provides facilities and support in following aspects:
 - Appreciation of Topper students in examination through attractive cash prizes and certificates. Book-bank schemes. Motivating students for publishing and presenting papers and competing in different conferences and technical festivals.
 - Promoting organizational and leadership qualities by organizing programs through the student Councils and association.
 - Guidance for referring available online journals, materials.
 - IIT remote workshop center in process
 - IIT library membership
 - Financial support for participating in outside project competition.

2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

Students get admission in engineering college in Maharashtra on the basis of the common entrance test and merit obtained in the same. Students belong to different school streams viz., State board, CBSE and ICSE. Their level of knowledge in key subjects and their assessment in school also varies widely. So the gaps are bridged before the commencement of the first year classes by conducting an induction programme in the important subjects. Students need in terms of knowledge and skills is identified through a program called "NURTURE". Along with the same, college has practice of intensive coaching for first two to three weeks, where basic required concepts for learning higher order subjects get automatically covered. During the academic programmes slow learners are identified in specific subjects and extra coaching classes are conducted after the college working hours or individual attention is paid to improve their performance and confidence level.

2.2.3 What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students (Bridge/Remedial/ Add-on/Enrichment Courses, etc.) to enable them to cope with the Programme of their choice?

Through the process of mapping of CO'S and PO'S the gap between curriculum and requirement of industry are evaluated. Also the gaps between the syllabus of 12th std. and engineering curriculum of the first year are identified and

Bridge/Remedial/Add-on/Enrichment Courses are conducted for newly enrolled students in their respective domain.

Experts from the industries, academics and research are invited for giving lectures to bridge the knowledge gap of the students.

Faculty members enrich their content by providing extra knowledge to the students by giving information on contents beyond the syllabus to enhance their knowledge.

To connect the gap between curriculum and requirement of industry, various add-on courses are conducted for the students by various disciplines.

Special trainings to the students are organized on the current needs of industry by conducting add-on courses and workshops to minimize the knowledge gap of the students during the regular academics.

Industrial visits are organized for the students every year for all departments to shape their strong practical knowledge to meet the future needs of the industries.

Proper practical training is provided to the students during the laboratory hours.

Additional laboratory exercises are conducted for the enrolled students in the evening after the regular class timings which is known as content beyond syllabus.

Internship activities are arranged by all departments at third year level to give the students industrial exposure.

Project based learning concept is adopted for SE, TE and BE students for better learning of core engineering knowledge and skills.

Paper and poster presentations are arranged for advanced learning of students in research area topics.

2.2.4 How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?

Sensitized issues	Activities arranged
Gender	Coeducation Women empowerment programmes, Women Development cell, grievance cell, policy for equality and opportunity in gender.
Climate change	Plantation drives and go green rally's and marathon
Environmental education	Part of university curriculum, STP plant, Rain water harvesting project
Human rights	Women empowerment programmes, Women Development cell, Cell, grievance redressal cell, Anti Ragging cell

The institute does not differentiate the students and its faculty on the basis of their gender. Opportunities are available to both the genders. During the Induction Programme for the fresher of first year and direct second year students and during faculty induction Programme for its new faculty, clear instructions regarding rules

,regulations, no discrimination based on gender, cast ,and region etc. policy are given to all of them. Nearly 80% of the faculty and 40% of the student's strength are females. All the necessary facilities for the females in the college have been effectively taken care of; there is no gender bias in the class room also.

There is grievance mechanism available to address any of the issues. Woman development cell is been activated for faculty and students as per the guidelines of university of Mumbai, which organizes many awareness, defence, and woman empowerment programs throughout the year.

All measures to motivate economically backward and socially deprived students are taken care of by academic sections and office.

College organizes various programs like marathon for women safety, for integrity at social level. Blood donation camps are organized for social awareness and social cause, which brings everybody under one umbrella. Institute arranges sports, cultural and moral/ethical value addition programs for faculty and students. Also institute organises tree plantation program to develop environmental awareness among all stakeholders. Environmental science and sustainable development is an integral part of the academics. The need for conservation of energy, water, etc. is emphasized at every opportunity.

2.2.5 How does the institution identify and respond to special educational/learning needs of advanced learners?

All departments find the requirements of the advanced topics from the gap analysis, alumni feedback and arrange sessions on the content in the regular basis. Many departments organize activities like symposiums, workshops and seminars and students of various departments are encouraged to take part to gain knowledge.

Student's activities through IEEE, ISTE, IETE, CSI, SEM, and ISHRE are arranged for more learning opportunities to advanced learners.

Resource persons from industries and academic institution are invited to deliver guest lecture on the advanced topics.

The Institute library has e-journals and e-books facility, through which the students get more knowledge content.

The faculty members address content beyond the syllabus, along-with the completion of syllabus to enrich the knowledge of the students.

The students are encouraged to do projects and mini projects under the guidance of the faculty members in SE, TE, BE.

The institute organizes competitions like quiz, debate, technical paper presentations, and Avishkar project making competition.

Motivation for trainings in value added ad on courses for better employability opportunities.

Close observation of students by faculty and special guidance for good performance in academics.

Institute has a Training and Placement and Career Guidance Cell (TPCGC) which organizes special training and guidance session for students for preparing for competitive examination Vis, GATE, CAT, GRE, TOEFL, MPSC, and UPSC etc. Also the TP&CGC organizes the aptitude training programs for students to help them to crack Aptitude tests.

Guidance in research activities, patents, project management through R&D cell and Entrepreneur Network cell.

2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the Programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?

Sr. No.	Tools/Process for assessment	Frequency	Administered
1	Examination Result analysis	01/Semester	University of Mumbai
2	ISO files preserved by department including all academic data	01/Semester	ISO I/C and HOD
3	Student satisfaction index for teaching and facilities	02/ Semester	Subject teacher, HOD
4	Parent -Teacher interaction and feedback	01/ Semester	Class advisors and Counselors/proctors
5	Site visits, IV's and visit to R&D institutes	As per need during and the Semester	All faculty
6	Seminars/ workshops	01/ Class/ Semester	All faculty
7	Term work	As per syllabus	All faculty
9	Remedial lectures for failures and special lectures for slow and advance learners	after declaration of results and as per need of subject	Subject result less than 75%

Subject teachers of various departments identify the academically weaker students and give special attention for their holistic growth. Regular counseling is also done to all the students by the faculty members through proctor system.

College finds out weak learners at the risk of drop outs through the result analysis of every semester, and also takes special measures of remedial hours for such students.

The institute maintain student data system regarding the academic related activities like assessment test, university exams, and internal exams in respective departments.

The slow learners and students from disadvantaged communities and students with low marks are given extra coaching after the normal working hours of the college.

The institute has students who are at risk of failures and dropouts. It is usually rectified with the measures like student counseling by faculty counselor, Motivation Lectures, Provision of scholarship for economically backward students, and by discussing the student progress with their parents in regular intervals, psychological counseling done every year for depressed students by special counselor.

Institute also supports and motivates physically challenged students by providing all necessary infrastructural facilities to them.

The disadvantaged section of society (SC/ST/OBC), physically disabled, and EBC students receives the benefit of reservation, free ship, scholarship, EBC, TFWS and social welfare scheme as per norms of DTE and Government of Maharashtra.

2.3 Teaching-Learning Process

2.3.1 How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)

The college plans and organises the teaching, learning and evaluation schedules in following way

The institution follows the academic calendar which is released before commencement of the semesters.

Faculties prepare lecture plans for 12 weeks (12 X no. of hours per week).

The observation of the lectures is done by regular monitoring through HOD, Academic Coordinator, Class Teachers, ACC committee and Dean Academics. Lecture monitoring format is followed strictly by them.

After 40% completion of syllabus First test is conducted and after 70% completion of syllabus the second test is conducted. Paper setting is done as per norms of Mumbai University. Average of two tests are taken and awarded to students for final exam score.

Continuous assessment of practical is also done by using academic diary. Scores and their average with respect to performance of students are awarded for final exam score.

SARASWATI COLLEGE OF ENGINEERING, KHARGHAR, NAVI MUMBAI - 410210
ACADEMIC YEAR 2015-2016
ACADEMIC CALENDAR 2015 (ODD SEMESTER) 13th July 2015 to 25th December 2015

Month	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Group	Remarks	Activities
July			1	2	3	4	5			Institute Non-Instructional Days
	6	7	8	9	10	11	12			13 th July Term Begins SE, TE, BE
	13	14	15	16	17	18	19	5	13 th 18th July	Final three weeks Intensive Time-Table
	20	21	22	23	24	25	26	5		20 th July 1st Year Engineering Begins
	27	28	29	30	31			5		Formation of Student Council
August					1	2	3			3rd August M.E. Sem-I Term begins
	3	4	5	6	7	8	9	5		4th August 15 - First Defaulter List 5th August 15 1st Feedback
	10	11	12	13	14	15	16	5	15th August Independence Day	First Unit Test (14th, 17th & 19th August 2015)
	17	18	19	20	21	22	23	4	18th August 1st Year New Year	
	24	25	26	27	28	29	30	5		
31							1			
September		1	2	3	4	5	6	4		2nd September 15 Second Defaulter List
	7	8	9	10	11	12	13	5		9th September 15 Second Feedback 12th September 15 1 st UTM
	14	15	16	17	18	19	20	4	17th September Ganesh Chaturthi, Purnima Day	Second Unit Test (16th, 21st and 28th September 15)
	21	22	23	24	25	26	27	4	15th Sep Baisak	
	28	29	30					3		
October			1	2	3	4	5	2	2nd Oct Gandhi Jayanti	
	6	7	8	9	10	11	12	5		Remedial Classes and Display of Final Defaulter List
	12	13	14	15	16	17	18	5		
	19	20	21	22	23	24	25	3	22nd Oct Dusshera, 24th Oct Mahavaram	Term End 24th October 15
	26	27	28	29	30	31		5		26th Oct 15 to 16th Nov 15 Submission, Oral, Practical Exams for S.K, T.E, B.E.
November	2	3	4	5	6	7	8	7.5	Total Instructional Day	Subject distribution for next Odd Sem
	9	10	11	12	13	14	15		11th Nov Diwali, 13th Nov 1st Year Term	9th Nov 15 to 17th Nov 15 Submission, Oral, Practical Exams for E, E, B, B.E.
	16	17	18	19	20	21	22			19 th Nov Christmas (Tentative) - Commencement of Theory Exams for E.E, B.E, T.E, B.E & BE
	23	24	25	26	27	28	29		26th Nov Gauri Navami Jayanti	
	30									
December		1	2	3	4	5	6			3rd Dec onwards Commencement of E.E-I Theory Exams
	7	8	9	10	11	12	13			
	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27		24th Dec Millad us sa, 25th Dec	Sports and Cultural Meet
	28	29	30	31						

*Date for the feedback: Two PTM only change

Dr. Bharti Joshi

Dr. Manjusha Deshmukh

DOC NO: AP/FR-01 REV-00 (15/12/2014)

The Institute Website, Academic Calendar & schedules consists of the following information.

Vision and Mission, PO's and PEO's, Rules & Regulations of the institute, Information about the Departments, Functional Committees, Contact Information of Functional Committee Members, Academic Events, Anti-ragging and Grievance cell, Assessment Schedules, Sports and cultural Schedules, List of Holidays, Examination schedules, Schedule of co-curricular and extracurricular activities

CONSOLIDATED MARK SHEET					
Branch- <i>dll</i>	Semester- <i>I</i>	Subject- <i>Ac-I</i>	Division- <i>E</i>	Year- <i>2015-16</i>	
Roll No.	Name of student	Assignment Average Score (A)	Avg. Attn. Score (B)	Average Practical Score (C)	Term Work marks (A+B+C)
1	patel Aniket Anil	9	3	10	22
2	patel Bhavesh	9	5	10	24
3	patel Harshad	10	5	10	25
4	patel Nitish	10	5	10	25
5	patel Jayant	-	-	-	-
6	patel Vikash	9	5	10	24
7	patel Amit	10	5	10	25
8	patel Anshuman	10	2	9	21
9	phadke Aniket	10	5	10	25
10	pike Pankaj	10	4	10	24
11	Raut Nitish	10	5	10	25
12	Rohini Kulkarni	10	3	10	23
13	Shankar Bhaskar	10	4	10	24
14	Sambhar Vinaykumar	10	4	10	24
15	Sanjay Shalendra	10	4	10	24
16	Sandhya Pratik	10	4	10	24
17	Sawade Ganesh	10	4	10	24
18	Sawade Sushil	10	4	10	24
19	Shinde Aditya	10	5	10	25
20	Shinde Bhaskar	9	4	10	23
21	Shivalkar Aditya	10	5	10	25
22	Singh Anam Kumar	10	4	9	23
23	Singh Anshuman	9	3	10	22
24	Surve Manish	10	3	10	23
25	Tampare Chetan	10	4	10	24

TEACHING PLAN				
Sl. No.	Topic planned	Lecture No.	Date Conducted	Reference (T/B, book page no.)
1	Introduction to computer	1	21/8/15	...
2	Hardware & software	2	22/8/15	...
3	Types of hardware	3	23/8/15	...
4	Memory	4	24/8/15	...
5	Input devices	5	25/8/15	...
6	Output devices	6	26/8/15	...
7	Networking	7	27/8/15	...
8	Internet	8	28/8/15	...
9	Web browser	9	29/8/15	...
10	Search engines	10	30/8/15	...
11	Spreadsheets	11	31/8/15	...
12	PowerPoint	12	1/9/15	...
13	Database	13	2/9/15	...
14	MS Word	14	3/9/15	...
15	MS Excel	15	4/9/15	...
16	MS Access	16	5/9/15	...
17	MS Project	17	6/9/15	...
18	MS Visio	18	7/9/15	...
19	MS Publisher	19	8/9/15	...
20	MS OneNote	20	9/9/15	...
21	MS Lync	21	10/9/15	...
22	MS Skype	22	11/9/15	...
23	MS Teams	23	12/9/15	...
24	MS SharePoint	24	13/9/15	...
25	MS Exchange	25	14/9/15	...

2.3.2 How does IQAC contribute to improve the teaching –learning process?

IQAC evolves mechanisms and procedures to:

- Ensure heightened level of clarity and focus in institutional functioning towards quality enhancement;
- Ensure internalization of the quality culture;
- Ensure enhancement and coordination among various activities of the institution and institutionalize all good practices;
- Provide a sound basis for decision-making to improve institutional functioning;
- Act as a dynamic system for quality changes;
- Build an organised methodology of documentation and internal communication. During the institutional visit the NAAC peer teams will interact with the IQACs to know the progress, functioning as well as quality sustenance initiatives undertaken by them.

IQAC for Saraswati College of Engineering is as follows:

Particulars	Name of the Member
Chairperson (Head of the Institution)	Dr. Manjusha Deshmukh
Senior administrative officers	Dean Academics, Dr. Bharati Joshi, Dean Administration Mr. S.N. Teli, Registrar Mr. Amar Shinde.

Teacher Coordinators	Mrs. Sheetal Bhujade, Mr. U. W. Mate Mrs Shilpa Kewate, Mrs. Vijaya Waghmare, Mr.P.D.Ingle, Mr. Madan Jagtap, Mrs. Anuradha Dandawate
Member from the Management	Wing Commander L. Devrajan(Retd.)
Nominees from Alumni	Mr. Rohan Amre, Mr. Mithil Mane (Students), (Local society)
Nominees from Student Council Member	(G.S.) Mr. Rikesh Salin
Nominees from Employers Industrialists/stakeholders	Mr. Suresh P. – HR (Protegrity), Mr. Himanshu Patel HR (Paramatrix), Reema Halder – HR (Mindcraft)
Coordinator/Director of the IQAC (Steering Committee Head)	Dr. S.V. Lathkar
Parent Representative	Mr. Vijay Patil

2.3.3 How learning is made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?

The support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students by arranging training sessions on effective teaching methodologies, modern methods of teaching using interactive teaching techniques and audio visual aids. Faculty are also encouraged to attend faculty development programs outside the campus. QIP sessions are arranged by all departments where faculties are trained for better presentation skills and interactive lectures. Details of FDP programs organized by the institute are mentioned in 2.4.3.

Attention is given to individual student through mentors both in academics and extracurricular activities. Interactive teaching techniques are preferred during everyday teaching activity. These methods include audios, visuals, NPTEL lectures, demonstrations, supervised study techniques, role plays, chalk and duster method, power point presentations etc. Project based learning is also given more importance in second, third and final year of engineering. Industrial visits are arranged for more industry oriented knowledge. Add on course are arranged to fill the gaps in the syllabus and actual needs of industry in every discipline.

Seminars/Guest lecture: Every department arranges guest lecturers delivered by eminent personalities from Industries and Academics for students. Workshops

and seminars are also arranged frequently by each Department. Student project competition “Avishkar” is organized by each Department every year.

Efforts are taken for language development and presentation skills.

Guidance for group discussion and personal interviews, Aptitude test etc.

Interactive studies:

Practicals, audio, visual demonstrations, roll plays, chalk and duster, these methods are used for effective interactive studies.

Project based learning: Question answer sessions, brain storming sessions etc. are conducted to support project based learning.

Collaborative learning: Role plays , group studies, project based studies, project competitions, paper presentation competition , activities under student chapters , industrial visits, technical events during Nakshtra , support collaborative learning.

Independent learning: Seminar by the students, guest lectures, workshops, report writing activities serve independent learning.

Others:

Technical Societies and Student chapters of National level are active and students are encouraged to present technical papers at National/ International Conferences. Peer interaction is done through inter collegiate student technical and cultural programs which are arranged and conducted by students and funded by the College.

2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

Nurturing critical thinking, creativity and scientific temper:

Projects are assigned for UG/PG level students to encourage them in the field of research.

Students are persistently motivated and encouraged to present their Project/Research work in Different National/International Seminar/Conference/Workshop and publish their work in National/International Journal and Seminar/Conference Proceedings.

Institute organizes various events like code cracking, web designing, poster presentation, straw structures, and robotic competition to enrich their creativity.

Students are rewarded for their outstanding performance in project competition and other relevant fields.

Entrepreneurship Network Cell is active in the college to cultivate creative minds and provide platforms to innovative ideas.

2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? E.g.: Virtual laboratories, e-learning - resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.

Use of LCD for regular teaching: Faculty in all departments use LCD projector for power point presentation in regular teaching for applicable subjects. Minimum two LCD projectors are available in each department.

Digital library: Digital library facility is available for reference.

Faculty uses open courseware from national and international universities like IIT, MIT (USA). Virtual laboratories, e-learning resources from National Programme on Technology Enhanced Learning (NPTEL), open educational resources, mobile education etc.

Technologies and facilities available: Computers with internet facility in all departments & Wi-Fi connectivity.

Language laboratory: Language laboratory is available for improvement of student and faculty.

OHP's are available in department for use in classrooms.

MATLAB, IE3D, Micro wind, Scilab software are available for teachers input in content preparation.

ANSYS, PROE, CAD-CAM, AutoCAD software are available for mechanical and civil engineering for better practical guidance.

2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?

Faculty:

Faculty members and students are motivated to take part in various National, International conferences, Seminars, Refresher courses, Workshop, project exhibition, orientation courses, Job fairs, paper presentations.

Institute arranges National, International symposiums, Conferences, Workshops to motivate the faculty members.

QIP's are arranged for faculty on regular basis for advance knowledge and confidence development among faculty members.

Quality circle meetings are arranged monthly for different themes in discipline to discuss upcoming technologies and smoothen the teaching and learning activity and also for resource generation of teaching material like notes, PPT's, Monographs.

Students:

Add on courses are arranged by all departments for the students to bridge the gap between industry needs and Curriculum.

Departments have their student chapters through which department conducts various extra-curricular and co-curricular activities.

Internship activities are arranged for students for good industry exposure.

Industrial visits are arranged for faculty and students on regular basis to organizations like C-DAC, BARC, IIT SAMEER, LAVASA etc.

Field visits and site visits are frequently arranged for on hand experience to faculty and students.

Expert lectures and guest lectures are arranged with a good frequency for up gradation of knowledge of faculty and students.

2.3.7 Detail (process and the number of students/benefitted) on the academic, personal and psycho-social support and guidance services (professional counselling/mentoring/academic advice) provided to students?

Academic advice-

Students facing any academic or other problems are given proper guidance by the HOD and academic coordinator. The academic advice provision is a self-governing, free and personal service that is available to all students.

Mentoring (Proctor system) –

Around twenty students are allocated to individual faculty, who are responsible for all accomplishments carried out by the student. Every semester two to three meetings are conducted by the Mentors to know and solve the difficulties of students, which are finally seen by proctor in-charge of the institute for evaluation of outcome and communicated to authorities. The head of the departments convey the action taken report and improvements found in the students after counselling, and it is communicated to the principal through the proctor head of the institute.

Psycho-social:

Students in need of psychosocial attention are counselled by professional counsellor appointed by the college.

Personal:

Some of the rural students deficient in confidence, having inferiority complex are counselled to boost their confidence. Students with weak communication skills are trained through “Nurture”, the soft skill development program. Needy students are given assistance to support their studies.

Professional counselling-

Counselling is done by qualified professional counsellor appointed by the Institute. In addition senior faculty members and administrators in the Institute also help students to accomplish mental health, wellness, human growth and development, education, and career goals, social, cultural life.

2.3.8 Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?

Various innovative teaching methodologies and approaches are continuously implemented by faculty members.

- **Well-structured lesson plans:** Well-structured lesson plans are carefully prepared by faculty members & inspected by Department heads, which are further analyzed by Academic Council Committee.
- **Audio visual aids:** The faculty members utilize audio/video aids and few animations to elucidate the concept clearly. Models, charts, analogies, quizzes, brain storming, role play methods are used for interactive learning.
- **Question bank:** Students are provided with question bank, tutorial problems, assignments, lecture notes, and other relevant materials.
- **Project based learning:** The students are given tasks such as problem solving & mini projects, which help the students to learn on their own.
- **Quality circle:** Theme wise quality circles are formed in each department. The expertise faculties discuss responses from students and industry experts among them and suggests innovative methods.
- **Intensive coaching:** Each department conducts intensive theory classes in order to build strong foundation of every subject. It ensures healthy learning of subject with good number of lectures. It helps in proper understanding of practical and gives justice to syllabus completion.
- **Slow learner:** Slow learners are identified in each subject on the basis of previous results, class test results and regular class room interaction. Personal attention is given in the class room as well as guiding them in small groups.
- **Proctor System:** Each proctor is allotted with twenty students. Meetings are arranged twice in semester to identify their problems regarding study, health and otherwise. Minutes of meeting are analyzed by head of department and proper counselling is provided to students. This motivates the students and they start maximizing their efforts for better results.
- **Content Beyond syllabus:** Academically good students get motivated by guidance provided during special lectures involving content beyond syllabus. This adds on to their existing knowledge and tempts them to look forward for research aspect of the content included in the syllabus. This also helps in creation and sustenance of the interests of students and encourages them to study with more vigor.

- **Remedial lectures:** Students who fail in various examinations (final and tests), are motivated by conducting remedial lectures to build their confidence for writing the examination.
- **Library:** Library has facility of online national and international journals and e-books along with regular hard copy of books which are readily available for students and teachers reference. NPTEL videos are available for reference of faculty for its use in lectures. IIT library membership helps teachers for more sound preparation of subjects.
- **Publications:** Teachers are encouraged to publish their research work in national and international journals and conferences. This automatically makes teachers refer current research material and keeps them updated in various topics for better delivery of their teaching content.
- **Motivation for Ph.D (research):** College has policy to encourage faculty to involve in research work, which serves requirement to more knowledge and references by individual faculty.

Teaching methodology:

Due to various training programs for enhancing teaching and presentation skills, teachers are aware of different teaching methods to be used in various situations and subjects. These methods include chalk and duster method, PPT, demonstrations, role play method, supervised study method, project based learning, industrial visits, site visits, seminars. These tools are used by faculty for making learning more innovative and interesting.

2.3.9 How are library resources used to augment the teaching learning process?

- Teaching staff utilizes the resources like reference books, text books to prepare their notes.
- For awareness of current issues faculty and PG students refer the e-journals, magazines.
- Library is facilitated with LAN, and Internet facilities
- Book bank schemes are available for economically weak students.
- Facility of extra books for toppers and needy students is available
- Separate reading sections for faculty members and students are available.
- Reprographic section facility is available in library section.
- NPTEL facility for faculty is available for preparing lectures.
- Regular Newspaper facility is available for students and faculty for current knowledge update.
- College takes initiative to inculcate reading habits among students by providing books in Marathi and Hindi literature.

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If ‘yes’, elaborate on the challenges encountered and the institutional approaches to overcome these.

Yes. Challenges in completing the curriculum within the planned time frame and calendar:

As the college needs to mandatorily follow the academic calendar of university of Mumbai, many times faculty faces the problem of crunch of time for completion of syllabus as it depends on several factors, like public holidays, students grasping power, fresh teachers, lengthy syllabus, analytical subjects, co-curricular and extracurricular activities etc.

Due to revision of syllabus after every four years, the faculty has to prepare for notes , prepare for new set up of practical, undergo refresher courses, and procure new equipment’s or upgrade the old ones, which proves to be challenging for faculty to manage the things in available time.

Institutional approach to overcome the challenges:

Number of intensive lectures is well planned in advance at the start of academic session and is reflected in the academic calendar which automatically takes care of syllabus completion well in time and also manages all other co-curricular activities simultaneously. Any short fall due to unavoidable reasons, personal or otherwise, is compensated up through special classes before /after the classroom hours.

The quality circle in the department includes a senior faculty member who guides and helps for preparation of changed syllabus.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

The effectiveness of teaching and learning process is evaluated by feedback mechanism from students, parents, Alumni, and Industry experts.

- To ensure the quality of teaching and learning process in the class and labs, online feedback for theory lectures and practical is taken from students by the HOD and documented in requisite format.
- Feedback of theory lectures, practical and feedback of other facilities is taken once every semester. The facilities include student section, conveyance, water facility, Canteen, washrooms, library etc.
- This feedback is forwarded to respective agencies & documented properly for improvement in services. Analysis of student feedback is done and faculty gaining the points above four is appreciated. Faculty below three is counseled by Academic Dean and Principal. All this process is documented for future reference.

- Meetings of all academic coordinator, dean and principal are conducted regularly. Requisite trainings are arranged by the academic committee members for the improvement in faculty's feedback about theory and Practicals. Progress of student is conveyed to their parents through parents-teacher meetings which are arranged once in a semester. Feedback about the teaching and learning process is taken from parents and analyzed department wise by the Principal.
- In the meeting of the Academic Committee, suggestions of parents are focused in specific way so the process of teaching and learning with other facilities provided for students which can be improved. Feedback is taken from Industry & University experts and recorded for the further reference.
- Alumni meets are conducted every year and feedback is taken which is recorded, analyzed and referred for improvement.
- Suggestion boxes are put up on every floor & department where students can freely give their suggestions for improvement about services & teaching learning process. These suggestion boxes are reviewed by Principal & HOD's together. After discussions in meetings all suggestions are documented & corrective actions are initiated.
- ACC committee daily monitors the lectures before noon and afternoon.
- Tests are conducted after 40% and 70% completion of syllabus, which helps to evaluate the quality of teaching and learning.

2.4 Teacher Quality

2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum

Recruitment strategies:

Available human resource with qualification:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
D.Sc./D.Litt.	0	0	0	0	0	0	0
Ph.D.	05	04	01	03	01	01	15
Ph.D Persuing	0	0	02	04	0	03	09
M.Phil.	0	0	0	0	0	0	0
PG	01	0	06	06	20	39	72
Temporary teachers							
Ph.D.	03	0	0	0	0	02	05
Ph.D Persuing	0	0	0	0	03	01	04
M.Phil.	0	0	0	0	0	0	0

PG	0	0	01	0	27	38	66
PG Persuing	0	0	0	0	02	01	03
Part – Time /Visiting Teachers							
Ph.D.	01	01	0	0	0	0	02
M.Phil.	0	0	0	0	0	0	0
PG	0	0	0	0	09	05	14
Ph.D. pursuing	0	0	0	0	01	0	01

Total Visiting Staff =17 (PhD /Prof = 02, PhD pursuing =01,Asst Prof PG = 14)

The sequential steps for recruitment of faculty in the college for all disciplines are as follows:

Need assessment for faculty recruitment is done twice in a year before beginning of semester by Principal, academics dean and HOD on the basis of load calculation based on syllabus provided by university of Mumbai. The total vacancy for faculty is conveyed to HR Office of society and demo lecture is taken by staff selection committee. As per the feedback of Staff Selection Committee, Principal conducts personal interview with the applicant and documented comments are conveyed in due format to HR Office. Personal HR interview is conducted by head HR and offer letters are issued to the finally selected candidates as per Saraswati Education Society norms.

Retention strategies:

College conducts USSC interviews at regular intervals for permanency and university approval of the faculty, which ensures their retention. The teachers are appreciated for best feedback, best performance and for their academic and research achievements, which motivates them for devoted services. College also encourages faculty for participating in training programs, FDP's, STTP's, Conferences, Seminars, Research publications and research proposals, by deputing them at various places and occasions. College also promotes their faculty for higher education by providing them the needful assistance.

2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programmes/ modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.

Special measures are taken by institute to satisfy the need of qualified and experienced faculty.

Senior people from industries and eminent academicians are also appointed as senior adjunct or visiting faculty members to take advantage of their vast practical technical knowledge and experience as mentioned in 1.3.1.They are called to guide the students in emerging areas through their talks and expert lectures.

Industrial visits and site visits are arranged for expert guidance from industries to overcome the scarcity of qualified senior faculty to teach new programmes/modern areas (emerging areas) of study being introduced in new syllabus.

The high moral value of the Institute and best teaching practices attract good talent to be a part of the institute. The college motivates and provides facilities for faculty in the area of research and development. The college also encourages the members to attend workshops, seminars conducted outside and inside the campus. Motivation for participating in conferences on latest topics and emerging areas is been continuously focused. The college organizes training programs for faculty members in recent advanced topics and provides guidance from senior experts in respective disciplines. There are continuous efforts made by management team to recruit senior level faculty from reputed institutions.

To attract the new qualified faculty and retain the existing ones the institution provides requisite research facilities like digital library, internet etc. College has policy to promote faculty for higher studies by sponsoring them and providing them on duty leaves, special increments after successful completion of the studies etc. Also faculties are promoted to next level according to their

College also appoints visiting or adjunct faculty members to eliminate the effect of scarcity in few cases.

2.4.3 Providing details on staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.

Nomination to staff development programmes-

Sr. No	FDP on teaching methodology	Year and Duration	No of participating teachers
1	New trends in teaching methodology, by Vinay Raikar	13/05 2016	128
2	“Conflict management” by Alka Purohit, Nuture cell & HR.	26/05/2016	75
3	Research talk on “balancing academics and research”by Dr Bharati Joshi	25 /5/2016	85
4	Research talk on “Quantitative technics in research” by Dr Seema V Lathkar	31/05/2016	65
5	“Faculty role in comprehensive assessment of graduates” by Mr U W Mate	3/6/2016	60
6	Induction Programme	Start of semester	All newly joined faculties

7	Orientation Programme for revised syllabus	As per university schedule	All faculty in concerned subjects.
8	Mission 10X	17-22/07/09-10	24
9	Mission 10X	17-21/03/2009-10	24
10	Mission 10X	22/12/2009-10	24
11	Techno skills	13-17/01/2009-10	100
12	Vision T ³	20-24/07/ 2009-10	120

Department wise Faculty development Programs:

Electronics And Telecommunication Engineering					
Sr. No	Name of Activity	Date	Name of Expert/ Speaker	Total participants	Remarks
1	Design & Analysis of Antenna Using IE3D software	5-6/02/16	Prof. Shishir Jagtap & Prof. Shilpa Kharche	29	Microstrip antenna design and analysis
2	STTP On Neural N/W	29/6/15-3/07/15	Dr. S. Shitole, Prof. Arun Kulkarni, Prof. H. Chavan	41	Basic of Neural N/W & Applications
3	STTP on Software tools for design & analysis	9-13/01/14	Prof. Pawar , Prof. Kashyap	30	Basic of NS-2, IE3D & Matlab
Computer Engineering Department & Information Technology Department					
1	STTP On Cloud Computing	13/5/13	Dr. Sasi kumar (CDAC)	27	Got knowledge on advances in cloud computing
2	STTP on Android OS	12/02/13	Ms. Shalini Mittal	30	Faculties learned about the Android OS applications.
3	Open source Technologies	16,19,20/10/15	Mr. Tushar Kute and Mr.Jagjit	30	Basics of python ,Ruby and Linux OS
4	STTP on .NET technology	2-6/05/16	Ms. Deepika Sawant	34	Basics of C#, ASP and Web form and

					Windows form application
Mechanical Engineering					
1	Resent innovations in Mechanical, Civil & Automobile Engineering	Nov. 2013	Dr. Khot Reddy, Dr. Mulugund, Dr. Honnetagi	28	Interdisciplinary Knowledge of vibration and research scope.
Automobile Engineering					
1	Intellectual property Management and Patent Lifecycle Management (IPMPLM)	24/02/15	Mr. Anand Mahurkar, Head Krishna & Saurastri Associates, Pune	95	Created awareness among the faculty about patent
Civil Engineering					
1	Site Visit at NCC Casting Yard, Kharghar	12/03/16	PRESCON Construction	22	Insight about Prestressing
2	Visit to 'Heavy Structures Lab'	10/09/15	IITB	20	Advanced testing of materials
3	Visit to LAVASA	18/12/14	Mr. Radhakrishnan C., Site Engineer, STEINER Ltd.	30	Townplanning, visit to STP & WTP
4	Resent innovations in Mechanical, Civil & Automobile Engineering	Nov. 2013	Dr. Reddy, Dr. G.V.Mulugund, Dr. Honnetagi	28	Interdisciplinary Knowledge of vibration and Structural Dynamics.
Engineering Sciences and Humanities					
1	Application of mathematics in engineering and science	16/12/13	Dr. B.S. Desale, Dr. Ajitkumar	100	Awareness about application of mathematic in Engineering.
2	STTP on	6/07/15-10/07/15	Experts from	100	Awareness of

	assessment and accreditation with NAAC		NAAC Bangalore		NAAC criteria and SSR preparation
3	ISO 9001:2008, understanding and implementation, and internal audit training	Dec 2015	Experts from ISOQAR	25	Awareness of ISO requirements and standards and internal audit training.

Teaching learning methods/approaches

Faculty members are deputed to FDP Programmes conducted by IITs, NITs and reputed Universities and their affiliated colleges.

Induction program for new faculty members is arranged every year and guided by senior faculties and Principal.

Use of teaching aids like LCD Projectors, and other devices are encouraged by providing training for its effective usage.

Quality circle concept is been innovated and implemented for developing quality teaching resource material, effective teaching techniques and sharing of experience among faculty.

Video lectures of eminent faculty members from the institute are recorded and effectively used for new faculty members

Curriculum planning:

Faculty members are deputed for attending Orientation Programmes arranged by University of Mumbai every academic year, as per the changes in the university syllabus.

Brainstorming sessions for exchange of thoughts and ideas are arranged through quality circle meetings, which includes both experience faculty members and beginners.

Training details of faculty:

Invited as resource persons in Workshops, Seminars, Conferences Organized by external professional agencies – 15 %

Participated in external Workshops, Seminars, Conferences Recognized by national/ international professional bodies - 75%

Presented papers in Workshops, Seminars, Conferences conducted or Recognized by professional agencies –75%

2.4.4 What policies/systems are in place to recharge teachers? (eg: providing research grants, study leave, support for research and academic

publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)

: Institute has a well-defined research, consultancy and HR policy for encouraging teachers for their Research and Academic up-gradation:

Faculties possessing Post-Graduation degrees are encouraged to pursue doctoral degree by providing sponsorship, reducing their work load.

Faculties are permitted for study leave to pursue higher education.

Providing necessary facilities like online journals through library for higher studies and guidance from senior faculties.

Faculties are encouraged by providing funds and on duty leave for attending FDPs, STTPs, workshops and seminars.

Special motivation in terms of funding, awards and appreciations and research facilities are provided by the institute to all aspiring researchers.

Institute promotes its faculty members to attend, participate and present papers in national, international symposiums and conferences.

Due weightage is given in performance appraisal system in terms of special incentives for their positive contribution in overall development.

Give the number of faculty who received awards / recognition at the state, national and international level for excellence in teaching during the last four years.

Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.

Every year appreciations and awards are given to Faculty members for their extraordinary and significant performance in teaching, learning and research domain.

Sr No	Name of Faculty	Department	Award	Year
1	Mrs.Roshni John	Civil	Academic Excellence award	2011-12
2	Dr. Manjusha Deshmukh(H.O.D.)	EXTC	Best Department Award	2011-12
3	Dr. Manjusha Deshmukh	EXTC	Research Award	2011-12
4	Mr. Harshal Deshpande	Civil	Academic Excellence award	2012-13
5	Mrs. Vaishali Jadhav (H.O.D.)	IT	Best Department Award	2012-13
6	Dr. Bharti Joshi	Computer	Research Award	2012-13
7	Mrs. Parineeta Suman	Computer	Academic Excellence award	2013-14
8	Dr. Bharti Joshi (H.O.D.)	Computer	Best Department Award	2013-14
9	Mr. S.N.Teli	Mechanical	Research Award	2013-14

10	Mrs. Shilpa Kewate	Civil	Star Performer Award	2013-14
11	Mrs. Sheetal Bhujade	EXTC	Star Performer Award	2013-14
12	Mr. Madan Jagtap	Mechanical	Star Performer Award	2013-14
13	Mrs. Vrushali Patil	IT	Star Performer Award	2013-14
14	Mrs. Vijaya Waghmare	Computer	Star Performer Award	2013-14
15	Mrs. Sayali Chaudhari	F.E.	Star Performer Award	2013-14
16	Mr. Pratik More	Automobile	Star Performer Award	2013-14
17	Mrs. Divya T.	IT	Academic Excellence award	2014-15
18	Mr. S.N.Teli (H.O.D.)	Mechanical	Best Department Award	2014-15
19	Dr. S.V. Lathkar	F.E.	Research Award	2014-15
20	Dr. S. V. Lathkar	F.E.	Pillar of Strength Award	2014-15
21	Mr. Amar Shinde	Registrar	Pillar of Strength Award	2014-15
22	Mrs. Pooja Somani	Civil	Star Performer Award	2014-15
23	Mrs. Sonal Ghankari	EXTC	Star Performer Award	2014-15
24	Dr. Fauzia Siddiqui	Mechanical	Star Performer Award	2014-15
25	Mrs. Shilpa Kolte	IT	Star Performer Award	2014-15
26	Mrs. Sujata Bhirnallykar	Computer	Star Performer Award	2014-15
27	Dr. Sunita Pal	F.E.	Star Performer Award	2014-15
28	Mr. Mandar Jagtap	Automobile	Star Performer Award	2014-15
29	Mr. T. Z. Quazi	Automobile Engg.	2 nd Rank in National Level Conference	2012
30	Mr. B. K. Kumbhar	Automobile Engg.	Best Paper	2014
31	Mr. T. Z. Quazi	Automobile Engg.	Best Feedback	2015
32	Mr. P. M. More	Automobile Engg.	Best Feedback	2015
33	Mr. M. D. Jagtap	Automobile Engg.	Best Feedback	2015
34	Mr. Sagar	Automobile	ME Topper	2015

	Khataavkar	Engg.		
35	Mr.Sidhhesh Lad	Automobile Engg.	ME Topper	2015
36	Mr. Bhau K. Kumbhar	Automobile Engg.	ME Topper	2014
37	Mrs. Vaishali P. Jadhav	IT Engg.	Best Department Award	2012
38	Mrs. Vaishali P. Jadhav	IT Engg.	Best Department Award	2013
39	Mrs. Vrushali P. Thakur	IT Engg.	ME Topper	2013-14
40	Mrs. Shital K. Ajagekar	IT Engg.	ME Topper	2014-15
41	Ms. Pragati A. Pejlekar	IT Engg.	ME Topper	2013-14
42	Mrs.Roshni John	Civil Engineering	Power Grid Corporation of India	2013
43	Prof. Sheetal Bukkawar	EXTC Engg.	Excellence in Academics	2011-12
44	Dr. Manjusha Deshmukh	EXTC Engg.	Best Department Award	2011-12
45	Dr.Seema Lathkar	FE Engg.	Best teacher Award NECTET	2010
46	Dr.Seema Lathkar	FE Engg.	Best Department Award	2013-14
47	Dr.Seema Lathkar	FE Engg.	Best Paper Presentation	2010
48	Dr.Seema Lathkar	FE Engg.	Best HOD	2012
49	Mrs.Sayali Chaudhari	FE Engg.	Best Paper Presentation	2010
50	Mrs. Sindhu Tayade	FE Engg.	Best Paper Presentation	2010
51	Dr. Sunita Pal	FE Engg.	Best Paper Presentation	2014
52	Ms. Reshma Chavan	FE Engg.	Best Paper Presentation	2014
53	Mr. Yogesh Dhumaal	Mechanical Engg.	ME Topper-Sem I & II	2014-2015
54	Mr. S.N.Teli	Mechanical Engg.	Best Department Award	2013-2014
55	Mr.Pradip Gunaki	Mechanical Engg.	ME Topper CGPI-9.0	2013-2014

56	Mr. S.N.Teli	Mechanical Engg.	Best Department Award (Second Position)	Award	2012- 2013
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2.4.5 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?

Evaluation of Teachers by students:

The institute has a well-defined online feedback system for teachers by students. There is an established system for feedback of facilities provided in the institute from students and parents. Feedback is also taken from alumni and industries. These feedbacks are taken as per pre-defined frequencies and are analysed and recorded in terms of documents. Lacunas if any are discussed with concerned sections and individuals and suggestions are given by authorities for positive improvement.

Suggestion Boxes are installed in all departments and sections for students and parents. These suggestions are reviewed periodically and acceptable suggestions are implemented positively.

Evaluation of Teachers by external peers:

We don't have system of evaluation by external peers,

2.5 Evaluation processes and reforms

2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

The institute has a well-documented process in its QMS, which notifies the criterion for allocation of Term work marks which are designed as per guidelines of university syllabus.

The institute has well-designed academic diary which consist of continuous assessment system that enables all faculty members for transparent evaluation of students. The students and their parents are made aware of the evaluation system through Induction program and parent teacher meeting.

Examination system and updated circulars are documented and notified on notice boards, institute's website for information of all stake holders.

The evaluation process are explained and discussed in detail with the staff members during the orientation program.

Evaluated result statements are displayed in hard and soft forms on notice boards and on website periodically.

The regulations, curricula and syllabi of all the programs offered by the Institute are available in the Institute Library and respective department also on the affiliated University websites.

The regulations contain the details of the evaluation process.

Institute notifies the evaluation process and related documents like frequency, nature of internal and University evaluation on the notice board.

Newly admitted students are well informed about the criterion for allocation of term work marks.

Students are informed about the academic calendar which is planned before the commencement of semester. The academic calendar comprises of academic and other activities. A special notice board is reserved for examination notices in every department. Notices related to examination process are displayed regularly. Proper communication is maintained with parents through SMS, E-mails and PTM regarding the performance of students.

2.5.2 What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?

University Reforms adopted by the institute-

Institute follows the Mumbai university guidelines for conduction of examination and evaluation of students and Result Preparation Process, moderation, Gazette, Internal Evaluation process.

Reforms initiated by the Institute-

Continuous assessment of practical is done by using academic diary.

Maintenance of score records with respect to performance of students are awarded for final exam score. The faculty enters attendance and marks of the students periodically. Records of marks are finally sent to university.

Institute conducts surprise tests per semester for every subject, mock oral examination.

The college calls external examiners for conduction of practical exams and viva-voce from the approved panel of examiners.

The Institute has self-defined practice of masking and coding the papers for second and third year examinations which are conducted on behalf of university.

Mini Projects and their presentations are assigned to second and third year students though they are not mentioned in the syllabus for better learning of students, which are evaluated and guided by teachers.

Internship is made compulsory to all third year students so as to give them industrial exposure. Their reports are evaluated by teachers

2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?

Institution has got adequate infrastructure in terms of classrooms and furniture and trained human resource for smooth conduction of theory examination. With the same, institute has well equipped laboratories to effectively conduct the practical examination.

In the syllabus revision process initiated by university of Mumbai from 2012-13 onwards, the theory examination pattern is been divided in 80-20 marking

scheme. The 20 marks internal assessment examination is conducted in the college as per the university examination requirements and the marks are conveyed to university which are average of two tests conducted after 40% and 70% completion of syllabus.

The project examination for UG and PG students is conducted as per the recent guidelines and formats provided by University of Mumbai.

Institution initiative: Continuous assessment of term work, practical is done by using institute designed academic diary. Scores and their average with respect to performance of students are awarded for final exam score. Practical/oral exams are conducted as per Mumbai University guidelines. Records of marks is finally sent to university. Soft skill courses are implemented, evaluated and guidance is given to students accordingly. Transparency is maintained throughout in all initiatives.

Project based learning concept is an institute's initiative to make students learning more conceptual and strong.

2.5.4 Provide details on the formative and summative assessment approaches adopted to measure student achievement. Cite a few examples which have positively impacted the system.

1. Summative Assessment: The summative assessment based on continuous assessment of students is carried out as per the standard procedure designed as per the guidelines of university of Mumbai as follows:

Tests are planned according to the academic calendar

After 40% completion of syllabus First test is conducted and after 70% completion of syllabus the second test is conducted. Paper setting is done as per norms of Mumbai University.

Marks of the two tests are recorded. Average of two tests are taken and awarded to students for final exam score.

Continuous assessment of practical and assignments is also done in academic diary. Term work Scores with respect to performance of students is awarded for final exam score. Practical/oral exams are conducted as per Mumbai University guidelines. The scores of these examinations are recorded which are finally added to end exam scores.

End term exams are conducted by the Institute as per Mumbai University instructions, rules and standards.

Evaluation of end term examinations is done at University CAP centres online.

Results are prepared at college for SE& TE examinations and are approved by Mumbai University authorities as per guidelines whereas results for FE & BE examinations are prepared by University of Mumbai, in their authority.

2. Formative assessment: Formative assessment of the students are done on various parameters which include their participation in social activities, soft skill development, extracurricular and co-curricular activities participation, cultural

events, ethical behaviour, industrial visit ,site visits, patriotic theme programs, leadership and personality development ,college festival etc.

2.5.5 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioral aspects, independent learning, communication skills etc.

The institute has a well-documented process in its QMS, which notifies the criterion for allocation of Term work marks which are designed as per guidelines of university syllabus.

The institute has well-designed academic diary which consist of continuous assessment system that enables all faculty members for transparent evaluation of students. The students and their parents are made aware of the evaluation system through induction program and parent teacher meeting. The performance parameters of the students like attentiveness, behaviour, group coordination, initiatives, creativity, enthusiasm and self-learning ability are observed in the continuous assessment system.

The faculty takes full efforts to maintain transparency while awarding marks and maintaining the documents. The students can freely discuss about solutions of test papers and scheme of marking with the concerned teachers.

Evaluated result statements of two internal assessment tests are displayed on notice boards.

The internal assessment is made by the faculty Members keeping in mind the following aspects / factors of students Performance during the academic year:

Class attendance

Class assignments

Score in the term examination etc.

Behaviour of students

Group work

Communication skills of students.

Independent learning ability of the students is evaluated based on their innovative project ideas, paper presentation and mini-project concept.

2.5.6 What are the graduates attributes specified by the college/ affiliating university? How does the college ensure the attainment of these by the students?

Graduates attributes specified by the Institute as per AICTE guidelines and the attainment of these by the students.

Engineering Knowledge: Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

Problem Analysis: Identify, formulate, research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

Design/ Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.

Conduct investigations of complex problems using research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions.

Modern Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

The Engineer and Society: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.

Environment and Sustainability: Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice

Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions.

Life-long Learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Project Management and Finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Efforts taken by college to achieve the graduate attributes:

The basic engineering subjects are taught with more gravity and foundation courses are conducted for concept development of first year students. The importance of basic subjects and their roll in their engineering carrier is conveyed to students.

Problem based learning concept is implemented at various levels so that students are able to understand the problem, formulate the mathematical structure and analyse its solution using basic principles of mathematical sciences.

Core engineering subjects are taught in more practical orientation way so that the students are able to develop projects by keeping in view all the engineering aspects. Project competitions are organised to develop the skills and also the students are made aware about the utility, social applications, environmental conscious about their developed models. Innovative ideas and business planning competitions are organized to give exposure to the hidden talents among the students through the EN Cell.

Aspiring students are chosen and guided for preparing good research papers and present them in conferences. Facilities for research are made available to such students inside the campus as well as outside the college in research centres through MOU's with the college.

Simulation and mathematical modelling software's are provided to some project groups for prediction and model their complex problems in order to understand and implement such tools for complex problem solving.

College has initiated to bridge the gap between technocrats and society by involving them in social activities through NSS and various social programs like blood donation camp, clean up drives, tree plantation, stress management programs, women defence technique and eco-friendly ganesh idol making to connect and understand the problems in order to become a responsible engineer and citizen.

The students are made aware about the environmental issues and its impact on human life through different subjects in syllabus as well as by organising various competitions like essay writing, debates, quizzes, posters, and activity like marathon. Site visits are also organised to make students aware about the existing environment friendly technologies and challenges ahead.

Programs like personality development, stress management, Art of living workshops, Manashakti development workshop, motivational and team building workshops are organised on regular basis to inculcate good behaviour, moral values, and best ethical practices among the students.

To uplift team working capacities and to groom the leadership qualities among the students, the college organises various festivals like cultural, technical, and sports. Students get hand on experience to work at various positions and deliver their duties in that capacity. The student council is also one of the basic bodies of the college to give opportunity to the student's team to work homogeneously. MESA, CESA, ETSA, SAIT, RACE, ACE are various student departmental bodies which work in teams for successful programs in departments.

Language development, communication improvement is specially taken care by humanities department. Outside experts are called to guide students through syllabus and other activities and trainings. Students are specially guided for GD's, PI's, and HR interviews. Guidance for TOFEL exam is also provided through guidance cell.

Students apply all their engineering sciences, management skills and also project management knowledge for timely completion of their BE project at optimum cost. Innovative Ideas and Business competitions are organised to manage projects in multi-disciplinary environment.

2.5.7 What are the mechanisms for redressal of grievances with reference to evaluation both at the Institute and University level?

Based on the guide lines provided by the Mumbai University the institution has developed a full-fledged mechanism for redressal of grievances with reference to evaluation

Students can apply for Photo/Xerox copy/Revaluation of answer book. This facility is provided, only for theory papers of all the examinations conducted by the University in the current session.

From College the application forms for Photo / Xerox copy is forwarded to the Controller of Examinations of University of Mumbai, The University/Institute supplies Photo/Xerox copy of answer books after receipt of application.

On receipt of the photocopy if the discrepancy is noticed by the examinee, he/she should apply to the University/Institute through the Principal's permission along with the said photocopy i) Mistake in totaling ii) Non assessment of a question / sub-question if required after due verification.

Internal squad consisting of senior faculty members is appointed in college to ensure the smooth conduction of examination and to avoid any malpractice and ensuring copy case restricted environment while conduction of examination. Constitution of squad is available with exam section.

2.6 Student performance and Learning Outcomes

2.6.1 Does the college have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?

The college has stated learning objectives and outcomes for its programmes.

The Program Outcomes are displayed in each department and are hosted on Institute website <http://www.sce.edu.in>.

The program educational objectives and program outcomes for Electronics and Telecommunication Engineering are as follows.

Program educational objectives:

Apply the knowledge of mathematics and science to identify, formulate and define engineering problems in the field of Electronics and Telecommunication Engineering.

Contribute to the needs of the society in solving technical problems using electronics & communication engineering principles, tools, and practices.

Demonstrate professionalism, ethical attitude, communication skills and teamwork to adapt current trends by engaging in lifelong learning.

Impart analytic and logical skills to initiate and develop innovative ideas for R & D, industry and multidisciplinary domain.

Excel in higher education and succeed in technical profession exhibiting global competitiveness.

Design systems, components or processes that meet specified needs with appropriate considerations for public health & safety, cultural, societal and environmental considerations.

Learning outcomes:

Engage in life-long learning and an understanding of the need to keep up with current developments in the specific field of practice

Apply knowledge of mathematics, science and engineering as appropriate to the field of electronics & telecommunication engineering practice.

Understand the effects of the engineering solutions in a global, economic, environmental and societal context.

Design systems for applications based on the acquired knowledge to solve real time requirements.

Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex problems.

Demonstrates the knowledge of theoretical & practical aspects of signal processing to meet desired needs within realistic constraints such as economic, environmental, social, ethical, health and safety.

Design, simulate and fabricate electronic and communication systems, components, devices as well as to design and simulate the analog and digital processes of physical world

Acquire the communication skills necessary to interact effectively in multidisciplinary teams.

Participate and succeed in competitive examinations or seek employment in the industry.

Demonstrate leadership, managerial and entrepreneurship skills

Understand impact of engineering solutions on the society with awareness of project management and finance related issues.

Efforts taken for students and staff awareness:

The program outcomes are displayed on college central notice board.

Through the induction programs student are made aware about program objectives and outcomes.

As faculty in every department is personally involved in framing the program objectives and outcomes they are already aware about the same in details.

Through the orientation programs organised for faculty, they are been made aware about the importance of achieving them through proper planning and processes. Faculty and students are given awareness about the program outcomes by displaying it in the final year project reports. Mapping of the Program educational objectives and outcomes is done periodically based on the achievement of objectives with the help of output indicators like results, employment of students, skill development, higher study data and employer feedback.

2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/Programme? Provide an analysis of the students results/achievements (Programme/course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/courses offered.

The student's performance evaluation based on continuous assessment is carried out as per the procedure and guidelines of university of Mumbai.

To observe the progress of the students the mechanism is well defined and followed for the internal tests and term work as well as practical and project examination. The results of end semester examination are displayed on notice boards and website. The internal examination results marks are conveyed to students through the notice boards and e-mail system as well as through the continuous parent teacher meetings conducted during the semester. The University of Mumbai also displays the results on the university website and they are automatically available to all stake holders.

Sample result copy for computer department is as follows.

Sr. No.	Department	Year	Result (%)	University (%)
1	Electronics and Telecommunication Engineering	2011-12	75.95	87.78
		2012-13	82.86	
		2013-14	87.17	
		2014-15	94.48	
2	Computer Engineering	2011-12	79.74	96.69
		2012-13	96	
		2013-14	85.25	
		2014-15	100	
3	Mechanical Engineering	2011-12	91	
		2012-13	84	
		2013-14	90	
		2014-15	87	
4	Civil Engineering	2011-12	90.9	88.65
		2012-13	93.93	

		2013-14	91.15	
		2014-15	88.2	
5	Automobile Engineering	2011-12	NA	62.93
		2012-13	NA	
		2013-14	NA	
		2014-15	92.15	
6	Information technology	2011-12	98.2%	
		2012-13	100%	
		2013-14	100%	
		2014-15	100%	

2.6.3 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

The objective of these strategies is to outline method to plan and prepare for successful teaching and learning and to improve the effectiveness, suitability and adequacy of the implemented Teaching learning process through continuous monitoring.

As per the planned load distribution all the faculties need to prepare for the subject notes, assignments, question banks, faculties are supposed to refer the university question paper for preparation of quality teaching.

Faculty plans for later activities like use of audio-visual aids in teaching, expert lectures and industrial visits for making the content qualitative and interesting learning process for the students.

Faculty plans for the Practical's allotted in the Labs and prepares manuals, Lab resources etc.

Monitoring of completion of syllabus is done by Academic Dean and Principal on regular basis and documented through the completion report.

Experienced and qualified faculty is appointed for ensuring quality.

Faculty development programs organised to train the new faculty.

Academic calendar is prepared before the starting of semester for college and the department which includes academic, curricular, co-curricular activities and extracurricular activities

Every faculty prepares teaching plans based on university syllabus.

Faculty prepares the course files and other study materials, notes for planned and successful teaching.

Along with the development of laboratory manual Practical plans are also prepared.

Monthly follow up of theory and practical syllabus completion is taken and if needed extra lectures are conducted.

Carrier guidance cell provides guidance for GATE, GRE, and Civil Services Exams.

Students are encouraged for industry based, rural and socially useful projects. Motivations given to students to participate in national level project competitions organized by other institutes and universities such as Avishkar, Dipex, Baza and Supra.

Students are encouraged to attend seminar/workshop/symposiums to share and express their innovative ideas. , Financial assistance is provided to worth projects.

Guest or expert lectures are organized for critical subjects.

To support the process the college also has designed policies of special and remedial lectures for weak learners and for failures. To facilitate the achievement of the intended learning outcomes, the institute organises various activities like Expert lectures, seminars, industrial visits and conferences.

2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?

Institute takes following measures to enhance the social and economic relevance (quality jobs, entrepreneurship, innovation and research aptitude :

Institute organises International and national conferences to inculcate research culture and innovating ideas among the faculty and students.

Research facilities like library resource, research laboratories inside the campus and outside research centres are made available to aspiring minds.

National level project competition is organised every year by the institute to provide research platform to the students.

EN cell organizes various programs for student's awareness and readiness for activities.

Special appreciations are given to aspiring Researchers.

Students are provided with facilities and guidance for completing projects and presenting papers. Innovative ideas competitions are organised to exhibit the hidden talents and ideas in students and are provided with proper exposure to business planning.

Students are provided with various trainings in soft skills, aptitude test writing, mock interviews, group discussions and personal interview facing.

Trainings for preparation of GRE, GMAT, CAT, TOFEL is provided to third and final year students of all departments. The data is available in department evaluation forms.

Job fairs, pool placement drives and individual placements are arranged to provide maximum opportunities to students along with maximum number of placement activities.

The institute trains the students to take up social as well as economic responsibilities through different programs like cultural, technical competitions,

social events and sports events, like Marathons, blood donation programs, tree plantation drives, NSS social drives etc.

The institute also conducts add-on courses like training sessions on core engineering subjects as per feedback from industry and gaps observed in the syllabus, workshops, participation of students National level competition's like SUPRA, BAHA to enhance their capabilities and make them self-reliant and employable.

2.6.5 How does the institution collect and analyze data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?

The institution collects and analyse data on student learning outcomes:

By observing and analysing results of every year and every discipline periodically, the learning outcomes are measured, investigated and documented. If the results are not meeting the set objectives, the root cause analysis is carried out and corrective and preventive actions are taken for better achievement of objectives in future.

The learning outcomes are also measured from the rate of placements happening in each discipline every year. The data is evaluated and nature of employments and specifications of employer needs is carried out for more success in prospective employability.

The institute takes employer feedback for analysing the quality of students employed as per employer's expectation. With respect to the feedbacks received from the employer, add on courses and other relevant trainings are carried out to make the students more employable.

Institute also takes feedback from industry experts on regular basis for modifying the teaching learning methods and enriching content of syllabus.

The institute also takes review of students opting for higher studies in India and abroad .The institute also analyses the data of students qualifying GATE, GRE, CAT, TOFEL, UPSC and MPSC examinations and document it for future reference.

2.6.6 How does the institution monitor and ensure the achievement of learning outcomes?

The institute monitors the achievement of learning outcomes by taking all effective measures and ensures the mapping of learning objectives and outcomes by employing all best strategies and their periodic review.

Efforts taken by college to achieve the learning outcomes:

The basic engineering subjects are taught with more gravity and foundation courses are conducted for concept development of first year students.

Problem based learning concept is implemented at various levels so that students are able to understand the problem, formulate the mathematical structure and analyse its solution using principles of mathematical sciences.

Core engineering subjects are taught in more practical orientation so that the students are able to develop projects by keeping in view all the engineering aspects.

Aspiring students are chosen and guided for preparing good research papers and present them in conferences.

Simulation and mathematical modelling software's are provided to some project groups for solving complex problems.

College has initiated to bridge the gap between a technocrat with society by involving them in social activities through NSS and various social programs

The students are made aware about the environmental issues and its impact on human life through different subjects in syllabus as well as by organising various competitions and activity like marathon. Site visits are also organised to make students aware about the existing environment friendly technologies and challenges ahead.

Programs like personality development, stress management, Art of living workshops, Motivational and team building workshops are organised on regular basis to inculcate good behaviour, moral values, and best ethical practices among the students.

To uplift team working capacities and to groom the leadership qualities among the students the college organises cultural, technical, and sports. The student council is also one of the basic bodies of the college to give opportunity to the student's team to work homogeneously. MESA, CESA, ETSA, SAIT, RACE are various student departmental bodies which work in teams for successful programs in departments.

Language development, communication improvement is specially taken care by humanities department. Students are specially guided for GD's, PI's, and HR interviews. Guidance for TOFEL exam is also provided through guidance cell.

Students apply all their engineering sciences, management skills and also project management knowledge for timely completion of their BE project at optimum cost.

The institute also organises add-on courses to bridge the gap between the industry needs and curriculum and enrich their knowledge.

Industrial Internship for the students during summer and winter vacations are promoted for achieving the learning objectives.

IQAC analyses the achievements of outcomes.

The quality and quantity of students placed in the campus interviews, displays the achievement of learning outcomes.

2.6.7 Does the institution and individual teachers use assessment/ evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning? If ‘yes’ provide details on the process and cite a few examples. Any other relevant information regarding Teaching-Learning and Evaluation which the college would like to include.

Yes. The institution and individual teachers use assessment/evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning.

Every teacher does a planning for delivery of syllabus as per the course objectives and course outcomes defined for the subject. As per the defined processes for evaluation through tests, practical exams, viva-voce and end-semester exam, every teacher evaluates the students’ performance.

The achievement of learning objectives is also verified by employment of the students, No. of students qualifying for competitive exams like GATE for higher studies.

For better teaching-Learning and Evaluation, the institute identifies slow learner through a systematic evaluation process. Special attention is given to such identified students in the form of extra coaching and counselling. Institute also implements Quality Improvement Programs, Quality Circles for teachers which ensure achievement of learning objectives by improving quality of teaching. Extra efforts are taken by providing intensive coaching and remedial classes to improve student’s performance.

Criterion III: Research, Consultancy and Extension

3.1 Promotion of Research:

3.1.1 Does the institution have recognized research center/s of the Affiliating University or any other agency/organization?

The institute's mission has always been to become a research oriented Centre and the same is projected among the faculty and students.

The Institution has applied for research Centre in Electronics and Telecommunication Engineering department to Mumbai University and is in process. Research Centre for other departments is also in consideration

3.1.2 Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact. :

Yes, institution has R&D cell headed by Dr. Suhas Sabnis comprising faculty members of each department. The cell was initiated in the 5/5/2015. The Cell works under the guidance of Principal and Dean Academics. The members of R&D cell are listed below,

Sr No	Name of faculty	Designation
1	Dr. S. M. Sabnis	Head (R&D)
2	Dr. Sunita Pal	Member(ES&H)
3	Dr. Suman Ravat	Member (Civil Dept.)
4	Mrs.Sonal Gahankari	Member (E&TC Dept.)
5	Mr.Yogesh Jadhav	Member (IT Dept.)
6	Mr. Pratik More	Member (Automobile Dept.)
7	Mr.Vishal Bhise	Member (Mechanical Dept.)
8	Mrs. Arti K. Gore	Member (Computer Dept.)

Objectives of the R&D cell: The Research Promotion Scheme of SCOE aims to nurture research culture in the institute by promoting research in newly emerging and challenging areas of science and engineering. It encourages the Undergraduate and Post graduate candidates to undertake the research in newly emerging frontier areas of science and Engineering including multidisciplinary fields. This enhances the general research capability of budding technocrats by way of participating in conferences, seminars, workshops, project competition, etc.

Short term objectives (June 2015 - May 2016)

- To set up a Model R & D lab facility as a central nodal facility with all higher end computational facilities

-
- To apply and work on funded research projects sponsored by AICTE, Mumbai University DST, ISRO and DRDO and other funding agencies
 - To encourage faculties and students to carry out research at the undergraduate level, post graduate level and research leading to Ph.D.
 - To improve number of publications, quality of projects and file patents.
 - To provide solutions for project students, organize national level conference, seminar and workshops for students, staff.
 - **Long Term Objectives (2015-2020):**
 - To establish centers for excellence in supporting R&D activities and product development (at least one lab for each discipline)
 - Establish collaboration with national/international universities for R & D activities in areas of biomedical and defense sectors.

The recommendations made by the Cell-

- To improve research facilities in the institute.
- To encourage quality publications.
- To motivate faculty for doctoral program, active research and patents.
- To inculcate research culture among the faculties and students.
- IIT remote center for seminar and workshop.

Impact:

- Quality of projects of UG and PG students has been improved by creating research awareness among the faculty and students due to policies defined.
- In the view to build mutually beneficial linkages with industry, National and International conferences are conducted in the Institution every year.
- Development of Research culture in institute, is evident from PhD. registrations by the faculties.

Roles and Responsibilities of R & D Cell:-

- To Create research consciousness among the faculty and students by conducting various national and international level workshops, conferences and guest lectures and activities leading to research proposals
- To form relations with Industries, R&D organizations and acquire funding for research activities.
- To institute centers for excellence in supporting R&D activities and product development.
- To attain funded research projects sponsored by AICTE, Mumbai University DST, ISRO and DRDO and other funding agencies.
- To inspire faculty and students for quality publications, projects, patent and product development

3.1.3 What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/projects? Autonomy to the principal investigator, timely availability or release of resources, adequate infrastructure and human resources, time-off, reduced teaching load, special leave etc. to teachers, support in terms of technology and information needs, facilitate timely auditing and submission of utilization certificate to the funding authorities, any other

The following measures are taken to promote the research activities and its smooth progress and implementation of research schemes & projects.

- Provision of infrastructure and equipment's.
- Substantial amount of budget is allocated to each department every year to promote research work.
- Special facilities are provided like leave adjustment and reduction in work load.
- Students are encouraged to work on industry sponsored projects
- Proposals by Principal investigators are submitted to various organizations like, BRNS, Rajiv Gandhi commission of science and technology DST, Mumbai University etc., in executing the project as per the guidelines of the funding agencies.
- Formation of advisory board and implementation of their suggestions for research & development work
- Training programs on research methodologies are organized.
- College gives full freedom to choose the research domain and problems to the Principal Investigator (PI). Institute provides initial amount to carry out research if needed.
- PI has liberty to choose the equipment and consumables as per the necessity of the project.
- As per the need, PI can include students in the project.
- The institute provides e-journal, e-books and laboratory facilities. The institute has facility for faculty to use recourses at IIT (Bombay).
- College carries all help for timely auditing and submission of utilization certificate to the funding authorities.
- Autonomy to the principal investigator: Yes
- Timely availability or release of resources: Yes
- Adequate infrastructure and human resources: Yes
- Time-off, reduced teaching load special leave etc. to teachers: Yes
- Support in terms of technology and information needs: Yes
- Facilitate timely auditing and submission of utilization: Yes
- Certificate to the funding authorities: Yes

3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?

The Institution puts a lot of effort in developing scientific temper and research culture among students

- Exposure to latest development in engineering field is given to the students through E-Journals, site visits, industrial visit etc.
- Students are encouraged to attend workshop, seminars, technical festival etc.
- Eminent personalities from industry and academics are invited to motivate the students.
- Students are encouraged to undertake Industry sponsored project. Technical paper presentations are organized for students to showcase their innovative ideas.
- Project competition “Avishkar” is held every year for Final year students to exhibit their talent.
- MOU’s with research centers, for adequate research facilities.

3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in Individual /collaborative activity, etc.)

All the departments having PG Programs are involved in guiding active research for the research projects of students. Research projects at final year UG Level are also individual and collaborative activity. Few sample research projects are as follows:

ELECTRONICS AND TELECOMMUNICATIONS DEPARTMENT				
Sr. No.	Name of faculty	Research area	Name of project	Collaborative / Individual
1	Dr. Manjusha Deshmukh	Image Processing	Hand Gesture Recognition Using Support vector Machine	Individual
2	Mrs. Sonal Gahankari	Antenna	Design of circular Monopole antenna using Sierpinski gasket for UWB and multiband	Collaborative
3	Mrs. Sheetal Bhujade	Antenna	Design and implementation of multilayer parasitic Microstrip antenna array for wi-max application	Collaborative
4	Mrs. Sheetal Bukkawar	Microwave Antennas	Study of Fractal Antennas for multiband and wideband applications	Collaborative
5	Mr. Naresh Kumar Joshi	Antenna & wireless Communica	Modified E-Shaped patch antenna with two additional rectangular slots for smart	Collaborative

		tion	wireless communication	
COMPUTER ENGINEERING				
1	Dr. Bharti Joshi	Database, Networking	Universal adaptive acknowledgement intrusion detection system	Collaborative
2	Dr. Sanjay Jadhav	Information & Network Security	Multi-keyword Ranked Search to Preserve Privacy Over Encrypted Cloud Data	Collaborative
3	Mrs. Deepa Parasar	Image Processing	Feature Extraction and Classification of Ultrasound Medical Images	Collaborative
4	Mrs. Vijaya Waghmare	Algorithms	Genetic Algorithm for Handwritten Kannada Character Recognition	Collaborative
5	Mrs. Monali Deshmukh	Data Mining	Mining Method for Language Pattern from Database	Collaborative
MECHANICAL ENGINEERING				
1	Mr. S.N. Teli	Design Engineering	Stress Distribution In Universal Joint Under Variable Torque Condition By Photo elastic Method And UTM	Individual
2	Mr. Paramjeet Thakur	Production Engineering	A weighted Taguchi-Grey-Fuzzy approach for Multi objective optimization of cutting parameters in CNC Milling of INCONEL 718 super alloy	Individual
3	Mr. T.Z. Quazi	Manufacturing Systems Engineering	Implementation of cellular manufacturing as lean tool in garment industry	Collaborative
4	Mr. T.Z. Quazi	Manufacturing Systems Engineering	An experimental analysis of WEDM processes	Collaborative
5	Mr. M.B. Sorte	Manufacturing Systems Engineering	Study of mechanical and tribological properties of epoxy composites filled with filler HBN using Taguchi technique	Collaborative
CIVIL ENGINEERING				
1	Mrs. Roshni John	Structural Engineering	Influence of Aggregate grading and paste density on the performance of pervious concrete	Collaborative
2	Mrs. Pooja Somani	Env. Engineering	Bacterial Concrete	Collaborative

3	Mrs. Rachel Gitty	Construction Management	Viability of steel fragment as Fiber in Fiber reinforced concrete.	Collaborative
4	Dr. Suman Rawat	Engineering Geology	Geological investigation of Malin landslide, Pune district, Maharashtra (Research Proposal)	Individual
INFORMATION TECHNOLOGY				
1	Mrs. Vaishali Jadhav	Networking	New Approach for Rate Adaption Mechanism for IEEE 802.11 Network	Individual
2	Mrs. Anuradha Dandwate	Image Processing	Deformed Identity Crime Detection for textual and image data in big data environment	Individual
3	Mrs. Shilpa Kolte	Data Mining	Sentimental Analysis of Movie Reviews Using Lexicon Approach	Individual
4	Mrs. Vrushali Thakur	Networking	A trusted Neighbor Coverage Based Probabilistic Rebroadcast to Improve Routing Performance in MANET	Individual
5	Mrs. Kirti Mahamunka	Image Processing	Visual Cryptography securing shares with public key encryption	Collaborative
AUTOMOBILE ENGINEERING				
1	Mr. T.Z.Quazi	Manufacturing system Engineering	Experimental investigation of high speed turning using Taguchi method	Collaborative
2	Mr. T.Z.Quazi	Manufacturing system Engineering	Engine condition monitoring through lubricating oil analysis	Collaborative
3	Mr. T.Z.Quazi	Manufacturing system Engineering	Towards Sustainable Development: A Case Study of Plastic Waste Management of Municipal Corporation	Collaborative
ENGINEERING SCIENCES AND HUMANITIS				
1	Dr. Seema Lathkar	Operational research	The coalition formation game; study of long lasting strong coalition formation structures	Collaborative
2	Dr. SM Sabnis	Spray pyrolysis, Thin Film formation	Preparation of transparent conducting semiconductor thin films by using chemical bath strategy for hetro-junction solar cells	Collaborative
3	Dr. Prakash Badhane	Simulation of physics	Simulation	Individual

4	Dr. Sunita Pal	Synthesis of biomaterials & application in Waste water treatment	Preparation of transparent conducting semiconductor thin films by using chemical bath strategy for hetro-junction solar cells	Collaborative
5	Mrs. Sindhu Tayade	Alkaloids and Dyes	Formulation of Alkaloids and colourant from solanum Xanthocarpum	Collaborative

3.1.6 Give details of workshops/ training programmes/sensitization programmes conducted/organized by the institution with focus on capacity building in terms of research and imbibing research culture among the staff and students.

: Many programs are arranged in the campus for sensitization and capacity building in terms of research, few are already mentioned in 3.1.4. Details of workshops/training programmes /sensitization programmes organized by the departments (few samples) are given below.

Sr. No.	Title	Date	Sponsored By	Resource Person(S)
1	International Conference on Advances in Science and Technology 2015	8-9/12/15	SES	Dr.D M Dewaikar Mr. Krishnakant Mane IITB.
2	International Conference-ICAST-14	11-12/11/14	SES	Mr. Jan Huizeling (Sr.V P, Reliance Comm)
3	Visit to Sameer Research Centre, IIT Powai	25/8/14 & 23/10/12	SES	Dr. Kavita Dixit, HOD, Senior Scientist IIT
4	Workshop On Robot making Robotryst-14,	13-14/02/14	SES	Robosapiens Technology, IIT Delhi
5	Expert talk and Launch of ISHRAE	12/08/15	SES/ISHRAE	Mr Boney Davis (Area manager IBMS, Bajaj Electrical Ltd).
6	Seminar on How to write a research paper	3/2/14	SES	Dr. Manjusha Deshmukh
7	Expert Lecture on Engineering	12/9/14	Capgemini	Mr.Aniket Mhala

	students and latest IT Trends			
8	CONQVER-IT	14- 15/03/15	SES	IIT Bombay
9	Workshop on Internal Combustion Engine	15/09/15	Auto Institute	Mr. Yusuf Pathan
10	Workshop on Network & Cyber security	12 -13/02/16	SES	IIT Kanpur & Azure Skynet
11	National seminar on research avenues in science and technologies and research methodologies	12- 13/01/12	ISTE and SES	Dr. S K Ukarande Dr. U J Dixit Dr. S R Devane
12	Research talk on “Balancing academics and research”	25 /5/2016	85	Dr Bharati Joshi
13	Research talk on “Quantitative techniques in research”	31/05/2016	65	Dr Seema V Lathkar
14	Research talk on “Research methodology”	9/6/16	96	Dr. Santosh Rane

Student activity:

ELECTRONICS AND TELECOMMUNICATION ENGINEERING					
Sr N.	Name of Activity	Date	Name of Expert/ Speaker	Student participants	Remarks
1	Workshop on “Braintech network and cyber security championship”	12-13 /02/16	Mr. Manish Bhardwaj	110	Practical knowledge about CISCO routers & switches
2	Expert Lecture on N/W & Cyber Security	05/02/16	Mr. Rajesh Jain	145	Concept of N/W & Cyber Security

3	Guest lecture on Optical Comm. Networks	12/10/15	Prof. Sonali Sahu	154	Practical use of Optical networks
4	Guest Lecture on Optical Sources	04/10/14	Dr. Vithal R Kathi	119	Awareness of different Optical Sources
5	Guest Lecture on Smart Antenna	02/07/14	Dr.Ranjan bala Jain	140	Awareness of current trends in Antenna field
COMPUTER ENGINEERING DEPARTMENT					
1	Avishkar Project competition	07/04/16	Dr. Sangeeta Chaudhari	200	Project presentation and Skill development
2	Seminar on "Project Guidance"	11/03/16	Dr. M. Sasikumar	70	Guidelines to the students regarding Project for Final year
3	Seminar on Big Data	04/03/16	Manish Pillai	36	Finding research avenues in Big Data
MECHANICAL ENGINEERING					
1	Lecture on Heat transfer	15/10/15	Mr. Sandeep Joshi	45	Awareness on areas of application other than syllabus and research area in the subject
2	The 3 D modelling CAD Competition	15/09/15	Organized by Mechanical Department, SCOE	70	Provide platform to the students to explore their ideas /knowledge in respective areas
3	Expert talk "Integrated Building Management System 'IBMS'"	12/08/15	Boney Davis, IBMS, Bajaj Electricals	50	Awareness amongst all about IBMS and its advantages
4	"Recent Trends in HVAC"	3/10/13	Mr. Bhavesh Mehta	55	Research and development in refrigeration

5	Nano Science and Technology	23/10/12	Dr.B. B. Shrivastava	70	Awareness of areas of research and their practical applications
INFORMATION TECHNOLOGY					
1	Seminar on "How to write a research Paper"	21/01/16	Dr. S. M. Rangari	43	Guidelines to the students regarding how to write research paper
2	Seminar on "Project Guidance"	11/03/16	Sasikumar .M.	70	Guidelines to the students regarding Project for Final year
3	1-week workshop on C and JAVA	27-31/07/15	Mrs.Deepika Mr.Sandeep Chatuphade	57	Bridging gap between theory and Practical
4	Workshop on "Android OS"	10/10/15	Mr.Bhushan Jadhav	69	Bridging gap between theory and Practical
5	Technical Paper Presentation	26/02/14	Ms. Madhavi CDAC	71	Presentation of research work
CIVIL ENGINEERING					
1	Introduction to software (CAD)	18/08/15	Mr. Ganesh Patil, CAAD center	118	Students are able to learn software skills
2	Introduction to software STAAD PRO	10/08/15	Mrs. Sonali Patil, CAAD Center	90	Students are able to know importance of STADD PRO
3	Expert Lecture on Concrete Technology	1/4/15	Mr. Uttam Bhandari	90	Students are able to learn about concrete behaviour
4	Add on Course on Ferro Cement construction	09/10/15	Mr.U.M.P aranjpe Dr. Richa Paranjpe	100	Economical construction of water tank
AUTOMOBILE ENGINEERING					
1	Expert lecture	28/08/15	Dr. D. P.	46	Concept of Product

	for “Product Design & Development”		Tambuskar PIIT, Panvel		design & development.
2	Project Exhibition “Auto INVENTIA” based on PDD	14/10/15	Mr. Mandar Jagtap	47	Applications of goods from waste material.

Faculty Activities

ELECTRONICS AND TELECOMMUNICATION ENGINEERING					
Sr .N .	Name of Activity	Date	Name of Expert/ Speaker	Total participants	Remarks
1	Expert Lecture on Wireless Technology	22/12/15	Dr. Sanjay Pawar	21	Recent trends in wireless technology
2	STTP on “Neural networks & its Applications”	29/06/15-3/07/15	Mr. Sanjay Shitole Mr. Arun Kulkarni Mr. Hariram Chavan	41	Basics and applications of neural network
3	STTP on “Software tools for design & analysis in engg & technology”	9-13/01/12	Mr. Pranav Pawar Mr. R. Kashyap Mr. S. Thakur	22	Hands on practice on Different software tools
COMPUTER ENGINEERING DEPARTMENT					
1	STTP on .NET Application	02 - 06/05/16	Ms. Deepika Sawant	34	Basics of C#, ASP, ADO.NET
2	Training on Open source Technologies	16,19,20/10/15	Mr.TusharKute and Mr.Jagjit	30	Hands on practice of python, Ruby and Linux OS
3	International Conference on Advances in Science and Technology	11- 12/11/14	Dr. Girish Saraf, Mr. Rajesh Jain,	50	To provide platform to present and participate in research work

4	STTP On Cloud Computing	13/5/13	Dr.Sasikumar (CDAC), Mr. Rajesh Jain(BARC)	27	Got knowledge on advancement in cloud computing
5	Seminar on parallel computing	30/8/13	Dr.Sasikumar (CDAC)	25	Upgrade the knowledge about Parallel Computing
MECHANICAL ENGINEERING DEPARTMENT					
1	Seminar on Nano Science and Technology	23/10/12	Dr. B B Shrivastava	25	Awareness about the technologies and their benefits
2	Mechatronics	15/01/10	Mr. Mandar Puranik SMC Pneumatics Ltd Pune	50	Requirements for Industrial automation and need of advance technologies in future
3	International Seminar on Ground Source Water Heat	19/03/10	Mr.TedKantrowitz,Canada	70	Information about Ground Source Water Heat available for generation of heat and their area of applications
INFORMATION TECHNOLOGY					
1	Technology Evolution Towards 4G Long Term Evaluation	14/06/12	Mr. Sreenivasan Iyer Former ISRO Scientist	60	Awareness about evolution of Wireless Technology
2	Workshop on Linux , Ruby and Python	16- 20/10/15	Mr. Jagjit Phumm, Mr. Tushar Kutte	31	Information about Open Source Technologies.
3	International Conference on Advances in Science and	08- 09/12/15	Mr. Krishankant Mane , Mr. Rajesh Jain,	50	To provide platform to present and participate in

	Technology		Dr. Amar Vidhate,		research work
AUTOMOBILE ENGINEERING					
1	Expert lecture for “Product Design & Development”	28/08/15	Dr. D. P. Tambuskar, PIIT, Panvel)	46	Concept of Product design & development
2	Computer Aided Machine Drawing	11-13/07/13	Experts from Autodesk , ANSYS	10	Explore students to new software of machine drawing
3	E-Foundry	26/10/13	Dr. B. Ravi	35	Different types of casting
4	Intellectual property Management and Patent Lifecycle Management	24/02/15	Mr. Anand Mahurkar, ,Pune	95	Created awareness among the faculty about patent
ENGINEERING SCIENCES AND HUMANITIES					
1	STTP on Application of mathematics in engineering and science	16/12/13	Dr. B.S. Desale Dr. Ajit kumar	100	Awareness about application of mathematic in Engineering.
2	National seminar on research avenues in science and technologies and research methodologies	12- 13/01/12	Dr. S K Ukarande Dr. U J Dixit Dr. S R Devane	70	How to apply for research funding and research scope and facilities available in various streams

3.1.7 Provide details of prioritized research areas and the expertise available with the institution:

Department wise Research areas and the faculty expertise are listed below

Department	Research Areas	Faculty Expertise	Research contribution
Civil Engineering	Structural Engineering	Dr. Sunil Rangari	Guiding M.E. Students
		Mr. D.M Joshi	Guiding M.E. Students
		Mrs. Roshni John	Guiding M.E. Students funded research project
		Mrs. Shilpa Kewate	Guiding M.E. Students
		Mrs. Molly Mathew	Guiding M.E. Students
		Mrs. Vaishali Kishan	Guiding M.E. Students
		Mrs. Shweta Motharkar	Guiding M.E. Students
		Mr. Vishal Misal	Guiding M.E. Students
	Engineering Geology	Dr. Suman Rawat	Guiding M.E. Students
	Construction Technology and Management	Mrs. Rachel Gitty Mrs. Shanti Selvam	Guiding M.E. Students funded research project
Water Resources Engineering	Mr. Upendra W. Mate Mrs. Mrinmayee Ganage Mrs. Sujaya Wadekar	Guiding M.E. Students	
Environmental Engineering	Mrs. Pooja Somani Mr. Vishwnath Joshi Mr. Harshal Pathak Mr. Ayush Malpani Mrs. Asmita Lakhote	Guiding M.E. Students	
Mechanical Engineering (including worksh)	Quality Engineering, Knowledge Management	Mr. S.N. Teli	Guiding M.E. Students funded research project, publication in Inderscience and Springer
	Industrial and	Dr. Fauzia Siddiqui	Guiding M.E.

op)	Production Engineering		Students
	Manufacturing Engineering	Mr. Vishal Bhise	
	Thermal Engineering	Dr Bhalerao	
Electronic and Telecommunication Engineering	Image Processing	Dr. Manjusha Deshmukh	Guiding M.E. Students, Research Talks and Proposals
	Microwave Antennas	Mrs. Sheetal Bukkavar	Guiding M.E. Students
	Wireless Communication and Antennas	Mrs. Sheetal Bhujade	ME dissertation with IEEE publication, guided 9 ME projects with research publications
	Microstrip Antennas	Mrs. Sonal Gahankari	Guiding M.E. Students
	Image Processing	Dr. Sinora Ghosalkar	Guiding M.E. Students
	Neural Network	Dr. B. P. Dabney	Standard publications
Information Technology Engineering	Wireless Networking,	Mrs. Vaishali Jadhav	Guiding M.E. Students, funded research project
	Information and Network Technology	Dr. Sanjay Jadhav	Guiding M.E. Students
	Database System, Data Mining	Mrs. Shilpa Kolte	Guiding M.E. Students
	Image Processing	Mrs. Anuradha Dandwate	Guiding M.E. Students
Automobile Engineering	Manufacturing system Engineering	Mr. T.Z.Quazi, Dr. Benu Madhav,	Guiding M.E. Students
	Casting	Mr. P.D. Ingle	Guiding M.E. Students
Computer Engineering	Database, Networking	Dr. Bharti Joshi	Guiding M.E. Students funded research project,
	Image Processing	Mrs. Deepa Parashar	Guiding M.E. Students
	Cyber Security	Mrs. Vijaya Waghmare	Guiding M.E.

			Students
	Data Mining	Mrs. Madhuri Dalal	Guiding M.E. Students
First Year Engineering	Operational research	Dr. Seema Lathkar	Ph.D. work and 9 research papers in international journals, research project with univ. Mumbai
	Spray pyrolysis,	Dr. SM Sabnis	Ph.D. work and 6 research papers in international journals, research project with univ. Mumbai
	Simulation of physics	Dr. Prakash Badhane	Ph.D. work
	Synthesis of biomaterials and application in Wastewater treatment	Dr. Sunita Pal	Ph.D. work, 6 research publications in ELSEVIER
	Alkaloids and Dyes	Mrs.Sindhu Tayade	Ph.D. work

3.1.8 Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

- The faculties of the institution are motivated to interact with eminent personalities from academics and industry belonging to their research areas, as mentioned in 3.1.4 and 3.1.6.
- Guest lectures, National, International conferences, seminars, workshops, are conducted wherein eminent speakers share their expertise and knowledge.
- Faculty development program are conducted regularly.
- Guest lectures are also arranged through the student association of all departments.
- MOU's are done with various research centers.

3.1.9 What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

- Faculties are sponsored to pursue higher education ME/M.Tech/PhD.
- The teaching load of the faculties doing research/attending workshops/conferences/seminars are reduced

- Research facilities are made available to enthusiastic researchers in the college and outside the college through the MOU's.
- E -Journals and library facilities are made available in the campus.

Details of faculty who have completed PG/ Ph. D when in the Institute

Sr no	Department	PG completed	Ph.D. pursuing	Ph.D. completed
1	Electronics & Telecommunication	18	1	1
2	Computer Engg.	8	1	1
3	IT	6	4	1
4	Mechanical Engg	17	3	1
5	Civil Engg	3	1	-
6	Automobile Engg	9	2	-
7	Engg Sciences	5	1	6
	Total	66	13	10

3.1.10 Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land).

- Project Competition “Avishkar” is held every year for final year students to showcase and share their research and innovative ideas. The projects like “SUPRA” and “BAHA” are funded by the institute and it has got social implications and importance of utility to serve the society.
- Senior faculties are also encouraged to deliver expert lectures and to share their research ideas/outcomes and to do research projects which have community applications.
- Students are encouraged to participate in various competitions by providing funds. Two projects one each from Civil and E &TC department were selected in project competition organized by power Grid corporation, Delhi. The institute has contributed financially for the above projects
- R & D cell is formed in the institution to promote research work focused on uplifting the quality of social life.
- Faculties are provided financial assistance to present their research work in conferences and workshops.
- Infrastructure facilities/Labs/equipment/software are provided to promote research work.

3.2 Resource Mobilization for Research:

3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization:

- College has made provision in the annual budget which is being used for creating Research facilities in different departments. Substantial amount for every department is allocated for research work.

Particular	Academic Year 2015-16	Academic Year 2014-15	Academic Year 2013-14	Academic Year 2012-13
Seminar Expenses & students project expenses	681613.26	601466.6	472784.7	291891
Computer Expenses	180177.7	154707	89445.7	-
International Conference Expenses	1162604.4	966004	-	-
Library Journals	1221545.16	1110495.6	694396	495924
Traveling Expenses				229409
Equipment & Software	401206	315000	1179000	553509
Total Expenses in Rs.	3647146.52	3147673.2	2435626.4	1570733
% R&D Budget Percentage w.r.t. Total Budget	1.61% Approximate	1.51%	1.30%	1.18%

Expenditure Details for Print and e- journals are as below Details of amount spent the library resources are given below:

Library holdings	2012-13		2013-14		2014-15		2015-16	
	No.	Cost	No.	Cost	No.	Cost	No.	Cost
Reference Books	52	29838	41	19717	68	34988	88	142926
Text Books	217	92081	236	118600	610	291200	356	196217
Journals/periodicals	104	209671	116	151817	122	209693	120	263642
E-journals	173 26	14878 63	173 26	16755 04	145	3842 37	4298	895635

3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

Yes. Institute is providing Start-up grant to faculties for research work. For upgrading the lab facilities and infrastructure to promote research work the institution has made provision in the annual budget.

3.2.3 What are the financial provisions made available to support student research projects by students?

- Few selected students research projects are funded by the institution.
- Students are encouraged to participate in various competitions by providing funds. Two projects one each from Civil and E &TC department were selected in project competition organized by power Grid corporation, Delhi. The institute has contributed financially for the above projects.
- To participate in SAE India Racing car competition (SUPRA) financial help was given by the Institution to students of Mechanical and Automobile Engineering.
- The institution also funds few of the innovative projects of UG and PG students.
- Software and equipment are also made available to UG and PG students to carry out their project work

Sr no.	Name of student project	year	Department	Funds provided to students
1	Pedal Based Power Generation	2012-13	E & TC	5000/-
2	Implementation of Microstrip Antenna with Metamaterials	2014-15	E & TC	5000/-
3	SAE India SUPRA Virtual Round Competitions	2014-15	Mech	10000/-
4	Team Prahar ,SAE Baja Competition at Chennai	2012-13	Mech	50000/-
5	Online Attendance Monitoring System	2013-14	Comp	5000.00/-
6	Handwritten Character Recognition	2013-14	Comp	10000.00/-
7	Optical Mark Recognition Software	2013-14	Comp	10000.00/-
8	Purchase of Jaw Crusher	2015-16	Civil	35000/-

3.2.4 How does the various departments/units/staff of the institute interact in undertaking interdisciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.

To carry interdisciplinary research, sharing of resources is done some of the interdisciplinary B.E and PG projects carried out by the students are listed below:

ELECTRONICS AND TELECOMMUNICATION ENGINEERING			
2015-16			
Sr. No.	Name of Project	Participating Department	Name of Supervisor/ Guides
1	Surveillance Rover	E&TC & Mechanical	Mrs. Sheetal Bhujade & Ms Kanchan Dhuri
2	Oxygen Tree	E&TC & Mechanical	Mrs. Pallavi Kharat
3	Museum Automation using RFID	E&TC & Information Technology	Mrs. Sheetal Bukkawar
2014-15			
4	Wireless Monitoring of Micro-biology lab	E&TC & Information Technology	Mrs. Rajashri Narwade
5	Automatic DAM shutter control	E&TC & Mechanical	Mrs. Megha Pande
6	Eye Vein Technology with multistage security	E&TC & Computer Science	Mrs. Sarita Kale
7	Fully Automated Robotic Arm	E&TC & Computer Science	Dr. Manjusha Deshmukh
COMPUTER ENGINEERING			
2015-2016			
1	Wireless Mobile Charger	Computer and Electronics & Telecommunication	Mrs. Arti K. Gore
2	Attendance Monitoring using Wi-Fi (2015-2016)	Computer and Electronics & Telecommunication	Mrs. Deepa Parasar
3	Robotics (2015-2016)	Computer and Electronics & Telecommunication	Mrs. Vijaya Waghmare

2014-2015			
4	Biometric Attendance Monitoring System	Computer and Electronics & Telecommunication	Mrs. Deepa Parasar
5	COCOMO-II Model Using Adaptive Fuzzy Logic (2014-2015)	Computer and IT	Mrs. Deepa Parasar
6	Optical Character Recognition (2014-2015)	Computer and Electronics & Telecommunication	Mrs. Sujata Bhairnallykar
7	Advanced File Security System Using Personal Area Network (2014-2015)	Computer and Electronics & Telecommunication	Mrs. Monali Deshmukh
MECHANICAL ENGINEERING			
2015-16			
1	Paper shredder machine	Mechanical and Electronics and Telecommunication dept.	Dr. Fauzia Siddiqui
2	Design and Implementation of a gesture controlled Rover	Mechanical and Electronics and Telecommunication dept.	Mr. Madan Jagtap
3	Mobile fire extinguisher : AN application of RAPOSA robot in fire fighting	Mechanical and Electronics and Telecommunication dept.	Mr. Prasanna Raut
4	Design and analysis of vertical wall glass cleaning robot	Mechanical and Electronics and Telecommunication dept.	Mr. Rakesh Shinde
2014-15			
5	Design and development of the Monowheel	Mechanical and Automobile dept.	Mr. S.N.Teli
6	Performance Optimization with Cost Effectiveness of the Monowheel	Mechanical and Automobile dept.	Mr. Madan Jagtap

7	Unmanned Aerial Vehicle for Surveillance	Mechanical and Automobile dept.	Mr. Madan Jagtap
CIVIL ENGINEERING			
2015-16			
1	Improvement of local transport in Thane city	Civil & Mechanical	Mrs. Roshni John & Mr. S.N.Teli
2	Design of sewage treatment plant for Alibagh region	Civil & FE (Chemistry lab)	Mr. Vishwanath Joshi & Dr. Sunita Pal
3	Review of use of recycled solid waste material in Asphalt Pavement	Civil & FE (Chemistry lab)	Mr. Vishal Misal & Dr. Sunita Pal
4	Application of GIS in GIP in foundation of marine clay	Civil & Computer	Mrs. Shanthi Selvam & Dr. Bharti Joshi
2014-15			
5	Analysis & Design & of G+22 residential building using staad pro	Civil Computer	Mrs. Shilpa kewate & Dr. Bharti Joshi
6	Design of firefighting system for a commercial building	Civil & Mechanical	Mr. D.R.Suroshe & Mr. S.N.Teli
7	Estimation & costing of underground metro (SEEPZ-Andheri MIDC)	Civil & Mechanical	Mrs. Shweta Motharkar Mr. S.N.Teli
INFORMATION TECHNOLOGY			
2015-16			
1	Android Application for GPS navigation and Speedometer	IT & Automobile Department	Mrs. Eirrtty Telang Mr. T.Z.Quazi
2	Water Quality Measurement System	IT & Science and Humanities	Mrs. Vaishali Jadhav Dr. Sunita Pal
3	Mitigating performance degradation in sensor network	IT & Electronics and communication	Mrs. Vaishali Jadhav Mrs. Megha Pande

4	Leaf Disease Detection Application	IT & Electronics and communication	Mrs. Anuradha Dandwate Mrs. Pooja Rane
2014-15			
5	Touch less Character Recognition using Neural Network	IT & Electronics and communication	Mrs. Eirrtty Telang Mrs. Deepa Parashar
6	Leaf Disease Detection	IT & Electronics and communication	Mrs. Anuradha Dandwate Ms. Pooja Rane
AUTOMOBILE ENGINEERING			
1	Trike for handicapped person	Automobile & I.T.	Mr. T.Z.Quazi Eirrtty Telang

3.2.5 How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?

- All departments have well equipped laboratories with lab utilization register maintained to ensure its optimal use.
- Central Libraries provide E-Journal, journals, audio video aids to staff and students.
- Log book and entry registers are maintained to keep of record of usage for optimal use of resources.
- For development of laboratories R&D cell plays an important and active role.

3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If 'yes' give details.

Yes

Sr. No.	Name of the Faculty (PI)	Department	Funding Agency & Year	Amount
1	Dr. Bharti Joshi	ADOLHealth Android Application	Indian Institute of Public Health, Gandhinagar	2,50,000.00/-
2	Dr. Bharti Joshi	Disease Prediction Model		
3	Dr. Bharti Joshi & Suhasini Parvatikar	Online Book Recommendation System using Collaborative Filtering and	Institution of Engineers, Kolkata	50,000/-

		Association mining		
4	Mrs. Vaishali Jadhav	Information Technology	Accelya Kale Solution Limited (2015-16)	Used resources(Computer & Software)
5	Mrs. Vaishali Jadhav	Information Technology	Gajra Tax Consultants (2012-13)	Used resources(Computer & Software)
6	Mr. S.N. Teli/ Mr. Paramjit Thakur	Mechanical Engineering	University of Mumbai [2015-16]	40,000/-
7	Mrs. Roshni John & Mrs. Shilpa Kewate	Civil Engineering	University of Mumbai [2015-16]	40,000/-
8	Mrs. Rachel Gitty Mrs. Pooja Somani	Civil Engineering	University of Mumbai [2015-16]	25,000/-
9	Mr. T.Z. Quazi,	Automobile Engineering	University of Mumbai [2015-16]	25,000/-
10	Dr. Seema Lathkar & Ms. Reshma Chavan	Engineering Sciences & Humanities	University of Mumbai [2015-16]	25,000/-
11	Dr. S M Sabnis & Dr. Sunita Pal	Engineering Sciences & Humanities	University of Mumbai [2015-16]	46,000/-

3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.

Various research project proposals from all departments have been submitted to Mumbai University, RGCST, BRNS and other private agencies.

Sr. No.	Name of the Faculty	Title of Project	Name of Funding Agency	Amount Sanctioned in Rs
ELECTRONICS AND TELECOMMUNICATION ENGINEERING				
2014-15				
1	Mrs. Sonal Gahankari	Implementation of Biometric attendance monitoring system	CAN AGRO PVT LTD, Kadepur, Sangali	77,500/-
2	Dr. Manjusha Deshmukh	Automatic Milk collection centers	Sampatrao Deshmukh Co-op Milk Union, Kadepur, Raygaon, Sangli	2,50,000/-
COMPUTER ENGINEERING				
2015-16				
1	Dr. Bharti Joshi	ADOLHealth Android Application	Indian Institute of Public Health, Gandhinagar	2,50,000.00/-
2	Dr. Bharti Joshi	Disease Prediction Model		
3	Dr. Bharti Joshi & Suhasini Parvatikar	Online Book Recommendation System using Collaborative Filtering and Association mining	Institution of Engineers, Kolkata	50,000/-
2014-15				
4	Mrs. Deepa Parasar	Online Attendance Monitoring System	SES	50000.00/-
2012-13				
5	Mrs. Madhuri Dalal	Online Courier Management System with Android Application	Quantum Solutions	5000.00/-
6	Mr. Dhanraj Walunj	Online Election System with Android	ORNET Technologies Pvt. Ltd.	6000.00/-
2011-12				
7	Mrs. Deepa	Web Application	Meckon	5000.00/-

	Parasar	for Office Management	Computers	
8	Mrs. Vijaya Waghmare	Online Book Shopping Portal	HP India Sales Pvt. Ltd.	8000.00/-
9	Mrs. Deepa Parasar	Android Project	Team India Career Hub	5000.00/-
10	Mrs. Arti K. Gore	TUDF Converter	First Win IT Services Pvt. Ltd.	4000.00/-
MECHANICAL ENGINEERING				
2014-15				
1	Mr. S.N.Teli	Design and development of the Mono Wheel	SES	25000/-
2	Mr. Madan Jagtap	Performance Optimization with cost effectiveness of Mono wheel	SES	20000/-
3	Dr. Fauzia Siddiqui	Design and Fabrication of pipe inspection robot	SES	20000/-
4	Mr. Madan Jagtap	Critical heat flux enhancement using Nano fluids	SES	25000/-
5	Dr. Fauzia Siddiqui	Design and fabrication of paper shredder machine	SES	20000/-
INFORMATION TECHNOLOGY				
2015-16				
1	Mrs. Vaishali Jadhav	Business Process Optimization	Accelya Kale Solution Limited	Used resources(Computer & Software)
2	Mrs. Shraddha Subhedar	Website Development	Saraswati Education Society, Kadepur	In Process
2014-15				
3	Mrs. Vaishali Jadhav	New Approach for Rate Adaption Mechanism for IEEE 802.11 Network	University of Mumbai	20000/-

2013-14				
4	Mrs. Vaishali Jadhav	Intelligent Car Parking using RFID	Saraswati Education Society, Kadepur	11000/-
2012-13				
5	Mrs. Shilpa Kolte	Counter Based Image Mining Using Clustering and Association Mining	University of Mumbai	10000/-
6	Mrs. Anuradha Dandawate	Patient Identification System	Dhanwantari Clinic	10000/-
2011-12				
7	Mrs. Sunita Jadhav	Content Management System	Microcare Services-Kandivali	10000/-
AUTOMOBILE ENGINEERING				
2015-16				
1	Mr. Bhau Kumbhar	FSAE	Astarc Group of company, Mumbai	4,00,000/-
CIVIL ENGINEERING DEPARTMENT				
2012-13				
1	Mrs. Roshni John	Energy Efficiency in building design and construction (Day light)	SES	21,000/-

3.3 Infrastructure for Research (Research Facilities):

3.3.1 What are the research facilities available to the students and research scholars within the campus?

Dedicated computer system with internet facility, latest software's, sophisticated instruments and equipment, Research lab, centralized well stocked library with E journal, journals, video lectures are provided to facilitate research activities to fulfill the need of new and emerging areas of research.

- Institute has applied for Remote Centre, IIT Mumbai,
- Institute has got IIT Mumbai library membership for faculty and students.
- College has computer centre with internet facility
- National and International E- journals are available for enthusiastic researchers.
- Wi Fi facilities with 100 Mbps Leased line internet connection

- Research labs are available in departments.
 - The institute has tie up with Microsoft cloud campus license.
 - College is equipped with well stocked library, digital facilities and E- journals.
- Research facilities of each department are listed below.

Sr. No	Name of Department	Research Facilities
1	Civil Engineering	Aggregate Impact testing machine, Digital Penetrometer, Los Angeles Abrasion testing machine, Auto level model, Standard Vernier Theodolite, Total station, Open channel Flume, Flow measurement devices like orifice meter and Venturimeter, Francis and Pelton wheel Turbine, Centrifugal and Reciprocating Pumps, Impact of jet apparatus on flat and curved vanes, Universal Testing Machine, Compression Testing Machine, Izod Impact testing Machine, Electrically operated Concrete Mixer, Rebound Hammer, Flexure test apparatus, Vee Bee Consistometer, Flow Table apparatus,
2	Mechanical Engineering (including workshop)	6' Size All geared Lathe (9 units), 2 Multipurpose Machine, 9 Lathe Machine will belt drive Trinocular Microscope with CCTV attachment Binocular Microscope with Imported optics Standard Metallurgical microstructure set Ansys 11.0, Pro E 4.0 Wildfire CMS_ Interlace AutoCAD 2008, Fatigue Testing Machine, 100 KgCM motorized 2850 rpm with cutoff switch 0.5 HP, 3 Phase, 440 Epicyclic Gear train dynamometer, 1500 rpm, 1HP, Single phase motor with belt pulley arrangement-Belt Transmission dynamometer, 1500 rpm, 1HP, Single phase motor with belt pulley arrangement, CNC Lathe Trainer, Power Turn – SS-PT-100 Swing Over Bed – 200mm, Swing Over Carriage – 70mm, 2 Axis, Slant Bed, Single phase 230V AC, 12 AMP Spindle speed – 50 to 3000 rpm, Engine set-up for 3 cylinder petrol engine, Water cooled, power 27 KW at 5000 rpm, Torque 59 NM at 2500rpm, stroke 72 mm, bore 66.5mm, 796cc, Computerized Engine setup for 1 cylinder diesel engine, 4 Stroke Diesel, water cooled,

		power 5.2 kW at 1500 rpm,stroke 110mm,bore 87.5mm,661cc.RX LOGIX 500 PLC Software
3	Electronic and Telecommunication Engineering	IE3D software (ver 15.1)), Spectrum Analyzer(0-3GHz), RF Generator (0-1GHz), Matlab Software 7.0 (10 users) - Simulink, Image Processing tool box, Signal Process tool box, Neural Network Tool box, Communication tool box, communication Blockset, Signal Processing Blockset ,EDWIN XP,Microwind software (ver 3.5 for 7 Users) Acer Core i3 version desktop (Quantity 35)
4	Information Technology Engineering	Equipment(Project Lab)–Acer core i3 Verticon Desktop(20 pcs)With 2GB Ram,500 GB Harddisk, Software: Oracle 11g,Java net beans ,Turbo C ,NS2,Microsoft Campus license.
5	Automobile Engineering	Wheel alignment - HOFMANN Make - 3D wheel Alignment with computer & Turn plate model : EL 680 Gas Analyzer - "NETEL" Make Multi Gas Emission, Analyzer Model NPM-MGA-1 with Oil Temperature, RPM & NOX Sensor Wheel Balancing machine - Eskay brand compressor - 2Hp/1ph motor with 160 ltrs Tank & discharge capacity - 5.4 CFM Model: skT20 Computers - HP Pro 202 MT Desktop (P/N : LOH95PA),HP 18.5" COPAQ LED Monitor (P/N : G9592AT) , Software - Pro E
6	Computer Engineering	Project Lab with PCs of configuration Lenovo M72e Series Desktop Intel core i3 32203rd gen. 3.30Ghz 4 GB RAM, 500GB HDD. Software – Microsoft campus license.
7	First Year Engineering	DB. UV-VIS Spectrophotometer, Abels Flash Point Apparatus, PH Meter, Penski Martins Apparatus, Red Wood Viscometer with Kohlaursh flask, Water Distillation plant Orsat Apparatus, Chemical Bath Deposition unit, Ultrasonic Distance Meter Kit, , Laser lab, Fiber Optic Kit, Planks Constant apparatus, Hysteresis Curve Apparatus, Hall effect ETNL Language Lab Software & hardware facility.

3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

- The institute has identified thrust areas in research and according planning for research lab setups is taking place.
- The institute encourages faculty to submit research proposal to University of Mumbai and other funding agencies like, Mumbai University, RGCST, BRNS and other private agencies and DST to secure grants for research work
- Research & development cell has been formed in the institution to facilitates research work and promote it among the faculty and students .The R&D cell has members from each department to supervise the research work related to all fields.
- Purchase of latest equipment's and software's for research work is carried out from time to time.
- Industry institution interaction is highlighted for collaborative efforts and research.
- Faculties and students are encouraged to do research work and is supported by institution in all possible ways.
- In recent budgets provisions are been made for creating research facilities.
- Research funding received from different agencies are utilized to create research facilities.
- For infrastructural facilities the college has tied up with different research Centers in Mumbai University and outside.

3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities?? If 'yes', what are the instruments/ facilities created during the last four years.

The institution received grants from University of Mumbai, and other funding agencies for the proposed research projects. Few are mentioned below.

Sr No	Industry or other beneficiary Agency	Research facility created	Grants in Rs
1	University of Mumbai	Reference Books. Cisco router, storage device ICT Facilities	20000/-
2	University of Mumbai		10000/-
3	Indian Institute of Public Health, Gandhinagar	Project Lab with PCs of configuration Lenovo M72e Series Desktop Intel core i3	2,50,000.00/-

4	ORNET Technologies Pvt. Ltd.	32203 rd Gen. 3.30Ghz 4 GB RAM, 500GB HDD. And related Software	5000.00/-
5	Meckon Computers		6000.00/-
6	HP India Sales Pvt. Ltd.		5000.00/-
7	Team India Career Hub		8000.00/-
8	FirstWin IT Services Pvt. Ltd.		5000.00/-
9	University of Mumbai	Jaw crusher . Cube moulds	65,000/-
10	University of Mumbai	INCONEL 718 material, Tool inserts	40,000/-
11	University of Mumbai	Paralytic reactor for conversion of waste plastic to oil.	25,000/-
12	University of Mumbai	Subscription of International journals and reference books	25000/-
13	University of Mumbai	CBD unit for thin film deposition.	46,000/-

3.3.4 What are the research facilities made available to the students and research scholars outside the campus / other research laboratories?

IIT library membership is taken so as to provide additional supporting facility to the students and research scholars. For infrastructural facilities and expert guidance the college has tied up with different research Centers in Mumbai University and outside.

The institution has applied for IIT remote Centre to expose the students to the expertise of national level.

Institute encourages students and faculty to visit renowned research institutes, industries and institute of academic excellence.

Institute is tied up with research centers in various disciplines through MOU's.

Sr.No	MOU's with industry/research center	Purpose
1	META-TECHGARAGE	R&D and academics Initiatives
2	Sanjay Ghodawat Group of Institutions. Kolhapur	R&D and academics Initiatives
3	Kalsekar Technical Campus .New Panvel	R&D and academics Initiatives

4	Lokmanya Tilak, Koparkhairane, Navi Mumbai	R&D and academics Initiatives
5	V-Tech Hydraulics , Navi Mumbai	R&D in Mechanical Engineering
6	Samrat Machine Tools , Rajkot,Gujrat	R&D in Automobile Engineering
7	Destech Structural Consultants	R & D in Civil Engineering
8	Terana college of engineering	R & D in Electronics & telecommunication Engg.

3.3.5 Provide details on the library/ information resource center or any other facilities available specifically for the researchers?

Computational facility with Internet and Wi-Fi is available in library. NPTEL lectures can be viewed whenever required. Journals like IEEE, Science Direct, ASCE, ASTM, SPRINGER,J-GATE and ASME etc. can be accessed on all the terminals from any department. Digital library is available for all researchers.

IIT library membership is availed by the college; this facility is also made available to researcher with priority. Institute library is enriched with reference books on research topics of various research areas.

Department	Titles	volumes	Journals	E-Journals
Electronics & Telecommunication	188	4921	18	Elsevier Sc.direct 275
Computer Engg.	1174	5977	11	IEEE ASPP 161
IT	183	1642	06	Springer 149
Mechanical Engg	715	3351	23	ASME 27
Civil Engg	605	4146	24	ASCE 35
Aytomobile Engg	203	1044	07	ASTM 09
Engg Sciences	1229	5327	09	J.GATE-4082,MGH- 620
Total	4927	26428	98	5358

3.3.6 What are the collaborative researches facilities developed / created by the research institutes in the college? For ex. Laboratories, Library, instruments, computers, new technology etc.

- Research & development cell is established in the institution to take care of the Research activities.
- The institution has applied for Research Centre in E&TC department.
- Laboratories are updated with latest equipment's and software, Library is well stocked with Journals, E-journals and reference books. Computers with Wi-Fi facility, Audio video aids, and LCD projectors are available with each department.

- The faculties of the institution are encouraged to interact with eminent personalities from academics and industry belonging to their research areas.
- Guest lectures, National, International conferences, seminars, workshops, are conducted wherein eminent speakers share their expertise and knowledge.
- The institute encourages faculty to submit research proposal to University of Mumbai and other funding agencies like AICTE, DRDO, and DST to secure grants for research work.

Research facility developed in department:

Sr No	Industry or other beneficiary Agency	Research facility created	Grants in Rs
1	University of Mumbai	Reference Books. Cisco router, storage device ICT Facilities	20000/-
2	University of Mumbai		10000/-
3	Indian Institute of Public Health, Gandhinagar	Project Lab with PCs of configuration Lenovo M72e Series Desktop Intel core i3 32203 rd Gen. 3.30Ghz 4 GB RAM, 500GB HDD. And related Software	2,50,000.00/-
4	ORNET Technologies Pvt. Ltd.		5000.00/-
5	Meckon Computers		6000.00/-
6	HP India Sales Pvt. Ltd.		5000.00/-
7	Team India Career Hub		8000.00/-
8	FirstWin IT Services Pvt. Ltd.	5000.00/-	
9	University of Mumbai	Jaw crusher. Cube moulds	65,000/-
10	University of Mumbai	INCONEL 718 material, Tool inserts	40,000/-
11	University of Mumbai	Paralytic reactor for conversion of waste plastic to oil.	25,000/-
12	University of Mumbai	Subscription of International journals and reference books	25000/-
13	University of Mumbai	CBD unit for thin film deposition.	46,000/-

Workshop laboratory created for Supra and Baha activities in the Institute: The workshop laboratory is been created which has various accessories been sponsored by various agencies and industries.

Student workshop	Machines	Sponsors	Funds
SUPRA and BAHA	vertical drilling machine, bench grinder, shear cutters Welding machine, heat gun, gear hobbling, etc.	Mansons India Pvt.Ltd (Machining),Astarc (Aesthetic,funds) NeoWheels(Wheels) Auto Institute Knowledge ,funds)	Rs. 4,00,000/-

The Students of Mechanical and automobile Engineering are working on the Designing and manufacturing of all-Terrain vehicle and racing car. They have also participated in SAE India Raising car competition (SUPRA) and secured 24th Overall ranking, the institution has also supported with adequate fund.

Students from Automobile & Mechanical engineering department participated in competition organized by “Formula Students India” at Noida, Delhi and secured 7th rank in Manufacturing and Cost event held on 27th Jan 2016.

3.4 Research Publications and Awards:

3.4.1 Highlight the major research achievements of the staff and students in terms of

- **Patents obtained and filed (process and product):**
- **Original Research contributing to product improvement**
- **Research studies or surveys benefiting the community or improving the services**
- **Research inputs contributing to new initiatives and social developments**
- : Patents obtained and filed (process and product):**
 - Student from Second year Automobile Engg. Department, Omprakash N. Mare has filed an application for Patent on 03/02/2014, application no.369/MUM/2014 titled “Power Pipe in a Vehicle” which is awaiting examination.
 - Students of Mechanical Engineering Department have filed an application for patent on 23/10/2015, application no. 276996 titled “Pipe Inspection Robot” which is awaiting examination.

Research studies or surveys benefiting the community or improving the services:

- Two projects one each from Civil and E&TC dept. was demonstrated in “Students’ Innovation Pavilion” in GRIDTECH 2013 – 4th International Exhibition & Conference on New Technologies in Transmission, Distribution

Smart Grid, Renewable Integration and Communication held on April 3-5, 2013 at Pragati Maidan, New Delhi. The institute provided financial help for above projects.

Original Research contributing to product improvement:

- The Students of Mechanical and automobile Engineering are working on the Designing and manufacturing of all-Terrain vehicle and racing car. They have also participated in SAE India Raising car competition (SUPRA) and secured 28th Rank, the institution has also supported with adequate fund.

Research inputs contributing to new initiatives and social developments:

- Students from Automobile & Mechanical engineering department participated in competition organized by “Formula Students India” at Noida, Delhi and secured 7th rank in Manufacturing and Cost event held on 27th Jan 2016.
- Faculties of the institution have published more than 500 research papers. Major papers are published in National and International Publications and in National, International conferences.
- The Institution has organized National and International conferences NCETCT-10, NCECTEAS-11, ICAST-14, and ICAST-15 respectively. Senior faculties of each department were on the Editorial Board.

3.4.2 Does the Institute publish or partner in publication of research journal(s)? If ‘yes’, indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database?

Institute has online research journal “International Journal of innovations in Science and Technology”, Institute has applied for ISSN number which will soon come into existence.

- The Institution has organized National and International conferences NECTET-10, NECTAS-11, ICAST-14, and ICAST-15, sponsored by IEEE, IETE and ISTE.
- The papers presented in National conference were published in BIONANO Frontier (International society of sciences & Technology’s (University of Mumbai) ISSN 0974-0678.
- The papers presented in International conference were published in IJSER (ISSN:2229-5518), IJCA (ISSN:0975-8887)

• Editorial Board for International Conference NCETAES-3rd -4th FEB 2011

1	Mrs. Manjusha Deshmukh	Convener
2	Mrs. Seema Lathkar-	Convener,
3	Mr. Suhas Sabnis	Member
4	Dr. Prajakta Deshmukh	Member
5	.Mrs. Sonal Gahankari	Member
6	Mrs. Sheetal Bukkavar	Member

• **Editorial Board for International Conference ICAST 2014, 11th and 12th Nov**

1	Dr. Manjusha Deshmukh	Convener, Principal SCOE
2	Dr Bharti Joshi	Technical chair Head Computer Dept.
3	Dr. Seema Lathkar	Head, FE Dept.
4	Mr. S.N Teli	Head, Mechanical Dept
5	Mrs.Roshni John	Head, Civil Dept.
6	Mrs. Mandeep Kundhal	Head, E&TC dept.
7	Mr. Pratik More	Head, Auto dept.
8	Mrs.Vaishali Jadhav	Head ,IT dept.

• **Editorial Board for International Conference ICAST 2015, 08th and 09th Dec**

1	Dr. S.M. Rangari	Civil Engineering
2	Mrs. Sujata Bhairnallykar	Computer Engineering
3	Mr. Prashant Banger	Civil Engineering
4	Mr. Yogesh Jadhav	IT Engineering
5	Mrs. Poonam Hankare	IT Engineering

3.4.3 Give details of publications by the faculty and students:

Faculty and students are actively involved in publications in conferences and journals. Details of the publications at Institute level is given below

Last Five years (2011-2015)

Faculty Publications:

Sr. No.	Department	Academic Year					Total
		2015-2016	2014-2015	2013-2014	2012-2013	2011-2012	
1	Civil Engineering	39	41	7	1	6	94
2	Mechanical Engineering	36	46	24	17	08	131
3	Electronic and Telecommunication Engineering	19	31	44	19	20	133
4	Information Technology Engineering	15	5	5	4	0	29
5	Automobile Engineering	8	32	30	8	-	78
6	Computer Engineering	22	25	6	13	02	68
7	First Year Engineering	19	11	21	2	23	76
	Total	158	191	137	64	59	609

Faculty and Student publication

Sr. No.	Department	Peer reviewed		Non peer reviewed		Student Publications	Total No
		International	National	International	National		
1	Civil Engineering	89	5	-	-	25	119
2	Mechanical Engineering	129	2	-	-	36	167
3	Electronic and Telecommunication Engineering	133	27	11	04	69	244
4	Information Technology Engineering	29	-	-	-	16	45
5	Automobile Engineering	10	-	62	6	3	81
6	Computer Engineering	67	1	-	-	33	101
7	First Year Engineering	76	-	-	-	-	76

Number of publications listed in international database.

Sr. No	Name of the faculty	A	B	C	D	E	F	G	H	I	J	K
1	Dr. Manjusha Deshmukh	62	-	-	-	-	-	-	-	-	2.54	-
2	Mr. S. N. Teli	50	-	-	-	05	03	16	-	-	-	3
3	Prof. T. Z. Quazi	27	18	-	-	-	-	19	-	-	-	02
4	Dr. Fauzia Siddiqui	09	-	-	-	-	-	15	-	-	-	3
5	Dr. Bharti Joshi	12	10	-	-	-	-	-	-	-	2.35	-
6	Mrs. Roshni John	16	-	-	-	-	-	-	-	-	-	-
7	Dr. Sunil Mahadeorao Rangari	16	-	-	-	-	-	-	-	-	-	-
8	Dr. Priyanka Jadhav	10	-	-	-	02	02	42	-	-	-	04
9	Dr. B. P. Dubey	50	-	-	-	-	-	-	-	-	-	-
10	Mrs. Sheetal Bhujade	25	-	-	-	-	-	-	-	-	2.25	-
11	Prof. Bhau Kumbhar	16	15	-	-	-	01	12	-	-	-	02
12	Dr. Sanjay Jadhav	06	01	-	-	-	-	06	-	-	6.13	0

13	Mr.Paramjit Thakur	05	-	-	-	-	-	08	-	-	-	1
14	Dr. Seema V Lathkar	20	20	-	1	-	-	-	-	-	2.9	-
15	Dr. SM Sabnis	16	16	-	-	-	-	03	-	-	3.1	1
16	Dr. Praksh Badhane	14	14	-	-	-	-	03	-	-	3.1	1
17	Mr. Naresh Joshi	06	-	-	-	-	02	-	-	-	2.3	-

Following are the books with ISBN/ISSN

Sr. No.	Name of faculty	Book Name	Publisher	ISBN/ISSN Number	Year
1	Mr.S.N.Teli & Mr. Pradip Gunaki	Productivity Improvement by Value Stream Mapping	LAP Lambert Academic Publishing, Germany	978-3-659-78386-9	2015
2	Mr. S.N.Teli & Mr. Siddhesh Lad	Knowledge Management	LAP Lambert Academic Publishing, Germany	978-3-659-79362-2	2015
3	Mr.S.N.Teli Mr. Madan Jagtap	Analysis & Reduction of warranty cost: A case of Automobile Industry	LAP Lambert Academic Publishing, Germany	978-3-659-77264-1	2014
4	Dr. Kamal Bajoria and Dr. Priyanka Jadhav	Manufacturing Science and Technology III	Trans Tech Publications, Switzerland	ISBN-13: 978-3-03785-563-8	2013
5	Dr. Kamal Bajoria and Dr. Priyanka Jadhav	Computational Methods and Experimental Measurement XVI	WIT UK press	ISBN 978-1-84564-732-2	2013
6	Mr. Naresh Kumar Joshi	Signal and systems	NK Publisher	ISBN : 978-81-8444-388-2	2010
7	Mr. Naresh Kumar Joshi	8085 Microprocessor	CBC Publisher	ISBN : 978-81-905492-8-8	2009

3.4.4 Provide details (if any) of Research awards received by the faculty:

- **Recognition received by the faculty from reputed professional Bodies and agencies, nationally and internationally:**
- **Incentives given to faculty for receiving state, national and International recognitions for research contributions:**

Sr. No.	Name of Faculty	Department	Award	Year
1	Dr. Manjusha Deshmukh	EXTC	Research Award	2011-12
2	Dr. Bharti Joshi	Computer	Research Award	2012-13
3	Mr.S.N.Teli	Mechanical	Research Award	2013-14
4	Dr. S.V. Lathkar	F.E.	Research Award	2014-15
5	Dr. Fauzia Hoda	Mechanical	Research Award	2014-15
6	Mr. T. Z. Quazi	Automobile Engg.	2 nd Rank in National Level Conference	2012
7	Mr. B. K. Kumbhar	Automobile Engg.	Best Paper	2014
8	Mrs.Roshni John	Civil Engineering	Consolation for project in Power Grid Corporation of India	2013
9	Dr. Seema Lathkar	FE Engg.	Best paper Award NECTET	2010
10	Dr. Seema Lathkar	FE Engg.	Best Paper Presentation	2010
11	Mrs. Sayali Chaudhari	FE Engg.	Best Paper Presentation	2010
12	Mrs. Sindhu Tayade	FE Engg.	Best Paper Presentation	2010
13	Dr. Sunita Pal	FE Engg.	Best Paper Presentation	2014
14	Ms. Reshma Chavan	FE Engg.	Best Paper Presentation	2014

3.5 Consultancy:

3.5.1 Give details of the systems and strategies for establishing institute-Industry interface?

For better Industry-Institute interaction

- Institute has a well-established III cell and T&P cell which provides an excellent interface for industry-institute interaction.

-
- Institute has established a centralized advisory board which consists of various experts from Industry as well as academics.
 - Students are motivated to go for internship in industry.
 - Students are encouraged to work on live industry projects for their final year projects.
 - Entrepreneur Network Cell (ENC) is established to help students to understand the aims and objectives of entrepreneurship and Industry – Institution Interaction, mentioned in 5.1.5.
 - Various testing activities like construction material testing and PUC testing are carried out by Civil and Automobile departments.
 - Various workshops, seminars and expert lecture are organized to make students aware of industrial needs as mentioned in 3.1.6.and 1.3.1.
 - Add-on courses are conducted based on student requirements and alumni as well as industry-expert feedback (1.1.7.)
 - Industrial & site visits are conducted.
 - Institute has signed MOU with some industries.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

Consultancy policy of SCOE: Institute has well defined policy for consultancy. It is stated as follows: The Revenue sharing here implies the difference of income and expenditure. Type A: consultancy and industrial Projects (Individual / Joint). A1: That do not require laboratory Facilities, A2: that require laboratory Facilities. Type B: Training courses and Continuing Education programs (Individual or Joint) Offered for inside or outside participants. (3.5.5)

UTM, CTM, TTM and other construction material testing machines are available for its utilization in consultancy work.

- Wheel alignment - HOFMANN Make - 3D wheel Alignment with computer & Turn plate model: EL 680, Wheel Balancing machine - Eskay brand compressor - 2Hp/1ph motor with 160 liters Tank & discharge capacity - 5.4 CFM Model: skT20 is available to promote consultancy.
- Gas Analyzer - "NETEL" Make Multi Gas Emission, Analyzer Model NPM-MGA-1 with Oil Temperature, RPM & NOX Sensor is available in college for RTO certified PUC testing facility.

Expertise for consultancy:

- PUC testing.
- By identifying industry needs various workshop are conducted to cope up with recent trends in industries.
- Constructions of Storm water drain from Arjun complex to Balaji temple as a third party.
- B.S.U.P project for Slum Rehabilitation, Indira Nagar Dombivili(E)

- Construction material testing for Gurudwara Shree Guru Singh Sabha ,Kharghar, Navi Mumbai
- Water testing for institute building.
- An Ocean Wave Energy Conversion Pilot Power Station

Expertise Advocated and Publicized

Institute has R&D Cell, which helps to promote and advertise the expertise available with the Institute.

- The Institute has policy of sharing its faculty expertise, labs for the benefit of society and industries.
- The faculty finds out probable domains of consultancy.
- Institute motivates the faculty and non-teaching staff to develop the in house experimental set ups. It supports the staff to give the consultancy for the same.
- Institute has policy of sharing the income generated through consultancy among the concerned staff.
- As per suggestion and guidance of expertise, seminars and workshops are organized.

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

- Faculties are motivated to attend workshops, seminars by providing financial support, on-duty leave.
- Revenue generated through consultancy is directed as per consultancy policy
- Institute provides facilities for consultancy work.

3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.

Sr. No.	Name of industry	Nature of work	Resource/ revenue generated in Rs.
1	CAN AGRO Pvt. Ltd,Kadepur, Sangali	To Check Adulterant present in the milk coming from dairy	1,20,000/- (2014-16)
2	CAN AGRO Pvt Ltd, Kadepur, Sangali	poor crystallization of sugar from sugarcane Industry	90,000/- (2015-16)
3	CAN AGRO Pvt Ltd, Kadepur, Sangali	Implementation of Biometric attendance monitoring system	80000/- (2015-16)

4	Gurudwara Shree Guru Singh Sabha, Kharghar, Navi Mumbai	Concrete cube testing	Rs.6600/- (2013-14)
5	B.S.U.P project for Slum Rehabilitation, Indira Nagar Dombivili(E)	Estimation	In process
6	RTO certified PUC testing Centre	PUC Testing	2000/- (in process) (2015-16)
7	Sampatrao Deshmukh Co-op Milk Union, Kadepur, Raygaon, Sangli	Automatic Milk collection centers	150000/- (2015-16)
8	College Website Design	RVIOT	24000/- (2014-15)
9	Online Feedback System	RVIOT	45000/- (2014-15)

3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: institution) and its use for institutional development?

Every project proposal would be examined and approved by institute level committee before it is being accepted for being conducted. The committee would consist of

- Principal SCOE (Chairman)
- Head R&D (convenor)
- concerned Head of the Department (Advisory member)
- Technical Expert in the subject area (nominated by Principal SCOE) (Advisory member)

The Department R&D Coordinator would maintain the documentation /Records of such committee meetings. The Department R&D Coordinator would further fix and schedule such meetings as and when required and send invitations to the chairman, convenor, Advisory members and invitees as per everyone's convenience, the minutes of such meetings would be officially recorded.

The faculty members proposing to take up the consultancy work would be termed as invitees at such meetings and they would be required to make a presentation of the consultancy proposal. In case of testing the concerned faculty may present the case.

The work shall be classified as Class A type of work if it adheres following constraints:

- Type A : consultancy and industrial Projects (Individual / Joint)
- A1: That do not require laboratory Facilities
- A2: That require laboratory Facilities

Norms for Training Programmes and CEP's: Type B:

Individual Faculty members or departments may take up Training program. Such continuing Education program undertaken by the Department or individual faculty need to be presented in front of Principal SCOE. The proposal to arrange such a Training program should contain the need and necessity of such training program, The Trainers and their academic and trainer profile, Module wise syllabus, Time scheduling, Fees, Evaluation method of the trainees at the end of training, Certificate Sample, Advertising Leaflet, Venue, Requirements and human resource support from the organization as may be required. The head of the institution would examine and approve such proposal if found suitable and in the interest of the trainees and the organization. The organization would enter into a formal agreement if the training is arranged by an Outside individual / Organization or a faculty which would mention the resources that would be provided by the institute and the revenue sharing aspect thereof.

The said training programmes can be offered to people/Students/ outside faculty from outside of the college and outside organizations in non-academic hours.

The said consultancy shall be classified as Type B if it is subjected to following constraints.

- Type B: Training courses and Continuing Education programs (Individual or Joint) Offered for inside or outside participants
- B1 : Imparted by Institutes manpower
- B2 : Imparted by outside agency

Revenue Sharing:

The Revenue sharing here implies the difference of income and expenditure.

Type A: consultancy and industrial Projects (Individual / Joint)

- A1: That do not require laboratory Facilities
- A2: that require laboratory Facilities

Type B: Training courses and Continuing Education programs (Individual or Joint) Offered for inside or outside participants

- B1 : Imparted by Institutes manpower
- B2 : Imparted by outside agency

Type	Revenue sharing in percentage			
	Institute	Principal	HOD	Faculty /Staff
A1	40	5	5	50#
A2	50	5	5	40#
B1	40	5	5	50#
B2	80	5	5	10#

#: Indicates that such a revenue would be shared within the faculties if more than one (should be clearly mentioned in agreement paper also).The Faculty who brought the consultancy should also be considered in it).

The revenue would be deposited in the account of Principal SCOE by cheque/draft/Cash (Small amount) less than Rs/- 5000). The Account section would divide the revenue as per the instruction of the Undersigned authority and table as mentioned above.

The Institute Share would be retained by the institute in the principals account and the remaining amount would be disbursed in the form of cheque/draft/Cash (Small amount) less than Rs/- 5000) to the concerned (Principal share/ HOD share/ Faculty or staff share).

The Account section would also issue a revenue disbursement certificate mentioning all the shares including the institutes share for records to be kept by the respective departments.

3.6 Extension Activities Institutional Social Responsibility (ISR)

3.6.1 How does the institute promote institution-neighborhood community network and student engagement, contributing to good citizenship, service oriented and holistic development of students?

Institute insists upon inculcating moral, ethical and social values in students to develop them as responsible citizen of India. Various committees (mentioned in criteria IV) involving students and faculties are active in the college. Students are motivated to carry out various social activities like

- Marathon for women safety and empowerment every year.
- Ract club activities: Blood donation, Nirbhaya Campaign, Clean up drive at Vashi Railway station, Eco friendly Ganesha making workshop, Plantations.

NSS is active in college and different activities are undertaken- Personality development, Elocution competition, Swachha Bharat Abhiyan. As a part of “youth for sustainable development “ program with special focus on watershed management and waste land development , NSS students of SCOE took part in a special camp of seven days to serve tribal village, Dehrang in Panvel Taluka. They built a Kolhapur bandhara (bund) on Gadeshwar River and did community service for the villagers.

- Woman self-defense workshop every year.
- Donation for orphanage, flood affected & drought affected people, Cancer patients.
- National Anthem is played every day for inculcating patriotic feelings among staff and students.
- Plantation drives are arranged time to time.
- Rain water harvesting initiative.
- Sewage plant provision
- Energy audit and green audit provision

3.6.2 What is the Institutional mechanism to track student's involvement in various social movements/activities which promote citizenship roles?

Various student volunteer bodies like ACE, SESA, MESA, CESA, ETSA, RACE, SAIT, ISHRE, IETE, NSS, ROTRACT, student council, EN Cell, are functioning in institute to motivate students to involve in various social activities. Various students' chapters, Rotract club & NSS are fully functional through which students participate actively in social activities through which they learn a lesson of a corporate social responsibility and leadership qualities are imbibed among them with improved organizing skills.

3.6.3 How does the institution solicit stakeholder's perception on the overall performance and quality of the institution?

To solicit stakeholder's perception on the overall performance and quality of the institution following measures are taken.

- Suggestion boxes are mounted at places accessible to all stakeholders.
 - Various stakeholders are approached in different ways as given below.
- The appropriate suggestions are discussed with principal and decisions for changes are initiated and implanted.

Students:

- Under student feedback process, the suggestions of the students are taken.
- The student can put forward their suggestions through student grievance cell which is responsible for solving the student's problems inside the campus.
- Under proctor system, students are counseled and motivated to come forward to give their views regarding academic and non-academic issues.

Parents:

- Parent teacher meet is conducted once in a semester where parents give their feedback.
- Parents can contact any faculty as well as Heads for discussion and suggestions.

Alumni:

- Alumni meet is organized every year.
- Alumni fill the feedback form through which their perceptions are obtained.

All these feedbacks are studied, analyzed and recorded. All the qualitative feedbacks are considered while taking strategic decision for positive growth of the institute.

ADVISORY Board & IQAC:

Suggestions are taken for improvement from the Industry and academic experts outside through the department advisory board and college wise IQAC and Advisory board. An academic audit conducted gives a review about improvements to be made in strategies and processes.

3.6.4 How does the Institution plan and organize its extension and outreach programmes? Providing the budgetary details for last 4 years, list the major extension and outreach programmes and their impact on the

All the outreach activities are planned and reflected in institute academic calendar. Through these activities students are made aware of the various problems that are widespread in the society. Also students are nurtured to share, care and help needy people, thus developing in the responsible citizen.

Activity Details	objective	Participants	Expenses
Guest lectures on recent trends/ technologies in civil engineering	to update about ever advancing technologies in Ferro cements	Student of SCOE	2000/-
Visit to Orphanage Ashalaya, Kharghar	To extend helping hand to meet their daily needs and moral supports	Orphanage home of children	Grocery, learning materials, sports gear, etc.
Rain Water Harvesting	To promote rain water harvesting practice	SCOE	No expense
Say no to Plastic	To literate people to say no to plastic	SCOE	No expense
Blood Donation Camp	To cater and justify the need for nation development	Tata cancer research center	No expense
NSS activity	To support for Socio Economic development of rural community	Village Near Nere	55000/-
Visit to cancer patients Home	To extend helping hand to meet their daily needs and moral supports	Orphanage home of children	Rs. 5000/-
Visit to Orphanage Ashalaya, Kharghar	To extend helping hand to meet their daily needs and moral supports	Orphanage home of children	Rs. 3000/-
Swacha Bharat Abhiyan	Kharghar Railway Station & Utsav Chowk	SCOE students	2000/-

- blood donation camps every year
- The institute has woman development cell for encouraging ladies faculty for future growth
- Plantation program is organized on institute foundation day every year.
- Women defense workshops
- Swacha Bharat Abhiyan
- Orphanage Visits
- Road safety drives

3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?

Good performers in NSS and university examinations are given special weightage in the examination. Student chapters in departments, NSS and Rotaract club are active in the college.

Various activities like blood donation camps, Health Check-up Camps, Swachha Bharat Abhiyan, Marathon, helping poor sections of society etc. are conducted by the institute.

Rural development program is also undertaken by NSS unit of SCOE by adopting a Village near Nere. They constructed a small Bandhara (Bund) across Kalundre river.

Sr.No	Activity	Dates
1	Cleanness Drive in Campus (Swachata Bharat Abhiyan)	26/07/2015
2	Elocution competition in association with MbPT	13/08/2015
3	Run for Unity on birth anniversary of Sardar Vallabhbhai Patel	31 /08/2015
4	Yusuf Malala programme	07 /11/2015
5	Celebration of Indian constitution day	26/11/2015
6	Homage to 26/11 Martyrs	26/11/ 2015
7	Workshop on Road Safety	02 /11/ 2015
8	Lecture on Higher Education world wide	08 /12/2015
9	Workshop on Cyber crime	15 /12/2015
10	Cleanness Drive near Ustav chock	07/01/2016
11	Celebration of Yuva day	12/01/2016
12	Student participated in Rally on Road safety organized by Terna college of Engineering	14/01/2016
13	Student participation seminar on Road safety at RTO Kalamboli	15/01/2016
14	Celebration of Republic Day	26/01/2016

15	Free Health checkup camp for Teaching and Non-teaching of Saraswati college of Engineering	27/01/2016 to 29/01/ 2016
16	Participation of Student in 6 th Indian Student Parliament at MIT Pune	27/01/2016 to 30/01/ 2016
17	Workshop on Graphology: Handwriting and Signature Analysis	28 /01/2016
18	Theme Base workshop at Vashi	29/01/2016 to 30/01/2016
19	Free Health checkup camp for Teaching and Non-teaching of Revera Institute of Technology	02/02/2016
20	Programme on wetland day	02/02/2106
21	Cleanness Drive on Kharghar Railway Station	06/02/2016
22	07 Days special Residential Camp at Nere	11/02/2016 to 19/02/ 2016
23	Participation in Different Nakashtra Activities	15/02/2016 to 23/02/ 2106
24	Second Cleanness Drive in SES campus	27/02/2016
25	Free Health checkup camp at kharghar Railway Station	23/02/2016 to 25/02/ 2016
26	Mega Blood Donation Camp at college Campus	23/02/2016 to 25 /02/2016
27	Self-defense workshop for girls students(FE) by KLM international foundation	8/3/16

3.6.6 Give details on social surveys, research or extension work (If any) undertaken by college to ensure social justice and empower students from underprivileged and vulnerable sections of society.

- Institute had visited Orphanage Centre ‘Ashalaya’ and based on the survey conducted, the problem encountered by the people were analyzed and accordingly clothes, learning material and other essential things were donated to the children
- Institute had organized Blood donation Camp, literacy drive for children in slum areas.
- Diwali Celebration with cancer patients including donations.

3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students’ academic learning experience and specify the values and skills inculcated?

The objective of extension activities is to develop social awareness, to understand the problems prevailing in society and to nurture ethical and moral values in students and to make them aware about their social liabilities. The institute motivates students to involve in these extension activities. This participation inculcated various important skills and values in students like understanding social responsibilities, organizational skill, leadership qualities, utilizing their technical knowledge for social welfare, taking up projects of societal concerns, ethical behavior, etc.

Objectives:

- Knowledge of the community in which they work
- recognize the needs and problems of the community and involve them in problem-solving
- Develop among themselves a sense of social responsibility
- Utilize their knowledge in finding practical solutions to individual and community problems
- Develop competence required for team work and sharing of responsibilities
- Gain skills in mobilizing community participation
- Acquire leadership qualities and democratic attitudes
- Develop capacity to meet emergencies and natural disasters and
- Practice national integration and social harmony

The outcomes of the activities:

- The extension activities have induced in the minds of students to work as a team member.
- Exposure to rural life, their problems and initiative for probable use of technology to make village life easier.
- Develop the overall personality of the students, for getting good employment
- Understand real life problems and developing lifelong learning skills.
- The enterprising skills are developed among the students.

3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?

Institute has established IQAC which involves HRs from industries, parents, alumni as its members. These members give valuable suggestions for social activities to be carried out. Under the guidance of advisory board members also various community activities are carried out. Institute approaches local bodies for organization of events like Marathon, blood donation, health camp, NSS camps in villages etc. Students are encouraged to reach out to the poor and needy sections of the society.

3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.

- Institute has signed up MOU's with leading Research Centre's of various institutions of the locality to provide research facilities.
- Institute has signed up MOU's with various industries. Refer 3.7.2.
- Institute has tie up with Dongarai milk dairy, Can-Agro sugar factory
- Institute has developed strong bonding with Blood Banks, Orphanage Ashalaya.
- Institute had undertaken the NSS camp with a social cause for village near Panvel.
- Institute has conducted marathon on social issues with involvement of many from various sections of society.
- Institute is connected with the society through the clean drive on various local stations by students.
- The Nirbhaya campaign was conducted by students of rotaract club of Saraswati, which was a social connect.

3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years

- Certificate of Appreciation to Rotaract club of Saraswati college of Engineering for being a part of Dream Year 2014-15
- Certificate of Appreciation to Rotaract club of Saraswati college of Engineering for being a 2B Star ,2014-15
- Certificate of Appreciation to Rotaract club of Saraswati college of Engineering for the contribution to the community through project “ Drop of Hope –A Mega Blood Donation Drive”,2014-15
- Presidential Citation Award received from Rotaract club for the year 2014-15
- Certificate of Appreciation by Dr.D.Y.Patil Hospital blood bank to SES Volunteers who donated blood on 17th Sep 2014 at SCOE for Noble Cause.

3.7 Collaboration:

3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives – collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.

Industries are providing training and guidance for B.E. and M.E. students in their project work. Some of the industries are mentioned

Sr. No.	Name of Research Laboratory/ Institute/Industry	Activities conducted by collaborating party	Benefits accrued
1	BARC	Project work & training	Imparting technical knowledge to students
2	Durgadevi Saraf Institute	Training in accreditation July -2015	Knowledge sharing
3	IIT Mumbai	Project work & training, faculty development program	Imparting technical knowledge to students
4	MIT Alandi	Training in accreditation July -2015	Knowledge sharing
5	CIDCO	Project work & training	Imparting technical knowledge to students
6	Sardar Patel College of Engineering	Research Training	Research guidance
7	BATU Lonere	Faculty Training program	Imparting knowledge to faculty
8	SAMEER IIT	Project work & training	Imparting technical knowledge to students
9	University of Mumbai	Research guidance, training programs, advisory meetings	Exposure to research trends
10	Mazgaon Dock	Project work & training	Imparting technical knowledge to students

- Institute has signed up MOU's with leading research centers of various institutions of the locality to provide research facilities.
- Institute has signed up MOU's with various industries.
- Institute has tie up with Dongarai milk dairy, Can-Agro sugar factory
- Institute has developed strong bonding with Blood Banks, Orphanage Ashalaya
- Institute has signed up MOU's with leading research centers of various institutions affiliated to Mumbai University. Facilities are utilized by faculties of various departments for their research work.

3.7.2 Provide details on the MOUs/collaborative arrangements (if any) with institutions of national importance/other universities/industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.

- Institute has signed up MOU's with leading research Centre of various institutions of the locality to provide research facilities.

- Institute has signed up MOU's with various industries.
- Through these MOU'S research facilities are made available to the faculties as well as students. Through MOU's with industries students are getting industrial exposure.
- The industrial MOU's are

Sr. no.	Name of industry/research center	Purpose
01	NIIT	Aptitude test , workshops, seminars to improve the employability of students
02	EMC ² Academic associate	Aptitude test , workshops, seminars to improve the employability of students
03	META-TECHGARAGE	R&D and academics Initiatives
04	INSEEC France	Higher and Future studies.
05	Sanjay Ghodawat Group of Institutions. Kolhapur	R&D and academics Initiatives
06	Kalsekar Technical Campus.New Panvel	R&D and academics Initiatives
07	Lokmanya Tilak, Koparkhairane, Navi Mumbai	R&D and academics Initiatives
08	CADD Center Belapur, Navi Mumbai	Professional Training in designing software's
09	Enviro Abrasion resistant Engineers Pvt. Ltd. Pune	Research Project, Research Facility and Industrial awareness
10	V-Tech Hydraulics , Navi Mumbai	Hydraulic machine Training
11	Wisdom Career Education	Career counselling for students
12	Dhruv Consultancy Services Pvt. Ltd.	Placement
13	Firefly Networks Ltd.	Networking facility
14	Pruthvi Infotech	Software Training
15	Samrat Machine Tools , Rajkot,Gujrat	Lathe assembly and training programmes
16	AIIMS Infotek Thane	Organizing Industrial Training program & joined publications
17	Azure Skynet solutions Pvt. Ltd.	Organizing Training and Internship

18	CMS IT services PVT. LTD., Kharghar	Workshops, seminars and training courses
19	H. R. Software Solutions, Jalgaon	Workshops, seminars and training courses
20	S. B. Infotech, Nashik	Expert Seminars, Internship Programs and Workshops

3.7.3 Give details (if any) on the industry-institution-community interactions that have contributed to the establishment /creation/up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories/library/ new technology /placement services etc.

Many of the Advisory board members of the Institute are from reputed industries and their valuable guidance helps the management to take strategic decisions for quality improvement of infrastructure and human resource

Under the guidance of industry experts various Add-on courses, workshops, faculty development program are organized for students as well as faculty to bridge the gap between industry and academia. Personality development program, soft skill development programs, industrial visits, are conducted for students which creates awareness about updated technologies, research areas and helps in better placement.

3.7.4 Highlighting the names of eminent scientists/participants, who contributed to the events, provides details of national and international conferences organized by the college during the last four years.

Institute has invited various eminent experts for events organized in the campus. Their valuable guidance and suggestion helped students and faculties for overall growth.

S N o	National/International Conference/ Seminar	Resource person/ Eminent Scientists/ Participants	Description of Contribution to Event	Date/ Duration
1	ICAST-15 (International Conference on Advances in Science & Technology-2015)	Dr. D M Dewaikar (IIT Mum.) Mr. Krishnakant Mane (IIT Mum.) Dr. V.K.Sunnapwar (Dir. LTCOE) Mr. Michelle Gilmote	To share the role of disruptive technology as a powerful tool among students and faculty.	8-9/12/15
2	ICAST-14	Mr. Jan Huizeling	Discussions on	11-12/12/14

	(International Conference on Advances in Science & Technology-2014)	(V.P. Reliancecomm) Mr. Girish Saraph (CEO Vegyan) Dr. A.R.Honnutagi (Director of KTC) Dr. S.K. Ukarande (Dean,Univ. Mumbai)	various research topics by Delegates.	
3	NCETCT-2009 (National Conference on Emerging Trends in Computer Technology)	Dr. S. S. Mantha (Mem.Sec. AICTE) Dr. G.T. Thampi Mr. Aniket Mala(Tech Mahindra) Dr. J. G. Kori	To Ignite the interest among students towards recent trends in Engg. & technology	21-22/12/09
4	Intellectual property Management and Patent Lifecycle Management	Prof. Anand Mahurkar, Head Krishna &Saurastri Associates,Pune	Session Chair	24/02/15
5	National Conf.on Emerging Tech.& appl. in Engg.Science(NC ETAES-11)	Dr. S S Inamdar (Dir.Vishwaniketan) Dr. J.G. Bakal (Prin. Jodhale CoE.) Dr. Dimple Dutta (BARC) Dr. U.V. Bhosale (Dean BOS EXTC)	Guidance for writing the research paper	3-4/02/12
6	National seminar on research avenues in science and technologies and research methodologies	Dr. S K Ukarande Dr. U J Dixit (HOD Stat. Uni.Mum.) Dr. S R Devane	How to start research programmes in college	12-13/01/12
7	National level project competition” AVISHKAR”	Dr.Ranjan Bala Jain (Prof. VCE) Dr.V.Yakundi (Prof. LTCOE) Dr.Tejaswini D N (Prof. ACPCE)	To inculcate research culture among students	7/04/16

3.7.5 How many of the linkages/collaborations have actually resulted in formal MOUs and agreements? List out the activities and beneficiaries and cite Examples (if any) of the established linkages that enhanced and/or facilitated:

The Institution has signed MOUs /collaborative arrangements with institutions of national importance/other universities/industries/Corporate (Corporate entities) etc. and they have contributed to the development of the institution.

• **Syllabus change/enrichment:**

A formal MOU with NIIT, AIIMS InfoTech Thane, and CMS IT services PVT. LTD., Kharghar and EMC2Academic associate has helped in enhancing the employability of students by organizing workshops and seminars for students.

• **Research and consultancy:**

Meta-Techgarage, Sanjay Ghodawat Group of Institutions. Kolhapur, Kalsekar Technical Campus.New Panvel, Lokmanya Tilak, Koparkhairane, Navi Mumbai and Enviro Abrasion resistant Engineers Pvt. Ltd. Pune have extended their support by providing R&D facilities and academics Initiatives. CAN AGRO Pvt. Ltd, Kadepur, Sangali has extended their support by providing consultancy facilities.

• **Internship:**

MOU's with Azure Skynet solutions Pvt. Ltd., H. R. Software Solutions are providing opportunities to the students to undergo internship and industrial exposure.

• **Placement and professional development:**

Wisdom Career Education, Dhruv Consultancy Services Pvt. Ltd and Glowlogic Media Pvt. Ltd. are tied up with the institute for carrier counselling and placement support for students.

MOU with INSEEC France, has opened up the windows for higher studies aboard.

3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/collaborations. Any other relevant information regarding Research, Consultancy and Extension which the college would like to include

- Institute has signed up MOU's with leading research centers of various institutions of the locality to provide research facilities to all.
- Institute has signed up MOU's with various industries and research centers
 - To share their expertise
 - Enhancing consultancy work,
 - Technical help to students for project and research work
 - Sponsored students projects

- Through these MOU'S research facilities are made available to the faculties as well as students. Through MOU's with industries students are getting industrial exposure.
- III cell encourages interaction between institute and industry.
- Every year Institute send research proposal to university.

Criterion IV: Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

All the infrastructure facilities are established as per DTE, AICTE and University of Mumbai norms, to have an effective teaching and learning system. The institute has policy to create best infrastructure for holistic development of the students. Following infrastructure facilities are available in the campus of SCOE:

- Well-equipped Laboratories
- Library
- Well-furnished classrooms and tutorials
- Internet/WIFI
- Transportation
- Gymkhana
- Canteen
- Training , placement and carrier guidance cell
- IT resource
- Human Resource
- Well-furnished auditorium with 300 seating capacity
- Seminar halls
- Auditorium
- Research and development cell
- Entrepreneur Network cell

In view of syllabus, additional courses, students, admissions, etc. Principal, Dean of Academics, Dean of Administration and Head of departments identify requirements and prepare budgets for laboratory and other requirements. Accordingly management upgrades facilities with the help of experts in the concerned areas.

4.1.2 Detail the facilities available for

a) **Curricular and co-curricular activities – classrooms, technology enabled learning spaces, seminar halls, tutorial, spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.**

b) **Extra-curricular activities – sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygiene etc.**

a. **For Curricular and co-curricular activities institute provides following facilities:**

- **Laboratories:** Every department in the Institute has well equipped laboratories as per AICTE and university norms.
- **Classrooms and tutorials:** Spacious and well ventilated classrooms with ICT facilities are available as per AICTE norms with adequate furniture facilities.
- **Library:** Library is well equipped with sufficient number of titles and volumes. Institute also facilitates well ventilated and spacious reading room for students and faculties with internet facility and National and International online journals and publications. Also digital library with NPTEL videos is available for students and faculty members. The Institution has acquired IIT Mumbai Library membership (Membership No.EIMP92) for knowledge enrichment of faculty and students
- **Seminar halls:** The institute has 5 spacious seminar halls supported with LCD projector, LCD screen, white board and public addressing system and proper sitting arrangement.
- **Auditorium:** Air conditioned, well-furnished auditorium with 300 seating capacity is available for arranging various events.
- **Computer labs** with advanced software's, internet facilities, computer center, printers, scanners, servers are available in the institute.

Department wise Instructional Area details: **All areas in Sq.m.**

Department	Classrooms /Area	No. Labs / Area	No. Tutorial Rooms/Area	No. Of Seminar Hall/Area	Research lab/Area	Total Area sq. m.
EXTC	05/370	10/791	03/165	02/264	01/70	1660
COMP	03/207	10/863	02/67	02/264	01/68	1469
MECH	05/432	10/914	03/138	02/451	01/70	2005
CIVIL	05/358	10/1058	03/118	02/711	01/66	2311
IT	02/140	10/717	01/54	01/88	-	999
AUTO	02/144	10/1159	01/42	01/88	NA	1433
FE	09/632	03/502	NA	NA	NA	1134
Total	11011 Sq. m					
LIBRARY	600 Sq. m					
Grand Total	11611 Sq.m					

The summary of area details of the institute are shown below.

All Areas in Sq.m.

Floor	Floor Area	Total Build / Up
Stilt	1924.55	2141.87
First	2119.35	2698.53
Second	2222.07	2801.25
Third	2253.25	2832.43

Forth	2253.25	2823.43
Fifth	1370.17	1650.49
Total	12709.09	15542.5

The summary of laboratory investments details of the institute are shown below.

Sr. No.	Name of the department	Total Labs	Total Cost
1	Electronics & Telecommunication Engineering	11	1,09,02,675.703/-
2	Civil Engineering	12	54,98,502/-
3	Mechanical Engineering	12	94,74,386/-
4	Information Technology	9	43,96,816/-
5	Computer Engineering	11	91,55,526/-
6	Automobile Engineering	8	36,37,273/-
7	First Year Engineering	3	15,69,628/-

Department wise Details of laboratories with equipment and cost investment:

ELECTRONICS & TELECOMMUNICATION ENGINEERING		
Sr. No.	EQUIPMENT	COST
1	Lab Trainer Kit (236 Nos)	30,03,048/-
2	Cathode Ray Oscilloscope (50 Nos)	7,92,101/-
3	Function Generator (45 Nos)	3,76,917/-
4	Power Supply (47 Nos)	4,00,134/-
5	Meters (Digital Multimeter, Analog, and current meter) 144 Nos	3,22,282/-
6	Stabilizers (3Nos)	74,250/-
7	PCs (71 Nos)	17,24,536/-
8	Printers (7 Nos)	57,418/-
COMPUTER ENGINEERING		
1	Computers	43,00,438/-
2	Servers	3,41,923/-
3	Scanner and Laser Printers	87,336/-
4	UPS and Dual Power Supply	1,50,701/-
5	Network Equipment(Switch, Network Rack, IO Box, Patch Cord, Jack Panel)	2,21,213/-
6	Web Cam	26,925/-
7	Speaker and Collar Mike	16,555/-
8	LCD Projector	1,08,990/-
9	Monitor	1,49,838/-
10	External HDD, DVD Writer	16,946/-
11	Cyberoam	71,875/-
12	Cathod Ray Oscilloscope	88,175/-
13	Function Generator	31,030/-
14	Digital Multimeter and DMM Handheld Multimeter	11,700/-

Computer Centre		
	Hardware-	
1	HCL Desktop, 2 GB RAM, 160 GB HDD 7200 rpm	15,65,200/-
2	IBM Server IBM Sys Core 2 duo 1.86Ghz & LX-300 Printer	99,423/-
3	19 U network rack 148 port switch with patch	1,15,208/-
	Software-	
1	Auto CAD 2008	7,52,640/-
2	Pro E 4.0 Wildfire	1,60,000/-
MECHANICAL ENGINEERING		
Machine Shop		
1	4.5 size Lathe M/c Light Duty (09)	4,90,000/-
2	All geared Lathe (11)	16,96,690/-
3	Special purpose machines (4)	3,49,500/-
4	CNC Turning Trainer Machine	5,17,500/-
Mechatronics Lab/PG Lab		
1	Oil Hydraulic Trainer	1,50,000/-
2	Electro- Pneumatic Trainer	90,000/-
3	PLC Trainer Unit	43,000/-
4	PLC Software RX LOGIX 500	1,56,320/-
MT LAB		
1	Trinocular & Binocular Microscopes	1,57,828/-
2	Jominy End Quench Hardness test apparatus with Quenching fixture	60,872/-
3	Double Disk Polishing m/c & Metallurgical microstructure set	66,357/-
4	Abrasive belt grinder Dry type	9,871/-
5	Hot mounting press	24,678/-
6	Fatigue Testing Machine	99,000/-
TOM LAB		
1	Mechanism, Working Models, Prototypes of Elements /Systems	81,350/-
2	Motorized Gyroscope	18,500/-
3	Universal Governor Apparatus	24,500/-
4	Epicyclic Gear Train & Belt Transmission Dynamometer	140,625/-
Fluid Mechanics Lab		
1	Metacentric Height of Ship Model Apparatus	10,200/-
2	Verification of Bernoullis Theorem Apparatus	30,000/-
3	Flow through Venturimeter&Orificemeter Apparatus	26,000/-

4	Flow Over Notches Apparatus	32,500/-
5	Reynolds Apparatus	29,000/-
6	Losses in Pipe Friction Apparatus	44,200/-
7	Losses in Pipe Fitting Apparatus	38,100/-
8	Rotameter,,	8,500/-
9	Orifice & Mouthpiece	26,500/-
10	Turbulent flow Apparatus	45,000/-
11	Laminar flow Apparatus	48,000/-
12	Viscosity Measurement Apparatus	13,667/-
13	V Notches and U-Tube Manometer	6,150/-
14	Pitot Static tube App.	24,000/-
Mechanical Vibration Lab		
1	Static & Dynamic balancing	14,500/-
2	Universal Vibration Apparatus	58,000/-
3	Whirling of shaft Apparatus	24,500/-
ICE Lab		
1	Engine test Set up- 1Cylinder 4 Stroke Diesel Engine	4,25,295/-
2	Engine test Set up- 3Cylinder 4 Stroke Petrol Engine	3,76,085/-
RAC Lab		
1	Vapour compression Refrigeration Test Rig	82,500/-
2	Water Cooler Test Rig	60,000/-
3	Ice Plant Test Rig	70,000/-
4	Air conditioning Test Rig	87,500/-
Heat Transfer Lab		
1.	Thermal conductivity of insulating powder	18,500/-
2.	Heat Transfer in natural convection & forced convection	49,000/-
3.	Thermal Conductivity of liquid & metal rod	54,000/-
4.	Heat Pipe Demonstrator	22,000/-
5.	Unsteady state heat conduction	32,500/-
6.	Emissivity & Heat Exchanger	42,000/-
CAD/CAM lab		
1	Hardware-	
2	HCL PC	5,16,000/-
3	24 port LAN switch	13,000/-
4	Software-	
5	Ansys 11.0,	2,10,000/-
6	CMS_ Intel cad	4,65,000/-
Research LAB		
	Hardware-	
1	Acer VT (CI3) Desktop CP/N : AW / 60 GT:389	3,60,045/-

	qie) ACER 18.5" tet.	
	Software-	
1	Advance Auto SIM	1,44,655/-
2	Solid Edge Software ST 8	3,28,625/-
CIVIL ENGINEERING		
Sr. No.	EQUIPMENT	COST
Transportation Engineering Lab		
1	Los Angeles Abrasion Testing Machine	57,000/-
2	Standard Penetrometer	16,750/-
3	Softening point apparatus Ring & Ball Apparatus	6,100/-
4	Ductility Testing Machine	45,750/-
5	Tar Viscometer	8,100/-
6	Pensky Marten Flash Point Apparatus	9,700/-
7	C.B.R.Test Apparatus	42,700/-
8	Aggregate Impact Testing Machine metallic hammer weighing 13.5 to 14 kg	5,200/-
9	Aggregate crushing value test apparatus	4,800/-
10	Aggregate Impact Testing Machine metallic hammer weighing 13.5 to 14 kg	11,500/-
11	Digital Penetrometer (Dial Gauge 6 inches, Container size 55mmdia,35mm depth,)	15,500/-
Surveying Lab		
1	Dumpy Level DL-9 with Aluminum Telescopic Stand	5,700/-
2	Telescopic Alided, Nautical Sextant	6,000/-
3	VernierTheodlite with Aluminum Telescopic Stand (2 Nos.)	26,000/-
4	Dumpy Level DL-9 with Aluminum Telescopic Stand	5,700/-
5	Plane Table with Standard Accessories With Stand	5,700/-
6	Aluminum Levelling Staff 4mtr 3Section with Cover (5 Nos.)	4,625/-
7	Survey Umbrella (2 Nos.)	5,000/-
8	Dumpy Level with Stand (4 Nos.)	18,000/-
9	Prismatic Compass with Stands (3 Nos.), Surveyor's Compass (2 Nos.)	7,200/-
10	Auto Level With Aluminum (2Nos.)	16,000/-
11	Digital PlaniMeter	37,000/-
13	VernierTheodlite withAluminium Telescopic Stand (4 Nos.)	48,000/-
14	AluminiumLevelling Staff 4mtr 3Section with Cover (16 Nos.)	19,200/-

15	Auto Level With stand Lynx model lal - 4 (2 Nos.)	19,500/-
16	Theodolite with Stand (2 Nos.)	34,000/-
17	Total Station (Pentax) model 325N	3,52,000/-
18	Aluminum Levelling Staff 4mtr 3Section with Cover (15 Nos.)	15,750/-
19	Transit Vesnies theodolite (2 Nos.)	32,000/-
20	Johnson head pattern plane table (3 Nos.)	11,400/-
21	Prismatic Compass with Tripod. Size 100mm dia. (4 Nos.)	8,000/-
22	Auto Level AP 201, With standard accessories, (4 Nos.)	49,200/-
23	VernierTheodlite model ST-20, withAluminium Telescopic Stand (2 Nos.)	34,000/-
Geotechnical Engineering Lab		
1	Oven for soil testing size 24x36x18	25,500/-
2	Liquid Limit Apparatus with blow counter (3 Nos)	7,200/-
3	Compaction Test Apparatus with 2.86 Kg. rammer.	4,500/-
4	Weight Balance electroincapcity 30 Kg.	9,800/-
5	Permeabilty Test (constant head, falling head)	45,000/-
6	Moditied Proctor Test Apparatus	5,800/-
7	Relative Density Apparatus	66,400/--
8	Consolidation Test Apparatus	31,500/-
9	Triaxial Shear Test s & Bishop's pore pressure Apparatus,	1,00,300/-
10	Direct Shear Test	43,500/-
11	Unconfined Compression testing Machine	40,000/-
12	Sampling outfit for 38mm dia specimen	6,650/-
Strength of Materials Lab		
1	Universal Testing Machine of 40 tones.(UTM)	3,46,902/-
2	Digital Compression Testing Machine(CTM)	2,25,000/-
3	Torsion Testing Machine (TTM)	1,16,856/-
4	Impact Testing Machine	50,353/-
5	Hardness Testing Machine	25,076/-
6	Digital Compression Testing Machine (CTM)	1,49,000/-
Applied Hydraulics Lab		
1	Impact of Jet Apparatus	21,000/-
2	Performance of Centrifugal Pump	51,500/-
3	Francis Turbine	2,35,000/-
4	Pelton Wheel Turbine Test Rig.	82,000/-

5	Reciprocating Pump Test Rig.	51,500/-
6	Tilting Flume Apparatus (6 Meter)	1,23,000/-
Environmental Engineering Lab		
1	High Volume Sampler	31,556/-
2	Equip - Tronics Make Digital pH Meter	6,000/-
3	B. O. D. Incubator	42,000/-
4	Oven	37,000/-
5	pH Meter Pocket Size	7,250/-
6	Turbidimeter	12,750/-
7	Jar Test Apparatus	30,000/-
8	COD - Condenser (Kit)	5,500/-
9	Nepheloturbidity	13,750/-
10	Compound Microscope	15,000/-
11	Flame Photometer	38,000/-
12	Bacteriological Incubator	7,500/-
13	Conductivity Meter	5,500/-
14	T. D. S. Meter	5,500/-
15	Colourimeter	9,000/-
16	Disitilled Water Plant	9,850/-
17	Autoclave	35,200/-
18	Conductivity Meter	31,556/-
19	T. D. S. Meter, Imhoff Cone	11,000/-
20	Colourimeter	42,000/-
21	Disitilled Water Plant	37,000/-
22	Water Bath 6 Holes S.S. Electric, Disection Box	14,000/-
Concrete Technology Lab		
1	Concrete Mixer (Electrically Operated)	30,000/-
2	Compaction Factor Apparatus	11,900/-
3	Vibrating Table	23,500/-
4	Rebound Hammer	9,500/-
5	Electronic Balance 30Kg	9,000/-
6	Flexture Test Apparatus	33,000/-
7	Cube Moulds ISI mark Size 15x15x15cm (5 Nos)	5,750/-
8	Beam Mould 15x15x70cm (2 Nos)	9,100/-
9	Le-Chatlier Apparatus (12 Nos)	16,800
10	Seive Shaker Motorized with 200mm/300mmAdaptor	15,400/-
11	Flow Table 76cm Dia with Manually Oprated	25,755/-
12	Vee - Bee Consistometer	40,740/-
13	CIM 571 Mould Cylindrical mould of cast iron with size 15m x 30m (2 Nos)	8,600/-

Engineering Geology Lab		
1	Graphite,Talc,Fluorite,Kyanite,Syenite,Diorite,Gabbro,Pumice,Trachyte Basalt, Amygdaloidal Basalt, Sandstone-Red, Sandstone-Yellow, Sandstone-Micaceous, Limestone-Reefcyprus	2,500
2	Clinometer	15,000
3	Wooden model of fold,fault	10,000
Computer Lab		
1	Computer (HCL)	1,79,000/-
2	Computer (acer)	48,000/-
3	LASER Printer HP 1018	7,800/-
4	LASER Printer CANON 2900 B	5,980/-
5	HCL DESKTOP	1,72,000/-
6	LASER Printer CANON 2900 B	5,904/-
Computer Lab (PG)		
1	Computer (HCL) (10 no)	2,68,500/-
2	SAMSUNG ML 1617	7,800/-
INFORMATION TECHNOLOGY-		
1	Computer (144)	24,78,642/-
2	Server (1)	50,254/-
3	Printer (15)	1,02,213/-
4	Projector (2)	66,263/-
5	Scanner (1)	8,321/-
6	Dvd Writer (1)	3,717/-
7	Network Component	3,59,485/-
8	Router (2)	10,706/-
9	External Hard Disk (2)	14,539/-
10	2.1 Speakar (1)	1,600/-
11	Card TP Link (2)	1,000/-
12	AhujaCombas WA (1)	3,475/-
13	Electronics Kit	1,38,768/-
14.	Language Lab	
1	Language Lab Software 1) Hardware Keyb 2)Installation Compact Disc 11Head-Phones 4)6 Additional Educational CDs	93,500/-
2	HP-Compaq D- 260Desktop,Intel P-IV 2.8 GHZ,Intel 865 GV	2,71,152/-
3	HP LaserJet Printer 1020	7,800/-
4	Jack Panel	3,366/-
5	D.link 16 Port Switch	4,327/-
6	TFT Monitor 15-inch	5,600/-

7	Creative Channel Music	1,400/-
8	HCL Desktop,HCL Infiniti 1280	86000
Automobile Engineering Department		
Vehicle Maintenance		
1	Wheel Alignment	4,75,000/-
2	Tyre Changer	70,000/-
3	Wheel Balancing	70,000/-
CAD CAM Lab		
1	Computer Units	4,68,750/-
2	Computer Units	1,25,000/-
3	Solid Edge	3,00,000/-
4	NX10 Perpetual License	2,50,000/-
Autotronics Lab		
1	Fuel Injector	8,409/-
2	Spark Plug	120/-
3	Tool Kit Set	6,075/-
4	Boss Exide Battery	2,700/-
5	Starter Motor Assembly	2,855/-
6	Alternator Assembly	3,600/-
Automotive System		
1	Cut Section of Transmission System with Rear axle & Differential System	66,500/-
2	Real Cut Section of Gear Box	15,500/-
3	Car Gear Box (Differential) in Cut Section	22,500/-
4	Four stroke Four Cylinder Petrol Engine in Cut Section	39,500/-
5	Set-up of Two Stroke - Single Cylinder Petrol Engine Motorized Cut Section	25,500/-
6	Accessories & Various Part of 4 -Stroke , 4-Cylinder Petrol Engine Dismetled Condition	11,500/-
7	Fuel Pump of Petrol Engine Cut Section Mech& Electricity type	5,100/-
8	Diesal Injector Cut Set	7,550/-
9	Piston with Ring Cut Section	8,500/-
10	Distributor in Cut Section (For Spark Plugs)	4,500/-
11	Bosch Fuel injection Pump Rotary & Barrel type	19,000/-
12	Carburator in Cut Section S.U. & Solex	7,000/-
13	Model of Steering System	14,000/-
14	Breake Master Cylinder	13,000/-
15	Wheel Cylinder	8,500/-
16	Disc Breake	5,800/-
Chassis and Body Engineering		

1	Car (4 wheeler)	30,000/-
2	Gas Analyser	1,85,653/-
Industrial Electronics		
1	Cathode Ray Oscilloscope 20mm	36,400/-
2	Dual Power Supply Make-Keltronix Input 230/50Hz O/P 0-32V/2amp	39,719/-
3	0-50ma	2,145/-
4	Function Generator	2,41,492/-
5	Multimeter	3,360/-
6	Phase Contro using Diac&Triac	6,300/-
7	Digital IC Trainer	11,700/-
8	SCR Rectifier kit	2,000/-
9	SCR	2,000/-
10	(0-10)VM	1,579/-
Thermal and Fluid Power		
1	Locomotive Boiler Model	7,952/-
2	Babcock Wilcox Boiler Model	7,952/-
3	Lancashire Boiler Model	7,952/-
4	Cochran Boiler Model	7,952/-
5	Gas Turbine	10,304/-
6	Boiler Mountings accessories	10752/-
Metrology & Quality Engineering		
1	Only Stand cross Arm	1,250/-
2	Gear Tooth Vernier	5,600/-
3	Dial Indicator size 0-10mm	5,600/-
4	Vernier Calliper 150mm	578/-
5	Thermocouple Calibration Setup	12,500/-
6	Strain Gauge Trainer	11,500/-
7	Load Calc Trainer	14,500/-
8	Dead Weight Tester	32,500/-
9	Temperature Measurement Tester	11,750/-
10	Pressure Transmitter Trainer	26,500/-
11	Flow Transducer Trainer	69,500/-
12	Rotary Encoder Trainer	32,500/-
13	Vacuum Guage Trainer	48,900/-
14	Vibrometer	74,000/-
15	Surface Plate	6,850/-
16	Profile Projector	72,000/-
17	Floating Carriage	56,900/-
18	Flatness & Surface Finish Measurement setup unit	32,000/-
19	Parkinson Gear Tester	15,000/-

Workshop		
1	Bench Grinder 0.75 HP	4,800/-
2	Bench Type drilling m/c	7,000/-
3	Mini Arc welding machine	7,000/-
4	Wood turning lathe	9,500/-
5	Welding Machine	13,500/-
6	Spot Welding m/c	25,600/-
7	Edge Bending Machine	8,775/-
8	Working Lathe Machine & Turning Tools	38,000/-
Engineering Mechanics Lab		
1	Parallel Force Apparatus Dial Type with Weights (4 Nos.)	24,000/-
2	Polygon Law of Force Drawing Board, Brass Weights (4 Nos.)	7,200/-
3	Simple Jib Crane with Conical Weights (4 Nos.)	7,200/-
4	Fly Wheel 25cm Dia Fixed Set Up	7,000/-
5	Bell crank lever with spring balance 5 kg capacity, conical weight 1 kg. (4 Nos.)	8,800/-
6	Friction Slide Apparatus With Inclined Plane (Pan,slides, sand,sunmika ,glass aluminium iron (4 Nos.)	14,000/-
7	Analytical Weights box (4 nos)	5,000/-
8	Friction Slide Apparatus With Inclined Plane (Pan,slides, sand,sunmika ,glass aluminium iron	5,040/-
Department of Engineering Sciences and Humanities		
Applied Chemistry Lab		
Sr. No.	Equipment	Cost
1	Abels Flash Point Apparatus (2)	15,837/-
2	PH Meter	16,155/-
3	Penski Martins Apparatus (2)	15,842/-
4	Red Wood Viscometer with Kohlaursh flask &with digital Balance	5,500/-
5	Water Distillation plant	10,200/-
6	Digital Balance	8,000/-
7	Electrical balance	6,200/-
8	Digital Balance-3	14,313/-
9	Hot Air Oven	10,000/-
10	Water Bath 6 hole	4,200/-

11	Gas burner with superior quality tools	4,000/-
12	Burette stand metal	4,500/-
13	Gas cylinder	5,530/-
14	Gas burner Gas burner	7,080/-
15	Orsat Apparatus	3,800/-
16	Computer ,Monitor, Keyboard , Mouse	26,596/-
17	DB. UV-VIS Spectrophotometer	1,75,509/-
18	Magnetic Stirror Medium	10,327/-
Applied Physics Lab		
1	Unit cell Blocks (SC) (BCC) (FCC) NaCl Structure, BaTiO ₃ Structure Diamond Structure, (Demo block)	47,553/-
2	E/M Thomson's Method, (complete set)	8,500/-
3	Energy Band Gap Apparatus (complete set)(2 set)	6,701/-
4	Ultrasonic Distance Meter (3 Set)	15,350/-
5	P-N Junction Diode Characteristics Kit(2 Set)	9,951/-
6	Study of Rectifier Kit	3,000/-
7	Common Base Transistor Characteristics Kit, Common Emitter Characteristics ,Common Emitter Characteristics	6,000/-
8	Transistor input & output characteristics (Taken From BEEE lab)	
9	Cathode Ray Oscilloscope (20MHz.Dual Trace with Probe)	57,100/-
10	Function Generator 2MHz Model FG2 2MD	27,400/-
11	Power supply D.C Regulated Power Supply Model: Testronix 92-series (92-C) [(0-30V/5AMP)]	12,600/-
12	Laser Metrologic Lab (Helium Neon (He-Ne) Laser 2 mw with stand rod)	22,109/-
13	670 μw Laser diode with Stand	3,500/-
14	Fiber Optic Kit	24,000/-
15	Newton's Ring Apparatus	24,600/-
16	Diffraction Grating Set up	15,000/-
17	Sodium Vapour Lamp without Case 55 Watts	12,480/-
18	Digital Multimeter with Case	3,500/-
19	Hall Effect Apparatus Set	68,750/-
20	Planks Constant apparatus	20,000/-
21	Hysteresis Curve Apparatus	10,000/-
22	Digital Portable Meters	3,200/-
23	Computer	26,596/-
24	Diode Characteristics Kit with Digital Meter	5,980/-
25	Helium Neon Laser (2 mw)	17,250/-

26	Planks Constant Set with Filter	18,465/-
27	Hysteresis Loop Tracer NV-6108	24,650/-
28	NV-6109 Ultrasonic Lab	25,389/-
29	Extension Boards with 4 Mtr.wire& 4 switches	6,456/-

Research and development Cell: Institute has developed research and development cell which promotes research in various areas of all programs and area of 100 Sq. m. is allotted, located on second floor. Equipment's required for research work are purchased by respective department. Various project models of UG and PG are kept in R & D cell. The research cell meetings and presentations are arranged in research cell. All quality research projects of students are kept in the research cell. All documentation related to research activities is maintained in R&D cell.

b. Extra –curricular activities:

- **Sports:** Institute organizes sports week in the month of February, students participate in various sports like cricket, football, holley ball, basketball, kabaddi etc. Outdoor and Indoor Games: Students are always encouraged to organize and participate various indoor and outdoor games.
- **Gymnasium:** A well-equipped gymnasium is available in the campus for students.
- **Indoor Games:** Indoor Games facility with carom, chess, table tennis etc. is available for students.
- **NSS:** NSS cell is established in the college which conducts various camps like blood donation camp, social awareness camp, Tree plantation camp, Swachha Abhiyan, Personality development camp.
- **Cultural Activities:** Students organize various cultural activities throughout the year like, Engineer's day, Ganesh Festival, Teachers day, Saraswati pooja, Foundation day, and annual social gathering "Nakshtra". This motivates organizing skills among students.
- **Yoga:** Every year institute celebrates Yoga Day. Yoga trainings are offered to faculty and students.
- **Health and Hygiene:** Institute gives prime importance to health and hygiene, Institute has assigned psychological counsellor for the students. An MOU is signed with Yerala medical trust to take care of medical emergencies in the campus. Institute has separate housekeeping cell, which exclusively takes care of hygiene in the campus. Health seminars are arranged for students and faculty on regular basis.
- **Public speaking and communication skill:** Institute has trained faculty for teaching communication skills to our students, various Add-on courses on interpersonal skills, soft skills and personality development programs are organized on regular basis. Language lab facility is available in the college with ETNL software to train the students on regular basis. Personal trainings for GD and PI's are arranged by departments and training and placement cell.

For motivating the leadership qualities institute organizes various events which imbibe social responsibility among students.

4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution / campus and indicate the existing physical infrastructure and the future planned expansions if any).

The available infrastructure is utilized optimally in the following aspects.

- The class rooms are optimistically used for conducting classes during working hours and also for tutorial, intensive classes and remedial Classes.
- The central library is open from 9.00am to 6pm. The library reading room facility is utilized by the students.
- The laboratories are exhaustively used for conducting practical classes.
- Each department has dedicated classrooms, HOD Cabins and department office, Seminar Hall and departmental library.
- Seminar halls with ICT facilities are used for conducting guest/expert lectures, conferences and STTP.
- Separate Establishment and Student section, R & D Cell, Entrepreneurship development cell, Examination cell, Accounts Section and Placement cell are available.
- Well-equipped workshop, Machine Shop with qualified trainers and engineering drawing halls are available.

Master Plan of the Institute refer Annexure-I

4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?

All facilities are provided to disabled students As per AICTE norms.

- Ramps at the entrance
- Wheel chair
- Railings in the steps
- Lift facility from basement
- First aid room
- Rest room
- Regular visit of doctor
- Toilet arrangements
- Help in the library
- Appropriate facilities and arrangements as per rule in examination.
- Security guards at gate for help. Etc.

**4.1.5 Give details on the residential facility and various provisions available within them:
Not Applicable**

4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

- First aid room with all facilities like bed, stretcher, and medicines is available in the college.
- First-Aid facility is available in each department. The institute has MOU with Yerala Medical College, in emergency the patient is taken to Yerala hospital.
- Institute has appointed a psychological counselor.
- Doctor is available in campus regularly once a week, on call and in case of emergency.
- Institute organizes programs for better health and mind like Art of living, YOGA, Manashakti etc.
- Special arrangement for toilets to make it approachable for physically disabled students.
- Wheelchair is also available for physically disabled students.
- Lift facility is available up to top floor.
- Gymkhana facility is available for faculty and students.
- Sports facility like badminton, table tennis courts are available to keep everybody healthy.
- Purified and Safe drinking water facility is available on each floor.

4.1.7 Give details of the Common Facilities available on the campus –spaces for special units like IQAC, Grievance Redressal unit, Women’s Cell, Counselling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

Details of the Common Facilities available on the campus:

- **Training placement and carrier guidance cell:**
Training placement and carrier guidance cell is well furnished section available in the fifth floor with all adequate facilities like interview room, Group discussion and metering room, aptitude test facility etc.
- **Health Centre:**
Institute has allocated first aid room and first aid facilities for emergency medical care. Ambulance facilities are available in emergencies available in ground floor.
- **Canteen**
Canteen measuring 550 Sq. m. for 50 faculty and 200 students. Daily usage is about 400 customers. Good canteen facilities are available with quality food at reasonable prizes for all, available in ground floor

- **Recreational activities for staff and students:**
Institute arranges recreational activities like picnics and get together for students and staff regularly.
- **Safe and hygienic drinking water facility:**
The Institute supplies drinking water through water cooler. All the water coolers are equipped with purifiers for water purification available in all floors.
- **Auditorium**
Air conditioned, well-furnished auditorium with 350 seating capacity is available for arranging various activities, available in ground floor.
- **Gymnasium:**
The gymnasium with all types of gym training equipments and facilities is available on the ground floor, available in lower ground floor.
- **Indoor games available:**
Indoor games facilities are available on the basement floor with chess, carom, and table tennis etc facilities, available in lower ground floor.
- **Badminton court:**
Badminton court is available with other facilities in the basement floor, Available in lower ground floor.

Sr. No	Particulars of facility	Availability
1	IQAC (internal Quality Assurance Cell)	Available with all basic facilities required available in fifth floor.
2	Grievance Redressal unit	
3	Women development cell	
4	Student Counselling & carrier guidance	

4.2 Library as a Learning Resource

4.2.1 Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/user friendly?

Yes, Library has Advisory committee. Principal, Librarian and members from all departments constitute advisory committee. Principal is the chairperson and chief librarian is the secretary. One member from every department is involved in the committee. The main role and responsibilities is to build a resourceful centre of knowledge available for students and faculty. The committee meets at least once in a year and decide about the purchase of books with wide no of titles, in sanctioned budget. The committee also decides about subscribing the national and international journals and magazines every year.

The Library Department provides access to extensive range of information resources to enhance learning, teaching and research in support of University academic programs. Procurement of learning resource constitutes the primary responsibility of library. Library makes a systematic effort in building up the

collection of books and development by identifying, evaluating, selecting, processing and making it available to the users. A separate reading room is available for students and faculty. OPAC system is available in the library for making book catalogues available for faculty and students.

Library committee:

Sr. No	Name	Post	Contact
1	Dr. Manjusha Deshmukh	Chairmen	7738677011
2	Mrs. Seema Potdukhe	Secretary	9892625098
3	Ms. S Subhedar	Head of Committee	9833033407
4	Ms. S Motharkar	Member	9867941559
5	Mr. Sachin. Solanke	Member	8983248061
6	Ms. Shital Sonawane	Member	9702792898
7	Ms. B Sonawale	Member	9320847169
8	Ms. Kanchan Dhuri	Member	9561785962
9	Ms. Sneha D. Mokal	Member	8983040754

Library committee meets before commencement of every semester. All meeting records are maintained in library and principal's office.

Process for purchase of Books:

- The Faculty members send their request for library book acquisition as per need of syllabus provided university of Mumbai in prescribed recommendation form for their courses to the HOD.
- After getting recommendation by concerned HOD, Librarian checks the availability & decides whether the recommended books should be purchased after the approval of the Principal.
- Finally checked list is given to vendor for quotation for pricing of listed books by the librarian.
- After receiving quotation from vendor, the compiled list is submitted to the Principal for approval and forwarded to the management for sanctioning the amount.
- Purchase order of books can be issued as per standard terms and conditions as directed by Management in hard copy or soft copy depending upon situation.

Journals:

- The Faculty members can send their request to library for Journals and Magazine subscription as per AICTE norms related to the Branch, the journal list & catalog of different subscription agency is taken in to the consideration for selection of the journals, list is prepared by Librarian after consulting with HOD and it is also approved by Principal.
- Adhering to the Terms and Conditions of the Library Budget, estimation based on the costs, currency conversion.
- Librarian gets the quotations invoice from journal subscription agency. Ex. Informatics Pvt. Ltd, International Book House Pvt. Ltd, Global Information Technologies, Rhino International agency & Indian Academy of Science etc.

- Finally Librarian gets the invoice, and send it for approval from the management for payment and then forward it to Account Department to prepare Demand Draft.

Significant initiatives implemented:

- Book bank facility for economically backward students.
- Book allowance of Rs. 500/year for faculty every year.
- Library issue one extra book to the topper student.

4.2.2 Provide details of the following:

- Total area of the library (in Sq. Mts.): 600 Sq. m.
- Total seating capacity: 150;
- Working hours: On working days: 8.30am to 6.00pm;
- On holidays: 9.30am to 4.30pm;
- Before examination days: 8.30am to 6.00pm;
- During examination days: 8.30am to 6.00pm;
- During vacation: 9:30am to 5:45pm;
- Individual reading carrels: Not Available;
- Lounge area for browsing and relaxed reading: Available;
- IT zone for accessing e-resources: Available.

4.2.3 How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.

Library committee arranges a meeting before every academic year and decides for procurement of books, variety of titles, subscription of E-journals, and submits the minutes to principal for further decisions to be taken in the management meeting. Following are the details of expenses on books, journals and subscription of e journals in last four years.

Library holdings	2012-2013	2013-2014	2014-15	2015-2016
	Number/ Total Cost	Number/ Total Cost	Number/ Total Cost	Number/ Total Cost
Text Books	217	236	610	356
	92081	118600	291200	196217
Reference Books	52	41	68	88
	29838	19717	34988	142926
Journal/Periodicals	104	114	122	120
	209671	151817	209693	263642
e-resources	17326	17326	145	4298
	1487863	1675504	384237	895635

International journals Subscribed:- ASCE, ASME, ASTM, SPRINGER, SC.DIRECT, JGATE, IEEE. Total number of books in the library is 26428.

With total titles 4917, total journals national 98, international journal 5358, total cost books is 66, 97,284/- and total cost of books and journals (2016) is 88, 56,110/-.

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection?

OPAC system

- Electronic Resource Management package for e-journals : Yes
- Federated searching tools to search articles in multiple databases : Yes
- Library Website : Yes
- In-house/remote access to e-publications : Yes
- Library automation Yes
- Total number of computers for public access – Total 10 computers, available
- Total numbers of printers for public access : Yes
Total 2 printers available
- Internet band width/ speed: 100 Mbps, leased line 1:1 Yes
- Institutional Repository : yes, Area 300 Sq. m. with stacking facility
- Content management system for e-learning: e journals available in digital library
- Participation in Resource sharing networks/consortia: YES, (ASCE, ASME, IEEE, J-GATE, ASTM, Sc.DIRECT, SPRINGER, MC GRAW HILL ACCESS ENGG.)

4.2.5 Provide details on the following items:

Details in library:

- Average number of walk-ins : 150/Day
- Average number of books issued/returned: 100-150/Day
- Ratio of library books to students enrolled: 10:1
- Average number of books added during last three years: 1224
- Average number of login to OPAC: Available
- Average number of login to e-resources: 4-5
- Average number of e-resources downloaded/printed: 10/Day
- Number of information literacy trainings organized: once in in a year.
- Details of “weeding out” of books and other materials: process available.

4.2.6 Give details of the specialized services provided by the library

- Manuscripts - NO
- Reference - YES
- Reprography -YES
- ILL (Inter Library Loan Service)– Not available and not applicable

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- Information deployment and notification: Information Deployment, Notices for users with regards to new influxes through notice board and display.
 - Download- YES, Download facility is available.
 - Printing-YES, available as per requirement.
 - Reading list/ Bibliography compilation- YES, Displayed shelf list
 - In-house/remote access to e-resources-YES
 - User Orientation and awareness-YES, Induction is conducted in the beginning of every academic year
 - Assistance in searching Databases- YES, Library staff helps users to do the necessary search and download.
 - INFLIBNET/IUC facilities: Not available

4.2.7 Enumerate on the support provided by the Library staff to the students and teachers of the college.

- **References services:** Ready references are provided to the users as per their requirement
- **Circulation services:** Users are provided with help in selection of books of their subject.
- **Book Bank services:** Available for EBC students and needy students.
- **Topper book bank service:** Extra book issue facility given to the five topper from each branch for their motivation.
- **Periodical services:** It is a service to all the users for reading and in research work offered in reference section only.
- **New arrival services:** New arrivals are displayed in reading room notice boards for the reference and information.
- **User orientation programming:** User orientation happens at the time of induction program in college before commencement of the first year.
- **E-Library services:** E- Resource training program is arranged to train the students for surfing the database.
- **Newspaper services:** Daily newspapers are available for reading by students and faculty.
- **Book requisition & reservation services:** Students give recommendation of books for new purchase; facility for reserving a book is not available.
- **OPAC Service:** In library OPAC service is provided as catalogue for searching the books and availability of books in library
- **Document downloading services:** E-Journals, Book and papers are available for download, e-mail or print is allowed as per need.
- **Previous year question papers scanning and reprography services:** Question paper set of last four years are available for photocopying and scanning.
- **Syllabus:** Revised and old syllabus provided by university of Mumbai is available for all branches, year wise.

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- **NPTEL Video lecture services:** NPTEL Video lecture are available and can be viewed in digital library.
 - **Assistance in locating books on shelf:** Library staff assists the user to locate the book as per their requirement and displays are available to locate the books easily.
 - **Assistance in browsing and searching the E-Resource:** Digital library facility is available for students and faculty, necessary assistance for passwords or links is provided by the librarian.

4.2.8 What are the special facilities offered by the library to the visually/physically challenged persons? Give details.

- The library assistant takes care of physically challenged person in all aspects for the ease within the library.
- To select, borrow and return the library books for physically challenged persons Library staff offer the necessary assistance.
- Departmental library also extends same facility to the physically challenged students.
- Lifts are available till library floor.
- Books issue facility for complete semester for handicapped students is available.
- Reprographic section is also available at library.

4.2.9 Does the library get the feedback from its users? If yes, how is it analysed and used for improving the library services. (What strategies are deployed by the Library to collect feedback from users? How is the feedback analysed and used for further improvement of the library services?)

: -Yes-

Feedback from users is collected through Questionnaire process. The feedback from students is taken during running semester along with other facility feedback .Faculty members also give their feedback once in year. The data is compiled, analyzed and documented. The feedback data obtained is discussed in Library meetings. Suggestions such as increasing E-resources, extending Library timings etc. are taken depending on the requirement, and forwarded to authorities for improvement.

4.3 IT Infrastructure

4.3.1 Give details on the computing facility available (hardware and software) at the institution.

- Number of computers with Configuration (provide actual number with exact configuration of each available system) : 685
- Computer-student ratio: 1:4

- Standalone facility: Yes, available
- LAN facility: Yes, available
- Wi-Fi Facility : Yes, available
- Licensed software: MAT LAB, LAB VIEW, and Pro. E, Windows 8.1 , Windows server 2012, AUTOCAD 2008, RATIONAL ROSE, Microsoft office, Oracle 9i, IE3D, Microwind, Visual Studio .net, SQL server, Kaspersky antivirus, Cyberoam modules.
- Number of nodes/ computers with Internet facility: 685
- Any other: LCD projector, CC TV's, LCD display.

IT infrastructure:

Details on the computing facility available (hardware and software) at the institution.

Sr. No.	Description	Total Qty.	Remark
1	Server	6	Server Room
2	Desktops	682	All Departments
3	Laptops	3	TPO
4	Color Laser Printers	1	STORE
5	BW Laser Printers	68	All Departments
6	LCD Projector	15	All Departments
7	Scanners	19	All Departments

The details of licensed software available with institute are as follows-

Application software

Sr. No	Department	Software Details	Qty.	Date of purchase	Amount (Rs.)
1	Account	Tally ERP Multiuser 9.0	10	30/03/2015	3,18,541
		TDS –Pac	10	30/11/2015	64,000
2	Library	E- vidya Library Software	1	23/03/2015	57750
3	Civil	Oracle enterprise 9i	20	24/10/2007	32878
4	E&TC	Micro wind ver 3.5 7 user	1	19/08/2014	315000
		IE3D Software(SCE)	1	09/12/2011	378000
		EDWIN XP 5 user	1	30/07/2010	472500
		Matlab 10 user	1	25/05/2007	165144.
		Simulink 5 user	1	25/05/2007	117957.
		Microwind Package	1	21/06/2006	135000
		Tina Pro ID Edu. Ver 10	1	21/05/2005	73397.5
5	IT	Oracle enterprise 9i	20	24/10/2007	32878
6	Mechanical	Oracle enterprise 9i	20	24/10/2007	32878
		Autodesk	20	31/12/2007	260000
		CMS IntelliCAD	15	09/07/2007	465000.
		ANSYS Academic	5	22/05/2007	210000.
		Pro/ ENGINEER Wildfire	01	30/06/2007	784004

		PLC RX LOGIX 500	01	30/072006	156320
		Solid edge ()	01	31/12/2015	150000
7	Computer	Oracle enterprise 9i	20	24/10/2007	32878
8	Automobile	Pro-E Wildfire 9.0	01	10/05/2007	784004
		Solid Edge (user 15)	1	21/12/2015	300000
		NX 10 academic perpetual	1	21/12/2015	250000
9	FE	ETNL Language Lab Soft	10	10/03/2015	40000

System Software: - Institute wise

Sr. No.	Department	Software details	Qty.	Date of Purchase	Amount (Rs.)
1	Systems	Microsoft campus license (Microsoft windows OS, Microsoft Office, Windows Server, Visual Studio, SQL Server, CAL, windows Intune, Office 365)	400	26/02/2015	2,35,248
2		Oracle enterprise 9i	100	24/10/2007	1,64,389
3		Kaspersky Antivirus	400	26/08/2015	2,71,600
4		Cyberoam Modules		28/10/2013	1,12,000
5		Windows SL 3.1 Genuine	123	24-12-2013	6,85,658
6		Windows SL 81. CGS	275	14/08/2014	17,22,567
7		Windows server 2012 R2	3		

4.3.2 Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?

All faculty members of Institute have easy access to computer facility with internet connection in every department and sections. Every department has well equipped and dedicated computing facilities. Internet leased line connection of 100 Mbps is available. Central Library has internet facility for faculty and students. Wi-Fi Internet facility is available in Auditorium, seminar halls and office sections. The authoritative posts are been provided with Laptops for administrative work. Due To these computing facilities the institute is able to provide prompt and satisfactory services to all stakeholders.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

- Institute upgrades its computing facilities as per the requirements of university syllabus. Presently college has appropriate IT facilities.
- Departments have cloud computing facilities as per need and requirements.
- Institute has Kaspersky Antivirus & Cyberoam Modules, for network security.
- Routers are available for internet connectivity.

- The future policies for IT facility are:
- Developing e-learning facilities and digitization of faculty and students resources.
 - Increasing ICT facility in the departments.
 - Generating multimedia teaching resource material like video lectures, PPTs, animations.
 - Procuring ERP software.
 - Managing the IT services with proper network security, information security.
 - Looking up towards inclusion of open source software and green computing.
 - Upgrading existing computing and internet facilities.

4.3.4 Provide details on the provision made in the annual budget for procurement, up gradation, deployment and maintenance of the computers and their accessories in the institution (Year wise for last four years)

Particulars	2011-12 (Rs.)	2012-13(Rs.)	2013- 14(Rs.)	2014-15(Rs.)	2015- 16(Rs)
Procurement	4,05,020/-	19,51,699/-	17,12,475/-	21,94,317/-	101626/-
Maintenance	528839/-	676260/-	382082/-	638760/-	600126/-

4.3.5 How does the institution facilitate extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students?

- Through discussion in quality circle, Faculty prepares Power Point presentations for the advancement of student knowledge and delivers through lectures in classrooms.
- NPTEL Video course Materials of the various subjects is available for the students as well as faculty members.
- Faculty members and Students avail the various facilities like LCD Projector, Internet, hand- outs.
- Various computer software knowledge is enhanced by arranging workshop, guest/ expert lectures etc.
- Library has computer facility where faculty and students can access the online journals.
- The lecture materials, e-books, are provided to students in soft form as learning resource.

4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching - learning resources, independent learning, ICT enabled classrooms/learning spaces etc.) by

the institution place the student at the centre of teaching-learning process and render the role of a facilitator for the teacher.

- Students are always kept at the center of the teaching learning process by the institute. The institution encourages the staff to undergo trainings on the computer-aided teaching and training and new technologies and methods of teaching.
- Well-equipped computer Labs and LCDs are available to conduct Practical, seminars, workshops, computer aided training, faculty development programs and conferences.
- Wi-Fi internet facility is always available for students.
- Various e-journals like Institute of Electrical and Electronics Engineering (IEEE), American Society of Mechanical Engineers (ASME), American Society of Civil Engineers, Science Direct are available in central library for both students and faculty members to enhance their knowledge.
- Video lectures from IIT's, NPTEL are downloaded in central library and are accessible to both students and faculties.
- The Institute has acquired the membership of IIT Mumbai Library(Membership no.EIMP92) for knowledge enrichment of faculty and students
- To improve the soft skills of students, Language Laboratory is well set up with internet facility. Students perform practical on language lab for improving language skills.
- The institute regularly arranges online aptitude tests for students.
- ICT facilities are also used for online feedback system.

4.3.7 Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?

Institute has NPTEL system. In NPTEL system we have collection of Video Lectures for different engineering streams and subjects.

4.4 Maintenance of Campus Facilities

4.4.1 How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years?)

The college analyses the requirements of major facilities like building , furniture, computers ,lab equipment and consumables and other teaching facilities every year, accordingly budget is allocated for it's up keeping and maintenance. The maintenance contracts for computers, printers, lifts, water coolers, air conditioners, water purifiers, fire fighting system, housekeeping etc. are renewed periodically.

Year	Total Income				Actual expenditure (till...)			Total No. of Students
	Fee (in Lacs)	Govt.	Grants	Other Sources (specify)	Recurring including salaries	Non-recurring)	Special projects /Any other, specify	
2014-15	2206.77	0	0	9.43	1971.28	63.00	0.00	76000.00
2013-14	1981.51	0	0	10.27	1804.38	57.00	0.00	73000.00
2012-13	1575.71	0	0	0.56	1440.67	31.00	0.00	70000.00

: Figure in Lakhs

Items	Budget in FY 2015-16	Budget in FY 2014-15	Actual expenses in FY 2014-15	Budget in FY 2013-14	Actual expenses in FY 2013-14	Budget in FY 2012-13	Actual expenses in FY 2012-13
Infrastructure built – up	18.90	18.00	17.18	40.00	31.52	0.00	12.07
Library (books)	4.21	4.00	3.83	2.00	1.29	1.00	0.80
Laboratory equipment	46.37	50.00	42.15	25.00	24.04	20.00	17.93
Laboratory Consumables	49.56	49.56	18.25	20.00	16.69	18.00	18.93
Staff Salary	1426.21	1426.21	1394.90	1300.50	1237.46	855.00	855.00
Maintenance	78.17	78.17	46.86	50.00	45.51	20.00	29.14
R&D	32.10	20.10	28.70	2.00	12.00	0.00	10.00
Training and Travel	73.28	73.28	41.97	15.00	17.07	5.00	7.95
Miscellaneous expenses	0.0	0.0	0.00	0.00	0.00	0.00	0.00
Others, specify	530.64	518.75	487.44	500.10	475.65	350.00	371.34
Total	2259.449	2238.083	2081.28	1954.6	1861.23	1269	1323.16

4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college?

There is an institutional mechanism for maintenance and upkeep of the infrastructure, facilities and equipment of the college. The objective of this mechanism is to verify the stock and purchase procedure of all departments of the institute and to state about the stocks of equipment furniture and fixtures with optimal utilization of resources and revenue.

The process is as follows,

Maintenance related to equipment, computers, furniture, and fixtures:

- Verification of equipment is carried out by lab, office in charges along with lab assistants and lab attendants and clerks after every semester.
- Status of the equipment is verified and needs for maintenance is documented in the proper formats, and the report is submitted to stores through Dean Administration, a copy of the same is maintained in maintenance record file of the department.
- Computer verification and maintenance is carried out every fortnight by maintenance in charge.
- Verification of Furniture, Fixtures, and Electrical Maintenance is carried out after every semester by lab assistants, store in charges along with lab attendants and electrical maintenance in charge.
- The status of the Furniture, Fixtures and electrical appliances is documented, and needs for maintenance along with components to be replaced is assessed and submitted to stores through dean administration in the requisite formats.
- Calibration of equipment in the labs is carried out as per the need of specific instruments; the frequency of calibration for it is decided by respective Heads of the departments.

Stock verification:

- The stock verification of labs & class-rooms and offices is conducted after every semester by departments which are cross functional, as per the instructions of principal.
- The availability, working condition of all registered items is verified by verifiers, and documented. The copy of the report is verified by Dean Administration and forwarded to stores through principal.
- Non availabilities are discussed by principal and Dean Administration and necessary actions are taken as per the seriousness of case.

Scrap clearance of Equipment, Furniture and stationary:

The non-working & non- repairable instruments are declared as scrap as per the report of technician and stock verifier.

- The damaged furniture is rejected as scrap and sent to the workshop for repairs/recycle if possible on case to case basis.
- The non-working & non-repairable fans & fixtures are stated as scrap & sent to scrap room.

The academic records like test papers, term work files, work shop jobs are preserved for one year & then disposed with proper care.

AMC: AMC have been contracted for, water Purifiers, and coolers, reprographic facilities, air Conditioners, fire extinguishers etc.

The regular maintenance of facilities and infrastructure is looked after by estate section. The house keeping and cleaning is taken care by an outsourced agency, supervised by college staff for maintaining the ambiance, cleanliness, and hygiene in the campus

4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment/ instruments?

The institute takes up calibration and other accuracy procedures for the instruments as per the following procedure.

Standardisation of equipment in the labs is carried out as per the need of specific instruments from external agencies; the frequency of calibration for it is decided by respective Heads of the departments. Some of the laboratories have self-calibrating mechanisms like zero settings, formatting the computers, is carried out on regular basis. The Calibration is confirmed in Stock verification of Equipment, Computers, Furniture, and Fixtures.

4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)? Any other relevant information regarding Infrastructure and Learning Resources which the college would like to include.

: A continuous follow up of maintenance of electrical equipment, voltage regulated supply and plumbing services is taken by dean administration on a decided frequency, through the permanently recruited electrician and plumber.

Other relevant information regarding Infrastructure:

- 3 Phase Power Supply is available in Basic Electrical Engineering Labs
- Two Generators of Capacity 125 kVA and one of 320 kVA with total Power backup of 445 kVA are used in case of power failure.
- 4.5 KVA UPS are installed in each of the computer Labs in server room and exam rooms.
- Voltage stabilizers are available in campus in computer labs and E&TC labs
- The college consists of overhead tanks and bore wells at many places to provide constant supply of safe water.
- The college is undergoing with the project of Rain water harvesting.
- Sufficient water storage systems and coolers with purifying systems are available.

Criterion-V: Student Support and Progression

5.1 Student Monitoring and Support:

5.1.1 Does the institution publish its updated prospectus/handbook annually? If “yes” what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

Yes, a prospectus is published annually and it is provided to all students with an admission form at the time of admission.

Prospectus: It highlights the intake of each dept. along with each course introduction and career options available to it, Training & Placement activities, Infrastructure facilities, various activities conducted in various programs and R & D activities available in the department.

Vision and Mission statements is evidently stated at the beginning of prospectus. The student could find lot of information in the prospectus including the Society and Governing body members, faculty details, details about the events led with photographs, college credentials, facilities and amenities like Gymkhana, sports, and canteen, transportation etc. The Prospectus also contains details of various institutional activities etc.

The college has anti ragging Committee to make this campus a ragging free campus, women grievance redressal cell. Proctor program is one of the prominent features of this institution. Personal attention is provided to take care of problems relating to academics and also at a personal level.

5.1.2 Specify the type, number amount of institutional scholarships /free ships given to the Students during the last four years and whether the financial aid was disbursed on Time?

- There is no institutional scholarships /free ships given to the Students. But they are helped in other means and ways.
- Based on the economic condition of the students, special book bank facility is provided to the needy student.
- Yearly fees is accepted in instalments by providing time for their financial provisions.
- Notes and personal guidance is also provided by teachers to such students.

5.1.3 What percentage of students receives financial assistance from state government central government and other national agencies?

About 60% to 75% of the students receive financial assistance from the state government

Year 2010-11	Financial Assistance from State Government & Other National Agencies	Percentage of Students	Total No. of Students
SC/ST	Free ship/scholarship	113+07=120= 9.19%	
Minority	-	29= 2.22%	
Others(NT,OB C,SBC & EBC)	Free ship/scholarship & State Government	85+209+27+64=385= 29.5%	
PH	-	0=0%	
		Scholarship total student=534=40%	
Total			1305
Year 2011-12	Financial Assistance from State Government & Other National Agencies	Percentage of Students	Total No. of Students
SC/ST	Free ship/scholarship	152+19=171=9.7%	
Minority	-	25=1.43%	
Others(NT,OB C,SBC & EBC)	Free ship/scholarship & State Government	20+239+34+89=482= 27.6%	
PH	-	0%	
		Scholarship total student=678= 38.83%	
Total			1746
Year 2012-13	Financial Assistance from State Government & Other National Agencies	Percentage of Students	Total No. of Students
SC/ST	Free ship/scholarship	236+21=257= 12.33%	
Minority	-	19=0.9%	
Others(NT,OB C,SBC & EBC)	Free ship/scholarship & State Government	154+298+34+173= 659=31.62%	
PH	-	0=0%	
		Scholarship total student=935= 44.86%	
Total			2084
Year 2013-14	Financial Assistance from State Government & Other National Agencies	Percentage of Students	Total No. of Students
SC/ST	Free ship/scholarship	277+32=309= 12.13%	
Minority	-	17=0.66%	

Others(NT,OB C,SBC & EBC)	Free ship/scholarship & State Government	177+361+52+188= 778=30.9%	
PH	-	0=0%	
		Scholarship total student=1104=43.36%	
Total			2546
Year 2014-15	Financial Assistance from State Government & Other National Agencies	Percentage of Students	Total No. of Students
SC/ST	Free ship/scholarship	354+39=393=14.69%	
Minority	-	19=0.71%	
Others(NT,OB C,SBC & EBC)	Free ship/scholarship & State Government	157+317+48+243= 765=28.60%	
PH	-	0=0%	
		Scholarship total student=1177=44.01%	
Total			2674

5.1.4 What are the specific support services/facilities available for Students from SC/ST, OBC and economically weaker sections? Students with physical disabilities? Overseas students? Students to participate in various competitions/National and International? Medical assistance to students: health center, health insurance? Organizing coaching for competitive exams? Skill development (spoken English, computer literacy, etc.)? Support for slow learners? Exposure of students to other institutions of higher learning/Corporate/ business houses? Publication of student magazines?

The institution helps to receive scholarship to SC/ST, OBC and economically weaker students from Government of Maharashtra/DTE/ Samaj kalyan office/ Adivasi Vikas Karyalaya as per the government policies.

- **Students with physical disabilities**
As per the DTE guidelines some seats are reserved for the students belonging to differently abled category or physically challenged students. Ramp is provided for disabled students wherever necessary. In the main building assisted lift facility is provided and wheel chair is available. Loos are modified so that it can be used safely by disabled.
- **Overseas students-**
Till date no overseas students are admitted in our institute and hence no specific facilities are developed.
- **Students to participate in various competitions/National and International:**

-
- Students are encouraged to participate in various competitions/conferences conducted by the various universities and institutes. Institute supports them in all possible ways.
- UG and PG students have presented and published research papers in national and international conferences and journals. The institute has arranged International conferences in the year 2014-15 and 2015-16. For which good response was received from the UG and PG students.
 - Students are encouraged to participate in various competitions by providing funds. Two projects one each from civil and E&TC Dept. were selected in project competition organized by power Grid corporation, Delhi. The institute has contributed for the above projects.
 - To participate SAE India Racing car competition (SUPRA) an amount was sanctioned to students of mechanical and automobile engineering by Institution
 - The institution also funds the innovative' projects of UG and PG students.
 - Software's and equipment's are also made available to UG and PG students to carry out their project work.
 - Our Institute also organizes "Nakshtra", a Technical and cultural fest which is intercollegiate event held each year for which proper budget is sanctioned in advance. Students also participate in various project competition held in various institutes.
 - **Medical assistance to students: health center, health insurance**
First aid facility is available in all departments and core engineering labs like chemistry, workshop etc. First aid room is available for students and staff with proper medical facilities and visits of doctors. An MOU is signed with the Yerala medical Trust to take care of medical emergencies.
 - **Organizing coaching for competitive exams**
Special soft skill training program which includes aptitude test, group discussions, mock interviews are conducted on a regular basis by Training and placement department. The engineering syllabus includes subject such as communication skills and basics of communication engineering where the concerned faculty covers the content beyond syllabus for overall grooming of the students for competitive exams Special session for GATE/CAT/GRE/GMAT are organized by training, placement and carrier guidance cell the students are also guided for competitive exams like MPSC, UPSC, and IES etc.
 - **Skill development (spoken English, computer literacy, etc.)**
Revised Mumbai university syllabus consists of the subjects like Communication skills and basics of communication engineering and presentation skills. In this subject emphasis is given to communication skill development and presentation skills. All related facilities are made available by the institute in the language lab. Soft skills programs are conducted regularly

by the training and placement department for enhancing the employability of our students. Courses such as Industry Institute Interface School Soft skills and Employability skills, Spoken English and personality development course, Energia, Cloud computing, SQL, Robotics, PCB workshop, CAD designing etc. are conducted to improve the students potential for employability. Well-equipped ETNL language lab is available for student trainings.

- **Support for slow learners:**

Academically weak students are identified through special test conducted at the beginning of the semester and special attention is provided to the slow learners and remedial classes are conducted. Counseling of students is done by the proctors and motivated for better performance.

- **Exposure of students to other institutions of higher learning/Corporate/business houses,**

The training and placement department organizes career counseling sessions to guide the students to choose the best career option special session for GATE/CAT/GRE/GMAT are organized by training and placement cell .The students are also encouraged and guided to appear for competitive exams like MPSC, UPSC, and IES etc. Students undertake Internships programs during vacation in various Industry/R&D organizations. Entrepreneurship network cell is established for developing the enterprising skills among the students through various programs.

- **Publication of student magazines**

Students are encouraged to publish their articles in departmental News Letters which is published in every semester in all departments.

Well-furnished Gymnasium facility is available for students in the campus.

5.1.5 Describe the efforts made by the institution to facilitate Entrepreneurial skills among the students and the impact of the Effort?

An Entrepreneur network Cell (ENC) is formed in the Institution, to expose the students to the field of entrepreneurship .The Entrepreneurship network Cell aims at reaping and nurturing innovativeness and encouraging entrepreneurial culture among students. The Entrepreneurship network Cell is primarily responsible for stimulating, sustaining and supporting entrepreneurial ventures within the campus, providing them with necessary assistance and resources. The benefits of ENC cell are:

- E. N. Cell acts as facilitator and resource institution to motivate, guide and help prospective and existing entrepreneurs in their entrepreneurial endeavours / efforts through positive training interventions.
- To initialize the National Entrepreneurship Network thereby joining hands with the like-minded communities towards a common goal.
- To inculcate a culture of innovation driven entrepreneurship through student projects.

- To respond effectively to the emerging challenges and opportunities both at national and international level.
- To promote employment opportunities in the pioneering areas.

ENC Institute Coordinator: Mr. Pankaj K. Jadhav and Mr. Rakesh Shinde.

Sr. No.	Department	Faculty Member	Student Coordinator
1	Mechanical	Mr. Suhas Jadhav	Shubham Phalke
2	Civil	Mr. Vishal Mishal	Surendra Suthar
3	EXTC	Mr. Umesh Pinjarkar	Sushant kale
4	Computer	Mr. Amit Gawade	Swapnil Tambe
5	IT	Mrs. Shraddha Subhedar	Sushmita Manche
6	Automobile	Ms. Sneha Mokal	Aniketh Lolam

The activities organised are:

- Organised Entrepreneurship Awareness Camps, Entrepreneurship Development Programmes and Faculty Development Programmes.
- Conducted research work and survey for identifying entrepreneurial opportunities.
- Guided and assisted prospective entrepreneurs on various aspects such as preparing project Reports, obtaining project approvals, loans and facilities from agencies of support system, Information on technologies.
- Organized guest lectures, seminars, etc. for promotion and growth of S&T based Entrepreneurship.
- Arranged visits to industries for prospective entrepreneurs.
- Arranged interaction with entrepreneurs and create a mentorship scheme for student Entrepreneurs.
- Organised E-Summit, My Idea program for students.
- Organized student training on different software's by well-known Institutes.
- Guest lectures, seminars, etc. organization for promotion and growth of Entrepreneurship.
- Visits arrangement to industries for prospective entrepreneurs

Academic Year	Sr. No.	Name of Activity	Date	From -To	Name of Expert/ Speaker	Total Student participants
2011-12	1	Installation of Entrepreneurship Development Cell	08/10/11	10am to 1pm	Dr. Manjusha Deshmukh	34
	2	One Day Seminar on creating Entrepreneurship Awareness	27/2/12	10am to 5pm	Ms. Niyati Mehta, Manager " EDWISE	45

					CONSULTANTS PVT LTD"	
2012-13	3	Orientation Programme for Fresher's	23/8/12	10am to 1pm	Mr. S. N. Teli HOD Mech	53
	4	Entrepreneurship Awareness Camp	20/9/12	10am to 5pm	Under guidance of HON' Principal	65
	5	E Quiz	24/1/13	10am to 5pm	Dr. Seema Lathkar	117
	6	Creativity and innovation Competition	29/3/13	10am to 5pm	Mr. N. Chandran.	158
2013-14	7	Orientation Programme for Budding Entrepreneurs	19/8/13	10am to 5pm	Under guidance of HON' Principal	112
	8	Essay Competition on Entrepreneurship	19/8/13	10am to 5pm	Dr. Sabnis S.M.	112
	9	A Seminar on Entrepreneurship as a Career option : Prospectus and Challenges	02/04/14	10am to 1pm	Vijay Ghuge-Asst. Manager Mahindra and Mahindra Mumbai	106
	10	Debate on Life of Entrepreneur	04/03/14	10am to 1pm	Mrs. Roshni John	78
2014-15	11	Orientation Programme towards " Charms of becoming Entrepreneur"	08/08/14	10am to 1pm	Under guidance of HON' Principal	129
	12	One Day Workshop on "What can you do with your Future" and Brain Games.	15/1/15	10am to 5pm	Mr. Joshi Director of CADGURU	113
	13	One Day Seminar on Entrepreneurship and Start up Ecosystem in India	03/10/15	10am to 5pm	Mr. Atul Patil, MD, IKSC Knowledge bridge pvt.ltd.	132

2015-16	14	Orientation Programme E - Scholars	24/7/15	10am to 1pm	Under guidance of HON' Principal	170	
	15	One day Seminar on Entrepreneurship Education in Engineering Colleges	08/05/15	10am to 5pm	Mr.Atul Patil, MD, IKSC Knowledge bridge pvt.ltd.	165	
	16	E-week					
		Inauguration E-Week Global Entrepreneur Idea Generation Tap the Scrap	22/02/16	10am to 5pm	Gurdip Anand Satish Nikam	200	
		Introduction to Business Plan Goal Setting and Time management Research on Case study of recent start-ups in India	23/02/16	10am to 5pm	Saurabh Sinha Ashok Thapar	65	
		State Funding and Support Creativity Session Interaction with SCOE Entrepreneurs	24/02/16	10am to 5pm	Rishi Bhatia	65	
		Company formation and Legal Aspect Brain Storming Activity	25/02/16	10am to 3pm	B. S. Mahajani	65	
		E-Summit- Buziness Bazigar (presentations by the groups)	26/02/16	10am to 3pm		65	

Our successful Entrepreneurs:

Sr. No.	Name of the Student	Company Name / nature of company
1	Vishek Jain(2010-11)	Prabha Dots Manufacturer of aluminium containers,Vasai (E), Mumbai

1	Kapesh Maheshwari (2010-11)	VIARA IMPEX PTE LTD Singapore
2	Mr Jayesh Mhaskar(2012-13)	Sec Root Security Solution Pvt Ltd.Bandra (W)
3	Sanil Jadhav (2015-16)	Consultancy of software language training program
5	Hemang Parmar	Software development firm
6	Vivek Sampat	Music consultancy
7	Nilesh Jire	Ethical hacking consultancy
8	Hardik Mota	Event management firm
11	Siddhav Sakhalkar & Devdatta Songire	ECW Enviros Services Pvt. Ltd.
12	Soumya Chakraborty	Pyramid Technomangement

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as games, sports, quiz competitions, debate and discussions, cultural activities etc.

Policies and strategies are framed in advance to promote students participation in extracurricular and co-curricular activities as follows:

- Cultural and sport committees are formed in the institute to encourage participation.
- Intercollegiate cultural, technical and sports events are organized by the institute to promote participation of students in extracurricular activities. Students also participate in events organized by other colleges such as CAD/CAM, Robotics competition and cultural events also.
- Remedial classes and lab sessions are conducted to compensate for academic loss due to such activities.
- Each department felicitates best student award for the outgoing batch depending on the overall performance of the students including academics and extracurricular activities participation.
- Achievers in class toppers, medal winners and games, sports are felicitated on the college foundation day function with cash award and appreciation certificates by college and management.
- For noticeable participation students are given benefit of marks as per Mumbai university rules.
- Students are encouraged to participate in sports and other activities at university and state and national level.
- College recommends the remarkable participations to the University to grant 10 marks for their contributions for NSS activities and university /national level sports, in final examination.
- Students involved in the sports and other activities are treated as on duty on College work.

- Support in terms of conveyance, registration fees are provided by the college.
- The internal tests and practical are conducted in extra timetable for participants at university level.

5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, GATE / CAT / GRE / TOEFL / GMAT / Central /State services, Defense, Civil Services, etc.

A Career Guidance and training and placement Cell is established to guide the students with regard to higher studies and various competitive exams Special session for GATE/CAT/GRE/GMAT are organized by training and placement cell. The students are also guided for competitive exams like MPSC, UPSC, and IES etc. Special soft skill training program which includes aptitude test, group discussion, personality development are conducted by the institute on a regular basis by Training and placement department. The students are guided in regard to selection of M.Tech/M.S Programmes for higher studies in INDIA, USA, Canada, UK, Germany, Australia and other Countries Universities.

Student Progression	Branch	Year(values)			
		2012-2013	2013-2014	2014-2015	2015-2016
UG to PG	Civil Engineering	28	28	29	NA
	Mechanical Engineering	26	20	20	NA
	E&TC Engineering	3	14	14	NA
	Information Technology	3	8	1	NA
	Automobile Engineering	NA	NA	5	NA
	Computer Engineering	8	9	3	1
	Automobile Engineering	NA	NA	Nil	Nil
	Computer Engineering	Nil	Nil	Nil	Nil

Students Qualified in GATE Examination:

Sr. No.	Department	2011-12	2012-13	2013-14	2014-15	2015-16
1	Mechanical Engg.	02	06	05	08	-
2	Computer Engg.	01	01	--	--	--
3	Civil Engg.	--	09	05	03	--

4	Electronics & Telecom. Engg.	02	02	01	03	--
	TOTAL	05	18	11	14	--

5.1.8 What type of counseling services are made available to the students: (Academic, personal, career, psycho-social etc.)

- **Academic counseling:** Academic counseling is monitored by the principal, Academic dean and Head of departments. Needy, defaulter, depressed and disturbed students are counseled by the principal and HOD. Personal attention is provided to the activities and progress of such students. Grooming of the advanced learners is paid with special attention and efforts are taken
- **Personal counseling:** A group of students is allocated to a Proctor who takes periodic meeting of the students and tries to solve their academic problems. Proctor remain aware of the academic progress of the students and suggests remedial measures if required. The proctor interacts with the students allocated to him and listens to their academic as well as personal problems which are hurdle in their progress. This proctor system is developed to create a friendly atmosphere so that students should feel free to share personal problems with the proctor. Proctor then finds a suitable solution after taking consent of higher authority.
- **Career counseling:** A Career Guidance and training & placement Cell arranges various programs and experts from industry and academic are invited to guide the students in relation to higher studies and also career options. Special soft skill training program which includes aptitude test, group discussion, personality development are conducted by the institute on a regular basis by Training and placement department.
- **Psycho-social counseling:** A professional counselor is appointed by the institute to deal with the problem affecting student's mental health. This helps students to overcome the problems like mental stress, frustration, depression, inability to communicate with the others, socioeconomic status, family problems etc.

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If 'yes', detail on the Services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the Employers and the programs).

Yes

- Career Guidance and training & placement Cell is established in institute. The training and placement department organizes Career counseling sessions to guide the students to choose the best career option.
- Special session for GATE / CAT/ GRE/ GMAT is organized by training and placement cell.
- The students are also encouraged and guided to appear for competitive exams like MPSC, UPSC, and IES etc.
- Students undertake Internships programs during vacation in various Industry/R&D organizations.
- Special soft skill training program which includes aptitude test, group discussion, personality development are conducted by the institute on a regular basis by Training and placement department. The students are guided in regard to selection of M.Tech /M.S Programmes for higher studies in INDIA and other Countries Universities.
- Industrial visits, site visits are arranged by the department to provide field exposure to students enabling them to grab the future opportunities.
- An Entrepreneur Network Cell (ENC) is developed in the institute to expose the students to aim at entrepreneurship. To create awareness among students on industrial opportunities and benefits of entrepreneurship.
- An advisory committee has been formed to guide the students regarding the demand of industries and accordingly add on courses are arranged to bridge the gap between industry and academics.
- MOU's with foreign universities for higher studies and internship program for industrial exposure.
- Departments organize add on courses to make the students industry ready.
- Training and placement cell organizes trainings on aptitude, corporate to campus credentials program, professional attitude building program like "Nurture" and soft skill and personality development program.

The placements of students for the last three years are given below:

1) Employed Campus selection	Department	2012-13	2013-14	2014-15	2015-16
	Civil Engineering	52	65	64	5
Mechanical Engineering	21	68	55	18	
E&TC Engineering	40	65	87	74	
Information Technology	36	40	45	40	
Automobile Engineering	NA	NA	10	3	
Computer Engineering	48	33	55	34	
2)Other than Campus Recruitment	Department				
	Civil Engineering	3	4	22	NA
	Mechanical Engineering	30	13	14	NA
	E&TC Engineering	10	25	25	NA
	Information Technology	4	4	12	NA

	Automobile Engineering	NA	NA	3	NA
	Computer Engineering	6	9	0	NA

List of Employers:

TCS	HP	Polaris	KPIT CUMMINS	KPMG
Man Infra Construction	Master Trust	Global Newgen	Grass Blades	ITC
ICICI Prudential	India Bulls Power	Indus Tower	ION Exchange	ISG SOLUTIONS
J Kumar Infrastructure	Konark Group	Kores[India] Ltd	Liberty Videocon	IBM
SYNTEL	Godrej Info tech	3I Info tech	AC Nelson	Ackruti City Pvt Ltd
ATC India	BARC	Bajaj General Insurance	Balmer Larie	BIZERBA
Ceasefire Industries	CSC India	Simplex Prefab	STRUCTW ELL	Summit Technodyme
Sunday Mobility	Z S Associates	HEXAWA RE	Tech Mahindra	Mphasis
JSW	Logic Serve	Nadkarni Bearing	NEROLAC- PAINTS	Nucsoft
Paramatrix	Persistent Systems	Phoenix Maritime	PRDXN	Protigrity
QAD	Quinnox	Microland	Selec Control Pvt. Ltd	Sharpline Automation Pvt Ltd
Sunrise Engineering	L&T Info Tech	Accenture	Reliance Industries Ltd	Mindcraft
Mouthshut	Marathon Realities Pvt Ltd	Dhruv Consultancy	Eclerx	Eureka Forbes
Fiction Fact	Freight Wings Pvt Ltd	Tricom India Ltd	Vedant Dyesoft	ECW
Vistar-Info System	VODAFONE India Ltd	Web Connect Pvt Ltd	XL Dynamics	ZARCA INTERACTIVE
Sriram Transports	Rstomjee	Sutherland Global	Allerin	Bitwise
FSS	Rave technologies	Swabhav Tech Labs	Rudder Analytics	Zeus Learning
Syntelligo	Reliance Jio	Sanmar	EIGI	Interact

Yodlee	Carewale.com	SKF	INOBYTES	SK Wires
ECLERX	Ayodhya Proactive	Quality Kiosk	Driect I	SACPL
Majesco	Viteos	Ugam Solutions	ERICSSON	Renuka Consultant
Sama Technologies	3D Plm	Eiosys	Spring Jaunter	HSBC
Concerto Software	Wipro	Symec	Artee Flow Controls	Ultimate Group
Mitsubishi	Tristar Pvt Ltd	Amstrong	RS Labs	Tribotech

5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.

Institute has constituted Grievances Redressal Cell for attending the complaints and addressing the grievances for smooth flow of process in the institute. Grievances Redressal Cell is formed to maintain the healthy working condition among the employees and students. This Cell helps employees and students to register their issues and provide them solutions for problems related to academics, resources and personal grievances. Ragging issues are addressed as per rules of University.

Female harassment issues are solved as per government guidelines by Committee. Committee structure: Three types: Group A, Group B and Group C.

Committee members are of three types. In minor issues Group B Cell members address the problem without involvement of Group A members. In severe problems, HOD's and Principal, Group A members and Group B Members address the grievances. This is also applicable in case of Women harassment; Where Group C members will address the issues. Serious issues are addressed by Group A & Group C Members.

Sr. No	Role	Designation
1	Chairman	Principal Dr. Manjusha Deshmukh
2	Group A Core Members (Chairman and HOD of all Departments, registrar)	Dr. Bharti Joshi, Prof Vaishali Jadhav, Prof. Quazi T. N. ,Prof. Mandeep Kaur, Prof. Roshani John, Prof S. N. Teli, Prof. S. v. Lathkar, Mr. Amar Shinde
3	Group B Members Sr. Faculty from each Dept.:- [Anti ragging & General Grievances]	Monali Deshmukh, Shilpa Kolte , Sagar Khatavkar, Bhumi Patil, Shanti Selvan, Madan Jagtap, Ram Bhise,
4	Group C Members	Anuradha Dandawate, Rajashree

	1 Sr. woman faculty from each dept. :- [Woman anti-harassment]	Narwade, Shilpa Kewate, Mitali Mhatre, Sindhu Tayade.
5	Member Secretary (Sr. faculty member :)	Mrs. Seema Potdukhe.

Students can directly approach to these members for any type of grievance such as any problem, concern, dispute or complaints.

Till date no students have approached the grievances redressal cell, as the principal, Deans, HOD, Discipline committee takes care of most of the problems encountered by students. There is an issue been discussed in the grievance cell from employee which was solved systematically by the cell.

5.1.11 What are the institutional provisions for resolving issue pertaining to sexual harassment?

Women development cell is constituted in the institute to resolve issues of women harassment. CD on eve teasing is shown to students to create awareness. Women's safety issues are also addressed by arranging seminar. A marathon was organized in the Institute on the theme of women's safety. Till date we have not received any complaint related to sexual harassment. Institute and management is very strict in this matter. A women anti-harassment cell is also formed along with the women's development cell as per the guidelines of university of Mumbai. The grievance redressal procedure is well defined which mentions about the type of grievance and according punishments. The frequency of meeting is also specified for the members. The students are given awareness of the existence of the cells through displays and awareness programs.

College Women Development Cell (CWDC)

Sr.No	Name	Post	Contact
1	Dr. Manjusha Deshmukh (Principal)	EX Officer President	7738677011
2	Mrs. Sayali Choudhari	Lady Conveners	9975573505
3	Mr. Upendra Mate	Teaching Member	9930079980
4	Mrs. Rajshri Tambe	Non – Teaching	7666895777
5	Mrs. Rajashri Narwade	Reserve Category	9821709470
6	Ms. Hemalata Gosavi	Member NT/DT	7350956691
7	Ms. Tanvi Patil	Student LR	8097288806
8	Mr. Amar Shinde	Registrar	9320299474

Women Anti- Harassment Cell

Sr. N.	Name	Post	Contact
1	Dr. Manjusha Deshmukh	Member Secretary	
2	Mrs. Seema Potdukhe	Member	9892625098
3	Mrs. Shilpa Kewate	Member	9960591296
4	Mrs. Anuradha Dandwate	Member	7738395540

5	Mrs.Rajashri Narwade	Member	9821709470
6	Mrs.Sindhu Tayade	Member	9920077235
7	Mr.Dhanraj Walunj,	Member	9594908657
8	Mrs.Mitali Mhatre	Member	7709656870

5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

An anti-ragging committee has been constituted as per the directions given by the Mumbai University. During the Induction program of FE all the students and parents are made aware of anti-ragging law. Care has been taken that no student shall involve in any kind of physical and mental ragging. The institute campus is totally ragging free and not a single incident has been registered till date. Anti-ragging committee has been constituted to observe the discipline in the campus and also to make it ragging free. The members of the committee run a anti ragging campaign through notices and also by counseling the students class to class.

Anti-ragging & General Grievances cell

Sr. No	Name	Post	Contact
1	Mrs.Shilpa Kolte	Member	8108188055
2	Mrs. P. Selvam	Member	9821996170
3	Mr. Ram Bhise	Member	9960569238
4	Mr.Madan Jagtap	Member	9689613318
5	Mrs.Monali Deshmukh	Member	7738376828
6	Mrs.Bhoomi Patil	Member	9987042411
7	Mr.Sagar Khatavkar	Member	9561305001

Roles and Responsibilities of Committee

To ensure compliance with the provision of UGC regulation 2009 at the institute level the committee carries out vigilance on regular basis.-

5.1.13 Enumerate the welfare schemes made available to students by the institution:

- Institute is organizing number of events under NSS and students from all programs are part of the NSS team. Prof. Ram Bhise is the in- charge faculty of NSS. Elocution competition during Vigilance awareness week was conducted on 13/10/2015.The event was organized to spread awareness and sensitizing the youth about ill effects of corruption on our society. A program on Swachyata Abhiyaan (initiated by PM) was organized on the eve of Mahatma Gandhi Jayanti 2nd October 2015. Personality development workshop was organized under NSS. A seven day Residential camp at the adopted village was planned under NSS

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- Health service -An MOU is signed with the Yerala Medical Trust to take care of medical emergency.
 - GIC group insurance of students have been initiated from the academic year 2015-2016.
 - Retract club of Saraswati college of Engineering is active in arranging different types of students activities like blood donation, illiteracy removal program, sports activity, marathon, social awareness program, women's safety, paper presentation in association with IIT, clean up drives like Vashi station, Kharghar, Nirbhaya campaign, Ecofriendly Ganesha making
 - Student's council is formed in the institute to contribute in the academic development, to provide encouragement for participation in extracurricular activities. Ganesha utsav, sports activities, annual culture programme "Nakshtra", paper presentation, expert lectures, workshops and seminar. Add on courses are organized in consultation with the student council. Academic calendar of the institute is also formed by taking the views of student council into consideration. Relief fund for drought areas of Maharashtra activity was initiated by the student's council.
 - Transportation facilities are provided to the students to travel between kharghar railway station and the institute in subsidized cost.
 - Hygienic and full-fledged Canteen facility is available in the campus.
 - The institution helps to receive scholarship to SC/ST, OBC and economically weaker students from Government of Maharashtra/DTE/Samaj kalyan office/Adivasi vikas karyala as per the policies.
 - Grievance redressal cell- Grievances Redressal Cell is formed in order to keep the healthy working atmosphere among the staff, students & parents. This Cell helps Staff, Students & Parents to record their complaints and solve their Problems related to academics, resources and personal grievances. Ragging Complaints will be handled as per ragging rules available on University Website. Women's development cell and Women anti-harassment cell is constituted in the institute to resolve issues of women harassment.
 - Placement and Counseling cell - A Career Guidance and training & placement Cell takes care of arranging various programs and experts from industry and academics are invited to guide the students in relation to higher studies and also career options. Special soft skill training program which includes aptitude test, group discussion, personality development are conducted by the institute on a regular basis by Training and placement department.
 - Games and Sports & gymnasium- A gymnasium facility is provided in the campus .Sports activities are conducted during annual social event "Nakshtra". One week is reserved for sports activity after the term ends to intensify the sports participation

5.1.14 Does the institution have a registered Alumni Association? If ‘yes’, what are its activities and major contributions for Institutional, academic and infrastructure development?

We don't have a registered Alumni association. But all departments have constituted their Alumni association. The programs organized by departments for alumni are as follows.

Sr.no	Name of Alumni	Name of Activity conducted	Duration	No. of Student Participated
1	All Departments	Felicitation, Interaction, Musical Entertainment, Feedback	One Day 06/02/2015	296
2	All Departments	Felicitation, Interaction, Musical Entertainment, Feedback	One Day 01/03/2014	276
3	All Departments	Felicitation, Interaction, Musical Entertainment, Feedback	One Day 16/03/2013	183

5.2 Student Progression:

5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlights the trends observed:

Student Progression

	Branch	2012-2013	2013-14	2014-15	2015-16
1)UG to PG	Civil Engineering	28.28%	25%	20.42%	NA
	Mechanical Engineering	30.95%	18.01%	18.18%	NA
	Electronic and Telecommunication Engineering	4.34%	11.96%	9.65%	NA
	Information Technology	6.12%	11.76%	1.33%	NA
	Automobile Engineering	NA	NA	10.41%	NA
	Computer Engineering	10.66%	14.75%	4.05%	1.63%
2)Employed Campus selection	Civil Engineering	52.52%	58.03%	45.07%	18.93%
	Mechanical Engineering	25%	61.26%	50%	16.66%
	Electronic and Telecommunication Engineering	57.97%	55.55%	60%	60.66%
	Information Technology	79.59	58.82%	60%	81.66%
	Automobile Engineering	NA	NA	20.83%	22.22%
	Computer Engineering	64%	54.09%	74.32%	93.44%
3)Other	Civil Engineering	3.03%	3.57%	15.49%	NA
	Mechanical Engineering	35.71%	11.71%	12.72%	NA

than Camp us Recru itmen t	Electronic and Telecommunication Engineering	14.49%	21.36%	17.24	NA
	Information Technology	8.16%	5.88%	16%	NA
	Automobile Engineering	NA	NA	6.25%	NA
	Computer Engineering	8%	14.75%	0%	NA
4)Pre parin g for Comp etitive Exam s & Self- Empl oyed / Doing Other Cours es	Civil Engineering	10.10%	8.92%	8.45%	NA
	Mechanical Engineering	5.95%	5.40%	13.63%	NA
	Electronic and Telecommunication Engineering	13.04%	8.54%	11.03%	NA
	Information Technology	8.16%	17.64%	20%	NA
	Automobile Engineering	NA	NA	35.41%	NA
	Computer Engineering	14.66%	13.11%	17.56%	NA

5.2.2 Provide details of the Programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)? Furnish Programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district:

Branch	Year of Examination	Course Examination UG	No. of Students admitted	No. of Students pass (final Year)	Percentage of pass (%)	University Result (final Year)
Civil Engineering	2010-11	BE	79	45	56.96	Information not available, As not received from university.
	2011-12	BE	53	53	57.96	
	2012-13	BE	136	82	60.29	
	2013 -14	BE	140	70	50.0	
	2014-15	BE	172	96	55.80	
Mechanical Engineering	2010-11	B.E	71	49	69	
	2011-12	B.E	83	51	61	
	2012-13	B.E	104	62	59	
	2013 -14	B.E	127	74	58	

	2014-15	B.E	107	67	62	
Electronic and Telecommunication Engineering	2010-11	BE	60	43	71.6	
	2011-12	BE	67	50	74.63	
	2012-13	BE	79	45	56.96	
	2013 -14	BE	133	92	69.17	
	2014-15	BE	119	103	86.55	
Information Technology Engineering	2010-11	BE	70	54	77.14	
	2011-12	BE	49	38	77.55	
	2012-13	BE	63	49	77.77	
	2013 -14	BE	59	37	62.71	
	2014-15	BE	59	42	71.18	
Automobile Engineering	2010-11	BE	NA	NA	NA	
	2011-12	BE	51	50	98.03	
Computer Engineering	2010-11	BE	76	44	57.89	
	2011-12	BE	76	44	57.89	
	2012-13	BE	81	52	64.19	
	2013 -14	BE	76	38	51.3	
	2014-15	BE	80	45	56.25	

5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?

A Career Guidance and training & placement Cell is established in institute.

Guidance for aptitude Exams :

The training and placement department organizes Career counseling sessions to guide the students to choose the best career option Special session for GATE/CAT/GRE/GMAT are organized by training and placement cell The students are also encouraged and guided to appear for competitive exams like MPSC,UPSC,IES etc.

Encouragement for Internship:

Students undertake Internships programs during vacation in various Industry/R&D organizations.

Personality development program:

Special soft skill training program which includes aptitude test, group discussion, personality development are conducted by the institute on a regular basis by Training and placement department. The students are guided in regard to selection of M.Tech/M.S Programmes for higher studies in INDIA, USA, Canada, UK, Germany, Australia and other Countries Universities.

Industrial Visits:

Industrial visits, site visits are arranged by the department to provide field exposure to students enabling them to grab the future opportunities.

Entrepreneur Network Cell:

An Entrepreneur Network Cell (ENC) is developed in the institute to expose the students to aims and objectives of entrepreneurship. To create awareness among students on industrial opportunities and benefits of entrepreneurship an advisory committee has been formed to guide the students regarding the demand of industries and accordingly courses are arranged to bridge the gap between industry and academics.

Placement Coordinator Lectures & career talks:

Experts from various fields of Engineering & Management are called to interact with the students to make them ready for industry. Department Placement coordinator & TP officer meet the students regularly to make them aware about their readiness, up-coming opportunities and special preparations needed.

Through Training and placement cell students are placed in various reputed companies like IBM, TCS, L&T, Infosys, Marathon, Hexaware, Siemens, Syntel, and Persistent. Institute is organizing no of training, soft skills and aptitude test to mold the students for the interviews and proper placement .The institute also helps and guide students for off campus interviews and placement

Mock Group discussion & interviews:

Mock Group discussion & interviews are arranged every month for final year students to make them more confident and comfortable at the time of actual interviews.

Guidance For Higher Education:

Guidance is given to students about scope and opportunities of higher education in India and abroad.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

The institution follows strict academic policies to minimize the student dropout rate by conducting a class test or by observation slow learners are identified. Also the students who are at the risk of failures are listed for which internal assessment test 1 and 2 are used as tools. Special care is taken of dropout students. Following measures are taken to bring the students in main stream.

- These include individual attention by faculty,
- Counseling by proctors conducting extra classes for slow learners and remedial classes for KT students.
- Continuous counseling, defaulter list is displayed and communicating the same to parents/guardian to ensure that the students attend the classes regularly.
- Remedial lectures are arranged for failure students.
- Doubt clearing session are arranged for weak learners.
- Question papers of previous examinations are solved by failures to make them confident for facing main examination.

5.3 Student Participation and Activities:

5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

Games and Sports: The physical education department has a Physical Director with required qualification and specialized in various sports and games is appointed in the campus.

List of available Sports and Games

Indoor games:

Sr.No.	Name of Sports/Games	Sports facility
1	Chess	Board, Pieces
2	Table Tennis	Table, Racket
3	Carom	Board, Coin set +Striker, Powder
4	Gymnasium	Full of all work out/ exercise facilities

Outdoor games:

Sr.No.	Name of Sports/Games	Sports facility
1	Volley ball	Ball, Net
2	Handball	Ball, Net
3	Football	Ball, Net, Goal Keeper gloves, studs
4	Basket ball	Ball, Basket
5	Cricket	Bat, Stump, Helmet, Lether ball, Batting Pad, Mat Thy Pad, W/k pad
6	Badminton	Racket, Stand with cruet

Activity Calendar:

Sr. No.	Name of the activity	Dates
01	Republic day celebration	26 th January(fixed date)
02	Nakshtra(annual cultural/sports/technical/social)	First week of February
03	Women's day celebration	8 th March
04	Avishkar (National level Project competition)	April First week
05	Industrial Visits	June First week
06	Independence day	15 th August(fixed date)
07	Teacher's day	5 th September
08	Engineer's day	15 th September
09	Foundation day	17 th September(fixed date)
10	Marathon	17 th to 21 st September
11	Ganesh Festival	Mid of September
12	Eco friendly Diwali celebration	October
13	International conference	December
14	Industrial Visits	December

List of Sports and Games with students' participation detail:

Sr. no.	Name of Event	university/state/Zonal/National/international	Date & year	Durat ion	No. of student partici pants	Studen t achieve ment
2014-15						
1	3-Player Cricket	SCOE Kharghar	Feb 2015	1 Day	03	Winner
2	Blind Cricket	SCOE Kharghar	Feb 2015	1 Day	02	Winner
3	Kabaddi	SCOE Kharghar	Feb 2015	1 Day	07	Winner
4	Throwball (girls)	SCOE Kharghar	Feb 2015	1 Day	07	Winner
2013-14						
1	Tech-e-shi's castle	SCOE Kharghar	2014	1 day	1	First winner
2	Athletics 200m	SCOE Kharghar	Feb 2013	1 day	1	First winner
3	Athletics 100m	SCOE Kharghar	Feb 2013	1 day	1	First winner
4	3 on 3 Football	SCOE Kharghar	Feb 2013	1 day	1	First winner
5	Carrom	SCOE Kharghar	Feb 2013	1 day	2	First winner
6	4x400m Relay	SCOE Kharghar	Feb 2012	1 day	1	4x400m Relay
7	Athletics 100m	SCOE Kharghar	Feb 2012	1 day	1	Athletics 100m
8	Athletics 200m	SCOE Kharghar	Feb 2012	1 day	1	Athletics 200m
9	Inter Collegiate Badminton Tournament	Mumbai University	20/07/2012	1 day	12	Team Championship
10	Inter Collegiate Badminton Tournament	Mumbai University	20/07/2012	1 day	12	Team Championship

11	Saurabh Patil	waterpol.at MSAAA champions hip-2015 Nasik	2015			3 positio ns
12	Vishal Bhortakkay	SRS Competition	17/03/16		04	Ist position

5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University / State /Zonal / National /International, etc. for the previous four years.

The following are the major student achievements in co-curricular, extracurricular and cultural activities at different levels: University / State /Zonal / National /International, etc. for the previous four years.

Achievements extracurricular & Co-Curricular :-

Sr. No	Name of Event	Level	Date &Year	Duration days	No.of Students	Student Achievement
1	Chess	University	05-08/08/11	06	06	3 rd Place
2	Chess Selection	University	05-08/08/11	02	01	3 rd Place
3	Table Tennis	University	08/08/11	02	06	4 th Round
4	Badminton	University	16/08/11	02	09	4 th Round
5	Football	University	15/09/11	04	16	3 rd Round
6	Basketball	University	19/09/11	01	12	2 nd Round
7	Kho Kho	University	03/10/11	01	12	2 nd Round
8	Volleyball	University	10/10/11	01	12	1 st Round
9	Kabaddi	University	26/09/11	01	12	2 nd Round
10	Swimming	University	26/09/11	01	03	1 st Round
11	Basketball	University	12/03/12	05	12	4 th Round
12	Cricket	University	08/11/11	04	16	3 rd Round
13	Chess	University	26/07/12	04	06	1 st Round
14	TableTennis	University	02-06/08/12	01	03	1 st Round
15	Badminton	University	09-14/08/12	02	10	2 nd Round
16	Football	University	31-5/09/12	04	16	4 th Round
17	Water Polo	University	05-09-12	01	11	
18	Basketball	University	05-10-12	02	12	4 th Round
19	Volleyball	University	22-10-12	01	12	1 st Round
20	Chess	University	06-10/08/13	05	06	1 st Place
21	Table Tennis	University	15/08/13	01	05	2 nd Round
22	Badminton	University	02/09/13	02	06	2 nd Round
23	110M	University	07/10/13	03	05	1 st Place

	Hurdle					
24	400M Running	University	07/10/13	03	05	2 st Place
25	Football	University	2 - 4/09/13	02	16	2 nd Round
26	Cricket	University	17/10/13	01	16	1 st Round
27	Basketball	University	17/10/13	01	12	3 rd Round
28	Yoga	University	31/08/13	02	01	1 st Place
29	Yoga	University	22/05/14	06	01	
30	Football	MIT State	02-07/10/14	05	06	4 th Round
31	Chess	University	08- 11/08/14	03	06	1 st Place
32	Chess Selection	University	13-15/08/14	02	02	BEST OF 10
33	Table Tennis	University	01/08/14	02	05	3 rd Round
34	Football	University	16-20/09/14	04	16	4 th Round
32	Badminton	University	01/09/14	03	05	3 rd Round
33	110M Hurdle	University	14- 16/11/15	03	03	4 th Place
34	400M running	University	14- 16/11/15	03	03	1 st Place
35	Carom	University	07/01/16	02	02	3 rd Round
36	Taekwondo	University	21/10/15	02	01	2 nd Round
37	Table Tennis	University	18- 22/08/15	04	04	3 rd Round
38	Football	University	02/09/15	01	16	1 st Round
39	Kabaddi	University	29/09/15	01	01	2 nd Round
40	Boxing	University	01-03/11/15	03	04	6 th Place
41	100M Butte Stroke	University	17-19/08/15	01	01	5 th Place
42	200MBack Stroke	University	17-19/08/15	01	01	4 th Place
43	100M Freestyle	University	17-19/08/15	01	01	7 th Place
44	200M Back Stroke	University	17-19/08/15	01	01	8 th Place
45	Football	State	10-15/09/15	05	16	2 nd Round
46	400M Hurdle	University	06-08/10/15	03	05	1 st Place
47	400M Running	University	06-08/10/15	03	05	3 rd Round
48	Chess	University	21/8/14	01	2	Inter zonal

						selection
49	Football Men	MIT Pune	7/10/13	01	2	State Level
50	Football Women	MIT Pune	7/10/13	01	1	State Level
51	Project comp. SRIJAN-DIPEX	Govt. College of Engg. Pune	6-10/03/13	2	4	Project selected
52	Technical Symposium	RAIT, Nerul	16-17/03/13	2	1	First winner
53	Chess	University	6/8/13	1	03	Inter Zonal competition
54	Athletics 100 M	University	2013-14	1	02	participated
55	Athletics 400 M	University	2013-14	1	01	Participated
56	Football	STATE	2/10/13	1	03	Participated
57	Shooting	University	3/11/14	01	03	Participated
58	Tech Galaxy	AMITY University	27-28/02/15	2	9	Participated
59	Elocution Comp.	Builders Association of India Mumbai Centre	14/03/15	1	2	Participated
60	200 meter run men	Thane District athletic asso.	07-09/02/14	3	1	Third Prize
61	Yoga Competition	Mumbai	28/9/14	1	1	First Prize
62	Inter Collegiate Badminton Tournament	Mumbai University	20/07/12	1	12	Team Championship
63	Inter Collegiate Badminton Tournament	Mumbai University	20/07/12	1	12	Team Championship
64	Inter	Mumbai	20/07/12	1	12	Team

	Collegiate Badminton Tournament	University				Championship
65	Inter Collegiate Table Tennis Tournament	Mumbai University	20/07/12	1	3	Team Championship
66	Inter Collegiate Table Tennis Tournament	Mumbai University	20/07/12	1	3	Team Championship
67	Yoga Competition	14 th ParleMahotsav, Association with Sathaye College.	21-31/12/12	12	1	Second
68	800 meter Run men	Bombay YMCA	4/12/12	1	1	Third
69	Yoga Competition	13 th ParleMahotsav, Association with Sathaye College.	23-30/12/12	8	1	Second
70	Yoga for healthy life	Association of Mumbai yoga district	29/7/11	1	1	Second
71	400 meter Run men	Bombay YMCA	27/11/11	1	1	Third
72	Young Achiever Award	University	2014	1	10	1 st Prize
73	AMINOVA-A Project competition	National	19- 25/01/15	7	24	First prize
74	Basketball competition	University level	2013	1	01	Fifth Rank
75	Saurabh Patil	state aquatic	2015			3 positions

		champions hip Nasik				
76	AVISHKA R-A Project competitio n	National	2016	1	03	3 rd position

5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

Student Feedback-

As per the ISO process, feedback is taken from the students for teaching activity and facilities twice in a semester in a questionnaire format, online. Faculty performance is assessed based on the feedback and corrective action is initiated by the Principal and head of respective department. Suggestions according to that are provided to the faculty by authorities for necessary improvement. At the alumni meet feedback is collected from the students and their views and opinions are taken into consideration for preparation of future plans. The analysis of feedback is done and according changes are implemented in the processes and activities. Parent's feedback is also taken in PTM, their suggestions for teaching earning and facilities are compiled and analyzed and adequate steps are taken for improvement.

Employers Feedback- Employers feedback is collected by the Training, placement and Career guidance section. Based on the industry requirement add on courses, guest lectures, workshops etc. are conducted to make the students more employable. It is applied for developments present trends, progressive technologies. The feedback supports for training up of students as per industry needs.

5.3.4 How does the college involve and encourage students to publish Materials like catalogues, wall magazines, college magazine, and other material? List the publications/ materials brought out by the Students during the previous four academic sessions.

Along with academics all department also conducts various extracurricular and co-curricular activities which finds its place in the department newsletter published every semester. Newsletter includes students and faculty achievement, research activities, seminar and workshop details. Student's achievements are highlighted in the news letters. This encourages the students to participate in the various activities like technical, sports, cultural conducted in the institute as well as off campus. The newsletter also gives the summary of paper publication, qualification up gradation and research work undertaken by the faculty. A special

yearly magazine for more scope to showcase the talents was initiated by college. A special notice board is reserved for the wall magazines in the Humanities and science department where in the students showcase their literature talent and achievements. Students also showcase their creativity in the leaflets and brochures for various programs conducted in the department and college. Different theme displays are arranged by students during annual social gathering which are creative as well as thought provoking.

Souvenir:

Every year institutes publish Souvenir, in which UG and PG students take initiatives and publish and present research papers.

5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding:

The college has a student council to organize and conduct curricular and extracurricular activities.

- Dr. Manjusha Deshmukh(Principal SCOE) is the Chairman of the council
- Dr. Prakash Bhadane is the faculty incharge of the student council.

Selection procedure of students for council:

- During second /third week of first semester of every academic year, the student representative will be elected by each class as mentioned in the composition.
- The date of election will be intimated by faculty in charge of student council well before the actual date.
- HOD and The Faculty in charge of each class will go to the class and call for applications from the students and conducts election and announces the result immediately. The elected candidate will represent the class in the council for that academic year.
- After the class representative elections or selection are over, the students' council is constituted as per university of Mumbai norms and rules of SCOE Kharghar.
- The Principal, HODs and faculty in charge of student council will conduct personal interviews for an indirect election procedure which would be followed by selection of office bearers as may be suitable and feet for each and every post recommended by the above panel.
- The Students' Council will start functioning after the declaration of elective or selective nomination for each described post by principal SCOE.
- The Students' Council ceases to exist after the institute day for that academic year. Anyways the General Secretary acts as the medium between the students and the administration until the oath of the next council.

Duties and responsibilities of the council

- Smooth Conduction of the Institute Annual Day every year.
- Smooth conduction of Foundation Day every year.

- Conducting Fresher's day every year.
- Prevention of ragging in the campus through counselling senior students, helping the administration whenever necessary.
- Suggesting the administration to improve the student amenities to improve their career and personality building.
- Helping the administration in smooth conduct of student activities on the campus.
- Guiding the junior and needy students to improve their technical, organizational and managerial skills by organizing seminars/ symposia/ workshops etc.
- Encouraging innovative and creative skills of the under graduate and post graduate students.
- Organize the programs in the campus to improve the cleanliness and greenery in campus.
- Any activity to improve the knowledge and skills of the campus students.
- Maintenance of the peace and harmony among campus community in General and student community in particular

Students Council Body

Student Council (List of Elective Nominations finalized after the Interview Process) Academic Year : 2015-16 Date of Interview : 12.08.2015					
Sr. no	Post	Name of the student	Branch	Year	Remark
1	Chairman of the council	Dr. Manjusha Deshmukh	Principal, SCOE	2015	-
2	Faculty Incharge of student Council	Dr. Prakash Bhadane	Assistant prof.	2015	-
3	General Secretary	Mr. Salian Rikesh Ramesh	Mechanical Engineering	B.E.	Selected
4	General Advisor	Mr. Viral Thakkar	Civil Engineering	B.E.	Selected
5	Joint General Secretary	Mr. Gaurav Nitin Kothari	EXTC Engineering	B.E(A)	Selected
6	Treasurer	Mr. Akshay Bhat	Civil Engineering	B.E.	Selected
7	Lady Representative (02 POST)	Ms. Patil Tanvi	Computer Engineering	TE	Selected
		Ms. Ruchita Gowda	EXTC Engineering	T.E(A)	Selected
8	Cultural	Mr. Dominic	EXTC	T.E(A)	Selected

	Secretary	Irudhayaraj Meena	Engineering		
9	Cultural General Secretary	Ms .Aarcha Nair	Civil Engineering	T.E	Selected
10	Joint Cultural Secretary (02 POST)	Mr. Sahil Dabholkar	Automobile Engineering	S.E.	Selected
		Mr.Bhavesh Joshi	Computer Engineering	TE	Selected
11	Sports General Secretary	Mr. Amritpa Isingh Gill	Mechanical Engineering	BE	Selected
12	Sports Secretary	Mr. Heramb Pimple	Mechanical Engineering	BE	Selected
13	Joint Sports Secretary (02 POST)	Mihir Manjarekar	Civil Engineering	T.E	Selected
14		Mr. Deshpande Rohit Sushil	Mechanical Engineering	T.E.	Selected
15	Sponsorship Head	Mr. Aniruddha Zutsi	Information Technology	TE	Selected
16	Creative Head	Mr. Aniket Prakash Khade	Automobile Engineering	B.E.	Selected
17	Publicity Head	Ms. Kavita Khatra	Civil Engineering	T.E	Selected
18	Documentation Head	Ms. Apurvi Veldandi	Automobile Engineering	T.E.	Selected
19	Photography Head	Ms. Saili Sanjay Sawant	EXTC Engineering	S.E.(B)	Selected
20	Head of Operations	Mr. Chinmay Sheth	Computer Engineering	TE	Selected
21	Head of Hospitality	Mr. Shreyas Kadam	Civil Engineering	T.E	Selected
22	Public Relations Officer	Mr. Mihir Lodhavia	Civil Engineering	S.E	Selected
23	Inventory Head	Mr. Suraj Salunkhe	Civil Engineering	BE	Selected
24	Security Head & Gymnasium Trainer	Mr.Manish Shripurum	EXTC Engineering	S.E.(B)	Selected
25	Logistics Head	Mr.Shreyas Shelar	Mechanical Engineering	BE	Selected

26	Editor-in-chief	Mr. Anmol Walimbe	Civil Engineering	TE	Selected
27	Academic Secretary	Mr. Bhaumik Kharkar	EXTC Engineering	BE	Selected
28	Academic Secretary (Girls)	Ms. Manju Nair	Civil Engineering	B.E.	Selected

5.3.6 Give details of various academic and administrative bodies that have student representatives on them:

Class representatives are elected at the start of the semester based on their academic performance and leadership qualities. The student council comprises of all CRs.

The members of students' council of each program are a part of academic process of the department. They are included in the decision making process of the department including academic, add on courses, guest lectures and workshop to be organized in the department

The student council members represent the various committees constituted for the conduction of events like sports, cultural and other technical activities conducted in the campus. Under the guidance of Programme officer of NSS, students organizes various activities. The student's representatives are at various college level committees as:

- College students council
- Class representatives' Academic committee.
- Training and placement cell.
- EN cell
- NSS
- Students Association of Departments like: CESA, ETSA, ACE, MESA, RACE, SAIT.

5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution:

Alumni meet is arranged in the institute every year. Alumni meet dates are floated on the website and individual communication is done through e-mails. Registrations forms are available on the college website. The meeting includes felicitation, official meeting, dinner, feedback session and interactive suggestions. The views, suggestion are noted and documented.

Based on alumni students suggestion various add on courses are organized in the department to meet the industry requirement and making our students employable. Platform is provided to alumni to express their views in the meets. Alumni meet also helps for getting their contribution for development of college in terms of their student interaction in the classroom, projects for final year students in their

companies, labs for experimentation, internship programs & expert guidance from industry.

Seminars of alumni's are arranged to get the students acquainted about the area they are working and the latest trend in industry.

Efforts taken by the Institute to facilitate entrepreneurial skill among the students is also highlighted: Support and guidance provided to the students in preparing for competitive exams, career guidance, Training and placement of students, identifying job opportunities, and preparation for interviews are specified. Counselling services are made available to the students for career, academic. Personal, psychosocial aspects are highlighted. Students and women's grievances cell, anti-ragging and sexual harassment issues redressal is included. And finally the welfare schemes made available to the students are mentioned.

A healthy relationship is maintained with all the former faculties of the Institute. And their advice and help is sought as required for the academics and other development of the institute. They visit the campus as external examiners for conducting the university exams.

Criterion VI: Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

Vision

To become centre of excellence in engineering education and research.

Mission

To educate students to become quality technocrats for taking up challenges in all aspects of life.

Objectives

To become competent Educational & Research organization

To make students of Saraswati College of Engineering globally competent with leadership qualities.

As stated in mission and vision statements the institute has established its mechanisms, procedures and best practices to achieve the excellence in education and research.

6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

Quality Policy

Saraswati College of Engineering is committed to impart continual quality education & training leading to degree in Engineering. Institute would demonstrate continual improvement by complying with requirements, monitoring our abilities and implementation of Quality Management System.

Institute aim to provide a platform for Research and Development by understanding and meeting industrial needs by developing technical skills, leadership quality, inter personal skills and upholding the importance of professionalism and ethical practices.

The Quality policy is supported by quality objectives and is communicated through various modes of channels such as notices, websites, brochure and understood within the institution and is reviewed by management time to time for continued suitability

Role of Principal

Leadership and working environment

- Constant effort to develop the functioning efficacy of the college.
- To ensure adherence to approved strategies, practices and processes within area of responsibility

Programming

- To see the requirements and welfares of the students.
- Promoting the faculty in implementation, modifications, and selection of curriculum materials and participation in extracurricular activities.
- Develop a high degree of student morale through curricular and extracurricular activities and services.

Institute Organization structure and Staff selection

- Supervise the implementation and functioning of academic processes and administration
- Administer the maintenance of the AICTE/DTE/LIC/UNIVERSITY records, files and submit reports as required.

Professional Development

- Promote the proficient and academic growth of the staff by arranging FDP programs and promoting higher education
- Dynamic participation in the selection, planning, and implementation of professional development activities for the staff.

Role and Responsibilities of the Dean (Academics):

1. Responsibilities:

- To ensure correct academic process is followed in accordance to the University of Mumbai rules and regulations and also consistent with SES norms.
- To critically analyse all the Academic processes including , adherence to prescribed curriculum,
- Value additions in order to affect highest quality of technical education in SCOE.
- To ensure interactions with the industry and suggest modifications to the curriculum to keep up-to-date with the latest technological trends with the industry.
- To interact with managements for purchase /up gradation of new equipment. To emphasize on the consultancy work in the departments.
- To strategically encourage in-house Software development work
- To put forward Research grant proposals to the University of Mumbai, DST and other Grant initiatives of the Apex bodies to ensure availability of grants in every department for research projects.

Role and Responsibilities of the Dean (Administration):

Responsibilities:

- To perform realistic scientific analysis about the existing administrative load of every Administrative department throughout the academic year.
- To interact with managements for purchase /up gradation of new equipment.
- To interact with the HODs about the availability of test equipment
- To prepare and facilitate the in-house co-curricular activities.

- To prepare a detailed department wise budget report for every academic year regards provisions for laboratory and other purchases well in advance to start of the academic year.
- To make the SCOE administration Student friendly for long term association and satisfactory admissions.
- To mentor students & faculty towards contribution towards social responsibilities.
- To prepare a detailed departmental budget report for every academic year with regards provisions for laboratory and other purchases.

Role of HOD: To ensure good academic environment and maintain sustainable academic and administrative practices for holistic development of students and institute.

Roles and responsibilities of faculty

Faculty plays a vital role in positive development of institute as well as students by following all the procedures approved by the institute.

6.1.3 What is the involvement of the leadership in ensuring the policy statements and action plans for fulfilment of the stated mission?

- **Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**
- **Interaction with stakeholders**
- **Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders**
- **Reinforcing the culture of excellence**
- **Champion organizational change**

: As per stated quality policy the action plans are defined as follows:

To enforce the action plan for implementation of quality policy, eight different processes are defined by institute, and those are as follows:

- Well defined academic processes for the effective conduction of all academic activities.
- Administrative policies for development of well-equipped infrastructure
- Examination processes for smooth conduction of examination and adherence to university rules and regulations.
- HR policies for selection and development of quality staff members including teaching and administrative.
- Library mechanisms to set up and maintain the state of the art library.
- To follow all ISO procedures running successfully and all timelines of audits are met positively.
- Student section processes for admission and enrollment, eligibility and scholarships of admitted students.

- Training and Placement processes for ensure maximum in-campus recruitment.

Interaction with Stakeholders: Interaction with stakeholder is a direct as well as indirect communication which happens via the following mediums.

- Induction Program
- HR meets
- Parent Teacher meets
- Brochure
- Alumni meet
- Workshop
- Seminars
- Conferences
- Websites

Proper support for policy and planning is made through need analysis, research inputs and consultations with the stakeholders.

Institute also collect feedback from stakeholders such as students, parents, alumni, employer and advisory board to improve existing policies of Institute.

The alumni meets are organized to have dialog between present students and pass out students. It satisfies two purposes. Our alumni help and guide for placements. Secondly, they play inspiring role for current students.

College also organizes parents meet. The discussions between faculty and parents help to solve problems about our students. It also helps to know parents expectations from the institution.

We request industry experts to conduct lecture and workshops. It helps to recognize recent trends and necessities of industry. Add-on courses, guest lectures, workshops, seminars, conferences and FDP are designed with stakeholder's consultation to bridge the gap between industry and academics. Dean academics and dean administration and all heads of departments are actively involved for proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders.

Reinforcing the culture of excellence

Student development activities:

Institute organises various student development activities such as

- Training program
- Aptitude test
- Soft skill development program
- SAE India competition- SUPRA(Project competition)
- Avishkar- national level project competition

Entrepreneurship Network Cell.

- Institute has developed ENC to motivate students to become entrepreneur.
- To imbibe skills related to business development.

- To inculcate a culture of innovation driven entrepreneurship through student projects.
- To respond effectively to the emerging challenges and opportunities both at national and international level
- To promote employment opportunities in the pioneering areas.

MOUs with Industries and Academia.

- Institute has signed various MOU's with industries and academic institutes, research institutes to improve placement, Library facilities etc.
Extra-Curricular and Co-Curricular Clubs for student all round Development:
Institute have different association at department level, which organises various extra-Curricular and Co-Curricular activities.
- Mechanical Engineering Department- MESA
- Civil Engineering Department – CESA
- Computer Engineering Department- CESA
- E&TC Engineering Department – ETSA
- IT - SAIT

Champion organizational change

With due consideration and observations about students' performance results, placements, higher study programmes, research proposals for previous years, SCOE proves to have a properly established structures and working environment for implementing quality initiatives in the systems that will improve the performance of the system as per the suggestions of stake holders.

Innovative ideas executed:

- Student counselling to support their holistic growth.
- Distributed management and active participation of faculty.
- Project based learning.
- Quality circle
- Intensive coaching and efforts for slow learner.
- 100% placement assistance for students.

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

The procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement:

1. Development plan of the institute is prepared and the expected outcomes are monitored.
2. Teaching learning activity is given the top priority in the policy decisions making process.

3. Based on the feedback of all stakeholders and outcomes of various activities are discussed in the advisory board meeting for their expert suggestions.
4. Institution ensures that the policies and rules framed in QMS are implemented and revised time to time as per need.
5. Placements are targeted through smooth industry institute interaction.
6. Procurement of best infrastructure facilities are initiated by the management.
7. Student centric environment is the top priority of the institute which is Sustained and developed with cautious efforts from time to time.
8. Implementation of various faculty empowerment schemes.
9. Through the Rand D cell the institution monitors the research activity and suggests policies for encouragement of research work.
10. Institute ensures that the recommendations of all the stake holders are properly implemented.

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

The management is always helpful towards academics and administrative work in the Institution. Management supports the faculty for strengthening teaching–learning process, academic development, entrepreneurship development and Research. Faculty communicates plans for supporting slow learners, establishing various programme for curricular and extracurricular abilities, encouraging enthusiastic learners for professional skill, designing new experimental set up in laboratories, taking up in house R & D projects. A healthy environment is maintained by the higher authorities which gives work satisfaction to faculty.

6.1.6 How does the college groom leadership at various levels?

Senior faculty members are identified and assigned the following duties to help Director/Principal in day to day functioning and maintaining the standards of education and training to students.

Sr. No	Designation	Responsibility		Name of person
01	Principal	Overall		Dr. Manjusha Deshmukh
02	Dean academics	Academic affairs		Dr. Bharti Joshi
03	Dean administration	Administrative affairs		Mr. S. N. Teli
04	Head of Department	E&TC	Department development & FDP's & administrative responsibilities	Mrs. Sheetal Bukkavar
		Computer		Dr. Bharti Joshi
		Mechanical		Dr. Fauzia Siddiqui
		Civil		Mrs. Roshni John
		IT		Mrs. Vaishali Jadhav

		Automobile	Mr. T.Z.Quazi
		F.E	Dr. Seema Lathkar
05	Staff selection Committee	Staff Selection	Dr. Seema Lathkar Mrs. Vaishali Jadhav Dr Bharati Joshi And all HOD's
06	Academic control Committee	Monitoring and Academic control	Dr Bharti Joshi Mrs. Roshni John Mrs. Vaishali Jadhav Mr. T.Z.Quazi Mrs. Deepa Parasar Mr. Sorte M.B. Mrs. Sheetal Bhujade
07	Controller of examination	Examination Processes	Mrs. Deepa Parasar Mrs. Shilpa Kolte
08	Training and placement officer	Placement of Students	Dr. Sanjay Jadhav Mrs.Jayashree Hande
09	Proctor Head	Student counselling	Mrs.Anuradha Dandwate
10	Time table coordinator	Time Table coordination	Mrs.Vijaya Waghmare
11	HR Section	Faculty recruitment and retention & faculty development programs	Mr. Rajashree Tambe
12	Admission head	Monitoring admission procedure	Mr. Manik Pol
13	Registrar	All official documentation	Mr. Amar Shinde
14	R&D Head	Research Activities	Dr. Suhas Sabnis
16	Admin. Officer	Maintenance	Mr. Sampat Kakade
17	Purchase Officer.	Stores	Mr.Devendra Ajgekar
18	Grievance redressal Committee	Student and Faculty Grievance	Mrs. Seema Potdukhe
19	Women Development Cell	Women empowerment	Mrs.Sayali Chaudhari
20	Anti-Ragging Committee	Ragging prevention	Mrs. Richel Gitty

21	Entrepreneur Development Cell	Entrepreneur development	Mr. Pankaj Jadhav
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6.1.7 How does the college delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?

An organized method has been established by institute for work towards decentralized governance system; working of governing body comprises problems conveyed by Local management committee. The Principal of the Institution conducts regular meetings with the staff with prior notification. The Heads of Departments observe the functioning of their respective departments. The participative decision-making ensures total participation of all the faculty of the department. The Registrar is administration head of the institute, supported by office staff. Similarly Principal monitors the academic processes through the head of the departments and academic co-ordinators and teachers. It is observed that decentralization of system improves work effectiveness and smooth functioning of Institute.

The various levels of decentralization get reflected in the organisational chart.(6.1.6) and (6.2.3).

Governing Body:

Sr.No	Name	Post
1	Mr. Prithviraj Deshmukh. (Chairman, SES)	President
2	Mrs. Vrushali P. Deshmukh. (Secretary, SES)	Secretary
3	Wg. Cdr. L. Devarajan (Retd))	GM Admin and HR,SES
4	Mr. Amar Shinde ,	Registrar, SES
5	Dr. Manjusha Deshmukh Principal, SCOE	Principal, SCOE.
6	Dr. Bharti Joshi (Dean, Academics, SCOE)	Dean, Academics, SCOE
7	Mr. S.N. Teli (Dean, Administration, SCOE)	Dean, Administrator, SCOE
8	Mrs. Sheetal Bhujade (Assistant Professor)	Assistant Professor
9	Mr. Vijay Kumar Chopade (Member)	Member, Agriculturist and Businessman
10	Mr. Nitin Mohan Navale (Member)	Member, Agriculturist and Businessman
11	Mr. Manoj Mohan Navale (Member)	Member, Agriculturist and Businessman
12	Dr. S.K. Mahajan (Ex- Office Member)	Ex-Office Member

13	Mr Ramesh Unnikrishnan (Member)	Member
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LMC

Local management committee is listed as below

Sr.No	Name	Post	Contact
1	Mr. Amar Shinde	Chairman	9320299474
2	Dr. Manjusha Deshmukh	Member Secretary	07738677011
3	Dr. Sunil Rangari	Member	9594776192
4	Mrs. Vijaya Waghmare	Member	9869408585
5	Mrs. Vaishali Jadhav	Member	9820163933
6	Mrs. Sonal Gahankari	Member	9869486672
7	Mr. Quazi. T. Z	Member	9860447501
8	Dr. Fauzia Siddiqui	Member	9819695582
9	Mr. Sampat Kakade	Member	9320299476

6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

Yes

The participative management is promoted at various levels in the institute. Departmental meetings are conducted for discussing common issues. The Principal with the Heads of the Departments discusses the needs, problems and suggestions to improve the educational quality and infrastructural improvements to talk to the top management for further action. There are various Cells established to manage different institutional activities. The list of available Cells/committees is as follows:

- Governing body
- Local managing committee
- Academic Control Committee
- Staff selection committee
- Research and Development Cell
- Training , Placement and carrier guidance cell
- Student grievance Cell
- Student Welfare and Grievance Cell
- Examination Cell
- Library Cell
- Internal Quality Assurance Cell (IQAC)
- Entrepreneurship Cell
- Admission Cell
- Women development cell
- Women Grievance cell

- Anti-ragging cell
- Entrepreneurship Network cell
- Industry Institute Interaction cell
- Purchase committee
- NSS unit
- Time table committee

The objectives, Role & Responsibilities are mentioned in Criterion 4. The minutes of meetings are maintained in principal's office and with cell in charges.

6.2 Strategy Development and Deployment

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

Yes,

Quality objectives

Top management ensures that quality objectives, including those needed to meet requirements of service as per the university scheme are established at relevant functions and levels within the institute. The quality objectives are measurable and consistent with the quality policy.

Quality management system planning

Top management ensures that the planning of the quality management system is carried out in order to meet the requirements of ISO 9001:2008, as well as the quality objectives and the integrity of the quality management system. Through the MRM's review of quality improvement is regularly taken and decision on quality driven decision is taken.

6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

Perspective plan: 2011-2020

Changes in engineering education and Placement Scenario:

Road map for 2011-2020

Objective: To nurture strong, healthy, inspired, self-disciplined, physically fit, creative minds with a sense of determination and honesty, capable of facing challenges in evolving knowledge and expertise for the benefit of society.

Steps I:

- Excellent infrastructural facilities.
- Project based learning concept implementation.
- Involvement in national project competitions and symposiums.
- Increased industry interaction and internships.

- Entice high merit students and provide a campus atmosphere for creating highly interested and prosperous engineers
- Inspirational conferences by renowned speakers.
- Interactive teaching methods.
- Interpersonal skill and personality development.

Step II: Healthy results and university toppers:

- 40% Faculty should be PhD qualified by 2020.
- Innovative Faculty Development Program (FDP).
- Recruitment of experienced staff.
- Appreciation and Honors for quality in teaching.
- Focused efforts in teaching and learning.
- Implementation of Modern methods in teaching.
- Best ICT facilities
- State of the art library facilities.

Step III: 100% placements of eligible students & 30% progression for higher studies

- Training students for soft skills, presentation skills.
- Training students for behavioral aspects, motivation and management.
- Guiding on enterprising , establishing Entrepreneur Network Cell,
- Training students in core engineering course and skills with updated technologies
- Trainings on GATE and GRE for aptitude examinations in higher studies.
- Training center for UPSC, MPSC, and other examinations.

Step IV: Brand Name for SCOE

- UGC 2f and 12 B certification by 2017.
- Permanent affiliation by Mumbai University by 2018
- College of potential excellence by 2019
- Good Ranking by standard assessment agencies
- Incubation center by 2018.
- NBA accreditation for all Departments by 2018.
- Instrument student exchange programs with Universities abroad by 2019.

Step V: Increase in research collaborations with Industry & Research programs & funding.

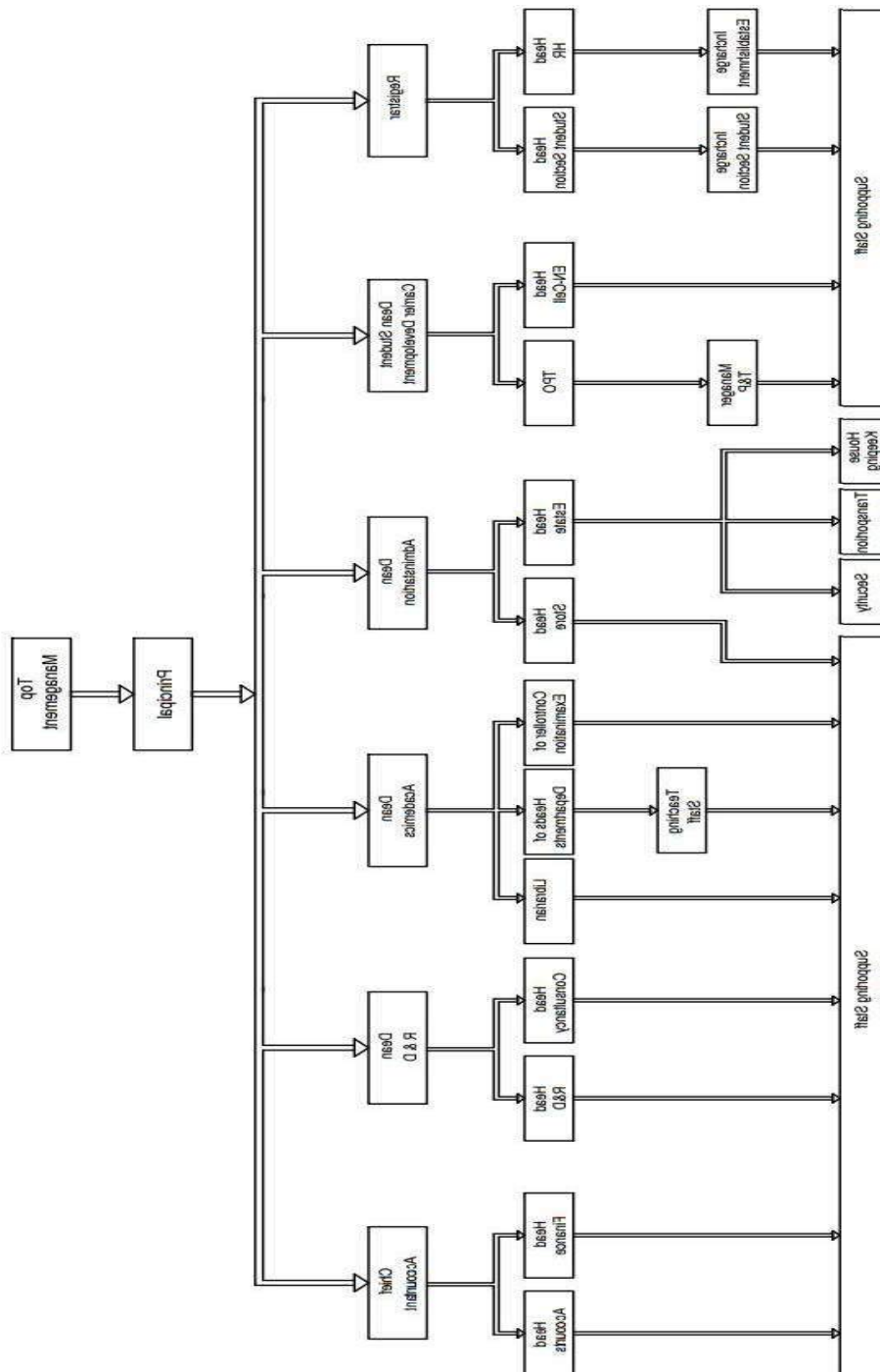
- Inspire lasting, jointly favorable industrial associations (2018:20% Faculty with at least one industry research project).
- Inspire registering patents with proper monetary support (2019: five patents per Dept.).
- Starting Ph.D. Programs in Electronics & Tele communication, Mechanical, Civil & Computer Engineering Branches.

- Acquire AICTE, BCUD BRNS etc. Research grants.
Based on previous experience of alumni feedback, PTM feedback, advisory board feedback, employer feedback and student feedback, Institute has developed perspective plan. Based on perspective plan academic calendar is prepared for semester, which includes various curricular and Co-curricular activities such as expert lectures, seminars, industrial visits, add-on courses, sports activities. Institute follows academic calendar.
Institute has perspective plan for research development. R&D cell has submitted different proposals to Mumbai University, BRNS and AICTE. The plan also includes the provision for the development of infrastructure for research activities and motivating the faculty members towards Research, Consultancy, Patents, etc. Institute has developed Entrepreneur network cell as perspective plan to develop future Entrepreneur.

6.2.3 Describe the internal organizational structure and decision making processes.

The Institute organizational structure is mentioned below

ORGANISATIONAL CHART



6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following

- Teaching & Learning
- Research & Development
- Community engagement
- Human resource management
- Industry interaction

Teaching & Learning

The institute has a teaching learning process with the objective to outline method to plan and prepare for successful teaching and learning and to improve the effectiveness, suitability and adequacy of the implemented teaching learning process through continuous monitoring.

Strategies

- Lectures and practical are planned and conducted for 12 weeks (12 X no. of hours/week in university scheme).
- Faculty plans for later activities like use of audio-visual aids in teaching, expert lectures and industrial visits for making the content qualitative and interesting
- Learning process for the students.
 - a) Faculty prepares lab manuals. Printed lab manuals are made available to students for reference.
 - b) The lectures and practical are monitored through HOD, Academic Coordinator, Class Teachers, ACC committee and Dean Academics. Lecture monitoring format is followed strictly by them.
- Feedback for teaching learning activity by students and according corrective actions.
- Doubt clearing sessions, remedial lectures are arranged by the respective subject coordinator for academically poor and slow students in which students problems are discussed and solved.
- Digital library, e-journals and NEPTEL video lectures are made available.
- Well equipped laboratories, classrooms with adequate facilities are available.
- Trainings, workshops, add-on courses are arranged for students.

Research & Development

- Creating research awareness and research sensitization activities to involve the faculties/students, encouraging faculty for Ph.D. degree and research proposal writing.
- Establishing links with different Industries, R&D organizations, which provide funding for research activities and to have the association and guidance from eminent researchers working on multidisciplinary research.
- Conducting various national level and international level workshops, conferences and guest lectures.

- Establishing centre for excellence in R&D activities and product development .

Community engagement

Institute has several plans for community engagement, which comprises blood donation camp, plantation drives, marathon for different social issues in societies like women safety, student's wellness, go green and NSS activities and Rotaract club activities to devote in social services.

Human resource management

- **Staff selection**

To plan for recruitment of faculty and supporting staff in the college for all branches.

- To inform and give awareness to all employees about the HR policies which include leaves, faculty empowerment schemes, promotion rules etc.
- To arrange faculty and supporting staff training programs w.r.t to the training calendar defined for the year and need justification of the training.

Industry interaction:

- Industry institute interaction cell serves this purpose by arranging Industrial visits, calling industry experts to institute for inspiring students with updated technical knowledge in respective domains.
- The interaction also happens through the HR's meeting in placement sessions, which is grabbed to have opportunity to interact with them and getting their suggestions for strategies to be adopted for improvement.
- The interaction with industry experts also happens in advisory board meetings which help for improvement in overall development of college.

6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?

Head of the institution get the feedback from students, parents, alumni, industry, teachers, students and the public with regards to the quality of teaching, curriculum, co-curricular activities and infrastructural demands and is made available for top management and the stakeholders, to review the activities of the institution.

Institute arrange advisory board meeting on regular basis and collect their suggestions and accordingly prepared the perspective plan for the development of the institute.

The activities discussed are scrutinized and report is generated and circulated. The report of various functional units is sent by the head of the institution to the respective head of the departments for being communicated to the respective stakeholders.

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

Faculty members can discuss their issues with the HOD's and the LMC committee, and provide suggestions for expected changes in processes, which are conveyed to top management in meetings.

After receiving feedback from the stakeholders management implements suggestions through the respective departments, which will further communicated to the staff for improving the effectiveness and efficiency of the institutional processes. The management encourages and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes by:

- Provision of special leaves for higher studies.
- Faculty, members are encouraged for participating in training programs, , workshops, symposiums and refresher programs.
- Involvement of the staff members in decision making.
- Institute also motivates staff members for higher studies, and also gives increments after completion of higher studies.
- Motivating & honoring the staff for their successes in academic and research activities.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

The Management Council has made the following resolutions

- Permanent Affiliation with Mumbai University.
- Accreditation by NACC.
- To encourage students to develop best projects at UG and PG Level.
- Incentives by top management for achievements of faculty in research, significant contribution in teaching and learning as well as development of college. To acknowledge good performance and to motivate all others to perform.
- To encourage retention of faculty with higher qualification like Ph.D
- To ensure the overall quality growth of institution.
- To encourage deserving students for excellent academic performance by awards.

The status of implementation of this resolution is as follows.

- Permanent Affiliation with Mumbai University is in process.
- A Grade Accreditation by NACC is in process. SSR will be soon submitted.
- Eminent resources persons and experts are invited for having interaction with students and it helped students to decide their UG and PG level projects.

- Awards /rewards, appreciation is given to faculties on foundation day of institute.
- Management has taken policy decisions for retain and recruiting senior faculty.
- Measures are taken for retaining the faculty members.

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If ‘yes’, what are the efforts made by the institution in obtaining autonomy?

Yes,

After NAAC accreditation and permanent affiliation we may apply for the autonomy.

6.2.9 How does the Institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyse the nature of grievances for promoting better stakeholder relationship?

Institute has constituted Grievances Redressal Cell for attending the complaints and addressing the grievances for smooth flow of process in the institute.

Grievances Redressal Cell is formed to maintain the healthy working condition among the employees and students. This Cell helps employees and students to register their issues and provide them solutions for problems related to academics, resources and personal grievances. Ragging issues are addressed as per rules of University.

Female harassment issues are solved as per government guidelines by Committee. Committee structure: Three types: Group A, Group B and Group C.

Committee members are of three types. In minor issues Group B Cell members address the problem without involvement of Group A members. In severe problems, HOD's and Principal, Group A members and Group B Members address the grievances. This is also applicable in case of Women harassment; Where Group C members will address the issues. Serious issues are addressed by Group A & Group C Members.

Sr. No	Role	Designation
1	Chairman	Principal Dr. Manjusha Deshmukh
2	Group A Core Members (Chairman and HOD of all Departments, registrar)	Dr. Bharti Joshi, Prof Vaishali Jadhav, Prof. Quazi T. N. ,Prof. Mandeep Kaur, Prof. Roshani John, Prof S. N. Teli, Prof. S. v. Lathkar, Mr. Amar Shinde

3	Group B Members Sr. Faculty from each Dept.:- [Anti ragging & General Grievances]	Monali Deshmukh, Shilpa Kolte , Sagar Khatavkar, Bhumi Patil, Shanti Selvan, Madan Jagtap, Ram Bhise,
4	Group C Members 1 Sr. woman faculty from each dept. :- [Woman anti-harassment]	Anuradha Dandawate, Rajashree Narwade, Shilpa Kewate, Mitali Mhatre, Sindhu Tayade.
5	Member Secretary (Sr. faculty member :)	Mrs. Seema Potdukhe.

6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?

No

6.2.11 Does the Institution have a mechanism for analysing student feedback on institutional performance? If ‘yes’ what was the outcome and response of the institution to such an effort?

Yes, For analysing student feedback the Institution have a mechanism on institutional performance in following ways.

- Student’s feedback for teaching activity.
- Parent’s feed back
- Alumni feedback
- Employer’s feedback
- Exit feedback
- Alumni feedback

Following is the procedure for feedback:

- To ensure the quality of teaching and learning process in the class and labs, feedback from students is taken by the HOD or academic coordinator and documented in requisite format.
- Feedback for theory teaching is taken online & with similar format soft & hard copies are complied, twice a semester.
- In the mid Semester feedback given by the students is scrutinized by department, according corrective measures are initiated by academic dean and Principal.
- Along with the feedback of theory & practical feedback of other facilities is also taken once every semester. The facilities include student section, conveyance, water facility, Canteen, washrooms, library etc.

- This feedback is taken hard copy & averages are calculated for information to respective agencies & documented properly for improvement in services.
- Analysis of student feedback is done by the committee members and the faculty gaining the points above four is appreciated. Faculty below three is counseled by Academic Dean and Principal. Hurdles or problems are understood & people are guided for improvement. All this process is documented for future reference.
- Requisite trainings are arranged by the academic committee members for the faculty's improvement in feedback about teaching theory and Practical
- Progress of student is conveyed to their parents through Parents Teacher Meetings which are arranged once in a semester. Feedback about the teaching and learning process in the institute is taken from parent and analyzed department wise with Principal.
- Further in the meeting of the Academic Committee suggestions of parents are focused in specific way so the process of teaching and learning with other facilities provided for students can be improved.
- Feedback is also taken from Industry Experts & University experts and recorded for the further reference.
- Alumni meets are conducted every year and feedback from them is also taken which is recorded, analyzed and referred for improvement.
- Suggestion boxes are put up on every floor & department where students can freely give their suggestions for improvement in services & teaching learning.
- The appropriate suggestions received in the suggestion boxes are reviewed by Principal & HOD's together in fortnight.
- All suggestions are documented for discussion in meeting & also document for corrective actions taken. A separate file is maintained for all suggestions & preserved in principal office. The formats for few feedbacks are given below.
- Student feedback form for teachers and facilities:

CLASS/SEM:						
Sr. No.	Details about theory lectures	Sub 1	Sub 2	Sub 3	Sub 4	Sub 5
		Faculty	Faculty	Faculty	Faculty	Faculty
1	Understanding content delivery of lecture					
2	Communication skills / presentation ability of teacher					
3	Are the lectures lively, interactive &					

	interesting?					
4	Efforts put in by teacher to give additional information					
5	Appreciation and motivation by teacher to solve the difficulties					
Library						
Sr. No.	Details about theory lectures	Marks				
		(1-5)				
a	Availability of books set/ issue					
b	Adequate seating arrangement					
c	Digital Library/National internal journal					
d	Other reading facility					
Other facilities						
Sr. No.	Details about theory lectures	Marks				
		(1-5)				
1	Conveyance					
2	Girls room/Boy's room					
3	Lift Facility					
4	Classrooms					
5	Gymkhana					
6	Student activities(sports/cultural/technical)					
7	Canteen					
8	Drinking water facility					
9	Internet facility					
10	Student section services					
11	Account section services					

Feedback form for employers of students:

Name of the

Company_____

Name of the Company

Representative_____

Designation_____

Contact

Number _____

Email-id _____

Did our students meet your expectations?

What professional development you would suggest for the next year students

Overall hospitality experience in the campus drive

Suggestions/improvement if any:

6.3 Faculty Empowerment Strategies

6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non-teaching staff?

After reviewing the feedback of different stakeholders, Institute identifies the training needs and the efforts are taken for enhancing professional development of teaching and non-teaching staff in following ways:

- Motivating faculty members to participate in different Faculty development program.(2.4.3)
- Motivating and sponsoring faculty to pursue higher studies.
- Encouraging staff to deliver guest lectures and develop interaction with other institutions.
- Provides opportunity to become part of various professional societies and become member of at least one professional society.
- Industrial training to the staff members.
- Encouraging faculty to involve in research activities for higher studies. Honors and appreciations and incentives for research.
- Financial assistance to attend various national and international conferences.
- Financial assistance to faculty for publications and providing all library recourses like, e-journals, digital library.
- Sanctioning leave for higher studies and leave for examinations.
- Implementation of various faculty empowerment schemes like EPF, Gratuity, etc.

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

For Faculty empowerment institute encourages the faculty with benefits like gratuity, PF and incentives. Institute encourages the faculty members to undergo

technical training, paper presentation in research symposiums, attending seminars, workshops, refresher courses. Departments of the institute has quality improvement program. After the recruitment of the faculty, they are given orientation programme about the policies and procedures prevailing in the institution. Institute has self-appraisal and performance appraisal system for accessing the progress and performance of teachers, this mechanism decides the incentives to given to faculty members, in which the principal and HOD evaluate the performance of teacher. HOD's counsel faculty members for improvement.(2.4.3)

6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

- Appraisal process for Performance is evaluated on the basis of various parameters. (API)
- It consists of staff evaluation based on student feedback for the faculty, course result of the semester, training programs organized and attended, research publications, books or monographs published research projects and grants fetched etc.
- Evaluation of Performance for supporting staff is done by dean administration and Registrar and respective heads of department

Evaluation of teaching staff based on different criterion:

Evaluation of teaching staff based on different criterion:

1. Subjects Taught and quality in syllabus completion
2. Student Feedback & HOD feedback
3. Other responsibility of Department/college level
4. Research Paper Publications
5. Research funding received
6. Book/ monograph publication
7. Training programs, workshops attended /organized
8. Project guidance,
9. Consultancy work
10. Examination work, etc.

Evaluation of Non-teaching staff:

1. Punctuality
2. Hardworking nature
3. Skills acquired
4. Attitude and behavior
5. Other Responsibility at college level

6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

Critical evaluation of the faculty performance is done by HOD and Principal in prescribed format. The appraisal form is discussed in management meeting. The result of the discussions on performance appraisal can be seen in the yearly increment, incentives and the promotion of the faculty. They are communicated to faculty and staff through annual increment order and promotion orders.

6.3.5 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

(6.3.1)

- Urgent provision of financial help to staff in case of medical emergency.
- Provision of maternity leave to female faculty members and non teaching ladies staff.
- Provision of uniforms to attendants.
- Faculty is provided financial assistance and on duty leave for publishing the technical papers in National/International reputed Journals & conferences.
- E P F – Paid as per P F Act to all the employees.
- Gratuity – Paid as per Gratuity Act.
- Group insurance policy for teaching and nonteaching staff

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

Institute always maintains healthy teaching learning atmosphere which is mainly responsible for attracting and retaining eminent faculty. Institute gives the honor and respect to the faculty. Institute provides academic individuality to the teaching faculty. Institute gives flexibility for selecting resources for carrying out academic work in department. Management is very participative, gives opportunities to the faculties to take part in decision making. Institute offer various awards like best teacher, star performance of the year. Few measures like Participative academic environment, freedom to faculty in the teaching learning processes play important role in the policy of attracting eminent faculty.

Appointment of well qualified and experienced faculty for best teaching activities is tried and institute delegate's important responsibilities to the senior and experienced faculty. HR also has policy of incentives to research oriented faculty.

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

- Principal takes a meeting with all HODs and In charges and discusses about change of syllabus, new lab setups if any, maintenance or modification of existing equipment, research and development projects and provisions, need of furniture and fixtures for academic year, Organization of Conference, training Programs, Fresher’s Party, Alumni Meet, PTM and student project competitions.
- Requirements are finalized and submitted by HOD to Dean Administration to Principal in requisition forms.
- Budgetary documents are finalized by HOD and submitted to Principal.
- The summary of budget and requirement is submitted by Principal to top Management for approval and procurement of equipment and the need reaches to the store.
- Purchase committee and stores department further proceeds as per procedures for purchase of equipment, furniture and fixture.

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

External financial Audit is conducted as per guidelines of institute of Chartered Accountant of India, and all accounting principles are followed of ICAI guidelines.

Last Audit was conducted on 3rd August 2015. There is no audit objection till date.

6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.

The major and only sources of institutional receipts/funding is the fees of students, the college proposes the annual budget based on the admissions filled in for that academic year and as per requirements. It is thoroughly reviewed (previous academic year budget also), modifications are suggested and finally the budget is approved. The approved budget is utilized as per the schedule.

Year	Total Income				Actual expenditure (till...)			Total No. of Students
	Fee (in Lacs)	Govt.	Grants	Other Sources	Recurring including salaries	Non-recurring)	Special projects /Any other,	Expenditure per student In Thousand
2014-15	2206.77	0	0	9.43	1971.28	63.00	0.00	76000.00

Items	Budget in FY 2015-16	Budget in FY 2014-15	Actual expenses in FY 2014-15	Budget in FY 2013-14	Actual expenses in FY 2013-14	Budget in FY 2012-13	Actual expenses in FY 2012-13	
2013-14	1981.51	0	0	10.27	1804.38	57.00	0.00	73000.00
2012-13	1575.71	0	0	0.56	1440.67	31.00	0.00	70000.00
Infrastructure built – up	18.90	18.00	17.18	40.00	31.52	0.00	12.07	
Library (books)	4.21	4.00	3.83	2.00	1.29	1.00	0.80	
Laboratory equipment	46.37	50.00	42.15	25.00	24.04	20.00	17.93	
Laboratory Consumables	49.56	49.56	18.25	20.00	16.69	18.00	18.93	
Staff Salary	1426.21	1426.21	1394.90	1300.50	1237.46	855.00	855.00	
Maintenance	78.17	78.17	46.86	50.00	45.51	20.00	29.14	
R&D	32.10	20.10	28.70	2.00	12.00	0.00	10.00	
Training and Travel	73.28	73.28	41.97	15.00	17.07	5.00	7.95	
Miscellaneous expenses	0.0	0.0	0.00	0.00	0.00	0.00	0.00	
Others, specify	530.64	518.75	487.44	500.10	475.65	350.00	371.34	
Total	2259.49	2238.083	2081.28	1954.6	1861.23	1269	1323.16	

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

For securing additional funding and utilization faculty are encouraged to apply with research proposals to financial agencies such as AICTE, university, BRNS and UGC to get financial sanctions. Research proposals are prepared and sent to different research agencies for receiving grants. The details of few grants received by the college are mentioned in Criteria 3.

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)

- Has the institution established an Internal Quality Assurance Cell

(IQAC)? .6 If ‘yes’, what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?

Yes. The Institute has established recently the Internal Quality Assurance Cell (IQAC) on 17/07/2015 with the following composition.

IQAC for Saraswati College of Engineering is as follows:

Particulars of the post	Name of the Member
Chairperson (Head of the Institution)	Dr. Manjusha Deshmukh
Senior administrative officers	Dean Academics, Dr. Bharati Joshi, Dean Administration Mr. S.N. Teli, Registrar Mr. Amar Shinde.
Teacher Coordinators	Mrs. Sheetal Bhujade, Mr. U. W. Mate Mrs Shilpa Kewate, Mrs. Vijaya Waghmare, Mr.P.D.Ingle, Mr. Madan Jagtap, Mrs. Anuradha Dandawate
Member from the Management	Wing Commander L. Devrajan(Retd.)
Nominees from Alumni	Mr. Rohan Amre, Mr. Mithil Mane (Students), (Local society)
Nominees from Student Council Member	(G.S.) Mr. Rikesh Salin
Nominees from Employers Industrialists/stakeholders	Mr. Suresh P. – HR (Protegrity), Mr. Himanshu Patel HR (Paramatrix), Reema Halder – HR (Mindcraft)
Coordinator/Director of the IQAC (Steering Committee Head)	Dr. S.V. Lathkar
Parent Representative	Mr. Vijay Patil

- **Functions of IQAC: (2.3.2)**
- **How many decisions of the IQAC have been approved by the management / authorities for implementation and how many of them were actually implemented?**
All the decisions of the IQAC were approved by management for implementation and were actually implemented.
- **Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.**
Yes the IQAC have following external members on its committee,
Mr. Suresh P. –HR (Protegrity)
Mr. Himanshu Patel –HR (Protegritix)

Reena Halder – HR (Mind craft), parent representative Mr. Vijay Patil, and alumni students

Above IQAC members are employers for pass out students and also they provide valuable feedback for training placement and designing of Add-on courses for students.

- **How do students and alumni contribute to the effective functioning of the IQAC?**

The feedback obtained from students and alumni are helpful for arranging various training program such as mock training, aptitude test, internship programs.

Some of the students of the institute are entrepreneur they provide employment in their own concern.

Involvement of alumni in guiding the current students for requirements of industries and knowledge base required.

- **How does the IQAC communicate and engage staff from different constituents of the institution?**

IQAC consists of staff from different constituents of the institution such as Chairperson, Director of the IQAC, Senior administrative officers Teacher, Member from the Management, Nominees from Alumni, Nominees from Student, Nominees from Employers Industrialists/stakeholders, Parent Representative. Meetings are arranged with all these members and agenda is communicated to all.

Meeting -I

Agenda:-

- Structure of IQAC
- Appointments/Nomination of members for IQAC
- Communicating to the IQAC members
- Steps for energy conservation in institution
- Finalizing the date & agenda for next IQAC meeting.

IQAC Minutes of The Meeting 26/11/2015

- Meeting started at 9.30 a.m.
- Introduction of member by Dr. Seema Lathkar Madam.
- Principal Madam placed the agenda of meeting.
- Mr. Md. Sahanawaz explained the process of student selection ratio, selection criteria of students for short listing. He explained how student's favourite subjects & project area are inline. Whether their project is guide by any expert .Technical journal based & should be object oriented. Whether online journal based & should be object oriented. Whether online journals are referred & are papers been published in journals.
- Mr. Teli discussed the way of developing skills among students.

- Making lab enjoyable, student should enjoy their labs. Students should be allowed to use their own laptops. Explained Mr. Md. Sahanawaz.
- Experiments should be explained by each student. Ask them to think on live problems.
- Mr. Jadhav asked how to cope up with new experiments with the university syllabus.
- Mr. Teli discussed need to train the students with the help of industrial peoples.
- How to change the attitude of the students towards advanced courses all the points raised by all members in the meeting.
- Application oriented learning would be one of the possible way to attract students & make them think.
- Emphasis of all members was to converge the students towards goal of students.
- Members were worried about the distraction of students from their academics & about the stress to be handled by students.
- Principal Madam discussed the need to conduct 'Open book test' for students to raise their level. It would be a challenge to the staff members also was Mr. Md. Sahanawaz view.
- Confidence within students should be gained within the students by exploring their Practicals in their labs.
- Mr. Vijay Patil appreciated the efforts taken by principal madam & staff members by counselling the students & said students do benefit from these activities.
- Mrs. Deepti Ashar proposed to make a Incubation centre in the college premises.
- Mr. R. Amre explained that at IIT B they are more application based compared to ours is a more learning based. He said that the assignments should be more interesting & learning the application of the fundamental knowledge they learnt.
- Mr. R. Amre asked to have a separate lecture on how to read a research paper & ask students to read on research paper & give presentation on it which will develop a research attitude.
- All members emphasized on building the attitude of students from first year itself.
- Mr. Gaurav explained present students' attitude of learning of projects right from second year instead of directly in final years.
- Mr. Gaurav explained the need to learn theory & practical to go hand in hand for better understanding the concept.
- Mr. Rohan Amre suggested making M.E. students to take help /assistance from the UG students so that he can get hands on experience for UG students.

- Faculties' interpersonal relations with the IIT. B staff members should be increased to make know our institute by other higher institutes.
Mrs Deepti Ashwar emphasis need on G.D. & Interpersonal skills for students & functionality

6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalization.

On regular basis internal audit is carried out by the departmental co-ordinator drawn from all the departments and convey the same to IQAC.

The IQAC established different sub committees in which most of the staff members are involved in communicating and executing the decisions of IQAC. The decisions of IQAC are widely communicated to staff members through circulars / notices.

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.

Yes: staff members are encouraged to attend various training programme related to quality assurance procedures and standards, in ISO 9001-2008 understanding and implementation training, and training for conduction of internal audits, which enable them to conduct internal audit practically. Soon institute plans to offer training to faculty and staff on ISO 9001 -2015 up-gradation. Institute had also arranged training on accreditation process by NAAC. College has also planned for training the faculty on the aspects of NBA accreditation.

6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?

Yes, under QMS quarterly audits are conducted, on the following basis

- Academic Diary
- Course file
- Academic calendar
- Internal assessment Mark sheet
- Quality Circle
- Slow learners
- Remedial lectures
- Add-on course, guest lectures, seminars
- Defaulter list
- Internship Data

- Result analysis
- Co-curricular and extracurricular activities
- All administrative procedures
- Library records and Training and placement cell for upkeep of the data
- Admission unit for various procedures. Etc.

Based on the report of internal academic audit, the courses of actions /measures being followed are reviewed and suitable remedial measures are taken for improvement.

6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

The institute has constituted Quality Management System ISO 9001:2008, in lines with the suggestions of the regulatory authorities.

Institutes has designed the quality manual and process manual in which all processes like academic ,admin ,exam ,HR, library, student section, TPO are defined in line with regulatory bodies.

6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

- Academic control committee SCOE works under guidance of principal and Dean Academics.
- Academic control committee regularly observes and monitor teaching process in theory and practical hours.
- Academic control committee also observes the strict follow up of time tables implemented in regular departments.
- Academic control committee reports about the lacunas and positive points in their format of monitoring and observation to Dean academic and suggests for changes if any.
- Examination processes of evaluation are also quite nicely been defined and analysis of results is done in every examination and analysis of achievement of objectives are verified and documented very properly with corrective and preventive actions as per need.

ISO procedures are strictly followed to continuously review the teaching learning process of its structure, methodologies of operations and outcome.

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

Any other relevant information regarding Governance Leadership and Management which the college would like to include.

Institute communicates its quality assurance policies, mechanisms and outcomes through the following mediums through:

- Brochures, Website: www.sce.edu.in ,PTM, Project Reports, Displays ,Prospectus, Student files ,Manuals ,Academic diaries, Presentations in PTM's
- Quality policy, quality objectives, Mission and Vision statements are exhibited at all important places in the college. College is ISO 9001:2008 certified educational Institute.

Criteria VII: Innovations and Best Practices

7.1 Environment Consciousness

7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

Green Audit is about organisation responsibility. Scientific research and statistical analysis conducted by Green Audit gives idea about the health effects of environmental pollution.

Yes. The institution has conducted Green Audit of its campus.. The institution covers the following in connection with Green Audit:

- Carbon neutrality.
- Implementation of Go green concept.
- Consumption of electricity in the campus and its optimum utilization.
- Sustainability principles, practices and Environmental Studies are part of curriculum.
- The NSS team and Rotaract club of students takes care of maintaining clean and green environment in the college campus.
- PUC facility for vehicles is provided by Automobile Department in the college campus.

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

*Energy conservation, * Use of renewable energy, * Water harvesting, * Check dam construction, *Efforts for Carbon neutrality, *Plantation,*Hazardous waste management * e-waste management

A. Energy conservation

Energy audit is conducted for saving of electrical power.

- Desktops have been bought with LCD screen to save on energy.
- The classrooms are well ventilated and naturally illuminated, so artificial means are not required, which saves energy.
- Displays for switching off the light and fans when not in use are put up everywhere in the campus as a part of save energy campaign.
- “Save energy campaign” is conducted to create awareness among the students and society through NSS, student council, and other student chapters.
- Separate switches are provided to cut off the power completely when that unit is not in use.
- We encourage the students to use college transport system for conveyance resulting in reduced use of personal vehicles and waste of fuel.
- We motivate faculty to use carpools as per their convenience for optimal use vehicles and avoid pollution.
- Full turn taps are used in washrooms for optimal use of water.
- “Save fuel save mother earth” cycle rally is organised by students of SCOE.

B. Water harvesting

- Roof top rain water harvesting method is adopted and collected water is used for garden irrigation.
The tress and lawns are planned to be maintained with water drips and sprinklers respectively.
- Reprocess of waste water for gardening.
- Markers are installed at roof top water tanks to avoid overflows.
- This year NSS volunteers are involved in Special Camp where they constructed Kolhapuri Bandhara near village at Panvel.
- Faculty and students consider themselves responsible factors for saving water and make communities aware that they are responsible for climate change and resulting in scarcity of water supplies.
- We also contributed in Sakall (Leading news- paper in Maharashtra) group's initiative Sarv-Jal-Abhiyanl taking oath of minimum use of water and guidance to citizens.



Water Harvesting

C. Plantation

List of trees planted in the campus surroundings:

- *Syzygium cumini* – (Jamun)
- *Phoenix Dactylifera* – (Palm)
- *Cocos nusifera* – (Coconut)
- *Psidium guajava* – (Guava)
- *Manikara Zapota*– (Chickoo)
- *Magnifera indica*– (Mango)
- *Punica granatum*– (Pomegranate)
- *Annona reticulate*– (Custard apple)
- *Areca Catechu* – (Supari)
- *Artocarpus heterophyllus* – (Jackfruit)
- *Prunus Dulcis* – (Almond)
- *Anacardium occidentale* – (Cashew nut)
- *Ficus carica* – (Anjir)

- Azadirachta indica – (Neem)
- Saraca asoca – (Ashoka)
- NSS students and Rotract club take active participation in tree plantation every year.
- On every foundation day, Institute organizes tree plantation program. This year on first July, 1000 trees were planted by faculty and students on “Vruksharopan Din”
- College building is on the hill slope with lush green surrounding, students take care of their conservation by protecting it from cutting and wild fires.



Tree Plantation

D. Check Dam Construction:



Kolhapuri Bandhara near village at Panvel

E. Efforts for Carbon neutrality:

Specific parking area is allotted for vehicles of faculty and students. The institute has restricted the usage of plastic bags in the campus. In-house PUC centre is established for frequent check of Carbon Emission from vehicles and to create awareness among faculty, supporting staff and students. An awareness program was organized on Clean Energy Drive with the co-operation of NPCL, BARC, and DAE. All important papers are disposed by process of shredding, and sent for recycling. Little reduction in use of papers is achieved by using intranet, whats app groups for faster communication. We encourage the students to use college transport system for conveyance resulting in reduced use of personal vehicles and waste of fuel. We motivate faculty to use carpools as per their convenience for optimal use of vehicles and avoid pollution. The Reprographic section, canteen and stores are available inside the campus so the time, fuel of faculty and students is saved.

F. Hazardous waste management

- First Year practical does not create dangerous waste, as much diluted solutions are used for practical.
- After cleaning the campus, the agency segregates the waste and disposes accordingly.

G. e - Waste management

- Useful parts of electronic devices like diodes, transistors, etc are taken out from the devices for reutilization.
- E-waste like electronic items are picked from entire office, and given for proper waste management through authorized vendors.
- Old version CRO, kits, etc. are used for demo models in labs.

H. Use of Renewable Energy:

As a future plan Institute has decided to use solar energy to illuminate parking area and street.



Sewage plant

7.2. Innovations

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

Innovations introduced during the last four years which have created a positive impact on the functioning of the college are listed below:

- **Academic Control Committee:** Academic control committee of SCOE works under guidance of principal and Dean Academics. The committee regularly observes and monitors teaching process in theory and practical hours. The committee also observes the strict follow up of time table implemented in all departments and reports about the lacunas, positive points through monitoring and conveys observations to Dean academic and suggests for changes if any.
- **Quality circle:** Quality circle is an innovative concept of Saraswati college of Engineering for quality improvement of teaching learning process. Every department has quality circle implemented by forming the clusters of faculty belonging to same thrust area. People in every group meet minimum thrice in semester to discuss different aspects of teaching learning process, like Syllabus planning , internal assessment policies, generating good teaching resources, collecting enriched video's and audio's and PPT's. The quality circle also aims at publishing research papers and notes, monographs, books as a group activity. The latest trends in education are discussed and implemented for quality teaching. The gap analysis of Po's and PEO's are discussed and add on courses are decided in the meetings. The quality circle also serves for improvement in teaching methods for fresh faculty through the guidance of senior faculty members.
- **Quality improvement program (QIP):** Every department conducts QIP program for faculty development. This program is arranged for confidence improvement, language improvement, and vocabulary and presentation skills of faculty members. Through QIP, all faculties get updated with the latest trends in different technology fields.
- **Slow learner:** Identification of slow learners is done in every semester by all departments using written/oral examination and based on the individual need, counselling is done. Extra lectures are conducted to bring them into main stream.
- **Remedial Classes:** Remedial lectures are conducted for failure students of FE, SE, TE, and BE. These classes help them in improving the passing percentage. The students are counselled for removing the exam phobia. They are guided for solving previous examination papers to develop the examination writing skills.
- **Project-based learning:** This concept is innovatively applied for SE, TE, and BE students. Students get practical exposure and they learn to apply the fundamentals learned in the theory classes for solving problems in the field. Students prepare projects with a comprehensible concept of the principles learned. The teacher guides the students at different stages of the project. Special space is provided for students for experimenting and doing the trials and errors. The

“Supra and Baja” projects are ongoing activities which are live examples of the active labs.

- **Innovative techniques in Assessment:** Online assessment of university examination is one of the innovative concepts been implemented by college. Teacher’s diary is maintained by individual faculty where academic assessment data of students under different heads are maintained and analysed which is used for the next academic session to take preventive measures for the improvement of result and overall academics.

- **Innovation in Infrastructural development:** Well-equipped auditorium, well equipped seminar halls, computer labs, separate R&D labs for researchers are available.

- **Add on course:** Special training program are organized in each semester by performing the gap analysis of syllabus. Experts from various institutes and industries deliver the lectures in the program. Effectiveness test is also conducted for evaluation of student’s knowledge and to induce the employability skills.

- **Internship for students:**

The aim of this practice is to pass practical experience on upcoming technologies to the students. The students should be strong in academics with excellent industrial exposure. They are encouraged to update their knowledge with latest developments in their own disciplines and related subjects. Students are motivated for attending Internship program. They work with reputed industries, institutes for minimum 15 to 30 days. Students submit report on their internship work, thus sharing their industrial experience with others.

- **Intensive coaching for students:**

The aim of this practice is to provide strong theoretical foundation to students for all subjects specified in curriculum. The institute strictly follows two- three weeks intensive coaching every semester. Separate timetable for the same is prepared and is followed by each department. During this, fundamentals of the subject and basic knowledge necessary for practical of different subjects are imparted to students.

- **Proctor system:**

For every 15-20 students, one teacher is allocated as a proctor. Proctor in charge conducts meeting with students and counsels them. Individual attention is paid to slow learner students in the classroom to improve their result. Proctors conduct doubt clearing interactive sessions to mentor them.

- **Student Seminars:**

To inculcate the habit of wide reading and to improve student’s communication and presentation skills, students are encouraged to give seminars in front of faculty and other students.

- **Continuous assessment:**

Timely evaluation of assignments, experiments and internal assessment is strictly followed to improve the consistency in student efforts and proper evaluation of students in terms of marks.

- **Plastic free campus:**

Plastic free campus drive is a mission for every stake holder of the institute, and it is a small attempt to become a part of “save earth” campaign. Through this mission awareness is created among the students to avoid use of hazardous plastic in the daily life. Faculty and students are banned to use non-recyclable plastic items. The hazardous plastic items are cautiously disposed so that it should not harm nature. Use of plastic cups and water glasses is completely banned.

- **Encouragement for Higher Studies:**

To encourage students of UG, PG and Faculties for higher studies and research various seminars, workshops, National and International conferences are conducted.

- **Entrepreneur and Development Cell:**

Seminars, workshops are conducted to motivate students to become entrepreneur.

- **Optimum use of technology:**

By optimum use of technology, paper work has been reduced. Notices are conveyed through emails and SMS to the stakeholders. SMS and e-mails regarding defaulters are sent to parents instead of letter. Results are uploaded on college website. Online Feedback system and online aptitude test system is utilized for students comfort.

- **Made in Saraswati:**

Live projects are given to students to improve skills of students in workshop laboratory. Students prepare stools, racks, dustbins and other such utility items in workshop laboratory.

7.3 Best Practices

7.3.1 Elaborate on any two best practices which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the college.

- **Best Practices – I**

1. **Title of the Practice**

- The Gurukul – A unique teaching learning activity.

2. **Objectives:**

- To Plan and prepare for syllabus content and lessons.
- To know the students and respect diverse talents and ways of learning.
- To emphasize time on task and encourage interaction between students and faculty.
- To use interactive learning techniques and to achieve the learning outcomes in terms of skills, results and employability

- To communicate expectations and to make students aware about the practices of scientific research and to motivate their professional skills.
- To achieve and sustain student satisfaction.

3. The context

Knowing that teaching is a complex process, and that students and class situations differ significantly; a structure for the important elements of effective teaching is listed out.

Identification of key elements which form the basics of skills and knowledge is done for effective teaching. The core points are 2) Faculties know the subjects content and its effective delivery 3) Faculties are responsible for managing and monitoring student learning. Providing a student-centric class is an important feature of effective teaching.

Successful teaching and learning activity plays a significant role in the success of the institute. For the same we need to focus on following points.

- Analyzing the expected attributes in the students after completion of their education to meet the expectations of all stakeholders.
- Deciding the learning objectives and outcomes for the organization and its disciplines.
- Analysis of the success of teaching learning activity in the expected outcome and deciding on thought process and unique pathways to success.
- Deciding on the strategies to be adopted for continual progress and achievement of targets.
- Planning for curriculum, course objectives, outcomes and methodology to be implemented.
- Academic planning, content delivery, course files, notes, evaluation are the steps followed.
- Monitoring, evaluation and feedback from stakeholders are back bone to serve the purpose of review the success of process in between.
- Deciding on gap analysis and requisite add on trainings needed for more practical exposure to students.
- Implementation of professional trainings and internships required for holistic development of students.

4. The Practice

- **Planning and preparation:**

1. The program objectives and outcomes are designed. Along with the same the course objectives and outcomes are defined. The achievement of course outcomes intends to achievements of program outcomes. 2. Strategies and activities are decided to achieve the targets for success in terms of student results and skills to be induced .3. Academic calendar and activities are planned to define the time frame.4. Subject distribution is done w.r.t. the subject choice and expertise available in the faculty.5. Notes, subject wise course file including notes from reference books, text books are prepared by faculty. 6. Assignments and question

banks are prepared so as to support the evaluation activity.7. The institution follows the academic calendar which is released before commencement of the semesters. As per the QMS, the objectives are defined for good academic success, Faculties prepare lecture plans .8.The observation of the lectures is done by regular monitoring through HOD, Academic Coordinator, Class Teachers, Academic Coordinating committee and Dean Academics. Lecture monitoring format is followed strictly by them.9. After 40% completion of syllabus First test is conducted and after 70% completion of syllabus the second test is conducted. Paper setting is done as per norms of Mumbai University. Average of two tests are taken and awarded to students for final exam score.10. Continuous assessment of practical is also done by using academic diary. Scores and their average with respect to performance of students are awarded for final exam score. Attempt to cover complete syllabus by effective teaching and learning system has outcome in better results.

- **Diversification of students**

1. The students are classified as slow learners and advance learners by proper observation or by conducting a test.
2. This helps faculties to decide their strategy for personal attention to be provided to slow learners and advanced learners.
3. After college hours extra attention is provided to slow learners by individual teachers.
4. Procter system helps for increasing the interaction in faculty and students for positive changes in performance of students.
5. The institute conducts extra classes for late admitted first year and direct second year diploma students to bring them up to the regular student's academic classes.
6. Remedial lectures are arranged for failure students and academically weak students.

- **Time tasks and interactive learning**

1. Syllabus completion is taken on to task with proper justification to content within the time frame already defined.
2. Content enrichment is given to its top priority as it is related to understanding of students.
3. Interactive methods are used to make learning comfortable and interesting for students. Methods like PPT, NPTEL videos, role plays, demonstrations, models, and questioners are used for involving students into the studies.
4. Seminars, group discussions are also used in that methods.
5. Teachers are trained for modern techniques to be used in teaching.
6. FDP's are arranged to upgrade knowledge of teachers in their areas.
7. Faculty members are encouraged to do active research, so that their teaching in classroom becomes more evident and full of recent know how's of the subject and more rich in experience and content. Students definitely get benefitted due to this.

- **Skill improvement and practical knowledge**

1. Practical in all subjects is paid more attention. Students need to perform practical on their own under the guidance of teachers.
2. Extra practical are added and performed in the lab for more practical orientation and to justify content beyond syllabus.
3. Mini projects are allowed to SE and TE students so as to give them more practical exposure and interest in subjects.
4. Problem based concept is

also applied to learn few subjects. 5. Internships are made compulsory to all TE students for adequate industrial exposure.6. Project competition at national level is organized every year to provide platform to students to have more practical orientation in their learning. 7. Labs are made available to students who want to perform some special tasks and projects.8. Workshop is made available to mechanical and automobile engineering students to work on projects which are participating in national and international level competitions. 9. Students are encouraged and guided to participate in conferences and present their research work under the guidance of teachers. 10. Few students are also encouraged and guided for registering their research work as patents. 11. To make the students learning more perfect and enjoyable, institute calls industry experts to interact with students in seminars and guest lectures.12.Workshops are arranged on recent technologies for practical understanding of students. 13. Add on courses act as cherry on the top as, student can learn from it what is not available in the syllabus but much needed by industries.

- **Monitoring and evaluation:**

1 .Academic control committee ensures the regularity of lectures and practical in the institute.

They also find and notice problems if any and report it to higher authority and issues are resolved. 2. HoD's ensure the consistency of all lectures and practical and also ensure the quality of delivery in classroom and labs by ensuring all infrastructure facilities, proper implementation of timetable, ICT facilities to be used, adequacy of all facilities .HoD also ensures the quality in the classroom activity by properly guiding the faculty about their responsibility to ensure the integrity of content and skillful way of interaction and efficient methods of teaching. 3. Evaluations for the understanding of students are carried as per university guidelines and as per institute's guidelines for special initiatives. These assessment records are documented and analysed. It is also conveyed to students and parents. 4. The progress of students is discussed with the parents in PTM. 5. The failures are called separately and counselled by faculty. They are separately guided for avoiding the failures in future.

- **Other facilities and activities to support teaching and learning**

1. Teaching learning is well supported by state of art equipment and infrastructural learning facilities like Central Computing Facility with Internet connectivity, Classrooms, LCD projectors,, Over Head Projector, Wi-Fi, Library, department student chapters, Language lab, separate department library etc. 2. Regular conduction of Industrial visits to get industrial exposure for the students. 3. Departmental students association conducts Group Discussions, debate, Extempore, aptitude tests and technical quiz contest for students 'personality development, confidence building and positive attitude.4. Soft skill training is provided to groom the students in positive aspect of communication. 5. Aptitude trainings are provided to students to improve their employability skills. 6. Other

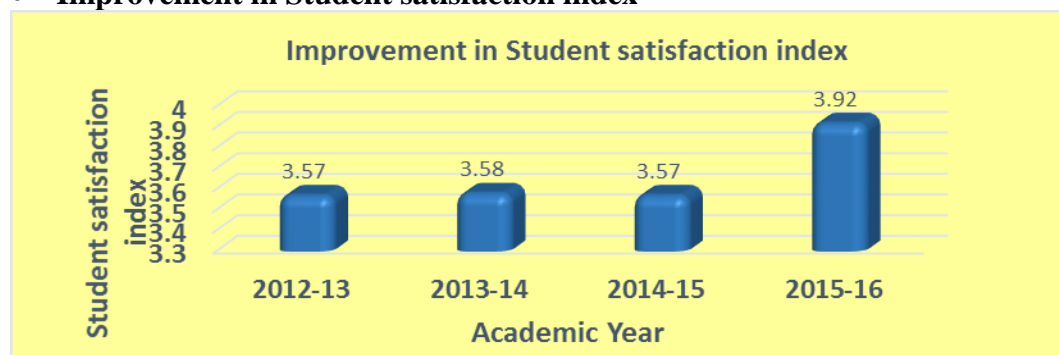
professional trainings are also offered to ensure skilled development of students. 7. Various programs activities are arranged which are led by students under the guidance of faculty, ensures the leadership qualities, team work, managerial skills and holistic development of students.

- **Feedback system**

1. Twice in a semester teacher's feedback is obtained from students and corrective measures are taken accordingly. Teachers with less feedback are made aware about their lacunas and counselled for improvement by authorities. 2. Parents also give their feedback in PTM's which adds to more improvement in teaching and learning activity. 3. • Mentor scheme for students counselling includes one faculty member for maximum 20 students, who conducts regular meeting and discuss academic progress as well as extracurricular activities. It serves as an input to teaching learning system.

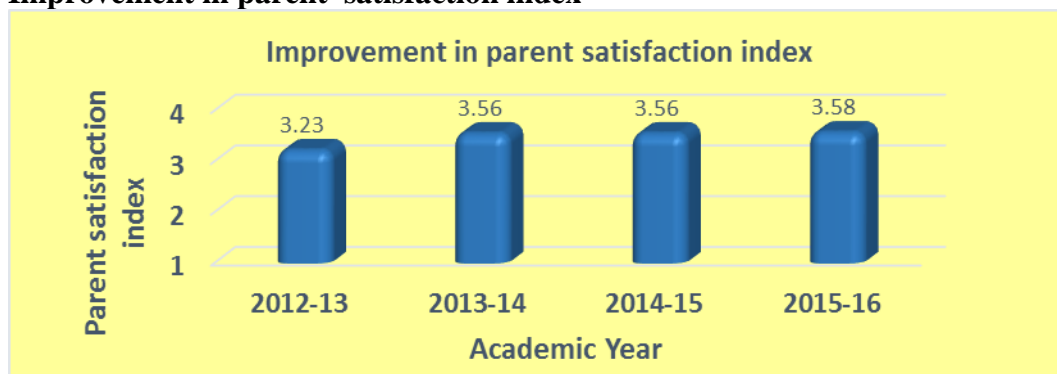
5. Evidence of Success

- **Improvement in Student satisfaction index**



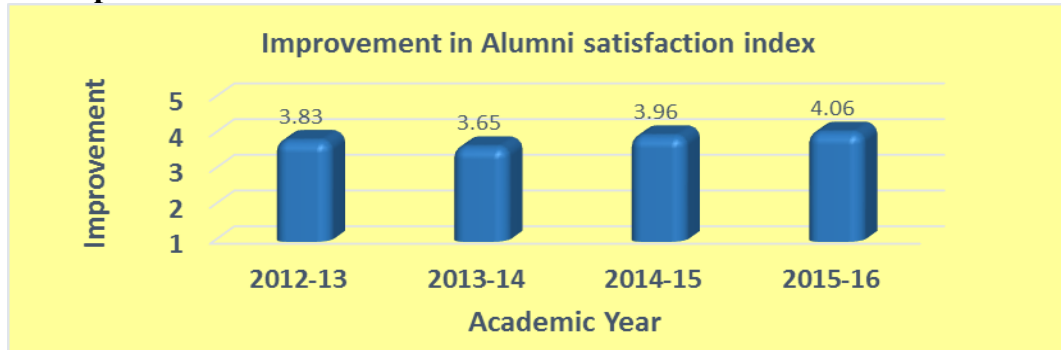
Student's satisfaction through teacher's feedback: Teacher's feedback is obtained twice in semester and corrective measures are taken accordingly. It is observed that student's satisfaction has improved substantially and above 80%. in last four years owing to effective teaching learning process.

- **Improvement in parent satisfaction index**



Parent's satisfaction through teacher's feedback: Teacher's feedback is obtained once in semester and corrective measures are taken accordingly. It is observed that parent's satisfaction has improved in last four years because of effective teaching learning process.

- **Improvement in Alumni satisfaction index**



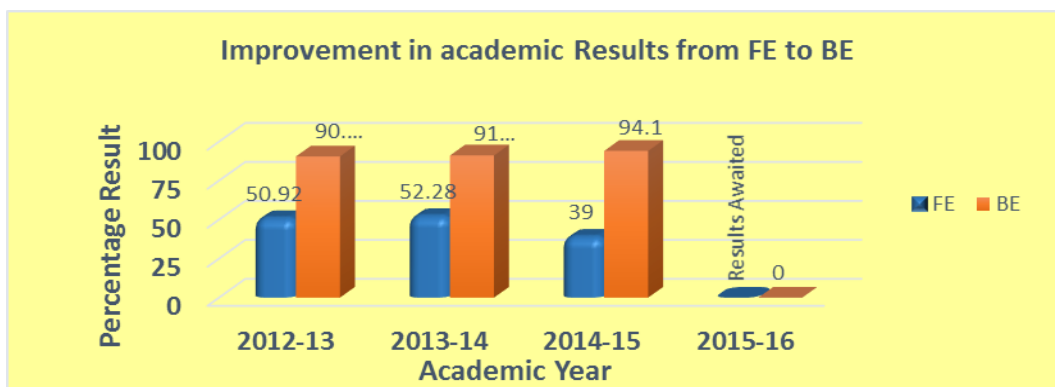
Alumni's satisfaction through overall feedback: Feedback is obtained once in year and corrective measures are taken accordingly. It is observed that Alumni satisfaction has improved significantly in last four years due to effective teaching learning process.

- **Improvement in Employer's satisfaction index**



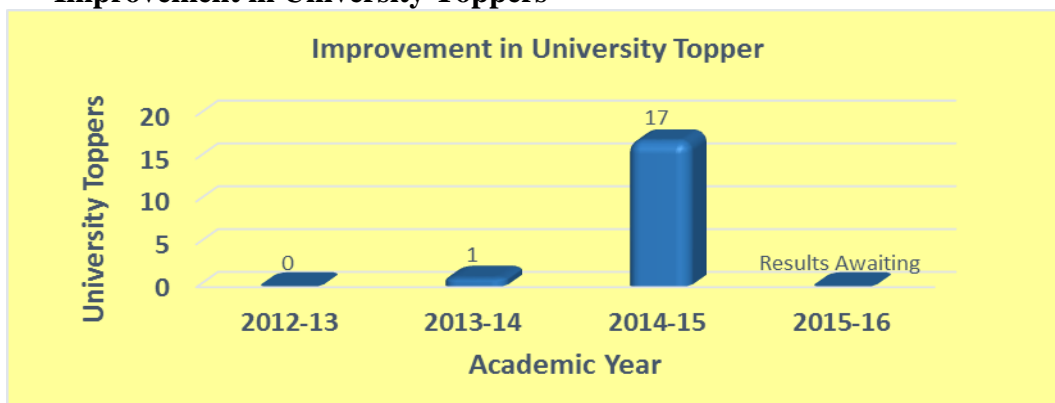
Feedback is obtained once in year from employers and corrective measures are taken accordingly. It is observed that Employers satisfaction has sustained in last four years owing to effective teaching learning process.

- **Improvement in academic Results from FE to BE**



Year wise student's Performance in first year and Last year: Graph shows that student's entry level results are average but in four years performance have been improved to excellent level due to effective teaching and learning system.

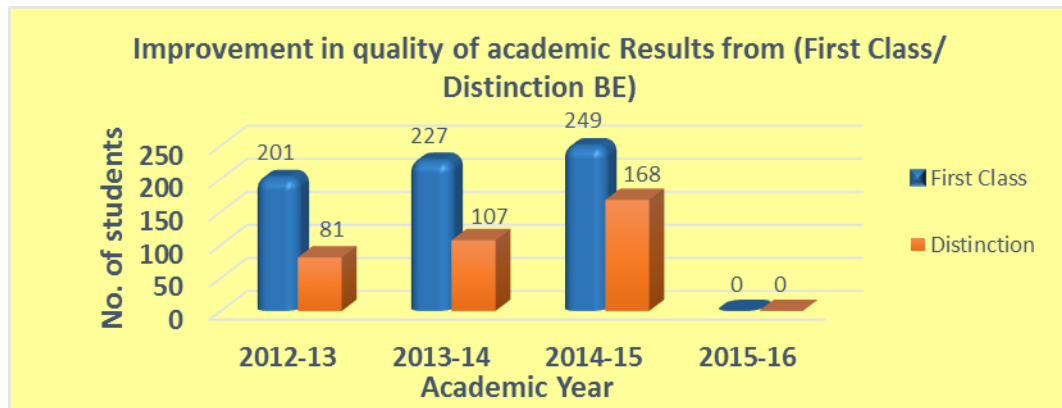
- **Improvement in University Toppers**



Year wise student's Performance in Last year: Graph shows that the results are improving in last four years. Improvement in number of toppers is due to effective teaching and learning system.

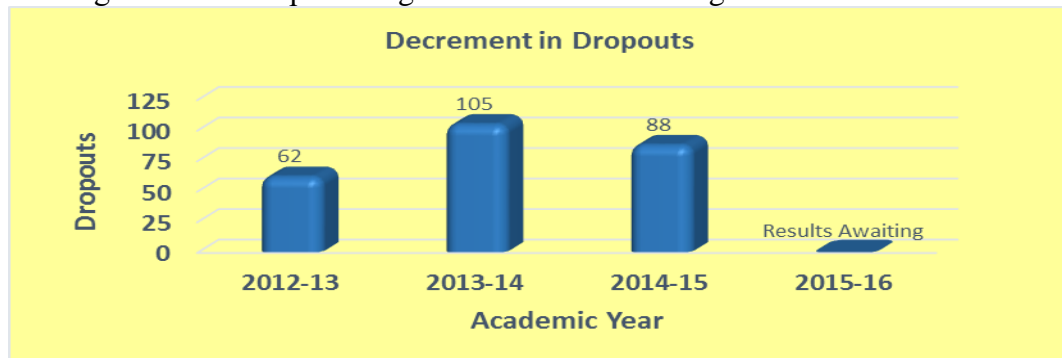
- **Improvement in quality of academic Results from (First Class/ Distinction BE)**

Year wise student's Performance in final year: Graph shows that the results are improving in last four years. Overall performance has improved due to effective teaching and learning system



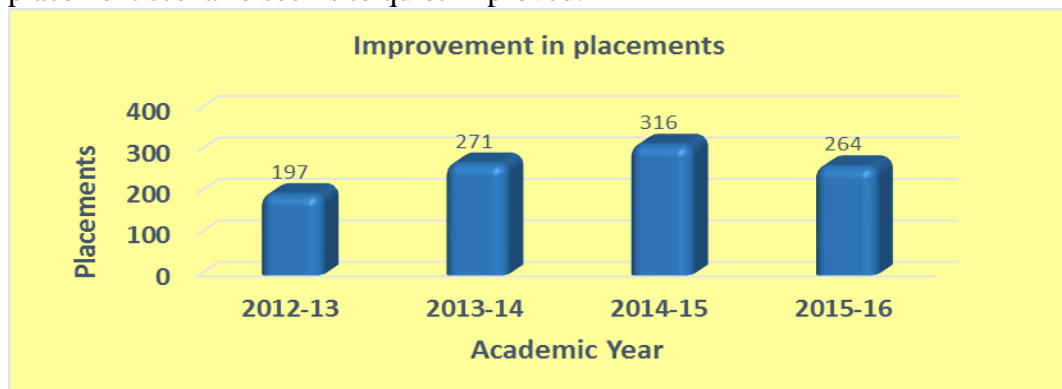
• **Decrement in Dropouts**

Year wise student’s failure in first year: Graph shows that the drop outs are reducing in last four years. Due to effective teaching and learning system the clear and eligible student’s percentage seems to be increasing.



• **Improvement in placements**

Year wise student’s placements in final year: Graph shows that the placements are improving in last four years. Due to effective teaching and learning system, the placement scenario seems to quiet improved.



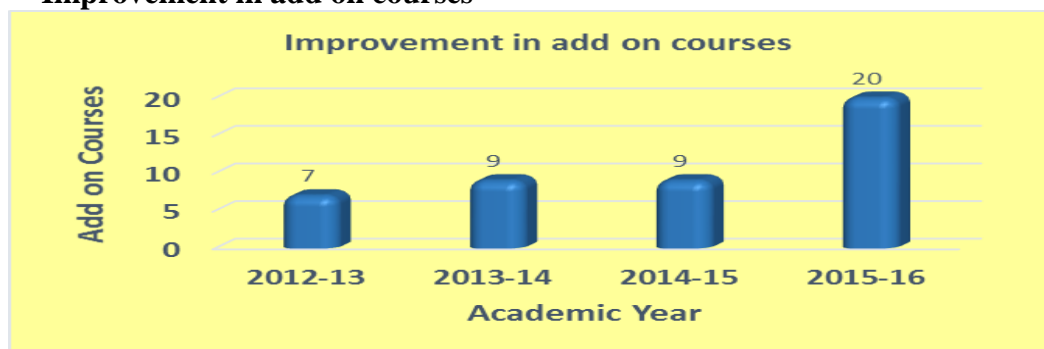
• **Improvement in employability training programs**

Year wise organization of employability training programs for TE and BE students: Graph shows that the employability training programs are increasing in

last four years. Institute's performance has been improved in terms of placement due to effective teaching and learning system.

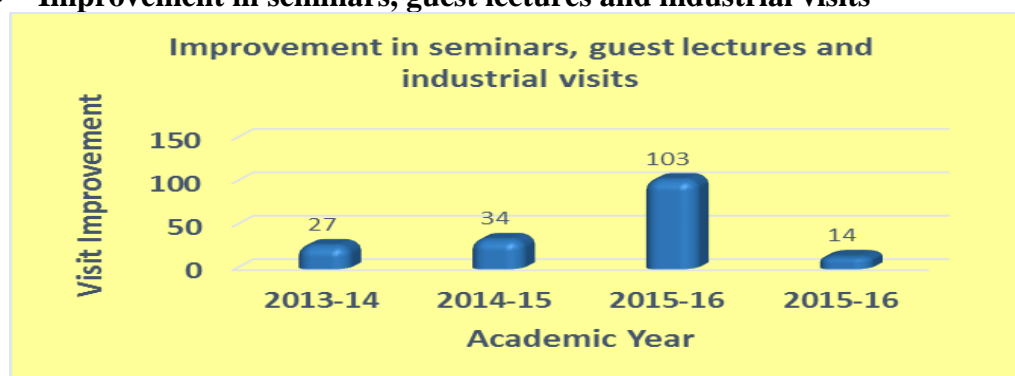


- **Improvement in add on courses**



Year wise organization of add on training programs for FE, SE, and TE and BE students: Graph shows that the add on training programs are increasing in last four years. Students are able to understand recent advancements in their domain field and they are not having many gaps in their knowledge while facing the challenges after placement. This is because of effective teaching and learning system.

- **Improvement in seminars, guest lectures and industrial visits**

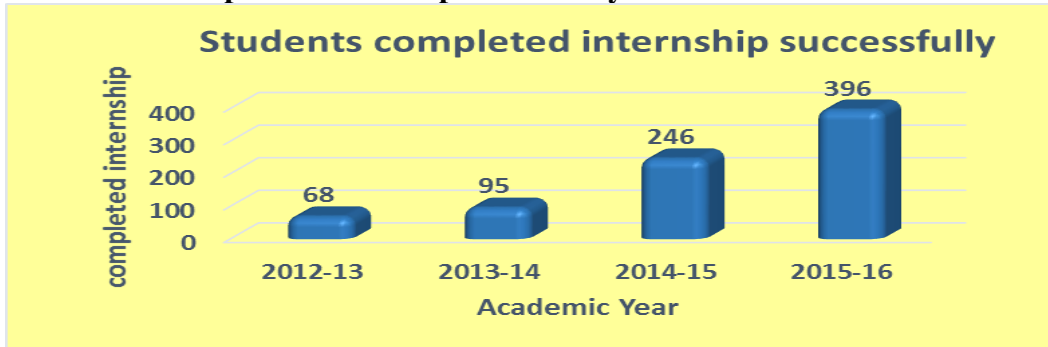


Year wise organization of seminars expert lectures, industrial visits etc programs for FE, SE, TE and BE students: Graph shows that the training programs are increasing in last four years. Students are getting updated technology knowledge

and opportunity to interact with expertise from outside resulting into effective teaching and learning system

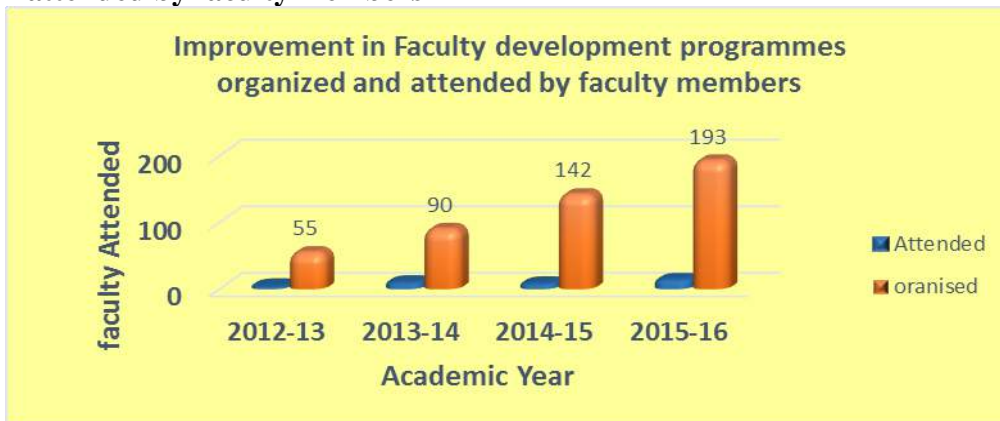
Students are motivated to do internship at the end of Sem VI for one month period to give an insight of industry and to improve their professional skills

- **Students completed internship successfully**



Year wise student's Internship program by students in third year: Graph shows that the Internship program by students is improving in last four years. Students profile becoming stronger because of industrial exposure which is example of effective teaching and learning system.

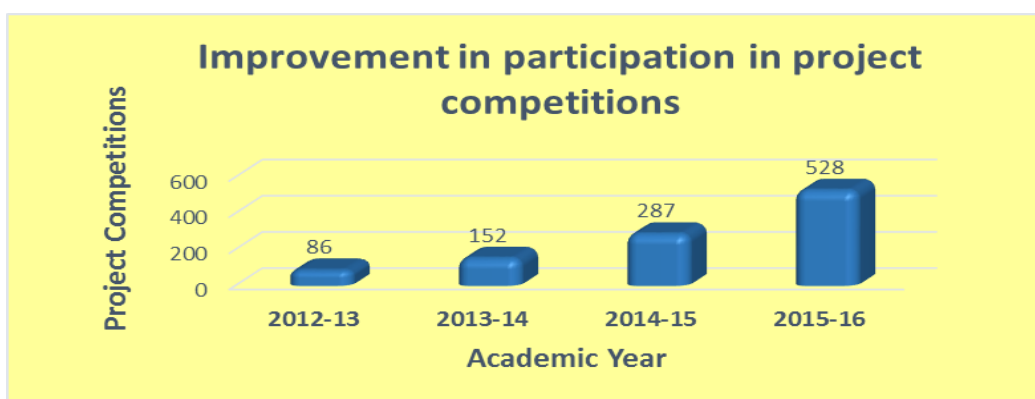
- **Improvement in Faculty development programmes organized and attended by faculty members**



Year wise Faculty development programmes organized and attended by faculty members: Graph shows that the Faculty development programmes organized and attended by institute is improving in last four years. Teachers quality is improving resulting into effective teaching and learning system.

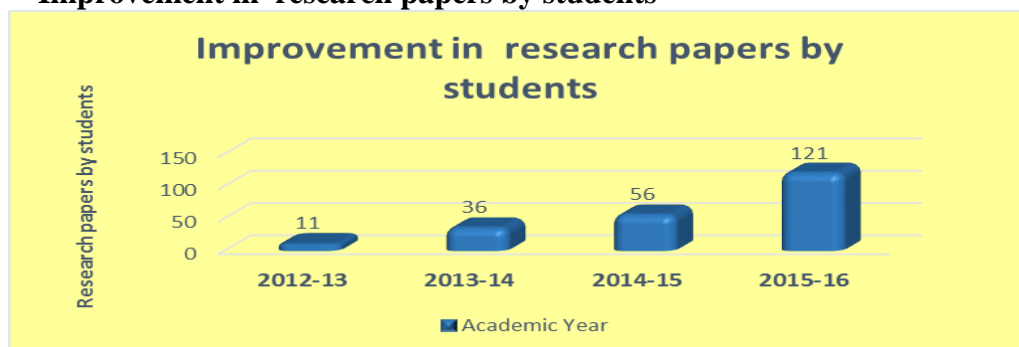
- **Improvement in participation in project competitions**

Students are motivated to participate in project competitions at state and national level.



Year wise student's participation in project competitions: Graph shows that the participation by students is improving in last four years. This indicates positive inclination of student centric learning approach and result of effective teaching and learning system.

- **Improvement in research papers by students**



Year wise student's participation in research papers: Graph shows that the participation by students is improving in last four years. This indicates positive inclination of research oriented learning approach and result of effective teaching and learning system.

6. Problems Encountered and Resources Required

- Though our Institute falls under metro zone students are coming from rural areas need more time to get stable with changes in surroundings and technology. To overcome this issue college takes efforts to nurture them by organizing special training programs.
- ISO 9001:2008 has been introduced to remove the irregularity and odds in the processes and to bring uniformity, discipline, accountability and transparency in teaching learning system
- University syllabus is updated every four years, to sustain with the changes in syllabus, College needs to update or buy new equipment. To cope with the changes college needs to send the faculty members for trainings and orientation programs.

- To bridge the gap between curriculum and the demand of industry, college initiates Add on courses every year. To make students understand various topics incorporated in curriculum in a better way the gap in curriculum is bridged.
- Scarcity of PhD faculty in few branches is one of the important issues. College has taken a policy decision to promote their own faculty to pursue PhD Programme.
- Due to changes in the syllabus faculty needs to continuously update their notes.
- Academic calendar needs to be followed for all teaching learning activities despite of all difficulties, in order to maintain the balance in the activities and not compromising with the quality of the aspect.
- To carry out monitoring process and reviews through the regular audit process is difficult task but its importance is well understood and appreciated by faculty.

7. Contact Details

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- Name of the Institution : Saraswati College of Engineering
- City: Kharghar, Navi Mumbai
- Pin Code: 410210
- Accredited Status: Nil
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- Website : www.sce.edu.in E-mail : principal@scoe.edu.in

• Best Practices – II

1. Title of the Practice

- By the students, for the students

2. Objectives:

- To motivate senior students to identify areas of their best expertise.
- To know the students and respect diverse talents and ways of learning.
- To emphasize and encourage interaction between senior and junior students and students across disciplines.
- To arrange interactive skill oriented training programs for transfer of skills from seniors to juniors or across disciplines.
- To encourage the student chapters and mobilize the teams with competitive spirit.
- To motivate their professional skills.

3. The context

With the psychology that the better learning happens in an informal environment, where there is no traditional preaching but only enjoyable friendly learning experiences, Saraswati college of engineering has established this totally innovative concept of “by the students for the students.”

This concept started from 2012-13, where a skill oriented PCB design program was organised by Department of Electronics and Telecommunication engineering for second year and third year batch. The response to this program was so excellent that the student participant learned that skill very nicely. The same batch of students decided to do that program for next batch of students without calling any expert from outside. This became a trend and was followed by other branches also.

Soon the mechanical and automobile students initiated the SAE chapter, and started a workshop of manufacturing smart cars, racing cars etc. The spirit continuous from batches to batches, as that becomes something very passionate and learning in a very different way of learning with fun with friends, and practical based, open for experimentation.

There are other groups which are working on the similar concept.

We have identified five core components that make this practice successful. The five core propositions are: 1) commitment of students for learning, 2) readiness of experimentation and sharing of knowledge, 3) managing and monitoring student’s learning, 4) Systematic team work and 5) output orientation and competitive spirit.

4. The Practice

- **Choosing the expertise area:**

The students are given a chance to choose the area of training to be given.

Students in the core group work out the logistics required. They also decide the time frame, and content of training. They collect the study material required for the training.

- **Diversification of students**

The students are on task of encouraging students from all diversified domains. All types of students, slow learners, passive ones, advanced learners all become a part of the activity.

- **Interaction between the students**

Managing committee students interact among each other and with trainee students. They arrange all logistics, venue, and all other necessary arrangements.

- **Transfer of knowledge and Skills**

Under the guidance and observation of supervisors, students do carry out this training programme. They prepare the courseware, practical arrangements, presentations, and seminar.

- **Competitive spirit**

There is observation by HOD's for the method, smoothness, and feedback for the activity conducted by various student chapters from various departments, so the gravity of the training session and the competition spirit is automatically maintained.

- **Feedback for skill development**

The feedback given by student's trainees proves to be encouraging the next succeeding activity.

5. Evidence of Success

- **Skill improvement and practical knowledge**

The entire activity definitely serves the Skill improvement and improved practical knowledge among the students. This knowledge is useful for them for their professional life ahead. The data shows the improved response by the students in this type of Programme.

Improvement in Student participation in Skill development activities

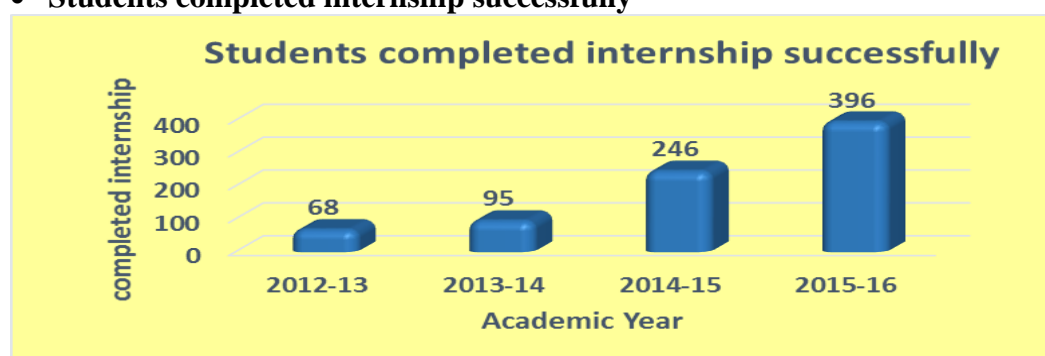
2012-13	2013-14	2014-15	2015-16
-	02 (PCB making and Robotics workshop)	02 (PCB making and Robotics workshop)	01 (PCB making and Robotics workshop)
1.ISHRAE 2. BAJA SAE India 2012-Virtual presentation (Design) at Bangalore August 2012. 3. NSSC IIT Kharagpur event Water rocket Launching competition 4. Robotic Event in Nakshatra (Wired and wireless robot-low cost)	1.ISHRAE (Seminar on recent trends in HVAC) 2.State level 3D modelling competition 3. Selected in SAE India Supra virtual round @KIIT Bhuwaneshwar 4. Seminar of Design of vehicles by Prahar Team Members 5. Achieved 69 th rank out of 158 teams in Supra	1. ISHRAE 2. Achieved 29 th rank out of 51 teams in Formula Student India (FSI) Competition held at Coim	1.ISHRAE Installation Chapter Visit are organised under ISHRAE Chapter For ISHRAE Students 2.Report On Job Junction Training 3.LG Electronics (IV) 4. NUTECH Industrial Visit, Nerul 5. Industrial Visit Mitsubishi Electricals 6. Industrial Visit to Reliance Market 7. Visit to Shunya Customized House 8. Expert lecture on IBMS By Mr. Boney Davis 9. Achieved 24 th rank out of 51 teams in Formula

	Competition held at Chennai (25 Students)	batore (29) 3. Fire Safety (57)	Student India (FSI) Competition held at Greater Noida (24) 10. Auto Inventia (47) PUC Camp(15) 11. Engine Mgmt. Sys. (42)
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CIVIL ENGINEERING DEPARTMENT

Students are motivated to do internship at the end of Sem VI for one month period to give an insight of industry and to improve their professional skills

- **Students completed internship successfully**



- **Improvement in Organization skills**

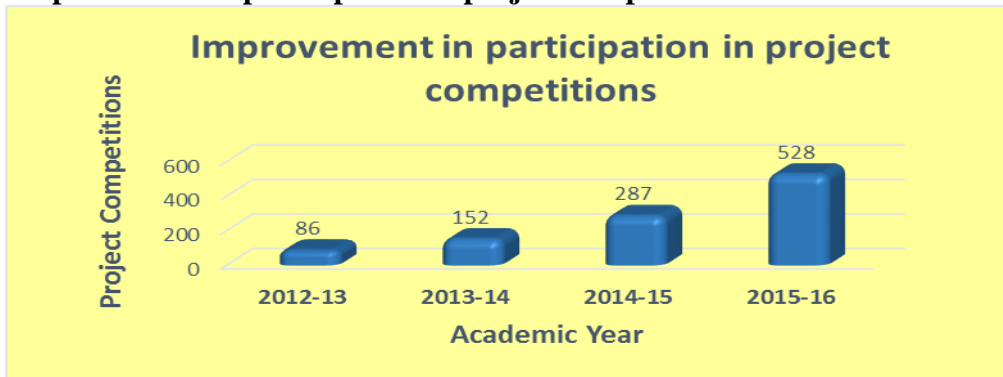
This activity leads to Improvement in Organization skills among the students. It also builds the managerial and convincing skill within the students. It also grooms the team work, leadership qualities without any special training for it. It boosts the mutual understanding capacity among the students. We observe the great enthusiasm among the students while conducting such programs. They learn how to cope up with challenging situations and also how to manage financial part and still to make the program successful.

- **Projects undertaken till date and its success in market**

List of successful Project:

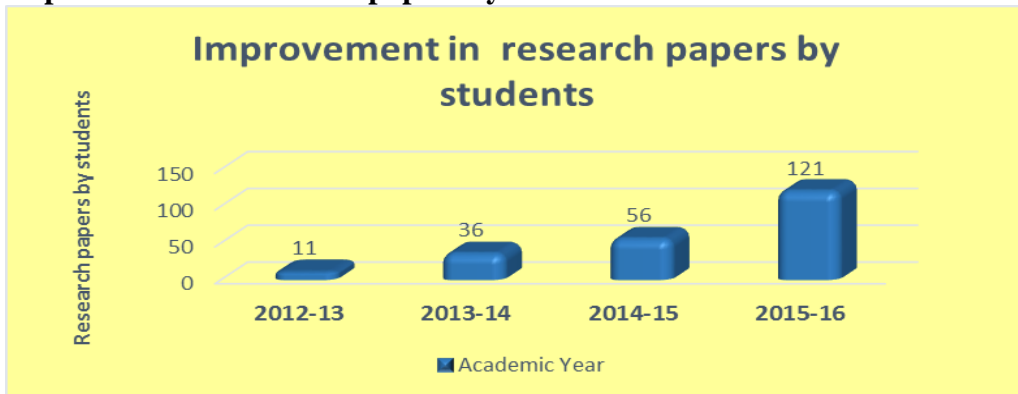
Sr no.	Name of student project	Year	Department
1	Pedal Based Power Generation	2012-13	E & TC
2	Implementation of Microstrip Antenna with Metamaterials	2014-15	E & TC
3	SAE India SUPRA Virtual Round Competitions	2014-15	Mech
4	Team Prahar ,SAE Baja Competition at Chennai	2012-13	Mech
5	Online Attendance Monitoring System	2013-14	Comp
6	Handwritten Character Recognition	2013-14	Comp
7	Optical Mark Recognition Software	2013-14	Comp
8	Purchase of Jaw Crusher	2015-16	Civil
9	TRIAC vehicle	2015-16	Automobile

- **Improvement in participation in project competitions**



Year wise student's participation in project competitions: Graph shows that the participation by students is improving in last four years. This indicates positive inclination of student centric learning approach.

- **Improvement in research papers by students**



Year wise student's participation in research papers: Graph shows that the participation by students is improving in last four years. This indicates positive inclination of research oriented learning approach.

1. **TEAM PRAHAAR** was participated on **24thJan 2016** in **FSAE** held at **NOIDA** & **achieved 7th Rank** in **Cost & Manufacturing Event** & Applaud by International Judges.



2. PRAHAAR RACING members from Automobile dept. and Mechanical dept. participated in INTERNATIONAL LEVEL competition '**JK TYRE FORMULA STUDENT INDIA 2015**' held at "KARI MOTOR SPEEDWAY TRACK", COIMBATOR from JAN 19-28 and achieved **31st Rank** out of 51 teams



3. Participated in National level competition **FORMULA STUDENT SAE SUPRA 2014** held at Madras Motorsports Race Track, Chennai from JULY 18-24 and Achieved **69th Rank** out of 158 teams.



4. B.E student got **3rd prize** in National level project Competition **AVISHKAR 2016** for the project "**Modification of Suspension System**" by **Dr. Tejaswini D. Nalamutt.**



5. B.E. Automobile Engineering Students have prepared a TRIAC Vehicle for socially Disabled Persons



6. Problems Encountered and Resources Required

- The balance of academic activities and skill development activity becomes difficult sometimes for students. But due to effective guidance of teachers and heads, students can overcome this problem and meet the academic results very nicely.
- Managing the financial recourses is also a tough situation for teams working, The College and the students chapters manage these challenges by giving a proper helping hand to them.
- Permissions from regulating authorities for testing of the formula cars on road, is a task for students. College provides all necessary help for this. Space, time electricity, and other essential facilities like transport are provided by college.
- Arranging robotic competitions and project competitions within available short span of small semester is a tough task but by working on holidays and making the labs available on Saturdays the departments help the teams for this task.
- Expert's guidance is also made available to students for making their project successful.

7. Contact Details

- Name of the Principal: Dr. Manjusha Deshmukh
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- E-mail : principal@scoe.edu.in

• Best Practices – III

1. Title of the Practice

- Quality circle

2. Objectives:

- To motivate faculty for a team work.
- To divide the faculty in a department or across the department as per their specialization area or area of expertise.

- To emphasize and encourage interaction between all faculty within and across disciplines.
- To list the subjects and faculty under every theme calling every theme as a quality circle for that area or theme.
- To arrange interactive meetings for transfer of knowledge and skills from seniors to juniors or across disciplines.
- To encourage the teams with competitive spirit to produce good recourses for teaching like, collection of ideal audio visual aids, preparation of standard Power point presentations, writing research papers, publishing monographs and books, collection of subject wise notes , preparing assignments, handouts and recorded lecture CD's by experienced faculty for classroom activity etc.
- Identifying thrust areas and guidance by senior faculty to juniors for confident and satisfactory delivery in the classroom for that content.
- To improve the satisfaction index of students for teaching and learning activity.
- To create the standard educational resource so as to establish a unique practice of teaching and learning as an enjoyable journey even with fresher's coming to teaching carrier and maintain the satisfaction index of college by stake holders .

3. The context

Saraswati College of engineering has established this totally innovative concept of "Quality circle "for the teachers, to make this teaching practice enjoyable and learning activity.

This concept was initiated in 2014-15. It was observed that many new faculty members are joining the department every year. Being fresh they are delivering the lectures up to their capabilities. Due to this the satisfaction index of students was going through ups and downs and most important fact was the knowledge content shared with the students. To overcome this hurdle we decided to prepare a standard teaching material resource which could be useful for everybody in the department who may be teaching the subject first time or many times. This idea gave birth to the concept of "Quality Circle"

The focus area of the concept is, 1. Team work of all faculties together for resource generation 2. Sharing of methodology and tools for theme oriented subjects in systematic way. 3. Guidance of senior faculty to juniors for critical concept teaching in the classrooms.

4. Authenticating the discussions and material by having one external peer member in the group. 5. To add new things in the resource material so as to make journey of teaching and learning no more monotonous but most enjoyable for everybody.

4. The Practice

Quality circle is an innovative concept of Saraswati college of Engineering for quality improvement of teaching learning process. Every department has quality circle implementation by forming the clusters of faculty belonging to same thrust area. People in every group meet minimum twice in semester to discuss different

aspects of teaching learning process, like Syllabus planning , internal assessment policies, generating good teaching resources, collecting enriched video's and audio's and PPT's. The quality circle also aims at publishing research papers and notes, monographs, books as a group activity. The latest trends in education are discussed and implemented for quality teaching. The gap analysis of Po's and PEO's are discussed and add on courses are decided in the meetings. The quality circle also serves for improvement in teaching methods for fresh faculty through the guidance of senior faculty members.

- **Choosing the themes/ area:**

The team of department faculty gets divided into groups as per theme and areas within which their subjects belong to. That group is the quality circle working for that theme area and subjects coming under it. Sometimes the group may contain faculty belonging to same area but from different departments.

- **Interaction between the faculty**

The group members meet twice a semester. First meeting happens before the semester to plan the activities for entire semester. The agendas are finalised. The jobs are assigned to every member of the group to generate and collect quality material for the subjects to be taught. Methodology and lesson plans with teaching aids to be used are decided. The second meeting is arranged in mid of the semester generally to know problems if any and to decide on question papers, tests, and assignments. The experiences, outcomes, resource been generated in terms of teaching content are shared at the end of the semester.

- **Sharing of knowledge and Skills**

Under the guidance of senior faculty in the group, remaining faculty get training for critical parts of syllabus by allowing them to attend the senior faculty's lectures or by mutual discussions.

- **Feedback**

The feedback given by students proves to be encouraging the next succeeding activity.

5. Evidence of Success

Sr. No	Department	Total Quality Circle Groups
1	Civil Engineering	5
2	Computer Engineering	6
3	Automobile Engineering	3
4	Information Technology	5
5	Mechanical Engineering	5
6	Electronics Telecommunication Engineering	4
7	Engineering Sciences & Humanities	7

- **Improved index of satisfaction for teaching and learning by students :**

Sr. No.	department	Average student	Average student	Average student

		feedback 2013-14	feedback 2014-15	feedback 2015-16
1	Civil Engineering	3.54	3.56	4.13
2	Computer Engineering	3.70	3.71	3.935
3	Automobile Engineering	3.51	3.87	3.79
4	Information Technology	3.67	3.6	3.76
5	Mechanical Engineering	3.46	3.47	3.58
6	Electronics Telecommunication Engineering	3.93	3.93	4.005
7	Engineering Sciences & Humanities	3.56	3.58	4.2

- **Number of quality circles in the departments: 36**
- **Number of books published or under process:15**
- **Number of PPTs prepared:725**
- **Number of monographs under process:15**
- **Number of multimedia video/ animations:120**
- **Number of Charts and Models :70**
- **Number of hand-outs prepared:200**
- **Number of subjects with standard notes: For all subjects**
- **Number of research papers in a group: 97**
- **Number of video lectures by senior faculty:175**
- **Number of lectures by senior faculty (attended by junior faculty):36**

6. Problems Encountered and Resources Required

- Very less time for interaction between faculties. The meetings are arranged after the lecture hours.
- Sharing of material is difficult in the beginning as people are unaware of the practice and its benefits. Gradually when every group members serves a particular responsibility it becomes easy.
- Ego issues in taking guidance from each other. This issue automatically gets solved as it happens under the supervision of HOD and people in the group start knowing each other and they also start realizing the objective of activity.
- Quality circle concept is into its process, it will definitely reach to a good height of success very soon.

7. Contact Details

- Name of the Principal: Dr. Manjusha Deshmukh
- Name of the Institution: Saraswati College of Engineering, Kharghar,
- City: Kharghar, Navi Mumbai
- Pin Code : 410210
- Accredited Status: Nil
- Phone : 022 277 43706 • Fax : 022 277 43712
- Website : www.sce.edu.in E-mail : principal@scoe.edu.in

*Evaluative Report
of Departments*

Evaluative Report of Automobile Engineering Departments

- 1. Name of the department :** Automobile Engineering
- 2. Year of Establishment :** 2011
- 3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :** B.E. Automobile
- 4. Names of Interdisciplinary courses and the departments/units involved :**

Sr. No.	Department	Subjects offered
1	Engineering Sciences And Humanities	Applied Mathematics-III, Applied Mathematics-IV, Business Communications and Ethics
2	Electronics & Telecommunication Engineering	Industrial Electronics
3	Information Technology	Data Base & Information Retrieval System,

- 5. Annual/ semester/choice based credit system (Programme wise):** Presently, it is semester wise credit based grade system (CBGS) effect from 2012- 2013.

- 6. Participation of the department in the courses offered by other departments**

Sr. No.	Department	Subjects offered
1	First Year Engineering	Engineering Mechanics, Engineering Drawing

- 7. Courses in collaboration with other universities, industries, foreign institutions, etc. :** Nil

- 8. Details of courses/programmes discontinued (if any) with reasons :** Nil

- 9. Number of Teaching post**

Designation	Sanctioned	Filled
Professors	01	01
Associate Professors	02	02
Asst. Professors	10	10

- 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

Sr No.	Name	Qualification	Designation	Specialization	Experience in years	Ph.D. Students guided
1	Mr. T. Z. Quazi	ME Mech	Asso. Prof & HOD	Mech Engg	17.8	Nil
2	Dr. Bipin	PhD Mech	Professor	Mech Engg	23	Nil

	Madhab					
3	Mr. Pratik More	ME Mech	A.P	Mfg System Engg	07	Nil
4	Mr. Prashant Ingle	ME Mech PhD pursuing	Asso. Prof	Mech. Engg	16.7	Nil
5	Mr. Bhau Kumbhar	ME Mech	A.P	Auto Engg	5	Nil
6	Mr. Sagar Khataavkar	ME Mech	A.P	Mfg Sys Engg	3.5	Nil
7	Mr. Mandar Jagtap	ME Mech	A.P	Mfg Sys Engg	03	Nil
8	Mr. Chetan Thakur	ME Mech	A.P	Thermal Engg	4.5	Nil
9	Mr. Amit Patil	ME Mech	A.P	Design	5	Nil
10	Mr. Azar Bargir	ME Mech	A.P	Cad Cam Engg	4	Nil
11	Mr. Aniket Aakhade	ME Auto	A.P	Automotive	03	Nil
12	Mr. Aditya Jadhav	ME Auto	A.P	Automotive	0	Nil
13	Mr. Vishnu Chondkar	ME Auto	A.P	Automotive	0	Nil

11. List of senior visiting faculty : Nil

12. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty: All classes are conducted by full time faculties.

13. Student -Teacher Ratio (Programme wise) :

UG/PG	Total No. of Students	Total No. of Staff	Student Teacher Ratio
UG	180	13	14:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Particular	Sanctioned	Filled
Support staff (Technical)	02	00
Administrative (Clerk)		01
Supporting Non Technical		01

15. Qualifications of teaching faculty with DSc/ D.Lit./ Ph.D/ MPhil / PG. /ME/Ph.D- completed and Pursuing

Sr. No.	Qualification	Total
1	Ph.D.	01
2	Ph.D. (PURSUING)	03
3	M.E./M.Tech.	09

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received

No of faculty with ongoing projects from National funding agencies	Grants received from National funding agencies	No of faculty with ongoing projects from International funding agencies	Grants received from International funding agencies
Nil	Nil	Nil	Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received

Sr. No.	Name of the Faculty (PI)	Funding Agency & Year	Amount
1	T.Z. Quazi, Mandar Jagtap	Mumbai University	Rs.25000/-

18. Research Centre /facility recognized by the University: Nil

19. Publications:

Publication per faculty

- Number of papers published in peer reviewed journals (national / international) by faculty and students
- Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- Monographs
- Chapter in Books
- Books Edited
- Books with ISBN/ISSN numbers with details of publishers
- Citation Index
- SNIP
- SJR
- Impact factor
- h-index

Sr. No.	Name of the faculty	A	B	C	D	E	F	G	H	I	J	K
1	Prof. T. Z. Quazi	27	18	-	-	-	-	19	-	-	-	02
2	Dr. Bipin Madhab	3	13	-	-	-	-	-	-	-	-	-

3	Prof. Pratik More	3	3	-	-	-	-	-	-	-	2.1	-
4	Prof. Prashant Ingle	2	1	-	-	-	-	-	-	-	-	-
5	Prof. Bhau Kumbhar	16	15	-	-	-	01	12	-	-	-	02
6	Prof. Sagar Khatavkar	3	3	-	-	-	-	-	-	-	2.084	-
7	Prof. Mandar Jagtap	5	4	-	-	-	-	-	-	-	-	-
8	Prof. Chetan Thakur	1	4	-	-	-	-	-	-	-	2.084	-
9	Prof. Amit Patil	3	3	-	-	-	-	-	-	-	2.1 2.0	-
10	Prof. Azar Bargir	3	3	-	--	--	--	--	--	--	2.003 2.1	--
11	Prof. Amruta Karve	2	2	-	-	-	-	-	-	-	-	-
12	Mr. Aditya Jadhav	-	1	-	-	-	-	-	-	-	-	-
13	Mr. Vishnu Chondkar	-	-	-	-	-	-	-	-	-	-	-

20. Areas of consultancy and income generated: Nil

21. Faculty as members in

- National committees : ISTE and SAE
- International Committees : Nil
- Editorial Boards....

Sr.No	Name of the Faculty	Editorial Board
1	Mr. T. Z. Quazi	Asian Journal of Engineering and Technology Innovation
2	Mr. Bhau Kumbhar	Sensors and Actuators; A physical Elsevier

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/Programme

Year	No. of In-house Project	% of Projects done in- house
2014-2015	13	100%
2015-2016	10	80%

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Year	Research laboratories/Industry/ other agencies	% of Projects done Outside
2015-2016	-	20%

23. Awards / Recognitions received by faculty and students

Students Awards

a. Students Toppers :

BE:

Sr.No.	Academic Year	Name of Student	University Rank
1	2014-15	Naik Aakash A.	2
2	2014-15	Kurhade Sumit R.	3
3	2014-15	Gadhavedipak B.	6
4	2014-15	Dalvi Chetan M.	7
5	2014-15	Korade Sangam S.	9
6	2014-15	Kadam Dipesh B.	11
7	2014-15	Ghankutkar Prathamesh	22
8	2014-15	Gole Nitesh J.	23
9	2014-15	Kumar Bimal K.	24
10	2014-15	Kolhe Sameer B.	28
11	2014-15	Darandale Milind D.	29
12	2014-15	Jadhav Dattatraya P.	34
13	2014-15	Parte Abhay A.	35

b. Students Sports :

Sr. no.	Name of Students	Name of Event	university/s tate/ National	Date & year	Duration	Student achievement
1	BE Automobile	Basketball competition	University level	2013	1 day	Fifth Rank
2	BE Automobile	Football Tournament	National	19/09/2013-25/09/13	7 days	Participation
3	Akshay Meher	NAKSHATRA- 200 meter race	University level	2014	3 Days	1 st Prize

c. Paper presentation :

Sr. no.	Name of Student	Title of paper	Year	Student achievement
1	Bhavana Patel, Aniruddha Pandit, Kartik Sivasubramanian, Yash Phadnis	Instrumentation required for MR fluid characterization	2015	Participation
2	Shuddhodan Sapre, Ayappan Devendar, Kartik Subramanian, Santosh Gurav	Aerodynamics of vehicle	2014	Participation

d. Project competition:

Sr. no.	Name of Student	Title of project	Year	Student achievement
1	Samruddha Kale Nikita Dhandukia Shilpa Bafna Shrikant Dabhekar	Modified suspension for motorcycle	2015	3 rd rank in Avishkar
2	Shuddhodan Sapre Nehal Sarangkar Siddhesh Kadam Suyash Karingwar	Formula SAE and ATV BAJA Vehicle	2015	1 st rank in AMINOVA- A Project competition

Faculty Awards

Sr No	Name of Faculty	Department	Award	Year
1	Mr. Pratik More	Automobile	Star Performer Award	2013-14
2	Mr.Mandar Jagtap	Automobile	Star Performer Award	2014-15
3	Mr. T. Z. Quazi	Automobile Engg.	2 nd Rank in National Level Conference	2012
4	Mr. B. K. Kumbhar	Automobile Engg.	Best Paper	2014
5	Mr. T. Z. Quazi	Automobile Engg.	Best Feedback	2015
6	Mr. P. M. More	Automobile Engg.	Best Feedback	2015
7	Mr. M. D. Jagtap	Automobile Engg.	Best Feedback	2015
8	Mr. Sagar Khatavkar	Automobile Engg.	ME Topper	2015
9	Mr.Siddhesh Lad	Automobile Engg.	ME Topper	2015
10	Mr. Bhau K. Kumbhar	Automobile Engg.	ME Topper	2014

- i. **Best Teacher awards:** Nil
- ii. **Best Department Awards:** Nil
- iii. **Best Paper Awards:** Mr. Bhau Kumbhar in ICAT 2014, at Trinity College of engineering, Pune.
- iv. **Ph.D.:** Nil
- v. **M.E. Topper (internal faculty)**

Sr. No.	Name of Faculty	Awards received by the faculty and students with year
1	Sagar Khatavkar	2015
2	Mandar Jagtap	2015
3	Bhau K. Kumbhar	2014

24. List of eminent academicians and scientists / visitors to the department

Sr. No.	Name	Designation	Company/ organization	Experience (in years)
1	Mr.Sushil Budgajar	Manager R&D	Bajaj Auto Ltd Akurdi	15
2	Mr Rajshekhar Sardogi	Associate professor	Saboo Sidhique College	25
3	Mr Ramchandra yadav	Principal	Polytechnic	8
4	Mr.Atale Mayur	Design Engineer	NRB Bearing , Thane	10
5	Mr Anand Mahurkar	Head	Krishna and Sauratri Associates	14
6	Capt. Thakur kamleshshingh	CEO	Ind –aust Maritime	15
7	Mr RashdnlalYadav	Jr. Manager	JSW Steel ltd	26
8	Mr Rafique Pathan	Planning engineer	Hawa valves	8
9	Mr Mahesh kumar Mutyaware	GM	Asian Motor	12
10	Mr Pradeep Deshmukh	GM	TOPWORTH PIPES	26
11	Mr P. D. Ingle	Asst. Professor	SIES GST, Nerul	15
12	Dr S. M. Joshi	Professor	PIIT, Panvel	15
13	Dr. D. P. Tambuskar	Professor	PIIT, Panvel	15

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National

Sr. No.	Event with Year	Funding Agency	Amount (Rs)
1	Expert Lecture Series 2015	SCOE	10000
	Total		10000

b) International: Nil

26. Student profile programme/course wise:

Year of Admission	Year of Result	Applications received	Selected	Enrolled		Pass Percentage
				M*	F*	
2012-13	2015-16	60	51	49	2	98%

M*= Male

F* = Female

27. Diversity of Students

Year	Name of the Course	% of students from the same state	% of students from other state	% of students from Aboard
2015-16	B.E.AUTO	97.92	2.08	NIL
2014-15	B.E.AUTO	100	NIL	NIL
2013-14	B.E.AUTO	100	NIL	NIL
2012-13	B.E.AUTO	100	NIL	NIL
2011-12	B.E.AUTO	100	NIL	NIL

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Sr. No.	Academic Year	Name of Student	Exam
1	2015-2016	Vishvam Shah	GATE (31.83)

29. Student progression

Student Progression	Percentage against enrolled			
Year	2015-2016	2014-2015	2013-2014	2012-2013
UG to PG	NA	10.41	NA	NA
PG to Ph.D.	Nil	Nil	Nil	Nil
Campus selection	6.66	20.83	NA	NA
Other than campus recruitment	NA	6.25	NA	NA
Entrepreneurship/Self-employment	NA	35.41	NA	NA

30. Details of Infrastructural facilities

a) Library :

Library holdings	2012-2013		2013-2014		2014-2015		2015-16	
	No.	Co.	No.	Co.	No.	Co.	No.	Co.
Text books	0	0	0	0	30	21356.00	9	3865
Reference books	0	0	0	0	6	3934.00	2	1185/-
Journal/periodicals	6 (6*)	4366.00	4 (4*)	9646.00	6 (6*)	7227.00	9 (6*& 3#)	16720/-
e-resources	200	58850.00	26	71315.00	0	0	9	72600/-

No. – Number, Co. – Total Cost

Journal/periodicals - * National Journal, # International Journal

e-resources- (ASTM,ASME, J-GATE), (ASTM)

- b) **Internet facilities for Staff & Students:** 100 mbps leased lined.
c) **Class rooms with ICT facility:** 2 classroom(70 Sq.m) with LCD facility available.
d) **Laboratories**

Sr. No.	Laboratory	Area (Sq.m)	Equipment	Qty.	Cost (Rs.)
1	Automotive System	70	Cut Section of Transmission System with Rear axle & Differential System	1	66500/-
			Real Cut Section of Gear Box	1	15500/-
			Car Gear Box (Differential) in Cut Section	2	22500/-
			Four stork Four Cylinder Petrol Engine in Cut Section	1	39500/-
			Set-up of Two Stroke - Single Cylinder Petrol Engine Motorized Cut Section	1	25500/-
			Accessories & Various Part of 4 -Stroke , 4-Cylinder Petrol Engine Dismantled Condition	1	11500/-
			Fuel Pump of Petrol Engine Cut Section Mech& Electricity type	1	5100/-
			Diesel Injector Cut Set	2	7550/-
			Piston with Ring Cut Section	1	8500/-
			Distributor in Cut Section (For Spark Plugs)	1	4500/-
			Bosch Fuel injection Pump Rotary & Barrel type	1	19000/-
			Carburetor in Cut Section S.U. & Solex	1	7000/-
			Model of Steering System	1	14000/-
			Break Master Cylinder	1	13000/-
			Wheel Cylinder	2	8500/-
			Disc Break	2	5800/-
2	Metrology and Quality Engineering	70	Only Stand cross Arm	1	1250/-
			Gear Tooth Vernier	2	5600/-
			Dial Indicator size 0-10mm	1	5600/-
			Vernier Calliper 150mm	2	578/-
			Thermocouple Calibration	2	12500/-

			Setup		
			Strain Gauge Trainer	1	11500/-
			Load Calc Trainer	1	14500/-
			Dead Weight Tester	1	32500/-
			Temperature Measurement Tester	1	11750/-
			Pressure Transmitter Trainer	1	26500/-
			Flow Transducer Trainer	1	69500/-
			Rotary Encoder Trainer	1	32500/-
			Vacuum Gauge Trainer	1	48900/-
			Vibrometer	1	74000/-
			Surface Plate	1	6850/-
			Profile Projector	1	72000/-
			Floating Carriage	1	56900/-
			Flatness & Surface Finish Measurement setup unit	1	32000/-
			Parkinson Gear Tester	1	15000/-
3	Autotronics	70	Fuel Injector	2	8409/-
			Spark Plug	2	120/-
			Tool Kit Set	1	6075/-
			Boss Exide Battery	1	2700/-
			Starter Motor Assembly	1	2855/-
			Alternator Assembly	1	3600/-
4	CAD/CAM	70	Computer Units	1	468750/-
			Computer Units	1	125000/-
			Solid Edge	30	300000/-
			NX10 Perpetual License	1	250000/-
5	Thermal and Fluid Power	70	Locomotive Boiler Model	1	7952/-
			Babcock Wilcox Boiler Model	1	7952/-
			Lancashire Boiler Model	1	7952/-
			Cochran Boiler Model	1	7952/-
			Gas Turbine	1	10304/-
			Boiler Mountings accessories	1	10752/-
6	Chassis Body Engineering	70	Car (4 wheeler)	1	30000/-
			Gas Analyser	1	185653/-
7	Vehicle	90	Wheel Alignment	1	475000/-

	Maintenance		Tyre Changer	1	70000/-
			Wheel Balancing	1	70000/-
8	Industrial Electronics	70	Cathode Ray Oscilloscope 20mm	1	36400/-
			Dual Power Supply Make-Keltronix Input- 230/50Hz O/P 0-32V/2amp	1	39719/-
			0-50ma	1	2144/-
			Function Generator	1	241492/-
			Multimeter	1	3360/-
			Phase Control using Diac & Triac	1	6300/-
			Digital IC Trainer	1	11700/-
			SCR Rectifier kit	1	2000/-
			SCR	1	2000/-
			(0-10)VM	1	1579/-
9	Engineering Mechanics Lab	100	1.Jib crane	3	82660/-
			2.Fly wheel	2	
			3.Friction slide apparatus	3	
			4.Simple pendulum & compound pendulum	3	
10	Workshop	400	1. Welding section , 2. Fitting Section 3. Carpentry Section 4. Plumbing Section 5. Sheet metal Section	35	4,96,273/-

31. Number of students receiving financial assistance from college, university, government or other agencies

- Economically weaker students of SC, ST, OBC and OC, whose parent income is less than 1.0 Lakh per annual get tuition fee reimbursement and scholarship from state Government.
- Some of the students getting financial assistance from the college for presentation of the papers and for attending conferences/workshops.

Sr. No.	Academic Year	Category	Number of Students	Amount (Rs. In Lakhs)
1	2014-15	Other Backward Class (OBC)	19	7.41
		Schedule Caste (SC)	30	25.15
		Schedule Tribes (ST)	1	0.94
		Economically Backward Class EBC)	22	8.09

		Minority Class (MC)	0	0
		(SBC)	4	2.86
		(VJNT)	14	10.8
2	2013-14	Other Backward Class (OBC)	34	12.57
		Schedule Caste (SC)	20	15.33
		Schedule Tribes (ST)	1	0.86
		Economically Backward Class (EBC)	20	7.02
		Minority Class (MC)	1	0.25
		(SBC)	5	4.38
		(VJNT)	16	11.71
2	2012-13	Other Backward Class (OBC)	16	5.83
		Schedule Caste (SC)	12	8.93
		Schedule Tribes (ST)	0	0
		Economically Backward Class (EBC)	13	4.52
		Minority Class (MC)	0	0
		(SBC)	3	2.21
		(VJNT)	10	7.36
2	2011-12	Other Backward Class (OBC)	9	2.95
		Schedule Caste (SC)	6	3.65
		Schedule Tribes (ST)	1	0.71
		Economically Backward Class (EBC)	02	0.67
		Minority Class (MC)	0	0
		(SBC)	2	1.21
		(VJNT)	6	3.79

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

Academic Year	Sr. No.	Name of Activity	Date From	To	Name of Expert/ Speaker	Total Student participants
2015-16	1	Aptitude Test and Group Discussion	26/08 /2015	26-30/08/ 2015	Mr. Vinay Raikar	62
	2	Computer Aided Design	31/08 /2015	31/08/ 2015	Mr. Ayaz Patel	88

33. Teaching methods adopted to improve student learning

Sr. No.	Innovation in teaching methodology
1	Project based learning
2	Power point presentations
3	Industrial visits are arranged to improve student's practical knowledge.
4	Field activities
5	Supervised study
6	NPTEL Videos
7	Training through internship programme

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Sr. No.	Activity/Event	Date
1	Design Of Powertrain Of Trike	30/01/2016
2	Road Safety Rally	22/01/2016
3	Make A Wish	24/09/2015
4	Marathon For "Run For Social Cause"	20/09/ 2015
5	Teachers Day Celebration By Tree Plantation	05/09/2015

35. SWOC analysis of the department and Future plans

SWOC analysis

Strength

- 1) Well qualified staff member with specialization in Automobile and Mechanical.
- 2) All Labs are well equipped.
- 3) Good academic teaching learning process.
- 4) Staff to student ratio is 1:14.
- 5) Active involvement of students in extracurricular activities.
- 6) Number of paper published by faculties in various national and international journals.

Weakness

- 1) Placement.
- 2) Industry interaction.
- 5) Non availability of well qualified non-teaching staff.

Opportunities

- 1) Scope for placement in Automobile industries like TATA, Mahindra, and Volkswagen etc.
- 2) Research & Development opportunities in automobiles fields.
- 3) Offer additional professional development for faculty and staff.
- 4) Students have many learning resources available to them on campus in an effort to ensure academic excellence.
- 5) Comprehensiveness, quality, and growth of online education for students.

Challenges

- 1) Competition with reputed engineering colleges in Mumbai University.

2) Continuous development & research in automobile technology.

Future plan

- 1) More industrial interaction with various automobile related industries.
- 2) Focus on Placement related activities for students.
- 3) Practical exposure to student by organizing I.V. and WORKSHOP.
- 4) Signing various M.O.U. with reputed automobile organizations.
- 5) Importance for more practical knowledge for students.
- 6) Encouraging for higher education to staff members.
- 7) Organizing one day workshop and expert lectures by expertise of automobile fields.
- 8) To encourage faculties for participation in FDP / STTP.

Evaluative Report of Civil Engineering Department

- 1. Name of the department:** Civil Engineering Department
- 2. Year of Establishment:** 2004
- 3. Names of Programmes / Courses offered :** UG, PG
- 4. Names of Interdisciplinary courses and the departments/units involved:**

Sr. No.	Department	Subject offered
01	Engineering Science	Applied Mathematics-III
		Applied Mathematics-IV
		Employment and Communication Skills
02	Information Technology	Data based Information Retrieval System

- 5. Annual/ semester/choice based credit system (Programme wise):**

Semester pattern, Credit Based Grading System

- 6. Participation of the department in the courses offered by other departments:**

Sr. No.	Department	Subject offered
01	First year Engineering	Engineering Mechanics
		Engineering Drawing

- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.:** Nil
- 8. Details of courses/programmes discontinued (if any) with reasons:** Nil
- 9. Number of Teaching post:**

ACADEMIC YEAR -2015-2016

Designation	Sanctioned	Filed
Professors	02	02
Associate Professors	04	04
Asst. Professors	20	20
Visiting Faculty	01	01

- 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

U.G. COURSE CIVIL ENGG I SHIFT						
Sr. No.	Name of faculty	Qualification	Designation	Specialization	Experience in years	Ph.D. Students guided
1	Mrs. Roshni John	M.E.	Asso Prof. & HOD	Structural Engg.	10 teaching, 5 industry	NIL
2	Dr. Sunil Mahadeorao Rangari	Ph.D. M.E	Professor	Structural Engg.	20 teaching, 1 industry	NIL
3	Dr. Suman	Ph.D.	Professor	Geology	3 teaching,	NIL

	Rawat		or		3 industry	
4	Mr. Upendra W. Mate	M.E.	Asso Pro	Water Resources Engg.	20 teaching, 2 industry	NIL
5	Mrs. Rachel Gitty	M. Tech.	A.P.	Construction Management	7 teaching, 8 industry	NIL
6	Mrs. Shanti Selvam	M. Tech.	A.P.	Construction Management	7 teaching, 6 industry	NIL
7	Mrs. Shweta Motarkar	M. Tech.	A.P.	Structural Engg	2 teaching, 3.5 industry	NIL
8	Mr. Harshal Deshpande	M.E.	A. P	Structural Engg	4 teaching	NIL
9	Mrs. Asmita Lakhote	M.E.	A.P.	Environmental Engg.	2 teaching	NIL
10	Ms. Vasundhara Phad	M.E.	A.P.	Structural Engg	4 teaching	NIL
11	Ms. Snehal Mali	M.E.-persuing	A.P.	Structural Engg	2 teaching	NIL
12	Ms. Supriya Khedkar	M.E.	A.P.	Structural Engg	3 teaching	NIL
13	Ms. Sneha Hirkane	M.E.	A.P.	Structural Engg	3 teaching	NIL
14	Mr. Sanjay Singh	M.E.	A.P.	Structural Engg	3 teaching	NIL
15	Mr. Siddhartha Ray	M.E.-persuing	A.P.	Structural Engg	2 teaching	NIL
16	Mr. Avinash Chavan	M.E.	A.P.	Mechanical Engg.	3 teaching	NIL
17	Ms. Yugandhara Sontakke	M.Tech	A.P.	Structural Engg	2 teaching	NIL
18	Mrs. Mugdha Apte	PhD persuing IIT, M.Tech	A.P.	Natural Resources	5 teaching, 7 research	NIL
19	Mr. Vaibhav Jadhav	M.E	A.P.	Structure	6 teaching	NIL
20	Mr. Pankaj	M.Tech	A.P.	Enviornmen	Fresher	NIL

	Dandgre			t		
21	Ms. Vasundhara Gaikwad	M.Tech	A.P.	Constructio n	Fresher	NIL
22	Mr. Swapnil D.	M.Tech	A.P.	Constructio n	Fresher	NIL
23	Mr. Ashok Bandgar	M.Tech	A.P.	Enviornmen t	Fresher	NIL

P. G. COURSE CIVIL ENGINEERING

1	Dr. Priyanka Jadhav	BE (Civil), ME (Structure), PhD (Civil)	Asso Prof	Structure	05 teaching	Nil
2	Mrs. Shilpa Kewate	PhD Pursuing, M. Tech.	Asso Prof	Structural	12 teaching	Nil
3	Mrs. Molly Mathew	M.E.	A.P.	Structural	10 teaching 8 industry	Nil

11. List of senior visiting faculty:

Sr. No.	Name of faculty	Qualifi cation	Designation	Specialization	Experi ence in years	Ph.D. Students guided
1	Dr. Ajay Radke	Ph.D.	Visiting Faculty.	Civil Engg	23	Nil

12. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty: All classes are conducted by full time and visiting faculty

13. Student -Teacher Ratio (Programme wise):

UG/PG	Total No. of Students	Total No. of Staff	Student Teacher Ratio
UG	360	24	15:1
PG	36	3	12:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Particular	Sanctioned	Filled
Supporting Staff (Technical)	03	03
Administrative	No specific guidelines from University.	00
Supporting Non Technical		03

15. Qualifications of teaching faculty with DSc/ D.Lit./ Ph.D/ MPhil / PG. /ME/Ph.D- completed and Pursuing (UG+PG)

Sr. No	Category	Total
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1	Ph.D.	03
2	Ph.D. (Visiting Faculty)	01
3	Ph.D. (Pursuing)	02
4	ME/ M.Tech	19
5	ME/ M.Tech (Pursuing)	2

16. Number of faculty with ongoing projects from a) National b) International Funding agencies and grants received - 02

No of faculty with ongoing projects from National funding agencies	Grants received from National funding agencies	No of faculty with ongoing projects from International funding agencies	Grants received from International funding agencies
Nil	Nil	Nil	Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

Sr. No	Name of the Faculty (PI)	Funding Agency & Year	Amount
1	Prof. Roshni John	Mumbai University (2015-16)	40000/-
2	Prof. Rachel Gitty	Mumbai University (2015-16)	25000/-

18. Research Centre /facility recognized by the University: Nil

19. Publications:

- Number of papers published in peer reviewed journals (national / international) by faculty and students
- Number of publications listed in International Database (For Eg: Web of Science, Scopus, and Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- Monographs
- Chapter in Books
- Books Edited
- Books with ISBN/ISSN numbers with details of publishers
- Citation Index
- SNIP
- SJR,
- Impact factor,
- h-index

Faculty of the department has published research papers in reputed national and international journals and conferences.

Sr. No	Name of the faculty	A	B	C	D	E	F	G	H	I	J	K
1	Mrs. Roshni John	16	0	0	0	0	0	0	0	0	0	0
2	Dr. Sunil	16	0	0	0	0	0	0	0	0	0	0

	Mahadeorao Rangari											
3	Dr. Suman Rawat	3	0	0	0	0	0	4	0	0	2.4	0
4	Mr. Upendra W. Mate	2	0	0	0	1	0	0	0	0	0	0
5	Mrs. Rachel Gitty	3	0	0	0	0	0	0	0	0	0	0
6	Mrs. Shanti Selvam	3	0	0	0	0	0	0	0	0	0	0
7	Mrs. Shweta Motarkar	1	0	0	0	0	0	0	0	0	0	0
8	Mr. Harshal Deshpande	4	0	0	0	0	0	0	0	0	2.5	0
9	Mrs. Asmita Lakhote	1	0	0	0	0	0	0	0	0	0	0
10	Ms. Vasundhara Phad	0	0	0	0	0	0	0	0	0	0	0
11	Ms. Snehal Mali	1	0	0	0	0	0	0	0	0	0	0
12	Ms. Supriya Khedkar	3	0	0	0	0	0	0	0	0	0	0
13	Ms. Sneha Hirkane	1	0	0	0	0	0	0	0	0	0	0
14	Mr. Sanjay Singh	2	0	0	0	0	0	0	0	0	0	0
15	Mr. Siddhartha Ray	2	0	0	0	0	0	0	0	0	0	0
16	Mr. Avinash Chavan	1	0	0	0	0	0	0	0	0	0	0
17	Ms. Yugandhara Sontakke	1	0	0	0	0	0	0	0	0	0	0
18	Mrs. Mugdha Apte	02	1	0	0	0	0	0	0	0	0	0
19	Mr. Vaibhav Jadhav	0	0	0	0	0	0	0	0	0	0	0
20	Mr. Pankaj Dandgre	0	0	0	0	0	0	0	0	0	0	0
21	Ms. Vasundhara Gaikwad	0	0	0	0	0	0	0	0	0	0	0
22	Mr. Swapnil D.	0	0	0	0	0	0	0	0	0	0	0
23	Mr. Ashok Bandgar	0	0	0	0	0	0	0	0	0	0	0
PG FACULTY												
1	Dr. Priyanka Jadhav	10	0	0	0	2	0	42	0	0	0	4
2	Mrs. Shilpa Kewate	10	0	0	0	0	0	0	0	0	0	0
3	Mrs. Molly Mathew	5	0	0	0	0	0	0	0	0	0	0

b) No of publications listed in international database (e.g. Web sciences, Scopus, Humanities International Complete, Google Scholar, etc.): 9

c) Chapter/ Books WRITTEN/EDITED

Sr. No	Name of faculty	Book Name	Publisher	ISBN/ISSN Number	Year
1	Dr. Kamal Bajoria and Dr. Priyanka Jadhav	Manufacturing Science and Technology III	Trans Tech Publications, Switzerland	ISBN-13: 978-3-03785-563-8	2013
2	Dr. Kamal Bajoria and Dr. Priyanka Jadhav	Computational Methods and Experimental Measurement XVI	WIT UK press	ISBN 978-1-84564-732-2	2013

20. Areas of consultancy and income generated

Sr. No.	Area of consultancy	Name of Industry/organization	Income generated (Rs)
1	Testing of Materials	Gurudrawra shree guru sabha Sec-22 Kharghar	6600 /-

21. Faculty as members in

- a. National committees : ISTE,
- b. International Committees : Nil
- c. Editorial Boards: Nil

22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/Programme

Year	UG		PG	
	% In-house Projects	% Out House Projects	% In-house Projects	% Out House Projects
2014-15	69.94	38.46	84.46	15.54
2015-16	64.48	35.12	73.33	26.67

- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Year	UG		PG	
	No. of Out house Projects	% Out House Projects	No. of Out house Projects	% Out House Projects
2014-15	15	38.46	2	15.54
2015-16	13	35.12	4	26.67

23. Awards / Recognitions received by faculty and students

Students Awards

a. Students Topper

Sr. No.	Academic Year	Name of Student	University/ College Rank
1	2014-15	Sujay Savla	Ninth/ First
		Tushar Shelke	Thirteenth/ Second
2	2013-14	Krishna Garkal	Tenth/ First
		Sharayu Nagare	Fourteenth/ Second
		Prathesh Parekh	Twenty First/ Third

3	2012-13	Nafisa Malwawala	Twenty First/First
4	2011-2012	Sukrut Rege	Eleventh / First

b. Students Sports

Sr. No.	Name of student	Name of Event	university/College Level	Year	Student achievement
1	Suresh Gharat Somharsh Ghuge Vishwas Dhadambe Siddhi Dalvi Kiran Tayde	Rapid Survey	Dilkap Research Institute of Engineering & Management Studies, Nerul	18/03/15	First
2	Devrukhkar Darshan Vijay	400 meter Hurdles men	Thane District athletic association	12/05/15	Second Prize
3	Devrukhkar Darshan Vijay	400 meter run men	Thane District athletic association	12/05/15	First Prize
4	Dalvi Sameer Sakharam	SNAP IT	Mumbai University	2015	First Prize
5	Darshan Devrukhkar	110 meter Hurdles men	Inter collegiate Sports, Mumbai University	21/03/14	Silver Medal
6	Darshan Devrukhkar	400 meter Hurdles men	Inter collegiate Sports, Mumbai University	21/03/14	Bronze Medal
7	Devrukhkar Darshan Vijay	400 meter Hurdles men	Inter collegiate Sports, Mumbai University	16/11/14	First Prize
8	Dalvi Sameer Sakharam	Yoga Competition	Mumbai	28/9/14	First Prize
9	Devrukhkar Darshan Vijay	110 Hurdle	Inter collegiate Sports, Mumbai University	15/11/13	Second Prize
10	Devrukhkar Darshan Vijay	4 th All India inter district invitational athletic meet 2013	SAG ground, Campal, Panaji, Goa. (Goa athletic association)	8- 9/11/13	Second Prize

c. Paper presentation

S.N	Name of Student	Title of Paper	Year	Achievement
1	Hussain Hamdulay	Study of Fatigue and Life Assessment of Steel Structures IS 800:2007 Provision Pervious Concrete: Step towards Green Concreting	2014	Presented
2	Rameez Gahlot	Cofferdams-Forces Analysis And Design Criteria Approximate Analysis of Piled Raft	2014	Presented
3	Neha Kolate	Analysis and Design of Box Culvert	2014	Presented
4	Sandeep Kadam	Analysis of Ground Clay Brick as Supplementary Cementitious Material	2015	Presented

d. Project competition

Sr. No.	Name of Student	Title of Project	Year	Achievement
1	Suraj Vishwakarma Omprakash Shirke	Bio Gas Generation from Canteen Waste	2014-2015	First Prize
2	Soumik Chakraborty Nafisa Malwawala Ajay Patil Vishnu Rudrabhatt	Energy Efficiency in Building constructions	2012-2013	First Prize

Faculty Awards

Sr. No.	Name of Faculty	Department	Award	Year
1	Mrs.Roshni John	Civil	Academic Excellence award	2011-12
2	Mr. Harshal Deshpande	Civil	Academic Excellence award	2012-13
3	Mrs. ShilpaKewate	Civil	Star Performer Award	2013-14
4	Mrs.PoojaSomani	Civil	Star Performer Award	2014-15
5	Mrs.Roshni John	Civil	Power Grid Corporation of India	2013

i. Best Paper Awards : Harshal Deshpande, ICAST 2015

ii. ME/ M.Tech Topper:

S.N	Name of Faculty	Year	Achievement
1	Ms. Supriya Khedkar	2013-2014	Second topper

Sr. No.	Name of Faculty	Awards received by the faculty and students with year	Recognition received from reputed professional bodies agencies, nationally and internationally
1	Roshni John	2012-13 Power grid Tech 2013	Power Grid Corporation of India

24. List of eminent academicians and scientists / visitors to the department

Sr. No.	Name	Designation	Company/ Organization	Experience in years
1	Mr. Harsad Lotlikar	Sr. Engineer	Schedulation Association	08
2	Er. U M. Paranjpe	Sr. Engineer	Rural Development(NGO)	25
3	Mr. AnantAnandPatil	Senior Manager	BASF	10
4	Karanpal S. Rawat	Sr. Geologist	Reliance Industries Ltd	08
5	Mr. HemantJagtap	Divisional Engineer	PWD, Mumbai	14
9	Dr. G.R. Reddy	Scientist officer H+	BARC	20

25. Seminars/ Conferences/Workshops organized & the source of funding

a. National

S.N.	Event with year	Funding Agency	Amount (Rs)
1	Workshop (2015-16)	SES and CESA	Rs. 20,000/-
2	STTP (2013-14)	SES and CESA	Rs. 2,00,000/-

b. International

Sr. No.	Event with year	Funding Agency	Amount (Rs)
1	International Conference on Advances in Science and Technology-2015 (ICAST-2015)	Saraswati Education Society	Rs. 13,92,604/-

26. Student profile program/course wise:

Year of Admission	Year of Result	Applications received	Selected	Enrolled		Pass Percentage
				M*	F*	
2008-09	2011-12	60	56	51	5	92.5
2009-10	2012-13	90	90	76	14	89.9
2010-11	2013-14	90	90	77	13	93.75
2011-12	2014-15	120	126	100	26	92.95
2012-13	2015-16	120	127	105	22	NA

M* = Male

F* = Female

27. Diversity of Students

Year	Name of the Course	% of students from the same state	% of students from other state	% of students from Abroad
2011-12	B.E.Civil	100	Nil	Nil
2012-13	B.E.Civil	99	1	Nil
2013-14	B.E.Civil	99	1	Nil
	M.E. Civil	100	Nil	Nil
2014-15	B.E.Civil	98	2	Nil
	M.E. Civil	99	1	Nil
2015-16	B.E.Civil	99	1	Nil
	M.E. Civil	100	Nil	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Sr. no.	Academic Year	Name of Student	Exam
1	2015-2016	Prathamesh Dingorkar	NICMAR
2		Rushab Kakde	NICMAR
3		Mangal Ghorpade	NICMAR
4		Mayuresh Raut	GATE
1	2014-2015	Abhijeet Gangal	GATE
2		Omkar Dalal	GATE
3		Omprakash Shirke	NICMAR
4		Shilpa Kumathe	NICMAR
1	2013-2014	Amre Prathmesh	GATE
2		Sujay Chirmade	GATE
3		Rohit Shinde	GATE
4		Swapnil Sawant	GATE
5		Tejashree Shinde	GATE
1	2012-2013	Ritesh Chavan	GATE
2		Dhananjay Chikhlekar	GATE
3		Amitkumar Gupta	GATE
4		Rushikesh Oza	GATE
5		Vishwas Paighan	GATE
6		Krushna Vanga	GATE
7		Devendra Singh	GATE
8		Shubhankar Godase	NICMAR

29. Student progression

Student Progression	Percentage against enrolled			
Year	2015-16	2014-15	2013-14	2012-13
UG to PG	NA	20.42	25	28.28
PG to Ph.D.	Nil	Nil	Nil	Nil
Campus selection	3.78	45.07	58.03	52.52
Other than campus recruitment	NA	15.49	3.57	3.03
Entrepreneurship/Self-employment	NA	8.45	8.92	10.10

30. Details of Infrastructural facilities

a. Library (Central):

Library holdings	2011-2012		2012-2013		2013-2014		2014-2015		2015-16	
	No.	Co.	No	Co.	No	Co.	No	Co.	No	Co.
Text books	40	20800.00	0	0	108	52695.00	37	20990.00	105	48664/-
Reference books	0	0	0	0	17	8402.00	6	3975.00	23	72913/-
Journal/periodicals	20 (14*&6#)	102272.00	13 (13*)	36696.00	25 (25*)	36696.00	23 (22*&1#)	34805.00	26 (23*&3#)	38601/-
e-resources	30	222760.00	44	134820.00	34	156309.00	0	0	35	202686/-

No. – Number, Co. – Total Cost

Journal/periodicals - * National Journal, # International Journal

e-resources- ASCE, J-GATE

Library (Departmental): Books-149, Projects- 110

b. Internet facilities for Staff & Students: 100 mbps leased line and wifi

c. Class rooms with ICT facility: 5 classrooms (70 sqm) LCD facility available

d. Laboratories

Sr. No.	Laboratory	Area (sqm)	Equipments	Qty	Cost (Rs.)
1	Survey Lab	66	1.Dumpy Level 2.Prismatic Compass & Survey Compass 3.Digital Plani Meter	6 8 1	8,16796/-

			4.Total Station	1	
2	Concrete Technology Lab	69	1.Concrete Mixer 2. Sieve Shaker 3.Aggregate Impact test apparatus 4.Vicat Needle apparatus 5.Le-Chatlier apparatus 6.Slump Test apparatus	1 1 1 1 1 2	340873/-
3	Geotechnical Lab	155	1.Direct Shear Test 2.Unconfined Compression testing Machine 3.Triaxial Shear Test 4.Consolidation Test Apparatus 5. Proctor Test Apparatus 6.Atterberg's Limits 7.Field Density Test	2 2 2 2 1 2 1	410840/-
4	Strength of Materials Lab	220	1.Universal Testing Machine 2.Digital Compression Testing Machine 3.Torsion Testing Machine 4.Impact Testing Machine 5.Hardness Testing Machine	1 1 1 1 1	913187/-
5	Engineering Geology Lab	66	1. Orthoclase 2.Hornblende 3.Garnet 4.Hematite 5.Graphic Granite etc	1 1 1 1 1	56450/-
6	Environmental Engineering Lab	73	1.High Volume Sampler 2.Turbidimeter 3.Jar Test Apparatus 4. pH Meter 5.T. D. S. Meter 6.Flame Photometer 7.Conductivity Meter	1 1 1 1 1 1 1	322936/-
7	Transportation Engineering Lab	155	1.Los Angeles 2.Abrasion Testing Machine 3.C.B.R.Test Apparatus 4.Pensky Marten Flash Point Apparatus 5.Ductility Testing Machine	1 1 1 1 1	235876/-
8	Applied Hydraulics and lab	103	1.Impact of Jet Apparatus 2.Francis Turbine 3. Pelton Wheel Turbine Test Rig. 4. Reciprocating Pump Test Rig.	1 1 1 1	955417/-

			5.Hydraulic Flume (six meter)		
9	Computer Center	66	Computer – HCL Scanner Printer	20 1 1	244950/-
10	P.G Lab	66	Computer – HCL Printer	20 1	276300/-
11	Design Lab(BDD)	85	Drawing Tables	35	70000/-

31. Number of students receiving financial assistance from college, university, government or other agencies

- Economically weaker students of SC,ST ,OBC and OC ,whose parent income is less than 1.0 Lakh per annual get tuition fee reimbursement and scholarship from state Government.
- Some of the students getting financial assistance from the college for presentation of the papers and for attending conferences/workshops.

S.N	Year	Category	Number of Students	Amount (Rs. In Lakhs)
1	2014-15	Schedule Tribes(ST)	16	13.6
		Schedule Caste(SC)	79	66.24
		SBC	9	6.44
		VJNT	34	26.24
		Minority Class(MC)	6	1.50
		Other Backward Class(OBC)	73	28.47
		Economically Backward Class(EBC)	45	16.64
2	2013-14	Schedule Tribes(ST)	13	9.97
		Schedule Caste(SC)	63	48.30
		SBC	13	11.40
		VJNT	41	30.02
		Minority Class(MC)	3	0.75
		Other Backward Class(OBC)	77	28.47
		Economically Backward Class(EBC)	40	13.51
3	2012-13	Schedule Tribes(ST)	8	6.26
		Schedule Caste(SC)	55	40.95
		SBC	7	5.16
		VJNT	31	22.81

		Minority Class(MC)	4	1.00
		Other Backward Class(OBC)	70	25.53
		Economically Backward Class(EBC)	39	12.75
4	2011-12	Schedule Tribes(ST)	7	4.79
		Schedule Caste(SC)	39	23.74
		SBC	8	4.86
		VJNT	30	18.95
		Minority Class(MC)	4	1.00
		Other Backward Class(OBC)	70	22.96
		Economically Backward Class(EBC)	20	6.23

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

Academic Year	Sr. No	Name of Activity	Date From To	Name of Expert/ Speaker	Total Student participants
2015-16	1	Add on Course	15/02/16 & 17/02/16	Dr. R. A. Hegde	100
	2	Add on Course	30-31/01/16	Mr. Bhausahab Desai, Destech Structural Consultants	100
	3	Add on Course	09-10/10/15	Er. U M. Paranjpe, Dr.Rucha Paranjpe, Jalwardhini Pratishtan	100
	4	Seminar	02/09/15	Mr. Yashad Kitane, Les Roaches	287
	5	Seminar	26/08/15	Mr. Vinay Raikar, C.R.T, Mumbai	88
	6	Seminar	11/08/15	Mrs. Sonali patil, CAAD Center, Mumbai	90
	7	Seminar	24/07/15	Mr. C.J Rao, Deputy Engineer, MHADA	143
2014-15	1	Seminar	21/01/15	Dr. Sankaran Kutty	90
	2	Workshop	17/09/14	Mr. John, (Black Belt in Martial Arts)	50
	3	Seminar	24/07/14	Prof. Roshni John,SCOE.	140
2013-14	1	Seminar	28/10/13	Mr. Anant Anand Patil	80
	2	Seminar	17/09/13	Mr. Vijay Patil, Traffic Police Comm.Navi Mumbai	35
2012-13	1	Workshop	15/03/13	Rtn Hemant Jagtap	76

2011-12	1	Workshop	24/03/2012	Dr. Ashok Sanghvi Mr. Cyrus Dordi Mr. Vyasa Rao	85
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33. Teaching methods adopted to improve student learning:

Sr. No.	Innovations in Teaching Methodology
1	Project based Learning
2	Power point presentations
3	Demonstrations (Model Based)
4	Audio Visuals
5	Industrial visits and survey camps
6	Site Visit, Field Visits
7	NPTEL Courses
8	Supervised Studies
9	Training through Internships Program
10	Students Seminar & presentation

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Sr. No.	Activity	Date
1	Blood Donation	17/09/2014
2	Self Defence for Girls	17/09/2014
3	Marathon for social cause	17/09/2015
4	Charity Event	13-14/09/2012
5	Kashmir Relief Fund	17/09/2014

35. SWOC analysis of the department and Future plans

Strengths:

1. Experienced and well qualified faculty with good academic background.
2. Adequate Student-Teacher ratio.
3. Well-equipped laboratories,
4. Modern library for better teaching learning process.
5. Quality improvement programs for faculty to maintain and upgrade the teaching skill of faculties.
6. Regular training programmes and workshops for students

Weaknesses:

1. Many students lack skill in communication since they are from vernacular medium.
2. Our institute is affiliated to University of Mumbai, hence to follow the prescribed syllabus which is not updated frequently. Students feel incompetent, since the gap between the academic and industry is not bridged properly.
3. The system is teacher centric and not learner centric.

Opportunities:

1. Institute is located in Navi Mumbai which is a developing day by day and has great opportunities to the students from Civil Engineering.

- The graduating students have many opportunities as major construction activities are going on like International airport, development of IT Sector, Multi storey buildings, Infrastructure and many more for the Civil Engineer.
- As Institute is located in a prime place, there is a wide scope to have interaction with industry, academic partnership, and student exchange programs.

Challenges:

- Number of institutes offering Civil Engineering courses are coming up in nearby vicinity, Competition for getting good students have increased.
- To inculcate academic interest among the students having poor academic record and make them competent engineers to face the challenges in the field of engineering.

Future Plans:

- To get recognition for the research center from University of Mumbai.
- To have a consultancy cell which take cover all the sort of consultancy works related to Civil Engineering like structural consultancy, testing of materials etc.
- To upgrade laboratories and to procure software's as per the revised syllabus and requirement of industry.
- To focus on students ranks in the University with 100 % results.
- To arrange the various training program to improve the employability of the students for better placement.

**Evaluative Report of the Departments
SHIFT II**

- Name of the department:** Civil Engineering Department - Shift II
- Year of Establishment:** 2013
- Names of Programmes / Courses offered:** UG
- Number of teaching post:**

Designation	Sanctioned	Filled
Professors	00	00
Associate Professors	02	02
Asst. Professors	07	07
Visiting Faculty	02	02

- Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

U. G. COURSE (Civil Engineering)						
S R N	Name of faculty	Qualification	Designation	Specialization	Experience in years	Ph.D. Students guided
1	Mrs. Pooja Somani	M. Tech.	Asso.Prof. & HOD	Environmental Engg.	8 teaching, 2 industry	NIL

2	Mrs. Vaishali Kishan	M.Tech.	A.P.	Structural Engg	1 teaching, 2 industry	NIL
3	Mr..D.M.Joshi	M.E.	Asso Prof	Structural Engg	30 Years teaching	NIL
4	Mrs. Mrinmayee Ganage	M.Tech.	A.P.	Water Resources Engg.	1	NIL
5	Ms. Varsha Patil	M.E.	A.P.	Structural Engg	3 teaching	NIL
6	Mr. Vishal Misal	M.E.	A.P.	Structural Engg	3	NIL
7	Mrs. Sujaya Wadekar	M.E.	A.P.	Water Resources Engg.	4	NIL
8	Ms. Garima Nagpal	M.E.	A.P.	Water Resources Engg	0.5 teaching, 1.2 trainee	NIL
9	Mrs. Priya Chintanwar	M.E	A.P.	Environmental Engg.	3.5	NIL

11. List of senior visiting faculty:

SR N	Name of faculty	Qualification	Designation	Specialization	Experience in years	Ph.D. Students guided
1	Mr. Digambar R. Suroshe	M.E	Visiting Faculty.	Structure	18	Nil
2	Mr. Prashant Bangar	M.E.	Visiting Faculty.	Civil Engg	06	Nil

12. Student -Teacher Ratio (Programme wise)

Total No. of Student	Total No. of Staff	Student-Teacher Ratio
180	11	16:1

13. Qualifications of teaching faculty with DSc/ D.Lit./ Ph.D/ MPhil / PG. /ME/Ph.D- completed and Pursuing (UG+PG)

Sr. No	Category	Total
1	Ph.D.	00
2	Ph.D. (Pursuing)	00
3	ME/ M.Tech	09
4	ME/ M.Tech (Visiting Faculty)	02

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Particular	Sanctioned	Filled
Supporting Staff (Technical)	01	01
Administrative Supporting Non Technical	No specific guidelines from University.	00 01

19. Publications:

Sr. No	Name of the faculty	A	B	C	D	E	F	G	H	I	J	K
1	Mrs. Pooja Somani	3	0	0	0	0	0	0	0	0	0	0
2	Mrs. Vaishali Kishan	1	0	0	0	0	0	0	0	0	0	0
3	Mr. D. M. Joshi	3	0	0	0	0	0	0	0	0	0	0
4	Mrs. Mrinmayee Ganage		0	0	0	0	0	0	0	0	0	0
5	Ms. Varsha Patil	2	0	0	0	0	0	0	0	0	0	0
6	Mr. Vishal Misal	1	0	0	0	0	0	0	0	0	0	0
7	Mrs. Sujaya Wadekar	2	0	0	0	0	0	0	0	0	0	0
8	Ms. Garima Nagpal	0	0	0	0	0	0	0	0	0	0	0
9	Mrs. Priya Chintanwar	0	0	0	0	0	0	0	0	0	0	0

b) No of publications listed in international database (e.g. Web sciences, Scopus, Humanities International Complete, Google Scholar, etc.): Nil

c) Chapter/ Books Written/Edited: Nil

23. Awards / Recognitions received by faculty and students

Students Award

- Students Topper : NA
- Students Sports: NA
- Paper presentation : Nil
- Project competition

Sr. No.	Name of Student	Title of Project	Year	Achievement
1	Anchit Sethia Reeta Yadav Veena Akshay	All India Bridge Making Competition	2015-2016	4 th Prize

Faculty Awards

- Best Teacher awards :Nil
- Best Department Awards :Nil
- Best Paper Awards :Nil
- Ph.D.:Nil
- ME/ M.Tech Topper:

Sr. No.	Name of Faculty	Year	Achievement
1	Mrs. Pooja Somani	2013-2014	Second topper

26. Student profile program/course wise:

Year of Admission	Year of Result	Applications received	Selected	Enrolled		Pass Percentage
				M*	F*	
2013-2014	-	60	60	51	9	-
2014-2015	-	60	45	42	03	-

2015-2016	-	60	56	48	8	-
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M*= Male

F* = Female

27.Diversity of Students

Year	Name of the Course	% of students from the same state	% of students from other state	% of students from Abroad
2013-14	B.E.Civil	100	0	0
2014-15	B.E.Civil	100	0	0
2015-16	B.E.Civil	95	5	0

31. Number of students receiving financial assistance from college, university, government or other agencies

- Economically weaker students of SC, ST, OBC and OC, whose parent income is less than 1.0 Lakh per annual get tuition fee reimbursement and scholarship from state Government.
- Some of the students getting financial assistance from the college for presentation of the papers and for attending conferences/workshops.

Sr. No.	Year	Category	Number of Students	Amount (Rs. In Lakhs)
1	2014-15	Schedule Tribes(ST)	1	0.92
		Schedule Caste(SC)	12	10.06
		SBC	3	2.14
		VJNT	8	6.17
		Minority Class(MC)	2	0.50
		Other Backward Class(OBC)	16	6.24
		Economically Backward Class(EBC)	6	2.38
2	2013-14	Schedule Tribes(ST)	0	0
		Schedule Caste(SC)	6	4.60
		SBC	1	0.87
		VJNT	5	4.39
		Minority Class(MC)	0	0
		Other Backward Class(OBC)	8	2.95
		Economically Backward Class(EBC)	2	0.74

Evaluative Report of Computer Engineering Department

1. **Name of the department :** Computer Engineering Department
2. **Year of Establishment :** 2004
3. **Names of Programmes / Courses offered :** UG, PG
4. **Names of Interdisciplinary courses and the departments/units involved:**

Sr. No.	Department	Subjects Offered
1	Department of Engineering Sciences and Humanities (FE)	Applied Mathematics III (SEM-III)
		Applied Mathematics IV (SEM-IV)
2	Department of Electronics and Tele Communication	Electronic Circuits and Communication Fundamentals (SEM-III)

5. **Annual/ semester/choice based credit system (Programme wise):** Semester pattern, Credit Based Grading System.

6. **Participation of the department in the courses offered by other departments:**

Sr. No.	Department	Name of Subject
1	Department of Engineering Sciences and Humanities (FE)	Structured Programming Approach(SEM-II)
2	Department of Electronics and Tele Communication	Object Oriented Programming Methodology (SEM-III)
3	Civil Engineering	Database Information Retrieval(SEM-III)
4	Mechanical Engineering	Database Information Retrieval System (SEM-III)

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.** Nil

8. **Details of courses/programmes discontinued (if any) with reasons:** Nil

9. **Number of Teaching post**

	Sanctioned	Filled
Professors	01	01
Associate Professors	01	01
Asst. Professors	13	13

10. **Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

U. G. COURSE (COMPUTER ENGG) I SHIFT						
SR No	Name of faculty	Qualification	Designation	Specialization	Experience in years	Ph.D. Students guided
1	Dr. Bharti Joshi	Phd	Professor	Networking	22	Nil
2	Mrs. Deepa Parasar	Ph.D. Pursuing	Asso. Prof.	COMP	12	Nil

3	Mrs. Vijaya Waghmare	ME	A.P.	COMP	12	Nil
4	Ms. Bhagyashri Sonawale	ME	A.P.	COMP	9	Nil
5	Mrs. Arti K. Gore	ME	A.P.	COMP	10	Nil
6	Ms. Monali Deshmukh	ME	A.P.	COMP	7	Nil
7	Ms. Hemalata A. Gosavi	ME	A.P.	CSE	5.	Nil
8	Ms. Purtata Bhoir	ME	A.P.	COMP	7	Nil
9	Ms. Parineeta suman	ME	A.P.	COMP	6	Nil
10	Ms. Suhasini Parvatikar	ME	A.P.	IT	6	Nil
11	Mrs. Rina Bora	ME	A.P.	COMP	6.5	Nil
12	Mr. Amit Gawade	ME	A.P.	COMP	5	Nil
P. G. COURSE (COMPUTER ENGG)						
1	Mrs. Madhuri Dalal	B.E , M.Tech Comp	A.P.	COMP	12	Nil
2	Mrs. Sujata T. Bhairnallykar	ME	A.P.	COMP	8	Nil
3	Mr. Dhanraj D. Walunj	ME	A.P.	COMP	6	Nil

11. List of senior visiting faculty : Nil

12. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty: All classes are conducted by full time faculty

13. Student -Teacher Ratio (Programme wise) :

UG/PG	Total No. of Students	Total No. of Staff	Teacher – Student Ratio
UG	180	12	15:1
PG	36	3	12:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Particular	Sanctioned	Filled
Supporting Staff (Technical)	03	04
Administrative	04	01
Supporting Staff (Non-Technical)		02

15. Qualifications of teaching faculty with DSc/ D. Lit./ Ph.D/ MPhil / PG. /M.E./Ph.D- completed and Pursuing

Sr. No.	Qualification	Total
1	Ph.D.	01
2	Ph.D. Pursuing	01
3	M.E.	13

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received

No of faculty with ongoing projects from National funding agencies	Grants received from National funding agencies	No of faculty with ongoing projects from International funding agencies	Grants received from International funding agencies
01	2,50,000/-	NIL	NIL
02	50,000/-	NIL	NIL

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received

Sr. No.	Name of the Faculty (PI)	Funding Agency & Year	Amount
1	Dr. Bharti Joshi, Ms. Suhasini Parvatikar	Institute of Engineers, Kolkata	50000
2	Dr. Bharti Joshi	Department of Science and Technology, Maharashtra	In Process
3	Ms. Deepa Parasar	Department of Science and Technology, Maharashtra	In Process
4	Mrs. Vijaya Waghmare	Department of Science and Technology, Maharashtra	In Process

18. Research Centre /facility recognized by the University : NIL

19. Publications:

- A. Number of papers published in peer reviewed journals (national / international) by faculty and students
- B. Number of publications listed in International Database (For Eg: Web of Science, Scopus, and Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- C. Monographs
- D. Chapter in Books
- E. Books Edited
- F. Books with ISBN/ISSN numbers with details of publishers
- G. Citation Index
- H. SNIP
- I. SJR,
- J. Impact factor,
- K. h-index

• Publication per faculty

Sr. No	Name of the faculty	A	B	C	D	E	F	G	H	I	J	K
1	Dr. Bharti Joshi	12	10	--	--	--	--	-	-	-	IJSER – 3.2 IICA- 0.715 AIS– 0.412 IJRSET 5.442	-

											IJE – 2.00	
2	Deepa Parasar	04	04	-	-	-	-	-	-	-	-	-
3	VijayaWaghmare	03	03	-	-	-	-	-	-	-	IJSR-4.438 IJCA 0.715	-
4	MadhuriDalal	04	02	-	-	-	-	-	-	-	IJCA 0.715	-
5	Sujata B.	01	02	-	-	-	-	-	-	-	IJCA 0.715	-
6	Bhagyashri Sonawale	00	00	-	-	-	-	-	-	-	-	-
7	Monali Deshmukh	01	01	-	-	-	-	-	-	-	IJCA 0.715	-
8	Purtata Bhoir	01	01	-	-	-	-	-	-	-	IJCA 0.715	-
9	Arti K. Gore	00	03	-	-	-	-	-	-	-	-	-
10	Hemalata A. Gosavi	01	01	-	-	-	-	-	-	-	-	-
11	Suhasini Parvatikar	01	01	-	-	-	-	-	-	-	IJCA 0.715	-
12	Parineeta suman	01	01	-	-	-	-	-	-	-	IJCA 0.715	-
13	Rina Bora	02	02	-	-	-	-	-	-	-	IJCA 0.715	-
14	Dhanraj D. Walunj	01	01	-	-	-	-	-	-	-	IJERT-1.2	-
15	Amit Gawade	02	01	-	-	-	-	-	-	-	IJAFRSE 1.036	-

20. Areas of consultancy and income generated: NIL

Sr. No.	Area of consultancy	Name of Industry/organization	Income generated
1	College Website Design	RVIOT	Rs. 24000/-
2	Online feedback system	RVIOT	Rs. 45000/-

21. Faculty as members in

- National committees : ISTE, Institute of Engineers, CSI
- International Committees : Nil
- Editorial Boards : Nil

22. Student projects

- Percentage of students who have done in-house projects including inter departmental/Programme

Year	No. of In-house Project	% of Projects done in- house
2015-2016	22	100
2014-2015	28	100
2013-2014	22	100
2012-2013	24	100
2011-2012	21	100

- Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies : Nil

23. Awards / Recognitions received by faculty and students

a. Students Topper

Sr No.	Academic Year	Name of Student	College rank
1	2014-15	Puja Pawar	1 st
2	2013-14	Sawkar Pooja	1 st
3	2012-13	Sharma Manali	1 st
4	2011-12	Pragati Unde	1 st

b. Students sports

S. N.	Name of Student	Name of event	Level (University/College/ State/National)	Achievement
2014-15				
2	Revati Jadhav(S.E)	Carrom	College	Runner-up
2013-14				
1	Mohit Rau(B.E)	FootBall	National	Runner-up
2	Pooja Razdan(T.E)	Chess(Girls)	College	Runner up
2012-13				
1	Mohit Rau(T.E)	Volly Ball	College (YMT College of management)	Runner up
2	Mohit Rau(T.E)	Basket Ball	College	Runner up
3	Mohit Rau(T.E)	Athletics (200 M)	College (SCOE)	First winner
8	Sonal, Manoj(T.E)	Carrom	College (SCOE)	Winner
2011-12				
1	Mohit Rau(S.E)	Footbal	College (Yadavrao Tasgaonkar)	3rd Winner
2	Mohit Rau(S.E)	Basket Ball	College (Thakur college of Engg.)	3rd Winner

- b. Paper presentations: Nil
c. Project Competitions:

Sr. No	Name of student	title of project	year	achievement
1	Charusheela Dheb	Cocomo-II Model	2014-15	Best Project Award
2	Madhura Bhatkar			
3	Pooja Gawali			
4	Sachin Mejari	Biometric Attendance	2014-15	Best Project Award
5	Chinmay palande			
6	Aman Oberoi	OMR Character Recognition	2013-14	Best Project Award
7	Pratima Raut			
8	Aniruddha Shingote			

Faculty Awards

Sr No	Name of Faculty	Department	Award	Year
1	Dr. Bharti Joshi	Computer	Research Award	2012-13
2	Mrs. Parineeta Suman	Computer	Academic Excellence award	2013-14
3	Dr. Bharti Joshi (H.O.D.)	Computer	Best Department Award	2013-14

- i. Best teacher award :
- ii. Best department award : awarded in 2013-14
- iii. Best paper award: Arti Gore (2012-13)
- iv. Ph.D. : Dr. Bharti Joshi (2012-13)
- v. ME toppers: Ms. Purtata Bhoir (2013-14)

24. List of eminent academicians and scientists / visitors to the department

Sr. No.	Name	Designation	Company/ Organization	Exp. In years
2015-16				
1	Mr. Vinay Raikar	CEO	Campus credentials	6
2	Mr. sandip Chatuphade	trainer	SEED infotech	8
3	Prof. Arun Kulkarni	Prof.& HOD	TSEC, Bandra	20
4	Mr Bhushan Jadhav	Asst. Prof.	TSEC, Bandra	10
5	Dr. Jonathan Hill	Interim Dean	Pace Univ. New York, USA	15
6	Mr. Tushar Kute	Asst. Prof.	Sandip foundation	8
2014-15				
7	Mr. Aniket Mala	Director	Cap Gemini Pvt. Ltd.	15
8	Mr. Chirag Thakkar	Trainer	Smart Ways	6
9	Mr. Manish Lohansiva	S/W developer	Oracle Certified Technies	4

10	Mr .AnshumanKak	business consultant	secRoot security solutions	6
2013-14				
11	Mrs. Reshma Khushalani	HR	(SEED Infotech)	7
12	Mr. Rajesh Jain	Scientific officer	BARC	20
13	Mr. Bhushan Jadhav	Assistant Professor	TSEC,Bandra	10
14	Mr. Sasikumar	Associate Director (Research)	C-DAC Mumbai	20
15	Ms. Shalini Mittal	Android OS Trainer	SEED NFOTECH	3+
2012-13				
16	Mr. Roy Eddington-charles	Consultant & trainer	Roy Eddington-charles associates	20
17	Mr. Sulabh Jain	Expert trainer	Kyrion Technologies	6
2011-12				
18	Mr. Narendra Sharma	Trainer	SEED INFITECH	6
19	Mr. Vikas Mishra	Trainer	Nano-Cell-Tech	4
20	Mr. Vinay Kumar	Trainer	MICROSOFT	6

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National

Sr. No.	Event with Year	Funding Agency	Amount (Rs)
1	2013-14 Linux	ISTE	28,437
2	2013-14 Android OS	SCOE	57,760
3	2012-13 cloud computing	ISTE	1,00,000
	Total		1,86,197

b) International: Nil

26. Student profile programme/course wise:

Year of Admission	Year of Result	Applications received	Selected	Enrolled		Pass Percentage
				M*	F*	
2011-12	2014-15	60	58	31	27	58.62
2010-11	2013-14	60	55	31	24	50.91
2009-10	2012-13	60	57	38	19	52.63
2008-09	2011-12	60	59	41	18	55.93

M*= Male

F* = Female

27. Diversity of Students

Year	Name of the Course	% of students from the same state	% of students from the other state	% of students from the Abroad
2015-16	BE COMP	96.55	3.45	NIL
	ME COMP	100	0	NIL
2014-15	BE COMP	100	0	NIL
	ME COMP	100	0	NIL
2013-14	BE COMP	100	0	NIL
	ME COMP	100	0	NIL
2012-13	BE COMP	98.44	1.56	NIL
	ME COMP	---	---	NIL
2011-12	BE COMP	98.39	1.61	NIL
	ME COMP	---	---	NIL

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Sr. no.	Academic Year	Name of Student	Exam
1	2012-2013	Sanjay Yadav	GATE
2	2011-2012	Gaurav Bansode	GRE

29. Student progression

Student Progression	Percentage against Enrolled			
Year	2015-2016	2014-2015	2013-2014	2012-2013
UG to PG	1.63	4.05	14.75	10.66
PG to Ph.D. PG to Post-Doctoral	Nil	Nil	Nil	Nil
Campus selection	55.73	74.32	54.09	64
Other than campus recruitment	NA	0	14.75	8
Entrepreneurship/Self-employment	NA	17.56	13.11	14.66

30. Details of Infrastructural facilities

- Library:
- Central Library :

Library holdings	2011-12		2012-2013		2013-2014		2014-2015		2015-2016	
	No.	Co.	No.	Co.	No.	Co.	No.	Co.	No.	Co.
Text books	12	4590.00	6	1500.00	65	3445.00	50	2933.00	145	936.47
Reference books	1	550.00	0	0	8	4384.00	6	3388.00	30	229.94

Journal/periodicals	9 (6* & 3#)	1232 47.0 0	8(6* & 2#)	2662 0.00	11 (11*)	2332 0.00	13 11 *& 2#)	3097 9.80	26 (23 *& 3#)	476 01/-
e-resources	200	2666 40.0	122	1456 00.0	275	3819 88.0	14 5	3842 37.00	145	384 237

No. – Number, Co. – Total Cost

Journal/periodicals - * National Journal, # International Journal

e-resources- (IEEE,SC.DIRECT,SPRINGER,J-GATE)

- Department Library:
- Books:130
- Student Project Reports: 42
- Internet facilities for Staff & Students: 100 MBPS leased line & wifi campus
- Class rooms with ICT facility: 3 classrooms (66 sq. m.) ,LCD Facility is available
- Laboratories

S.N.	Laboratory	Area (sq.m)	Equipment	Qty.	Cost (Rs.)
1	Project Lab	75	Computers	25	462530
			Printers	2	11090
			Switch	1	2950
2	Multimedia Lab	90	Computers	21	553596
			Printers	1	4750
			Switch	1	2950
			scanner	1	3269
			Creative Speaker	40	98080
			Logitech Quick Cam	5	26925
3	Database Lab	90	Computers	20	533000
			Printers	2	11090
			Switch	1	6095
			Monitor	1	5396
4	System Lab	75	Computers	30	721355
			Printers	2	10950
			Switch	1	5865
			Monitor	1	5450
5	Software Lab	75	Computers	21	550200
			Printers	1	4750
			Switch	1	6095
			Monitor	8	40276
6	Network Lab	75	Computers	21	557550
			Printers	1	4750
			Switch	1	2950

			Monitor	1	5450
7	SDC Lab	70	Computers	20	468353
			Printers	1	6200
			Switch	1	6095
8	PG Lab	75.	Computers	15	307553
			Switch	1	6095
9	Electronics Lab	65	Cathode Ray Oscilloscope	6	88175
			Function Generator	4	31030
			Digital Multimeter	4	8400
			Dual Power Supply	5	58298
			DMM Handheld Multimeter	3	3300
10	CENTRAL SERVER ROOM & Hardware Lab	10+75	Computers	5	115900
			Server	4	341923
			Printers	1	6200
			Switch	4	25914
			UPS	4	92403
11	Computer Center	210	Hardware-		
			HCL Desktop, 2 GB R 7200 rmp	90	1565200
			IBM Server IBM Sys	1	92500
			EPSN LX-300 Printer	1	6923
			19 U network rack 148 pacth	1	115208
			Software-		
1. Autocad 2008	90	752640			
2. Pro E 4.0 Wildfire	90	160000			

31. Number of students receiving financial assistance from college, university, government or other agencies

- Economically weaker students of SC, ST ,OBC and OC ,whose parent income is less than 1.0 Lakh per annual get tuition fee reimbursement and scholarship from state Government.
- Some of the students getting financial assistance from the college for presentation of the papers and for attending conferences/workshops.

Sr. No.	A.Y.	Category	Number of Students	Amount (Rs. In Lakhs)
1	2014-15	Backward Class(BC)	25	9.75
		Schedule Caste(SC)	34	28.51
		Schedule Tribes(ST)	0	0

		Economically Backward Class(EBC)	22	8.00
		Minority Class(MC)	2	0.50
		SBC	4	2.86
		VJNT	14	10.80
2	2013-14	Backward Class(BC)	35	12.94
		Schedule Caste(SC)	25	19.16
		Schedule Tribes(ST)	0	0
		Economically Backward Class(EBC)	13	4.48
		Minority Class(MC)	2	0.50000
		SBC	5	4.38
		VJNT	16	11.71
3	2012-13	Backward Class(BC)	33	12.03
		Schedule Caste(SC)	27	20.10
		Schedule Tribes(ST)	0	0
		Economically Backward Class(EBC)	18	5.83
		Minority Class(MC)	1	0.25
		SBC	3	2.21
		VJNT	15	11.04
4	2011-12	Backward Class(BC)	32	10.49
		Schedule Caste(SC)	21	12.78
		Schedule Tribes(ST)	1	0.71
		Economically Backward Class(EBC)	9	2.68
		Minority Class(MC)	1	0.25
		SBC	4	2.43
		VJNT	16	10.10

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

Acad emic Year	S. N.	Name of Activity	Date		Name of Expert/ Speaker	Total Student partici pants
			From	To		
2015-16	1	Carrier guidance	17-7-15	17-7-15	Mr. Vinay Raikar	57
	2	Aptitude training	27-7-15	21-7-15	Mr. Vinay Raikar	57
	3	Java training	5-8-15	6-8-15	Mr. Sandip chatuphale	57
	4	C++ training	3-8-15	4-8-15	Ms. Deepika	57

	5	Oracle Training	7-8-15	7-8-15	Ms. Diksha K.	55
	6	Soft Computing	21-8-15	21-8-15	Prof.Arun Kulkarni	25
	7	Android OS	10-9-15	10-9-15	Prof.Bhushan Jadhav	100
	8	Forein exchange Program	22-09-15	22-09-15	Dr.Jonthan Hill	100
2014-15	1	Industry Institute interaction	05/08/14	05/08/14	Prof.Bharti Joshi	200
	2	Industry Institute Expert lecture	12/9/14	12/9/14	Mr. Aniket Mala	60
	3	Aptitude course	8/10/15	09/10/15	Mr.Chirag	53
	4	Bridging the gap between Theory and practical	05/2/15	05/2/15	Mr.Manish Lohansiva Oracle Certified Technies	65
	5	UPSC/MPSC/IAS/IPS/IFSAw areness program	11/2/15	11/2/15	Vijay shekhar	07
	6	Ethical Hacking	13/3/15	14/3/15	Mr.Anshuman Kak	59
	1	Seminar on “Career in IT”	08/8/13	08/8/13	Mrs.Reshma Khushalani (SEED Infotech)	155
	2	Design of software for R&D and Industrial Application	12/08/13	12/08/13	Mr. Rajesh Kumar Jain (BARC)	60
2013-14	3	Workshop on “LINUX	22/08/13	26/08/13	Prof.Bhushan Jadhav	57
	4	Parallel Computing	30/08/15	30/08/15	Mr. Sasikumar	18
	5	How to Write a Research Paper	3/02/14	3/02/14	Dr.Manjusha Deshmukh	55
	6	Ethical Hacking	13/3/2014	13/3/2014	Mr. Rizwan Shaikh	55
2012-13	1	How to Crack GD and PI during Campus Placement	31/8/12	31/8/12	Mr. Roy Eddington-Charles	60

	2	“Ethical Hacking”	8/9/12	8/9/12	Mr. Sulabh Jain	18
2011-12	1	.NET Workshop	12/8/11	12/8/11	Mr. Narendra	61
	2	Seminar on Mobile Computing with Android	17/08/11	17/08/11	Mr.Vikas Mishra	69
	3	Work Shop On “Ethical Hacking	9/9/11	10/9/11	Mr. Sulabh Jain	57
	4	NET Course(100 Hrs)	28/01/11	ONWARD S 100 hrs	Mr. Vinay	62
	5	Seminar on Higher Studies	25/01/12	25/01/12	Mr.VijayShekhar	62

33. Teaching methods adopted to improve student learning

Sr. No.	Innovations in Teaching methodology
1	Video lectures of NPTEL
2	Use of audio-visual aids.
3	Regularly organized expert lectures, seminars, workshops by academician as well as industry experts.
4	Use of LCD projectors.
5	Industrial visits to companies.
6	Organized aptitude and technical training program
7	Case studies
8	Student presentations
9	Supervised learning
10	Internship

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Sr. No.	Name of Activity	Date
1	Marathon 2013: Run for social cause	17/9/2013
2	Eye-checkup, Blood pressure checkup, Diabetes checkup camp in collaboration with Lion's club	5/9/2012
3	Marathon 2014	17/9/2014
4	Marathon 2015	20/09/2015
5	Tree plantation	15/08/2015

35. SWOC analysis of the department and Future plans STRENGTHS

- Experienced, motivated and dedicated faculty members
- Well-equipped laboratories

- Ample of curricular activities for overall development of students
- Good no. of placements
- Increasing number of companies visiting department for placements

WEAKNESSES

- Less no. of funded projects
- Lack of project based learning
- Short of incubation center
- Deficient in having university toppers

OPPORTUNITIES

- Department can try for getting more funded projects
- More research activities can be conducted
- Scope for industry requirement based projects
- More placements opportunities can be generated from surrounding industrial areas

CHALLENGES

- Getting funded projects
- Increase employability of students
- Attract quality students
- Inculcate reading and research habits in students
- To prepare university toppers.

FUTURE PLANS:

- To increase research activities of students and faculties
- To send more research proposals to various national and international funding bodies
- To motivate faculties for practical based teaching.
- To send more students for internship.
- To arrange more seminars and workshops from industry.
- To sign more MOUs with industries.

**Evaluative Report of Electronics and Telecommunication Engineering
Department**

1. **Name of the department :** Electronics and Telecommunication Engineering
2. **Year of Establishment:** 2004
3. **Names of Programmes / Courses offered :** UG , PG
4. **Names of Interdisciplinary courses and the departments/units involved :**

Sr. No.	Department	Subjects offered
1	First year department	Basic Electrical & Electronics Engineering Am-III & IV BCE
2	Computer Engineering	Electronic devices and circuits , Principles of communication Engineering
3	Information Technology	Principle of Analog and Digital Communication
4	Mechanical Engineering	Industrial Electronics , Mechatronics
5	Automobile Engineering	Industrial Electronics

5. **Annual/ semester/choice based credit system (Programme wise)-** Semesterpattern, Credit Based Grading System.
6. **Participation of the department in the courses offered by other departments:**

Sr. No.	Department	Subjects offered
1	First year department	BEE
2	Computer Engineering	Object Oriented Programming Methodologies, Operating Systems

7. **Courses in collaboration with other universities, industries, foreign institutions, etc. :** Nil
8. **Details of courses/programmes discontinued (if any) with reasons:** Nil
9. **Number of Teaching post**

ACADEMIC YEAR -2015-2016

Designation	Sanctioned	Filled
Professors	03	03
Associate Professors	03	03
Asst. Professors	20	20
Visiting Faculty	01	01

10. **Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

U. G. COURSE (Electronics & Telecommunication Engineering)						
S. N.	Name of faculty	Qualification	Designation	Specialization	Experience in years	Ph.D. Students guided
1	Dr .Manjusha Deshmukh	PHD EXTC	Principal & Professor	Image processing	21.8	NIL

2	Mrs. Sheetal Bukkawar	ME	HOD, Asso Prof	E &TC	11.5 Teaching, 1.3 industry	NIL
3	Dr. B.P. Dubey	PHD	Professor	Neural Network	3 teaching 35 industry	NIL
4	Mrs Sheetal Bhujade	ME	Asso. Prof	E &TC	12.8	NIL
5	Mrs. Sonal Gahankari	ME	A.P	Electronics	9.8	NIL
6	Mrs. Neha Mahajan	ME	A.P	Electronics	9 teaching 2 industry	NIL
7	Mrs. Mandeep Kaur	ME	A.P	E &TC	6.8	NIL
8	Mrs. Rajashri Narwade	ME	Asso. Prof	E &TC	10.8	NIL
9	Mrs. Pallavi Kharat	ME	A.P	E &TC	7	NIL
10	Mrs. Megha N. Pande	ME	A.P	Electronics	6.8	NIL
11	Ms. Snehal Barge	ME	A.P	Electronics	3	NIL
12	Mrs. Sneha Buranase	ME	A.P	Electronics	4	NIL
13	Mrs. Sarita Kale	ME	A.P	Electronics	10.3	NIL
14	Mrs. Bhoomi Patil	ME	A.P	E &TC	5.1	NIL
15	Ms. Liji Sreenivasan	ME	A.P	E &TC	3	NIL
16	Mr. Naresh Joshi	M.Tech	A.P	Digital Communication	7.8	NIL
17	Mr.Pawan Upadhaye	M.Tech	A.P	Mechatronics	3	NIL
18	MrsYashika Singhal	M .Tech	A.P	Electronics	1.8	NIL
19	Ms. Suchitra Majumdar	ME	A.P	E &TC	2 teaching 1 industry	NIL
20	Mrs.Kirti	ME	A.P	E &TC	3	NIL

	Mantri					
21	Mrs.Megha Khadke	ME	A.P	E &TC	7	NIL
22	Mrs. Chitra Chitters	ME	A.P	E &TC	3	NIL
23	Mr. Faisal Khan	ME	A.P	E &TC	2.5indus try	NIL
P. G. Course Electronics & Telecommunication Engineering						
1	L.Devarajan	B.E E &TC , M.Tech (IIT)	Professor	E &TC	20	NIL
2	Mr. Umesh Pinjarkar	M.E.	A.P	E &TC	9.2	NIL
3	Mr. Vijay Kapure	M.E.	A.P	E &TC)	6	NIL

11. List of senior visiting faculty:

Name of faculty	Qualification	Designation	Specialization	Exp. in Years	Ph.D. Students guided
Dr. Sinora Bankar	PHD EXTC	Visiting Faculty	E &TC	7	NIL

12. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty: Fulltime & Part time

13. Student -Teacher Ratio (Programme wise) :

UG/PG	Total No. of Staff	Total No. of Students	Students Teacher Ratio
UG	23	360	15:1
PG	3	36	12:1

14. Number of academic support staff (technical) and administrative staff; Sanctioned and filled:

Particular	Sanctioned	Filled
Supporting Staff (Technical)	03	03
Administrative	06	01
Supporting Non-Technical		02

15. Qualifications of teaching faculty with DSc/ D. Lit./ Ph.D/ MPhil / PG. /ME/Ph.D- completed and Pursuing

Sr. No.	Qualification	Total
1	Ph.D.	03
2	Ph.D. (pursuing)	02
3	M.E./M.Tech.	21

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received : Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received : Nil

18. Research Centre /facility recognized by the University: MOU with Research Centre, Terna Engineering College.

19. Publications: Publication per faculty

A. Number of papers published in peer reviewed journals (national / international) by faculty and students

B. Number of publications listed in International Database (For Eg: Web of Science, Scopus, and Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

C. Monographs

D. Chapter in Books

E. Books Edited

F. Books with ISBN/ISSN numbers with details of publishers

G. Citation Index

H. SNIP

I. SJR,

J. Impact factor,

K. h-index

Faculty of the department has published research papers in reputed national and international journals and conferences.

Sr. No	Name of the faculty	A	B	C	D	E	F	G	H	I	J	K
1	Dr Manjusha Deshmukh	62						7			1.178	
2	Mrs. Sheetal Bukkawar	04									0.789	
3	Dr. B. P. Dubey	50						13			----	
4	Mrs Sheetal Bhujade	25						3			3	
5	Mrs. Sonal Gahankari	6						4			2.05	
6	Mrs. Mandeep Kaur	7									----	
7	Mrs. Rajashri Narwade	1									----	
8	Mr Umesh Pinjarkar	1									----	
9	Ms. Pallavi Kharat	01									----	
10	Mr. Vijay Kapure	1									0.71	
11	Mrs. Sarita Kale	1									----	
12	Mrs. Bhoomi Patil	04									-----	
13	Mrs. Megha N. Pande	2									0.95	
14	Ms. Liji Sreenivasan	2									----	
15	Snehal Barge	1						2			4.317	
16	Snehal Burnase	3						1			1.512	
17	Mr. Naresh Joshi	6					2				2.3	
18	Mrs Yashika Singhal	1						1			----	
19	Ms. Suchitra Majumdar	1									3.763	
20	Mrs Neha Mahajan	4									1.238	
21	Mrs.Kirti Mantri	2									0.23	
22	Mrs. Chitra Chitters	-									4.3	
23	Mr. Faisal Khan	3									3.6	

b) No of publications listed in international database (e.g. Web sciences, Scopus, Humanities International Complete, Google Scholar, etc.): 298

c) Chapter/ Books WRITTEN/EDITED

Sr. No.	Name of faculty	Book Name	Publisher	ISBN/ISSN Number	Year
1	Mr. Naresh Kumar Joshi	Signal and systems	NK Publisher	ISBN : 978-81-8444-388-2	2010
2	Mr. Naresh Kumar Joshi	8085 Microprocessor	CBC Publisher	ISBN : 978-81-905492-8-8	2009

20. Areas of consultancy and income generated :

Sr. No.	Area of consultancy	Name of Industry/organization	Income generated
1	Implementation of Biometric attendance monitoring system	CAN AGRO India pvt Ltd, Sangali	77,500/-
2	Automatic Milk collection centers	Sampatrao Deshmukh Co-op Milk Union, Kadepur, Raygaon, Sangli	2,50000/-

21. Faculty as members in

a. National committees : ISTE,IETE ,CSI, IOE,UACEE, INENG,INS

b. International Committees : Nil

c. Editorial Boards.... Nil

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/Programme: UG & PG

Year	UG		PG	
	% In-house Projects	%Out House Projects	% In-house Projects	% Out House Projects
2011-12	100%	NA	100%	NA
2012-13	100%	NA	100%	NA
2013-14	97%	3%	82%	18%
2014-15	95%	5%	100%	NA
2015-16	100%	NA	100%	NA

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Year	UG		PG	
	No. of Outhouse Projects	%Out House Projects	No. of Outhouse Projects	% Out House Projects
2011-12	NA	NA	NA	NA
2012-13	NA	NA	NA	NA
2013-14	1	3%	3	18%
2014-15	2	5%	NA	NA
2015-16	NA	NA	NA	NA

23. Awards / Recognitions received by faculty and students

Students Awards: Students Topper, Students Sports, Paper presentation, Project Competition.

a) Student Toppers

Sr. No.	Academic Year	Name of Student	University/College Rank
1	2014-15	Shashank Shirke	13/1
2	2013-14	Wankhede Vrushali	-/1
3	2012-13	Lad Devyani	-/1
4	2011-12	Mali Manisha	-/1

b) Student Sports

Sr. No.	Name of Student	University/College Level	Year	Student Achievement
1	BE E&TC(Boys)	College Level	2015-16	Winner Football
2	BE E&TC(Girls)	College Level	2015-16	Winner Box Cricket
3	Prerna Punjabi	College Level	2012-13	Winner Athletics Relay Race
4	Vishal Patil & Group	College Level	2012-13	Winner Box Cricket
5	Murugan Chetty	College Level	2012-13	Winner Chess
6	Swati,Pawan Gowari	College Level	2011-12	Winner Badminton

c) Paper Presentation: 69

Sr. No.	Year	Paper Nos.
1	2015-16	27
2	2014-15	21
3	2013-14	17
4	2012-13	04

d) Project Competition

Sr. No.	Name of Students	Title	Year	Professional bodies
1	Shantanu Agharkar, Amey Asawale, Shrikant Mali, Nikhil Mandalik	Third Prize in Avishkar 2013 for project "Pedal Based Power Generation"	2012-13	Saraswati College of Engineering
2	Shahid Khan Ashfaq Khatik Vaibhav More	Consolation prize for project "Smart meter for measurement of consumption of electricity, water and gas"	2012-13	Student innovation pavilion in GRIDTECH 2013, New Delhi

3	Rohit Gural Rajesh Barkade Durgesh Bhosale Pravina Mapuskar	Second Prize in Avishkar 2014 for project “ Design and implementation of biconi –log hybrid antenna”	2013-14	Saraswati College of Engineering
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Faculty Awards:

Sr No	Name of Faculty	Department	Award	Year
1	Dr. Manjusha Deshmukh(H.O.D.)	EXTC	Best Department Award	2011-12
2	Dr. Manjusha Deshmukh	EXTC	Research Award	2011-12
3	Mrs. Sheetal Bhujade	EXTC	Star Performer Award	2013-14
4	Mrs. Sonal Ghankari	EXTC	Star Performer Award	2014-15
5	Prof. Sheetal Bukkawar	EXTC Engg.	Excellence in Academics	2011-12
6	Dr. Manjusha Deshmukh	EXTC Engg.	Best Department Award	2011-12

Best Teacher awards, Best Department Awards, Best Paper Awards, Ph.D., ME Topper (internal faculty)

- i. Best Teacher Award: Mrs. Sheetal Bukkawar in 2011-12
- ii. Best Department Award: Dr. Manjusha Deshmukh in 2011-12
- iii. Best Paper Awards: Nil
- iv. Ph.D: Dr. Manjusha Deshmukh in 2013-14
- v. M.E. Toppers: Prof. Vijay Kapure 2014-15

24. List of eminent academicians and scientists / visitors to the department

Sr. No.	Name	Designation	Company/ Organization	Experience (In Years)
1	Prof. Arun Kulkarni (2015-16)	Asso. prof., HOD IT	TSEC	25
3	Prof. Hariram Chavhan(2015-16)	Asso. Prof.	TEC	17
4	Prof. Sanjay Shitole (2015-16)	Asso .Prof, HOD IT	SNDT	20+
5	Prof. Deepa Parasar (2015-16)	A.P.	SCOE	12
6	Mr. Anshuman Kak (2014-15)	Ethical Hacking Trainer	Secroot Security Solutions (P) Ltd.	6
7	Prof. M. A. Tamboli	A.P.	ARKC	12+

	(2014-15)			
9	Mr. Kelvin (2014-15)		IIT Bombay	7
10	Mr. Mitesh(2014-15)		IIT Bombay	6
11	Dr. Vithal R. Katti (2014-15)	Sr. Scientist	BARC Mumbai	20+
12	Mr. Arjun Aslekar (2013-2014)	Head	Secroot Security	2
13	Prof.Ranjanbala Jain (2013-2014)	Hod Extc	MGM	20+
14	Ms. Shalini Mittal (2012-2013)	Android Os Trainer	SEED Infotech	3+
15	Prof. Pranav Pawar (2011-2012)	Professor	SKNCOE	10
16	Prof. Kashyap (2011-2012)	Professor	K.J. Somaiya	10+
17	Prof. S. Thakur (2011-2012)	Asso. Prof.	LAIT	18

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National:

Sr. No.	Event with Year	Funding Agency	Amount (Rs)
1	National Conference(2011-12)	ISTE	5000/-
2	National Conference(2011-12)	PNB	10000/-
	Total		15,000/-

b) International: Nil

26. Student profile programme/course wise

Year of Admission	Year of Result	Applications received	Selected	Enrolled		Pass Percentage
				M*	F*	
2012-13	2015-16	120	127	79	48	N.A.
2011-12	2014-15	120	124	84	40	94.48%
2010-11	2013-14	120	117	90	27	87.10%
2009-10	2012-13	60	60	47	13	82.86%
2008-09	2011-12	60	58	44	14	75.95%

27. Diversity of Students

Year	Name of the Course	% of students from the same state	% of students from other state	% of students from Aboard
2015-16	U.G. E & TC	94.91	5.08	Nil
	P.G. E &TC	100	Nil	Nil
2014-15	U.G. E & TC	98.88	1.11	Nil
	P.G. E &TC	100	Nil	Nil

2013-14	U.G. E & TC	100	Nil	Nil
	P.G. E &TC	100	Nil	Nil
2012-13	U.G. E & TC	99.21	0.78	Nil
	P.G. E &TC	100	Nil	Nil
2011-12	B.E. E & TC	100	Nil	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Sr. no.	Academic Year	Name of Student	Exam
1	2015-16	Mr.Bhushan Patil	GATE 2016
1	2014-2015	Patil Charulata Anil	GATE 2015
2		Kadu Janvhi Vijay	GATE 2015
3		Niture Sapna	GATE 2015
1	2013-2014	Gade Swapnil	GATE 2014
1	2012-2013	Jadhav Sanket	GRE
2		Kataria Umang	GRE
1	2011-2012	Sawant Dinesh	GATE 2012
2		Bhagat Mangesh	GATE 2012

29. Student progression

Student Progression	Percentage against cancellation			
	2015-16	2014-15	2013-14	2012-13
UG to PG	Nil	9.65	11.96	4.34
PG to Ph.D.	Nil	Nil	Nil	Nil
Campus selection	49.33	60	55.55	57.97
Other than campus recruitment	NA	17.24	21.36	14.49
Entrepreneurship/Self-employment	NA	11.03	8.54	13.04

30. Details of Infrastructural facilities

a. Library – departmental library having 65 books ,Project book -120

Library holdings	2011-12		2012-13		2013-14		2014-15		2015-16	
	No.	Co.	No.	Co.	No.	Co.	No.	Co.	No.	Co.
Text books	47	1719 2.00	20	1882 5.00	9	3555 .00	52	34594 .00	20	8113/-
Reference book	2	750. 00	5	9085 .00	1	395. 00	9	2611. 00	5	2559/-
Journal/periodicals	18 (12*& 6#)	2098 48.0 0	19 (18*& 1#)	4290 0.00	20 (20*)	3905 0.00	24 (19* &5#)	46364 /-	21 (18* & 3#)	52895.0 0
e-resources	0	0	4600	2664 30.0	144)	3133 11.0	145		145	0.00

No. – Number, Co. – Total Cost

Journal/periodicals - * National Journal, # International Journal

e-resources- (IEEE,SC.DIRECT,SPRINGER, J-GATE)

b. Internet facilities for Staff & Students - At 100 Mbps leased line, Wi-Fi Campus

c. Class rooms with ICT facility - Classroom 5 (70 sq.mtr.),LCD facility available

d. Laboratories

Sr. No	Laboratory	Area(Sq.m)	Equipment	Qty.	Cost (Rs.)
1	Research lab	70	PCs	25	500063/-
			Printers	02	11116/-
2	Communication Lab -1/PG Lab	69	Lab Trainer Kit	48	1184547/-
			CRO	10	152960/-
			Function Gen.	06	55578/-
			Power supply	06	48097/-
3	Microcontroller Lab	69	Lab Trainer Kit		589982/-
4	Microwave Engg Lab	69	Lab Trainer Kit	32	557000/-
			CRO	05	76450/-
			Function Gen.	05	39665/-
			Power supply	02	9922/-
5	Project Lab	72	CRO	02	31920/-
			Function Gen.	02	10800/-
			Power supply	02	13500/-
6	Communication System Lab- 2	72	Lab Trainer Kit	21	169673/-
			CRO	09	142056/-
			Function Gen.	08	65189/-
			Power supply	09	55390/-
7	Electronics Lab	66	Lab Trainer Kit	02	33261/-
			CRO	10	156130/-
			Function Gen.	09	79003/-
			Power supply	14	132546/-
8	Switching & Digital Lab	90	Lab Trainer Kit	11	118579/-
			CRO	07	110589/-
			Function Gen.	06	52377/-
9	DSP LAB	116	PCs	51	1224473/-
			Printers	05	46301/-
10	BEE LAB-I	73	Lab Trainer Kit	11	96560/-
			CRO	02	38000/-
			Function Gen.	04	33609/-
			Power supply	02	30735/-
			Meters	33	109646/-
11	BEE LAB-II	95	Lab Trainer Kit	11	96560/-
			CRO	02	38000/-
			Function Gen.	04	31478/-
			Power supply	02	30734/-
			Meters	33	109646/-

31. Number of students receiving financial assistance from college, university, government or other agencies

- Economically weaker students of SC, ST, OBC and OC, whose parent income is less than 1.0 Lakh per annum get tuition fee reimbursement and scholarship from state Government.
- Some of the students getting financial assistance from the college for presentation of the papers and for attending conferences/workshops. :

S.N.	A.Y	Category	Number of Students	Amount (Rs. In Lakhs)
1	2014-15	Backward Class(OBC)	60	23.40
		Schedule Caste(SC)	68	57.02
		Schedule Tribes(ST)	1	0.83
		Economically Backward Class(EBC)	61	22.58
		SBC	10	7.16
		Minority Class(MC)	1	0.25
2	(2013-14)	Backward Class(BC)	69	25.51
		Schedule Caste(SC)	57	43.70
		Schedule Tribes(ST)	1	0.86
		Economically Backward Class(EBC)	41	14.09
		Minority Class(MC)	4	1.00
		SBC	9	7.89
		VJNT	32	23.43
3	2012-2013	Backward Class(BC)	70	25.53
		Schedule Caste(SC)	50	37.23
		Schedule Tribes(ST)	1	0.81
		Economically Backward Class(EBC)	33	10.87
		Minority Class(MC)	4	1.00
		SBC	7	5.16
		VJNT	31	22.81
4	2011-12	Backward Class(BC)	56	18.37
		Schedule Caste(SC)	39	23.74
		Schedule Tribes(ST)	0	0
		Economically Backward Class(EBC)	24	7.56
		Minority Class(MC)	5	1.25
		SBC	9	5.47
		VJNT	29	18.32

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts.

Academic Year	Sr. No.	Name of Activity	From -To	Name of Expert/ Speaker	Total Student participants
2015-16	1	PCB Designing Workshop	27/08/2015	IEEE-SCOE student branch	129
	2	Training on “GD & PI”	02/08/2015	Mr. Vinay Raikar, C2C	135
2014-15	1	Workshop on “Network Security”	13-14/3/2015	Mr. Anshuman Kak	26
	2	Guest Lecture on “Wireless network & Mobile Comm.	10/3/2015	Prof. M. A. Tamboli	64
	3	Seminar on “Ethical Hacking”	9/3/2015	Mr. Anshuman Kak	26
	4	Workshop on “Robotics”	25- 26/10/14	Mr. Kelvin & Mr. Mitesh	46
	5	PCB Designing Workshop	11/09/2014	IEEE-SCOE Student Branch	52
	6	Guest Lecture on “Optical Sources”	10/4/2014	Dr. Vithal R. Katti	119
	7	Robotryst- A Robotic event	13-14/02/15	Saraswati College Of Engineering	75
2013-14	1	Guest Lecture on “Smart antennas”	7/2/2014	Prof. Ranjanbala Jain	140
	2	Robotics Workshop	29/08/2013	Etsa Committee	30

33. Teaching methods adopted to improve student learning

Sr. No.	Innovations in Teaching methodology
1	NEPTL Videos
2	demonstrations
3	Application based teaching
4	Role play
5	Remedial lectures
6	Case Studies
7	Chalk Board Method

8	Project Based Learning
9	Industrial Visit
10	Student Presentation

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Sr. No	Name of the Activity	Dates
1	Donation in Orphanage	20/02/2016
2	SES- MARATHON	17/09/2013,17/9/2014,20/9/2015
3	Tree Plantation	15/08/2014
4	Blood Donation Camps	14/9/2012,16/08/2011

35. SWOC analysis of the department and Future plan

STRENGTH:

- Dedicated faculty members.
- Well qualified and experienced faculty from reputed institutions.
- Placements
- Excellent learning outcomes and employability of students.
- Well-equipped laboratories.
- Industry oriented curriculum
- Proper emphasis on each and every student under mentor system.
- Extracurricular activities.
- Guest lectures from time to time.
- Every year workshops, seminars and conference are organized for students.
- Every year industrial visits are arranged for students.
- Departmental library is well equipped with all sorts of facilities and resource matter.
- Very congenial and safe working environment.

WEAKNESS

- Communication skills of students.
- Less no. of funded projects
- Low creative skills of students
- Lack of interaction with industry leading to lack of on-site knowledge
- Few opportunities for higher studies.
- Low intake of PG program.
- Sponsorship for paper publication in international conferences.
- Less no of PhD completed staff

OPPORTUNITIES

- Faculty development
- Research work for faculty and students
- Add-on courses to bridge the gap between industry and academia.
- Placement opportunities for students.

CHALLENGES

- Admitting quality students.

- Research enabling faculty.
- Employment opportunities for E&TC students
- Every Engineering Institute runs E&TC program with double intake.

FUTURE PLANS:

- To encourage all staff for pursuing Ph.D in their respective research area.
- To convert all class rooms into SMART CLASS
- To make student capable for 100% placement
- To have more collaboration with leading industries and provide consultancy.
- To modernize present Laboratory.
- To publish maximum number of international journal papers of repute.
- To continuously strengthen the technical knowledge and skills of the student and the faculties by organizing STTP's /workshops.
- To develop curriculum with more practical content to cater the needs of the industries

Evaluative Report of the Information Technology Departments

1. **Name of the department:** Information Technology
2. **Year of Establishment:** 2008
3. **Names of Programmes / Courses offered :** UG
4. **Names of Interdisciplinary courses and the departments/units involved:-**

Sr. No.	Department	Subjects offered
1	EXTC Department	Principles of Analog and Digital Communications
2	First year department	Applied Mathematics III
		Applied Mathematics IV
		Business Communication & Ethics

5. **Annual/ semester/choice based credit system (Programme wise):-** Semester Pattern Credit Based Grading System.

6. **Participation of the department in the courses offered by other departments:-**

Sr. No.	Department	Subjects offered
1	UG First year Engineering	Structured Programming Approach
2	UG program in Mechanical Engineering	Database Information Retrieval System
3	UG program in Automobile Engineering	Database Information Retrieval System
4	UG program in Civil Engineering	Database Information Retrieval System

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.:-** Nil

8. **Details of courses/programmes discontinued (if any) with reasons:-** Nil

9. **Number of Teaching post Academic Year 2015-16**

	Sanctioned	Filled
Professors	01	01
Associate Professors	02	02
Asst. Professors	09	09

10. **Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

U. G. COURSE (INFORMATION TECHNOLOGY)						
Sr No	Name of faculty	Qualification	Designation	Specialization	Experience in years	Ph.D. Students guided
1	Mrs. Vaishali P. Jadhav	ME	Asso Prof / HOD	CSE	14.8	Nil
2	Dr. Sanjay Jadhav	PhD	Professor	Networking	11	Nil
3	Mrs. Anuradha A. Dandwate	M Tech	Asso Prof	E & TC	15	Nil
4	Ms. Pragati A. Pejlekar	ME	A.P	IT	10.5	Nil
5	Ms. Mahi Khemchandani	ME	A.P	Computer	9	Nil
6	Ms. Lakshmi Naga Divya Tamma	M Tech	A.P	CSE	6	Nil
7	Mrs. Vrushali P. Thakur	ME	A.P	IT	9.5	Nil
8	Ms. Shraddha Subhedar	ME	A.P	CSE	8	Nil
9	Ms. KirtiMhamunka	ME	A.P	IT	5.5	Nil
10	Ms. EirtyK.Telang	M Tech	A.P	CSE	7	Nil
11	Mrs. Ragini Khanna	M.E	A.P	Comp	13 Years	Nil
12	Mrs. Geetanjali R. Kalme	M.E	A.P	IT	4	Nil

11. List of senior visiting faculty:- NA

12. Percentage of lectures delivered and practical classes handled(Programme wise) by temporary faculty:-All classes are conducted by regular faculties

13. Student -Teacher Ratio (Programme wise):-

UG/ PG	Total No. of Students	Total No. of Staff	Student Teacher Ratio
UG	180	12	15:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Particular	Sanctioned	Filled
Supporting Staff (Technical)	02	02
Administrative	03	01
Supporting Non-technical Staff (Attendant)		02

15. Qualifications of teaching faculty with DSc/ D.Lit./ Ph.D/ MPhil / PG. /ME/Ph.D- completed and Pursuing

Sr. No.	Qualification	Total
1	PHD	01
2	PHD (Pursuing)	03
3	ME/MTECH(Completed)	08

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:-

Sr. No.	Name of the Faculty (PI)	Funding Agency & Year	Amount
1	Ms. Vaishali Jadhav	University of Mumbai	20,000/-
2	Ms. Shilpa kolte	University of Mumbai	10,000/-

18. Research Centre /facility recognized by the University:- Nil

19. Publications:

- A. Number of papers published in peer reviewed journals (national / international) by faculty and students
- B. Number of publications listed in International Database (For Eg: Web of Science, Scopus, and Humanities InternationalComplete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- C. Monographs
- D. Chapter in Books
- E. Books Edited
- F. Books with ISBN/ISSN numbers with details of publishers
- G. Citation Index
- H. SNIP
- I. SJR,
- J. Impact factor,
- K. h-index

Sr. No.	Name of the faculty/ Student	A	B	C	D	E	F	G	H	I	J	K
1	Mrs. Vaishali P. Jadhav	1	-	-	-	-	-		-	-	IJCA3.12	0

2	Dr. Sanjay Jadhav	6	1	-	-	-	-	6	-	-	IJRCS IJCA IJCTEE IJCET6.13 IJARCET IJETAETAE	0
3	Mrs. Anuradha A. Dandwate	1	-	-	-	-	-	0	-	-	IJRAT 2.865	0
4	Mrs. Vrushali P. Thakur	1	-	-	-	-	-	0	-	-	3.12	0
5	Ms. ShraddhaSuhedar	2	-	-	-	-	-	0	-	-	IJRAT2.8 IJART 1.8	0
6	Mr. Praveen S. Shinde	1	-	-	-	-	-	0	-	-	2.85	0
7	Ms. KirtiMhamunkar	3	-	-	-	-	-	-	-	-	IJARCCCE1.46 5 IJART2.8 IJART2.8	-
8	Ms. EirtyK.Telang	1	-	-	-	-	-	0	-	-	IJARCE 1.465	0
9	Ms. Khushboo Chandra	1	-	-	-	-	-	-	-	-	IJERT 1.76	-
10	Vivek Sampat	1	--	--	-	-	--	--	--	-	--	-
11	Nikita Sakhare	1	--	--	-	-	--	--	--	-	--	-

20. Areas of consultancy and income generated:- Nil

21. Faculty as members in

- National committees :- ISTE
- International Committees :Nil
- Editorial Boards....Nil

22. Student projects

- Percentage of students who have done in-house projects including inter departmental/Programme

Year	No. of In-house Project	% of Projects done in- house
2011-2012	12	92%
2012-2013	13	81 %
2013-2014	18	94%
2014-2015	16	100%
2015-2016	13	92%

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

1	2011-2012	8%
2	2012-2013	19 %
3	2013-2014	6%
4	2014-2015	0%
5	2015-2016	8%

23. Awards / Recognitions received by faculty and students

Students Awards

a. Students Topper

Sr. No.	Year	Name of Students	University / College Topper
1	2014 -15	BhandarePrajkata,	-/1
2	2014 -15	Nair Revathi	-/2
3	2013-14	SmitaPatil,	-/1
4	2013-14	TusharMungekar	-/2
5	2012-13	SonalGawant,	-/1
6	2012-13	SayaliSawant	-/2

b. Students Sports

Sr. no.	Name of student	Name of Event	University/ College Level	year	Student achievement
1	Madhuri Lokare	Badminton Double	Saraswati College of Engineering	2014-15	first
2	Harshada Dhole	treasure Hunt	Saraswati College of Engineering	2014-15	first
3	Tanvi Gaikwad	Throw Ball	Saraswati College of Engineering	2013-14	first
4	Prathamesh Kenjale	water cricket	Saraswati College of Engineering	2013-14	second
5	Tejal Patil	athletics(400 mt Relay race)	Saraswati College of Engineering	2013-14	Second
6	Tejal Patil	Badminton Double	Saraswati College of Engineering	2013-14	First

7	Tejal Patil	treasure Hunt	Saraswati College of Engineering	2013-14	Second
8	Rushikesh Dhavale	Football Ball	Saraswati College of Engineering	2013-14	First
9	Tejal Patil	athletics(100 mt race)	Saraswati College of Engineering	2013-14	Second
10	Pritesh Mayekar	Chess	Saraswati College of Engineering	2011-12	Second

c. Paper presentation

Sr. No.	Name of Students	Title	Year	Achivements
1	VivekSampat	Audio Steganography using Dynamic Cover	2012-13	Presented
2	VivekSampat	A Novel Secure Data Transfer Technique based on Cline-Server Architecture	2012-13	Presented
3	Nikita Sakhare	A modified echo hiding Technique for hexa decimal data	2012-13	Presented

d. Project competition

Sr. No.	Name of Students	Title	Year	Student achievement
1	Praneel and group	Leaf Disease Detection	2014-15	First
2	SriramVenkateswaran and group	Timetable Generation	2014-15	Second
3	HarshalShetey and grp	Real time Leaf analysis	2015-16	Third

Faculty Awards

Sr No	Name of Faculty	Department	Award	Year
1	Mrs. VaishaliJadhav (H.O.D.)	IT	Best Department Award	2012-13
2	Mrs.Vrushali Patil	IT	Star Performer Award	2013-14
3	Mrs. Divya T.	IT	Academic Excellence award	2014-15
4	Mrs.ShilpaKolte	IT	Star Performer Award	2014-15
5	Mrs. Vaishali P. Jadhav	IT	Best Department Award	2012
6	Mrs. Vaishali P. Jadhav	IT	Best Department Award	2013

7	Mrs. Vrushali P. Thakur	IT	ME Topper	2013-14
8	Mrs. Shital K. Ajagekar	IT	ME Topper	2014-15
9	Ms. Pragati A. Pejlekar	IT	ME Topper	2013-14

I. Best teacher Award :Nil

II. Best Department Award : 2012-2013

III. Best Paper Award :Nil

IV. Ph. D :Dr. Sanjay Jadhav (2014)

V. ME Toppers

Sr. No.	Name of Faculty	year
1	Mrs. Shital K. Ajagekar	2014-2015
2	Mrs. Vrushali P. Thakur	2013-2014
3	Ms. Rashmi Chaudhary	2013-2014

24. List of eminent academicians and scientists / visitors to the department

Sr. No	Name	Designation	Company/ Organization	Experience in years
1	Mr.Milind Chaudhari & Mr. Vikas Sharma	Project head	Nano Cell	7yrs
2	Mr. Sulabhjain	Trainer	Kyrion digital services	5yrs
3	Mr. Yogesh Bavaskar	Trainer	Karrox Technologies pvt. Ltd	9yrs
4	Mrs.Shalini Mithal	Technical head	SEED INFOTECH	10yrs
5	DR.Sunita Patil	Project leader	Softonic IT solutions Pvt Ltd	6yrs
6	Mr.Tushar Kute	Assistant Prof.	Sandip Foundation	8yrs
7	MR. Rizwan Shaikh	Project head	Pristine info solutions	6yrs
8	Mr.Aniket Mhala	Delivery Director Global Agile Leader	Capgemini India ltd.	15 yrs
9	Mrs.Deepika & Mr.Sandeep Chatuphade	Trainer	Seed INFOTECH	4yrs

10	Prof. Bhushan Jadhav	Assistant Prof.	TSEC, Bandra	10 yrs
11	Prof. Rohit Barve	Assist.Prof	Vidyalankar college of Engg.	4yrs
12	Dr.Jonathan Hill	Interim Dean	Pace university New yorkUSA	15 yrs
13	Mr.Charles Roy	Trainer	Softtrek info solutions	10yrs
14	Mr. Vinay Raikar	Trainer	Campus credentials	6yrs
15	Madhavi Parchure	Technical Head	C-DAC, Kharghar	15 yrs
16	Krishankant Mane	Director	Digital Freedom Foundation	10 yrs

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National

Sr No	Event with Year	Funding Agency	Amount (Rs)
1	National level Workshop 2012-13	SRM-ISTE	1,00,000/-
2	State level Seminar 2013-14	SES	4000/-

b) International: Nil

26. Student profile programme/course wise:

Year of Admission	Year of Result	Applications received	Selected	Enrolled		Pass Percentage
				M*	F*	
2012-2013	2015-2016	60	46	32	14	NA
2011-2012	2014-2015	60	32	19	13	98
2010-2011	2013-2014	60	60	40	20	100
2009-2010	2012-2013	60	60	36	24	100
2008-2009	2011-2012	60	57	31	26	95

M* = Male

F* = Female

27. Diversity of Students

Year	Name of the Course	% of students from the same state	% of students from other state	% of students from Aboard
2015-16	BE IT	94%	6%	Nil

2014-15	BE IT	94%	6%	Nil
2013-14	BE IT	98%	2%	Nil
2012-13	BE IT	98%	2%	Nil
2011-2012	BE IT	100%	Nil	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? Nil

29. Student progression

Student Progression	Percentage against enrolled			
	2015-2016	2014-2015	2013-2014	2012-2013
UG to PG	Nil	1.33	11.76	6.12
PG to Ph.D.	NA	Nil	Nil	Nil
Campus selection	66.66	60.0	58.82	79.59
Other than campus recruitment	NA	16	5.88	8.16
Entrepreneurship/Self-employment	NA	20	17.64	8.16

30. Details of Infrastructural facilities

a) **Library**

No. – Number, Co. – Total Cost

Journal/periodicals - * National Journal, # International Journal
e-resources-(, IEEE, SPRINGER, SC.DIRECT, J-GATE)

Library holdings	2011-12		2012-2013		2013-2014		2014-2015		2015-2016	
	No	Co.	No	Co.	No	Co.	No	Co.	No	Co.
Text books	91	41680	35	15236	30	15230	84	43720	10	3770
Reference books	15	6888	18	7522	12	4948	17	8591	9	25865
Journal/periodicals	98(6*&3#)	92888	7(7*)	15620	6(6*)	15620	6(6*)	18975	8(6*&2#)	27455
e-resources	185	2000	53	347750	149	170660	145		IEEE	

Departmental Library: 138 Books,78 Students projects Reports

- b) Internet facilities for Staff & Students:- At 100 Mbps leased line, Wifi Campus
- c) Class rooms with ICT facility:- 2 classroom (70 sqm) LCD facility Available
- d) Laboratories

Sr. No.	Laboratory	Area (Sqm)	Equipment	Qty	Cost (Rs.)
1	GUI-DBMS Lab	75	PC, Printer,Networking Component	23	416971/-
2	Linux Lab	75	PC, Printer,Networking Component	23	436068/-
3	N/w & Simulation	75	PC, Printer,Networking Component	22	412218/-
4	Web Technology	90	PC, Printer,Networking Component	22	450023/-
5	S/w Testing Lab	90	PC, Printer,Networking Component	23	460960/-
6	Project Lab	90	PC, Printer,Networking Component	21	446908/-
7	Hardware Lab	70	PC, Printer,Networking Component	21	525543/-
8	Electronics Lab	75	Digital & Analog Trainer Kits	08	42700/-
9	PCOM Lab	66	Trainer Kits	05	85263/-
10	LANGUAGE LAB	60sq. m	PC, Software	25	7,80,259.00

31. Number of students receiving financial assistance from college, university, government or other agencies

- Economically weaker students of SC, ST, OBC and OC, whose parent income is less than 1.0 Lakh per annual get tuition fee reimbursement and scholarship from state Government.
- Some of the students getting financial assistance from the college for presentation of the papers and for attending conferences/workshops.

Sr.No.	Year	Category	Number of Students	Amount (Rs. In Lakhs)
1	2014-15	Schedule Tribes(ST)	0	0
		Schedule Caste(SC)	33	27.67
		SBC	4	2.86
		VJNT	13	10.03
		Minority Class(MC)	2	0.50

		Other Backward Class(OBC)	24	9.36
		Economically Backward Class(EBC)	16	5.73
2	2013-14	Schedule Tribes(ST)	1	0.86
		Schedule Caste(SC)	25	19.16
		SBC	5	4.38
		VJNT	15	10.98
		Minority Class(MC)	3	0.75
		Other Backward Class(OBC)	32	11.83
		Economically Backward Class(EBC)	17	5.76
3	2012-13	Schedule Tribes(ST)	0	0
		Schedule Caste(SC)	28	20.84
		SBC	4	2.95
		VJNT	21	15.45
		EBC	26	8.52
		Minority Class(MC)	2	0.5
		Other Backward Class(OBC)	34	12.40
		Economically Backward Class(EBC)	26	8.52
4	2011-12	Schedule Tribes(ST)	0	0
		Schedule Caste(SC)	20	12.17
		SBC	4	2.43
		VJNT	18	11.37
		Minority Class(MC)	3	0.75
		Other Backward Class(OBC)	30	9.84
		Economically Backward Class(EBC)	12	3.60
5	2010-11	Schedule Tribes(ST)	0	0
		Schedule Caste(SC)	16	9.70

		SBC	4	2.35
		VJNT	12	7.57
		Minority Class(MC)	1	0.25
		Other Backward Class(OBC)	30	10.60
		Economically Backward Class(EBC)	7	2.00
6	2011-12	Schedule Tribes(ST)	0	0
		Schedule Caste(SC)	20	12.17
		SBC	4	2.43
		VJNT	18	11.37
		EBC	12	3.60
		Minority Class(MC)	3	0.75
		Other Backward Class(OBC)	30	9.84

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

Academic Year	Sr. No.	Name of Activity	Date	Name of Expert/ Speaker	Total Student participants
2011-12	1	Seminar on Upcoming trends in wireless technology	4/8/2011	Mr.Milind Chaudhari&Vikas Sharma	56
	2	SeminarAndroid OS for mobile devices	17/08/2011	Mr.Milind Chaudhari&Vikas Sharma	56
	3	Workshop on Ethical Hacking Workshop	29/08/11	Mr.Sulabh Jain	50
	4	Seminar on Linux	14/09/11	Mr.Vivek Sampat	78
	5	Seminar on Higher studies	25/01/2012	Yogesh Bavaskar from karoxx Technology	29
	6	Seminar on J2ME	25/01/2012	Yogesh Bavaskar from karoxx Technology	52

	7	Workshop on "Ethical Hacking"	20/9/12 to 21/9/12	Mr. Sulabh Jain from Kyrion Digital Services	40
	8	Seminar on "How to crack Aptitude Test, Group Discussion and Personal Interview"	13/7/2013	Mr.Charles Roy	42
2013-14	9	Workshop on "Cloud Computing"	30/8/13 to 31/8/13	Mr. BhushanJadhav	80
	10	Seminar on "How to write a reserch Paper"	3/2/2014	Dr. ManjushaDeshmukh	55
	11	Seminar on "Ethical Hacking"	13/2/2014	Mr. Rizwan Shaikh	61
2014-15	12	Expert Lecture on Linkage between Engineering Students and latest IT students	12/9/2014	Mr. AniketMhala from Capgeminipt. Ltd.	70
	13	Seminar on Ethical Hacking	9/5/2015	Mr.Anshuman kak from Secroot Security solutions	40
2015-16	14	1week workshop on C and JAVA	27/07/15 to 31/07/15	Mrs.Deepika& Mr.SandeepChatuphade	57
	15	1week workshop on apptitude and communication skills	03/08/15 to 07/08/15	Mr. VinayRaikar	55
	16	Seminar on "Database Activity"	5/4/2016	Mr. Chirag Panchal & Mr. Sunny	97
	17	Seminar on PL-SQL	9/10/2015	Mr. RohitBarve	52

	18	Workshop on "Android OS"	10/10/2015	Mr. Bhushan Jadhav	69
	19	Workshop on Linux	16/10/15	Mr. Jagjeet Phunn	14
	20	Workshop on "COA Hardware"	12/2/2016	Mr. Bharat Bhadwakar	50
	21	Seminar on "Web Programming"	15/3/2016	Mr. Shreyas Brahma	65

33. Teaching methods adopted to improve student learning

Sr.No.	Innovations in Teaching methodology
1	Demonstrations
2	Application based teaching
3	Role play
4	Industrial visit
5	Special teaching for slow learners
6	Chalk Board Method
7	NPTEL Video
8	Case Studies
9	Supervised Study
10	Project based learning
11	Students Presentation

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Sr. No	Name of the Activity	Date
1	SES Marathon (Run for women safety)	17/09/2013
2	SES Marathon (Run for women safety)	17/09/2014
3	Tree Plantation	26/01/2015
4	Vidya Orphanage (donation drive)	15/09/2015
5	SES Marathon (Run for Alcohol free kharghar)	20/09/2015

35. SWOC analysis of the department and Future plans

STRENGTH:-

- Consistency in Excellence of final year results
- Enrich Lab infrastructure
- WI-FI facility in department
- Dedicated staff
- Good progress in Placement

WEAKNESS:-

- MOU to establish collaboration with best IT industries for internship.
- Publication of research papers in referred Journals.
- Less no of funding for national/International agencies for research development

OPPORTUNITIES:-

- Enhancement of advanced software
- To promote research activities in the department
- To strengthen Evolutionary release of students projects

CHALLENGES:-

- MOU to establish collaboration with top IT industries
- Bridge the gap between curriculum and industry requirement

FUTURE PLANS:-

- MOU with IT industries.
- Empower Alumni interaction.
- Modernize laboratories.
- To promote maximum of faculties for R&D work.

Evaluative Report of Mechanical Engineering Department

1. **Name of the Department** : Mechanical Engineering Department

2. **Year of Establishment** : 2004

3. **Names of Programmes / Courses offered** : UG ,PG

4. **Names of Interdisciplinary courses and the departments/units involved** :

Sr. No.	Department	Subjects offered
1	Computer Engineering	DBIRS
2	Electronics & Telecommunication Engineering	Industrial Electronics, Mechatronics
3	Applied Sciences & Humanities	Applied Mathematics III & IV, Business Communication & Ethics

5. **Annual/ semester/choice based credit system (Programme wise):** Semester pattern, credit based grading system (CBGS) .

6. **Participation of the department in the courses offered by other departments** :

Sr. No.	Department	Subjects offered
1	First Year Engineering	Engineering Mechanics, Engineering Drawing

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.** :Nil

8. **Details of courses/programmes discontinued (if any) with reasons** : Nil

9. **Number of Teaching post** :

ACADEMIC YEAR -2015-2016

Designation	Sanctioned	Filled
Professors	03	03
Associate Professors	04	04
Asst. Professors	18	18
Visiting Professor	03	03

10. **Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

UNDER GRADUATE COURSE (FIRST YEAR ENGINEERING) SHIFT- I

SR N	Name of faculty	Qualification	Designation	Specialization	Expe rienc e in years	Ph.D. Stude nts guide d
1	Dr. Fauzia Siddiqui	Ph.D.	Professor & HOD	Industrial & Product. Engg.	13	Nil
2	Dr. Bhadouriya Rambir Singh	Ph.D.	Professor	Thermal Engineering	17	Nil

3	Mr. Jagtap Madan M.	ME, M. Tech	Asso Prof	Manufacturing Systems Engineering	07	N.A.
4	Mr. Pankaj Jadhav	PET Cleared ME	Asso Prof	Mechanical Design Engineering	6	N.A.
5	Mr. Suhas Jadhav	M. Tech	Asso Prof	CAD/CAM	5	N.A.
6	Mr. Pradip G. Deshmukh	ME	Asso Professor	Manufacturing Systems Engineering	15	N.A.
7	Mr. Ranveer Abhijeet	ME	A.P	Mechanical Design Engineering	5	N.A.
8	Mr. Ganesh Jadhav	ME	A.P	Manufacturing	3.5	N.A.
9	Mr. Sandeep Jadhav	ME	A.P	Manufacturing Systems Engineering	5.5	N.A.
10	Mr. Paramjit Thakur	ME	A.P	Production Engg	2	N.A.
11	Ms. Mitali Mhatre	M.Tech	A.P	Manufacturing	2	N.A.
12	Mr. Vinayak Suryawanshi	M. Tech	A.P	Machine Design	1.6	N.A.
13	Mr. Prasanna Raut	PET Cleared ME	A.P	CAD-CAM & Robotics	1.6	N.A.
14	Mr. Dinesh Pargunde	ME	A.P	CAD-CAM & Robotics	24	N.A.
15	Mr. Amol Y. Kadam	ME	A.P	Automobile Engineering	0.5	N.A.
16	Mr. Nagesh Mathapathi	ME	A.P	Design Engineering	3.5	N.A.
17	Mr. Vishal Bhise	Mtech Ph.D pursuing	A.P	Manufacturing Systems Engineering	5	N.A.
18	Ms. Snehal P. Dhonkar	M.E	A.P	Design	1 Industry 0.5 teaching	N.A.
19	Mr. Dhumal	ME	A.P	Manufacturing	2.5	N.A.

	Yogesh			Systems Engineering		
20	Mr. Sagar Chirade	ME	A.P	Heat power Engineering	5	N.A.
21	Mr. Rakesh Shinde	ME	A.P	CAD/CAM & ROBOTICS	3.5	N.A.
22	Mr. Amey Kulkarni	MTech	A.P	Mechanical Production	1	N.A.
(POST GRADUATE COURSE) MECHANICAL ENGINEERING TEACHING STAFF						
1	Dr. Bhalerao Sachin D.	Ph.D.	Professor	Mech	30	Nil
2	Mr. Nilesh Channewar	M.E(Mech)	A.P	Manu. Systems Engg	10	Nil
3	Mr. Junad R. Kazi	ME (Mech)	A.P	Thermal Engg	3	Nil

11. List of senior visiting faculty:

S. N.	Name of faculty	Qualification	Designation	Specialization	Experience in years	Ph.D. Students guided
1	Mr. Sanjay Patil	BE , ME	Visiting Professor	Manufacturing Systems Engineering	15	N.A.
2	Mr. Balbheem Kamanna	Ph.D . Pursuing, ME	Visiting Professor	Machine Design	5	N.A.
3	Mr. Ajay Dave	BE,MBA	Visiting Professor	Mechanical	24	N.A

12. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty: All Classes are conducted by full time faculties.

13. Student-Teacher Ratio (Programme wise) :

UG/PG	Total No. of Students	Total No. of Staff	Student Teacher Ratio
UG	360	26	14:1
PG	36	3	12:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled :

Particular	Sanctioned	Filled
Supporting Staff (Technical)	08	02
Administrative (Clerk)	01	01
Supporting Staff (Non-technical)	03	03

15. Qualifications of teaching faculty with DSc/ D.Lit./ Ph.D/ MPhil / PG. /ME/Ph.D- completed and Pursuing:

Sr. No.	Qualification	Total
1	Ph.D.	3
2	Ph.D. (PURSUING)	2
3	M.E./M.TECH. Completed	24

16. Number of faculty with ongoing projects from: a) National b) International funding agencies and grants received.

Sr. No.	No of faculty with ongoing projects from National funding agencies	Grants received from National funding agencies	No of faculty with ongoing projects from International funding agencies	Grants received from International funding agencies
1	Nil	Nil	Nil	Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

Sr. No.	Name of the Faculty (PI)	Funding Agency & Year	Amount Sanctioned(status)
1	Prof S.N Teli / Prof. Paramjit Thakur	University of Mumbai 2015-16	40000/-

18. Research Centre /facility recognized by the University : MOUs with LTCOE, Koparkhairane, MOUs with Sanjay Ghodawat, Kolhapur November 2015

19. Publications: Publication per faculty

- A. Number of papers published in peer reviewed journals (national / international) by faculty and students
- B. Number of publications listed in International Database (For Eg: Web of Science, Scopus, and Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- C. Monographs
- D. Chapter in Books
- E. Books Edited
- F. Books with ISBN/ISSN numbers with details of publishers
- G. Citation Index
- H. SNIP
- I. SJR,
- J. Impact factor,
- K. h-index

Faculty of the department has published research papers in reputed national and international journals and conferences

a) Publication per faculty

Sr.	Name of the faculty	A	B	C	D	E	F	G	H	I	J	K
1.	Dr.Fauzia Siddiqui	09	-	-	-	-	-	15	-	-	-	3
2.	Dr.Sachin Bhalerao	10	-	-	-	-	-	-	-	-	-	-
3.	Mr.Abhijeet Ranveer	02	-	-	-	-	-	-	-	-	-	-

4.	Mr. Madan M.Jagtap	09	-	-	-	-	-	-	-	-	-	-
5.	Mr.Pradip Gunaki	03	-	-	-	-	-	-	-	-	-	-
6.	Mr. Ganesh Jadhav	01	-	-	-	-	-	-	-	-	-	-
7.	Mr.SandeepJadhav	03	-	-	-	-	-	-	-	-	-	-
8.	Mr.Paramjit Thakur	05	-	-	-	-	-	8	-	-	-	1
9.	Ms.MitaliMhatre	03	-	-	-	-	-	5	-	-	-	1
10.	Mr.Prasanna Raut	05	-	-	-	-	-	-	-	-	-	-
11.	Mr.Rakesh Shinde	01	-	-	-	-	-	-	-	-	-	-
12.	Mr. Dinesh Pargunde	2	-	-	-	-	-	-	-	-	-	-
13.	Mr.Pankaj Jadhav	05	-	-	-	-	-	-	-	-	-	-
14.	Mr.Vaibhav Madane	01	-	-	-	-	-	-	-	-	-	-
15.	Mr.Vinayak Suryavanshi	01	-	-	-	-	-	-	-	-	-	-
16.	Mr.YogeshDhumal	01	-	-	-	-	-	-	-	-	-	-

b) No of publications listed in international database (e.g. Web sciences, Scopus, Humanities International Complete, Google Scholar, etc.):56

c)Chapter/ Books WRITTEN/EDITED

Sr. No.	Name of faculty	Book Name	Publisher	ISBN/ISSN Number	Year
1	Mr.S.N.Teli & Mr. Pradip Gunaki	Productivity Improvement by Value Stream Mapping	LAP Lambert Academic Publishing, Germany	978-3-659-78386-9	2015
2	Mr.S.N.Teli Mr. Madan Jagtap	Analysis & Reduction of warranty cost: A case of Automobile Industry	LAP Lambert Academic Publishing, Germany	978-3-659-77264-1	2014

20. Areas of consultancy and income generated:

Sr. No.	Area of Consultancy	Name of Industry/Organization
1	Design and development of the Mono Wheel	SES, Navi-Mumbai
2	Design and manufacturing of Shredding machine for exam section	SES, Navi-Mumbai
3	Performance Optimization with cost effectiveness of Mono wheel	SES, Navi-Mumbai
4	Design and Fabrication of pipe inspection robot	SES, Navi-Mumbai

21. Faculty as members in

- a. **National committees** : 4
1. Indian Society of Heating Refrigeration and Air-conditioning Engineers (ISHRAE)
 2. Society of Automotive Engineers (SAE)
 3. Indian Institute of Industrial Engineering (IIIE)
 4. Indian Society for Technical Education (ISTE)
- b. **International Committees:** Nil
- c. **Editorial Boards :** Nil

22. Student projects:

- a) Percentage of students who have done in-house projects including inter departmental/Programme

Year	UG		PG	
	No. of In-house Project	% of Projects done in- house	No. of In-house Project	% of Projects done in- house
2012-2013	13	50	Nil	Nil
2013-2014	15	53	Nil	Nil
2014-2015	18	60	03	18
2015-2016	35	70	04	20

- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Year	UG		PG	
	No. of projects in industry	% of Projects done in industry	No. of projects in industry	% of Projects done in industry
2012-13	12	50	Nil	Nil
2013-14	12	47	05	100
2014-15	12	40	14	82
2015-16	15	30	16	80

23. Awards / Recognitions received by faculty and students:

Students Awards:

a)Students Topper: B E

Sr. No	Academic Year	Name of the Student	University /College Rank
1.	2014-15	Krishna Kumbhar	09 / 01
2.	2013-14	Reddy Sivshankar	/01
3.	2012-13	Nishad Rahul Ramesh	/01
4.	2011-12	NileshVishwakarma	/01

b) Students Sports:

Sr. No.	Name of the Student	Name of the event University/	Year	Remarks
1	Sanskar Sharma, Mayur Palkar, Rohit Yadav	Mumbai University III Zone Chess Tournament 2014	2014-15	Zonal winner
2	Swarnali Mukkhopaddhay	Table Tennis tournament Amity University Mumbai	2014-15	1 st Prize
3	Heramb Pimpale	Madhavrao Shindiya Trophy Team Lions Cricket Club	2014-15	Winner
4	Ashish Salvi, Prabjit Singh (TE Mech)	State Level Football Tournament MIT Pune	2013-14	Second Runner Up
5	Karthik Moopnar, Mandar Gaikwad and Siddhik Adanwale	Mumbai University Chess tournament	2013-14	Zonal Winner

c) Paper presentation:

Sr. No	Name of the Student	Title of the paper	Year	Achievement
1	Mr. Arshad Qureshi	Optimization of Cutting parameters for Surface roughness in CNC turning of P20 steel	2015-16	ICAST 2015 Stood first in Mech discipline

d) Project Competition:

S. N.	Name of the Student	Title of the project	Year	Achievement
1	Harminder Singh Nisha Gandhi Sanjay Jain Swapnil Kanase	Application of Mechatronics in advancement of Indian Railway System	2015-16	Won second prize(Avishkar national project competition at SCOE Kharghar)
2	Team "Prahar", consisting 25 Student members.	Design of a Mini Baja Buggy at Baja SAE India Virtual Design Presentation Event(BIT	2012-13	24 th &25 th August 2012. Qualified amongst final 120 teams from overall 278 teams from all over India.

		Bangalore)		
3	Nikhil Katkar, Digvijay Babar, Roshan Sohal And Mahesh Agiwale	Dual operative Bi-cycle	2011-12	Micro innovation League Vashi Navi Mumbai .Won 2n d prize with prize money of 25,000/-. Overall 43 teams had participated.

Faculty Award:

i) Best Teacher Award: Nil

ii) Best Department award: **Best Department Award 2013-14 from SES**

NaviMumbai

iii) Best paper award: 01

iv) Ph.D. Awarded: **Prof. Fauzia Siddiqui awarded Ph.D. from GGSIPU, Delhi (2015-16)**

Sr No	Name of Faculty	Department	Award	Year
1	Mr. S.N.Teli	Mechanical	Research Award	2013-14
2	Mr.Madan Jagtap	Mechanical	Star Performer Award	2013-14
3	Dr. Fauzia Siddiqui	Mechanical	Star Performer Award	2014-15
4	Mr .Yogesh Dhumaal	Mechanical Engg.	ME Topper-Sem I & II	2014-2015
5	Mr. S.N.Teli	Mechanical Engg	Best Department Award	2013-2014
6	Mr.Pradip Gunaki	Mechanical Engg.	ME Topper CGPI-9.0	2013-2014
7	Mr. S.N.Teli	Mechanical Engg.	Best Department Award (Second Position)	2012-2013

v) **M.E topper:**

Sr. No.	Name of the Faculty	Year
1	Mr. Yogesh Dhupal	2014-15 (Sem : I and :II)
2	Mr. Pradip Gunaki	2013-14 (SGPI:9.00)

24. List of eminent academicians and scientists / visitors to the department:

Sr. No.	Name	Designation	Company/ Organization	Experience in Years
1	Dr.Vijay Kumar	Asso. Professor	DJSCOE, Vile Parle	18
2	Mr.Bhavesh Mehta	Deputy General Manager	Reliance Industry	18
3	Mr.SanjayVerma	Manager	SARA HVAC Systems	16
4	Mr Himadri Mandal	DGM	GAIL	25

25. Seminars/ Conferences/Workshops organized & the source of funding:

a) National :

Sr. No.	Event with Year	Funding Agency	Amount (Rs)
1	Workshop CATIA V5 Course 2011	MESA	10950
2	Seminar on HMT and FM2012	MESA	10000
3	National Conference 2012	MESA	10000
4	Seminar on RAC -2015	ISHRAE	10000
5	Jamboree -2015	ISHRAE	100000
6	Blood Donation Camp	SCOE, Kharghar	5000
7	CADTECH 2015 (The 3 D modeling CAD Competition)	CAD Center	10000
8	Expert lecture for ME 2014	SCOE, Kharghar	3000
9	Expert lecture on CAD 2013	SCOE, Kharghar	2000

b)International :Nil

26. Student profile Programme/course wise:

Year of Admission	Year of Result	Application s received	Selected	Enrolled		Pass Percentage
				M*	F*	
2011-12	2014-15	90	95	83	12	70.52
2010-11	2013-14	90	90	80	10	70
2009-10	2012-13	90	90	74	16	65.16
2008-09	2011-12	60	60	56	04	45.55

M*= Male

F* = Female

27. Diversity of Students:

Year	Name of the Course	% of students from the same state	% of students from other state	% of students from Abroad
2015-16	BE MECH	99	1	Nil
	M.E Mech	100	Nil	Nil
2014-15	BE MECH	97.45	2.55	Nil
	M.E Mech	100	Nil	Nil
2013-14	BE MECH	100	Nil	Nil
	M.E Mech	100	Nil	Nil
2012-13	BE MECH	99.21	0.78	Nil
	M.E Mech	100	Nil	Nil
2011-12	BE MECH	100	Nil	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Sr.No	Academic Year	Name of the Students	Exam
1.	2015-6	Thakur Abhijeet	GATE
2.		Gupta Rohit	GATE
3.		Haryan Siddhesh	GATE
4.	2014-15	Amare Rohan	GATE
5.		VermaVaibhav Singh	GATE
6.		HegdeShrikrishna	GATE
7.		Kumbhar Krishna	GATE
8.	2013-14	Nene Mayuresh	GATE
9.		KrishnaswamyMahadevan	GRE
10.		Sontakke Prajakta	GRE
11.		Swapnali Mukkhopaddhay	GRE
12.		Nair Anu	GRE
13.	2012-13	SonawaneVipul	GRE
14.		MoorthyAnant	GATE
15.		BhasmeSharayu	GRE
16.		Raju Anil	GRE

* Students having percentile $\geq 80\%$.

The details of students appeared and qualified in CAT exam are given below:

* Students having percentile $\geq 80\%$.

29. Student progression

Student Progression	Percentage against enrolled			
	2015-2016	2014-2015	2013-2014	2012-2013
UG to PG	NA	20	20	26
PG to Ph.D. PG to Post-Doctoral	1	Nil	Nil	Nil
Campus selection	18	55	68	21
Other than campus recruitment	NA	14	13	30
Entrepreneurship/Self-employment	NA	38	18	6

30. Details of Infrastructural facilities

a) Library

Central Library :-

Library holdings	2011-12		2012-13		2013-14		2014-15		2015-16	
	No.	Co	No.	Cot	No.	Co	No.	Co	No.	Co
Text books	45	19620	69	28806	15	7919	40	8538	36	24624
Reference book	3	1530	16	7527	1	529	5	1909	7	9580
Journal/periodicals	19 (13* & 6#)	59477	21 (19* & 2#)	58830	24 (24*)	56702	26 (23* & 3#)	53716/-	26 (23* & 3#)	66040
e-resources	19	183530	4414	115346	26	133748	0	0	27	168696

No. – Number, Co. – Total Cost

Journal/periodicals - * National Journal, # International Journal

e-resources- ASME, J-GATE

Department Library : Total number books 147 and projects 42 : 189

b) Internet facility for staff and students: 129 No. of computers for students and 8 computers for faculty with internet facility bandwidth 100 MBPS leased line

c) Classrooms :Nine (09) Classrooms are equipped with ICT, LCD facility and 1 Seminar Hall well equipped with LCD projector and sound system

d) Laboratories:

Details of Laboratory facilities: Rs.1, 03, 69,765

Sr. No.	Laboratory	Area (Sq m)	Equipment	Qty	Cost (Rs.)
1	Machine Shop	250	4.5 size Lathe M/c Light Duty	9	490000
			6' Size All geared Lathe	2	262000
			4.6 size Lathe M/c Light Duty	9	1434690
			Shaping machine 18" Stroke	2	217500
			Radial Drilling Machine	1	90500
			Bench Grinder	1	8000
			Hack Saw Machine	1	33500
CNC Turner Trainer M/c	1	517500			
2	Mechatronics / P.G.	72	Oil Hydraulic Trainer	1	150,000
			Electro- Pneumatic Trainer	1	90000
			PLC Trainer Unit	1	43000

			5V Dual Channel Dual Display DC Power Supply	2	13500
			M-52-02 Micro Controller Trainer	3	156320
			Compressor	1	27600
3	Material Technology	66	Trinocular Microscope with CCTV attachment	1	96133
			Binocular Microscope with Imported optics	1	61695
			Jominy End Quench Hardness test apparatus with Quenching fixture	1	60872
			Double Disk Polishing m/c	1	54840
			Abrasive belt grinder Dry type	1	9871
			Hot mounting press	1	24678
			Specimen leveller	1	2285
			Standard Metallurgical microstructure set	1	11517
			Dryer	1	1097
			Dedicator	1	1645
			Fatigue Testing Machine	1	99000
			4	Theory of Machines	66
2. Kinematics of pair (Lower & higher pair)	1	3300			
3. Kinematics of gear	1	3500			
4. Gear tooth profile	1	2700			
5. Oldham coupling	1	1100			
6. Universal coupling	1	1700			
7. Cam analysis apparatus	1	20000			
8. Inversions of four bar link mechanism	1	25000			
9. Motorized Gyroscope	1	18500			
10. Universal Governor Apparatus	1	24500			
11. Cotter joints	1	2400			
12. Couplings	1	1400			
13. Clutch Models	5	11500			
14. Brake models	5	12600			

			15. Epicyclic Gear Train Dynamo meter Std.	1	
			16. Belt Transmission Dynamo meter Std	1	
5	Mechanical Vibrations	66	Static & Dynamic balancing	1	14500
			Universal Vibration Apparatus	1	58000
			Whirling of shaft Apparatus	1	24500
6	Heat Transfer	66	· Thermal conductivity of insulating powder	1	18500
			· Heat Transfer in natural convection	1	20500
			· Heat Transfer in forced convection	1	28500
			· Thermal Conductivity of liquid	1	32500
			· Heat Pipe Demonstrator	1	22000
			· Thermal conductivity of metal rod	1	21500
			· Unsteady state heat conduction	1	32500
			· Emissivity	1	21500
			· Heat Exchanger	1	20500
7	Internal Combustion Engine	66	Engine test Set up 1Cylinder 4 Stroke Diesel Engine	1	425295
			Engine test Set up 3Cylinder 4 Stroke Petrol Engine	1	376085
8	Refrigeration and Air- conditioning	70	Vapour compression Refrigeration Test Rig	1	82500
			Water Cooler Test Rig	1	60000
			Ice Plant Test Rig	1	70000
			Air conditioning Test Rig	1	87500
9	CAD/CAM FEA	66	Hardware- HCL PC	20	516000
			24 port LAN switch	1	13000
			Software- 1. Ansys 11.0,	5	210000
			2. CMS_ Intellicad	15	465000
			3. Pro E 4.0	500	160000
			4. AutoCAD 2008	5	752640
10	Fluid Mechanics	125	1. Bernoulli's Theorem apparatus	1	
			2. Venturimeter & Orifice meter	1	391417/-
			3. Reynolds Apparatus	1	
11	Research	70	Hardware- Acer VT (CI3) Desktop CP/N :	22	360045

			AW / 60 GT:389 qie) ACER 18.5" tet.		
			Software-		
			1. Advance Auto SIM	1	144655
			2. Solid Edge ST8	15	328625

31. Number of students receiving financial assistance from college, university, government or other agencies

• Economically weaker students of SC, ST, OBC and OC, whose parent income is less than 1.0 Lakh per annual, get tuition fee reimbursement and scholarship from state Government.

Sr. No	A.Y.	Category		Number of Students	Amount (Rs. In Lakhs)
1.	2014-15	Other Backward Class (OBC)	I-Shift	76	29.64
		Schedule Caste (SC)	I-Shift	80	67.08
		Schedule Tribes (ST)	I-Shift	05	4.54
		Economically Backward Class (EBC)	I-Shift	58	21.48
		Minority Class (MC)	I-Shift	04	1
		(SBC)	I-Shift	09	6.44
2.	2013-14	Other Backward Class (OBC)	I-Shift	90	33.28
		Schedule Caste (SC)	I-Shift	69	52.90
		Schedule Tribes (ST)	I-Shift	08	6.71
		Economically Backward Class (EBC)	I-Shift	44	15.1
		Minority Class (MC)	I-Shift	03	0.75
		(SBC)	I-Shift	11	9.65
3.	2012-13	Other Backward Class (OBC)	I-Shift	67	24.43
		Schedule Caste (SC)	I-Shift	58	43.18
		Schedule Tribes (ST)	I-Shift	03	2.44
		Economically Backward Class (EBC)	I-Shift	42	13.38
		Minority Class (MC)	I-Shift	05	1.25
		(SBC)	I-Shift	09	6.64
4.	2011-12	Other Backward Class (OBC)		42	13.77
		Schedule Caste (SC)		27	16.43
		Schedule Tribes (ST)		03	2.15

	Economically Backward Class (EBC)	22	6.18
	Minority Class (MC)	12	3.00
	(SBC) 07	4.25	

32. Details on student enrichment Programmes (special lectures / workshops / seminar) with external experts

Academic Year	Sr. No.	Name of Activity	Date From - To	Name of Expert/ Speaker	Total Students participants
2013-14	1	Technical Aptitude Test	05/10/12	Mr.Albin Verghese & Prof.Abhijeet Ranveer	42
	2	HMT and FM	08/10/12	Mr.Deb Mukkhopadhyay	55
	3	Leadership Qualities and Initiatives	27/10/12	Mr.Ramesh Waghode	44
	4	Mechatronics, SMC Pneumatics, Pune	03/02/13	Mr.Mandar Puranik	55
	5	Awareness cum Motivational Campaign for Entrepreneurship Development	09/03/13	Dr.Devashish Bose	42
	6	Advances in IC Engines	19/03/13	Mr.Vijay Ghughe	40
2014-15	7	Advance Material System	8-12/7/13	ISTE and SRM Chapter	45
	8	Governor	04/10/13	Mr.Atul Godse	36
	9	Air Conditioning	07/10/13	Mr..T.Z.Quazi	45
	10	Deflection of beams	07/10/13	Mr. Vinayak Khatawate	40
	11	Design of vehicles	04/02/14	Prahar Team Members	44
	12	Know how to start your business	14/02/14	Mr.Bishwnath Mitra	36

	13	Guidelines for higher education in the overseas	06/04/14	Ms.Niyati Mehta, Manager, EDWISE CONSULTANTS PVT.LTD	45
2015-16	14	An Approach for selecting project and career counselling	04/08/15	Mr.Atul Patil	92
	15	Expert talk on IBMS	12/08/15	Mr.Boney Davis	210
	16	Celebration of World Entrepreneurship Day with E-quiz	21/08/15	Dr.Fauzia Siddiqui	102
	17	Expert Lecture on MD-II	22/08/15	Dr.S.D.Dalvi	50
	18	Expert lecture on TOM-II	22/08/15	Mr.G.N.Thokal	55
	19	Aptitude and Soft Skills training	7-13/9/15	Mr.Vinay Raikar, CampusCredde, Mumbai	120
	20	Introduction to CAD/CAM/CAE	22/09/15	IGTR, Aurangabad	40

33. Teaching methods adopted to improve student learning:

Sr.No.	Innovations in Teaching methodology
1.	Demonstrations
2.	Project based learning
3.	Power point presentation
4.	Industrial visit
5.	Supervised study
6.	Case Study
7.	Model based study
8.	NPTEL Video lecture series

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

The College runs a society for social cause to create awareness about social responsibility among the students. The societies are named as National Social Service (NSS) and rotary club Mumbai. In addition to the technical, sports and cultural activities, the college hosts events in social front as well the students of Mechanical Engineering Department actively participate in such activities. Following initiatives have been taken in the previous three years in this direction.

Sr.No	Event	Organized By
1	Blood donation camp	Rotary Club Mumbai RCM) 15/09/2015
2	SES- MARATHON -Promotion of women empowerment	SES Educational Society 17/09/2013

35. SWOC analysis of the department and Future plans:

Strength

1. The department has well qualified and experienced faculty with expertise in various field of mechanical engineering.
2. The department is also well equipped with various Lab facilities and other infrastructure to disseminate the required knowledge according to the syllabus and beyond syllabus to the students.
3. The department has its own library with a collection of essential text, reference books and journal magazines.
4. The department organizes guest lectures, Seminars, Workshops, and FDPs regularly to keep the faculty and students updated with the latest in the field.

Weakness

1. Interaction with the industry is lacking and so is the consultancy.
2. Lack of space which impedes the further development of labs and course.

Opportunities

1. To get chances for signing MOUs with the industries because of nearer Industrial area.
2. To get more placement for the students with the MOUs in industries.
3. The college has started the initiatives on interdisciplinary research areas.

Challenges

1. The department has to make foreign collaboration and sign MOUs for nurturing the students with latest technology and make them industry ready.
2. To compete with the other colleges, the department has to establish state-of-the-art computer and other technical labs.
3. Due to large number of graduates every year in the country and less job opportunities, students are facing tough competitions in placement drive.

Future plans:

To empower students with latest technology will also provide them the platform to improve their presentation skills hence build the confidence level. Provide research environment to students and faculty to meet the current and future challenges of technological development.

Evaluation Report of Mechanical Engineering Department

1. Name of the department : Mechanical Engineering (Shift :II)
2. Year of Establishment : 2012
3. Names of Programmes / Courses offered: BE/UG.

Programme of Study	Description
UG in Mechanical Engineering	Started with 60 seats in 2012-13

9. Number of Teaching post :

ACADEMIC YEAR -2015-2016

Designation	Sanctioned	Filled
Professors	01	01
Associate Professors	02	02
Asst. Professors	07	07
Visiting Professor	03	03

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

**UNDER GRADUATE COURSE (MECHANICAL ENGINEERING)
SHIFT - II**

S. N.	Name of faculty	Qualification	Designation	Specialization	Experience in years	Ph.D. Students guided
1	Mr. Teli S.N.	ME, PhD (Submitted)	Professor & Dean	Prod. Mgmt., Quality Engg.	18	N.A.
2	Mr. Madhukar Sorte	ME	Asso Professor	Manufacturing systems Engg	15.5	
3	Ms. Geeta Karmarkar	ME	Asso Professor	CAD-CAM & Robotics	11	N.A.
4	Mrs. Mugdha Dongre	ME	A.P	Manufacturing	4	N.A.
5	Mr. Sachin Solanke	ME	A.P	Advance Manufacturing&MSD	03.5 Tech.& 01 Ind.	N.A.
6	Mr. Amol Bhagat	ME	A.P	CAD/CAM	2.5	N.A.
7	Mr. Amit Chorghe	ME	A.P	CAD/CAM	2	N.A.
8	Mr. Ashish Bandewar	PET Cleared ME	A.P	Heat Power	4	N.A.
9	Mrs.	M.E	A.P	Manufacturing	20	N.A

	Jyotsna Sinha			ng systems Engg	industry 0.5 teaching	
10	Mrs. Shubhangi ni Amrute	M.E	A.P	Manufacturing systems Engg	3 years industry, 0.5 teaching	N.A

9. List of senior visiting faculty :

S R N	Name of faculty	Qualification	Designation	Specialization	Experience in years	Ph.D. Students guided
1	Mr. Sandip Birmane	ME	Visiting Professor	Manufacturing systems Engg	4 Year	N.A.
2	Mr Yashwant Patil	ME	Visiting Professor	Manufacturing systems Engg	8	N.A.
3.	Mrs.Ruchita Vyas	ME	Visiting Professor	Production Engg	7.5	N.A.

10. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty: All Classes are conducted by regular faculties.

11. Student-Teacher Ratio (Programme wise) :14:1

Total No. of Students	Total No. of Staff	Student Teacher Ratio
180	13	14:1

12. Number of academic support staff (technical) and administrative staff; sanctioned and filled :

Particular	Sanctioned	Filled
Technical	-	01
Administrative	-	01
Supporting	-	03

13. Qualifications of teaching faculty with DSc/ D.Lit./ Ph.D/ MPhil / PG. /ME/Ph.D- completed and Pursuing:

Sr. No.	Qualification	Total
1	Ph.D.	0
2	Ph.D. (PURSUING)	1
3	M.E./M.TECH. Completed	12

16. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

Sr. No.	Name of the Faculty (PI)	Funding Agency & Year	Amount Sanctioned(status)
1	Mr. S.N Teli/ Mr. Paramjit Thakur	University of Mumbai 2015-16	40000/-

18. Research Centre /facility recognized by the University: MOUs with LTCOE, Koparkhairane, MOUs with Sanjay Ghodawat, Kolhapur November 2015

19. Publications:

- A. Number of papers published in peer reviewed journals (national / international) by faculty and students
- B. Number of publications listed in International Database (For Eg: Web of Science, Scopus, and Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- C. Monographs
- D. Chapter in Books
- E. Books Edited
- F. Books with ISBN/ISSN numbers with details of publishers
- G. Citation Index
- H. SNIP
- I. SJR,
- J. Impact factor,
- K. h-index

Faculty of the department has published research papers in reputed national and international journals and conferences.

Sr. No	Name of the faculty	A	B	C	D	E	F	G	H	I	J	K
1.	Mr. S.N.Teli	50	-			05	978-3-659-78386-9 978-3-659-79362-2 978-3-659-80496-0 978-3-659-77264-1 978-3-659-18927-2	16	-	-	-	3
2.	Mr. Madhukar B. Sorte	11	-	-	-	-	-	3	-	-	-	1
3.	Mr. Sachin Solanke	02	-	-	-	-	-	-	-	-	-	-
4.	Mr. AmolBhagat	01	-	-	-	-	-	-	-	-	-	-
1.	Mr. Amit Chorage	01	-	-	-	-	-	-	-	-	-	-
2.	Mr. Nilesh Chanewar	2	-	-	-	-	-	-	-	-	-	-
3.	Mr. Ashish Bandewar	03										

A. Chapter/ Books WRITTEN/EDITED

S.N.	Name of faculty	Book Name	Publisher	ISBN/ISSN Number	Year
1	Mr.S.N.Teli Mr. Siddhesh Lad	Knowledge Management	LAP Lambert Academic Publishing, Germany	978-3-659-79362-2	2015

22. Student projects

a) Percentage of students who have done in-house projects including inter Departmental/Programme

Year	No. of In-house Project	% of Projects done in- house
2015-2016	10	63

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Year	No. of projects in industry	% of Projects done in industry
2015-2016	6	37

27. Diversity of Students:

Name of the Course		% of students from the same state	% of students from other state	% of students from Abroad
2015-16	Shift-II	95	5	NIL
2014-15	Shift-II	100	0	NIL
2013-14	Shift-II	100	0	NIL
2012-13	Shift-II	100	0	NIL

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Sr.No	Academic Year	Name of the Students	Exam
1	2016	Prathmesh Mulay	GATE
2	2016	Mirgal Vikrant	GATE
3	2016	Patil Swapnil	GATE
4	2016	Mahabale Vivek	GATE

* Students having percentile $\geq 80\%$.

29. Student progression: First Batch

Student Progression	
Year	2015-2016
UG to PG	-
PG to Ph.D. PG to Post-Doctoral	-
Campus selection	9
Other than campus recruitment	2
Entrepreneurship/Self-employment	-

31 Number of students receiving financial assistance from college, university, government or other agencies

- Economically weaker students of SC,ST ,OBC and OC ,whose parent income is less than 1.0 Lakh per annual get tuition fee reimbursement and scholarship from state Government.
- Some of the students getting financial assistance from the college for presentation of the papers and for attending conferences/workshops.

Sr.No.	Category	Number of Students	Amount (Rs. In Lakhs)
2014-15 (II SHIFT)	Schedule Tribes(ST)	0	0
	Schedule Caste(SC)	18	15.09
	SBC	5	3.58
	VJNT	12	9.26
	Minority Class(MC)	2	0.50
	Other Backward Class(OBC)	24	9.36
	Economically Backward Class(EBC)	13	4.86
2013-14 (II SHIFT)	Schedule Tribes(ST)	0	0
	Schedule Caste(SC)	12	9.96
	SBC	3	2.63
	VJNT	10	7.32
	Minority Class(MC)	1	0.25
	Other Backward Class(OBC)	16	5.91
	Economically Backward Class(EBC)	11	3.97
2012-13 (II SHIFT)	Schedule Tribes(ST)	0	0
	Schedule Caste(SC)	6	4.46
	SBC	1	0.73
	VJNT	5	3.68
	Minority Class(MC)	3	0.75
	Other Backward Class(OBC)	8	2.91
	Economically Backward Class(EBC)	2	0.70

**Evaluative Report of Engineering Sciences and Humanities
Department**

1. **Name of the department:** Department of Engineering Sciences And Humanities
2. **Year of Establishment:** 17 September 2004
3. **Names of Programmes / Courses offered :** UG
4. **Names of Interdisciplinary courses and the departments/units involved:**

Sr. No.	Department	Subjects offered
1	Computer Engineering	Structured Programming Approach
2	Electronics & Telecommunication Engineering	Basic Electrical & Electronics Engineering
3	Information Technology	Structured Programming Approach
4	Civil Engineering	Engineering Mechanics, Engineering Drawings
5	Mechanical Engineering	Engineering Mechanics, Engineering Drawings
6	Automobile Engineering	Engineering Mechanics, Engineering Drawings

5. **Annual/ semester/choice based credit system (Programme wise):**Semester pattern credit based grading system (CBGS)
6. **Participation of the department in the courses offered by other departments:** AM-III,AM-IV ,BC, OR

Sr. No.	Department	Subjects offered
1	UG program in Computer Engineering	Applied Mathematics III & IV, Business Communication & Ethics
2	UG program in Electronics & Telecommunication Engineering	Applied Mathematics III & IV, Business Communication & Ethics
3	UG program in Information Technology	Applied Mathematics III & IV, Business Communication & Ethics
4	UG program in Civil Engineering	Applied Mathematics III & IV, Business Communication & Ethics
5	UG program in Mechanical Engineering	Applied Mathematics III & IV, Business Communication & Ethics
6	UG program in Automobile Engineering	Applied Mathematics III & IV, Business Communication & Ethics

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.:**NIL
8. **Details of courses/programmes discontinued (if any) with reasons:**Nil
9. **Number of Teaching post**

	Sanctioned	Filled
Professors	01	01
Associate Professors	04	04
Asst. Professors	33	33
Visiting	08	08

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

S R N O.	Name of faculty	Qualification	Designation	Specialization	Exper ience in years	Ph.D. Stude nts guide d
1	Dr. S.V. Lathkar	Ph.D., M. Phil M.A. B.A Maths, B.Ed., AMIE, DEE,	Asso. Prof.& HOD	Operation Research	22	NIL
2	Dr. S. M. Sabnis	Ph.D. B.Sc. B.Ed.,M.Sc., Physics	Professor	Applied Physics	19	NIL
3	Dr.Sunita Pal	Ph.D, B.Sc,B.Ed,M.Sc. Chemistry	Asso Prof	Applied Chemistry	7	NIL
4	Dr. Prakash Bhadane	Ph.D., M.Sc., B.Sc. Physics	Asso Prof	Applied Physics	9	NIL
5	Dr.Neha Sharma	M.Phil ,M.A Eng.	Asso Prof	Communi cation Skill	2	NIL
6	Mrs.Sindhu V. Tayade	M.Phil, M.Sc. B.Sc. B.Ed. Ph.D. Persuing. Chemistry	A.P	Applied Chemistry	13	NIL
7	Ms.Reshma Chavan	B.Sc. CS, B.Sc. Maths, M.Sc. Engg. Maths	A.P	Applied Maths	03	NIL
8	Mr.Prashant Gawade	M. Sc., B.Sc. Maths	A.P	Applied Maths	06	NIL
9	Mr.DhawalSur yawanshi	M. Phill., M.A. English - Lit.	A.P	Communi cation Skill	7	NIL
10	Ms.FarhaVanu	NET M.Sc. Maths	A.P	Applied Maths	03	NIL
11	Ms. Sheetal Sonawane	M.Sc. ChemistryNET	A.P	Applied Chemistry	2	NIL
12	Ms.Dhanlakshmi Krishnan	M.Sc. Maths NET	A.P	Applied Maths	3	NIL
13	Ms.Alka Purohit	MA English, MBA	A.P	Communi cation Skill	25	NIL
14	Dr.Roly Sinha	PhD	A.P	Communic	10	NIL

				ation Skill		
15	Mrs.Harshada Pratham	M.Sc(Maths)	A.P	Applied Maths	1	NIL
16	Mrs. Shweta Meshram	M.Phil (Maths)	A.P	Applied Maths	2	NIL
17	Mr.Shivkumar Balegaon	M.Sc(Maths)	A.P	Applied Maths	5	NIL
18	Dr.Deepika Dandekar	Phd Chemistry	A.P	Applied Chemistry	3.5	NIL
19	Mrs.SarikaBhushan	M.Sc Physics, NET	A.P	Applied Physics	5	NIL
20	Mrs.Suman Sharma	MA English	A.P	Communication Skill	15	NIL
21	Ms.Vijayshree Shinde	ME Comp	A.P	Computer	6	NIL
22	Ms.Suman Bhujbal	M.Tech	A.P	Computer	8	NIL
23	Mr.Prabal D. Das	M.E EXTC	A.P	EXTC	1 Year	NIL
24	Mr. Praveen S. Shinde	M Tech	A.P	IT	4.5	NIL
25	Mr. Siddhesh Lad	ME Mech	A.P	Mech	3	NIL
26	Mr.Janak Sutar	ME Mech	A.P	Mech	Fresher	NIL
27	Mrs.Shital K. Ajagekar	ME Comp	A.P	IT	4.6	NIL
28	Mr. Yogesh Jadhav	ME Computer	A.P	Computer	3	NIL
29	Ms.Poonam Hankare	ME Computer	A.P	Computer	2	NIL
30	Ms.Ramya R. B.	ME Comp Science	A.P	Computer	2.7	NIL
31	Mrs.Padamshri N.	ME Comp Science	A.P	Computer	5	NIL
32	Mrs.Sawale Gayatri Ashok	ME Comp	A.P	Computer	3	NIL
U.G. COURSE (FIRST YEAR ENGINEERING) II SHIFT						
1	Mrs.SayaliChoudhari	M.Sc., B.Sc. B.Ed. B.Ed. Maths	In charge HOD Assistant Professor	Applied Maths	17	NIL
2	Dr. Ram Bhise	PhD, M.Phil , M.A , B.A ,	Assistant Professor	Communication Skill	07	NIL

		Eng.				
3	Ms.Swapna Mamidwar	MSC Chemistry	Assistant Professor	Applied Chemistry	08	NIL
4	Ms.Rekha Jawale	MSc Physics	Assistant Professor	Applied Physics	28	NIL
5	Ms.Diksha Gautam	ME I.T	Assistant Professor	I.T	07	NIL
6	Mrs.Ashwini V. Somavanshi	ME Computer	Assistant Professor	Computer	02	NIL

11. List of senior visiting faculty:

Shift – I

SR NO.	Name of faculty	Qualification	Designation	Specialization	Experience in year	Ph.D. Students guided
1	Mrs.Radhika Joshi	ME	A.P.	Structure	4	NIL
2	Mr.Vishwanath Joshi	M.Tech	A.P.	Environment	18	NIL
3	Mr.Prathmesh Khanvilkar	M.E	A.P.	Structure	2	NIL
4	Mr.Siddhav Sakhalkar	M.E	A.P.	Structure	4	NIL
5	Ms.Shraddha Sawant	M.E	A.P.	EXTC	2	NIL
6	Ms.Ashwini Subhedar	M.E	A.P.	Comp	2	NIL

Shift - II

SR NO.	Name of faculty	Qualification	Designation	Specialization	Experience in year	Ph.D. Students guided
1	Ms.Neha K olte	ME Civil	Visiting	Civil	2	NIL
2	Mr.Swapni Banger	M.E EXTC	Visiting	EXTC	4	NIL

12. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty: All Classes are conducted by full time and visiting faculties.

13. Student -Teacher Ratio (Programme wise):

Total No. of Students	Total No. of Staff	Student Teacher Ratio
540 (Shift – I)	38	14:1
120 (Shift – II)	8	15:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Sr. No	Type of	Sanctioned	Filled
1	Supporting Staff (Technical)	2	2
2	Administrative Staff	2	2
3	Supporting (Nontechnical)	3	3

15. Qualifications of teaching faculty with DSc/ D. Lit./ Ph.D/ MPhil / PG. /ME/Ph.D- completed and Pursuing

Sr. No.	Qualification	Total
1	Ph.D.	7
2	NET/SET	3
3	Ph.D. (PURSUING)	1
4	M.Sc./M.A.	27

16. Number of faculty with ongoing projects from National & International other funding agencies and grants received.

Sr. No.	No of faculty with ongoing projects from National funding agencies	Grants received from National funding agencies	No of faculty with ongoing projects from International funding agencies	Grants received from International/National funding agencies
1	Dr. Seema Lathkar & Dr. Sunita Pal	SES(SRD Milk Co-operative agency, Sangli)	-	Rs. 90,000/-
2	Dr. Sunita Pal & Dr. Seema Lathkar	SES (Agro Industries, Sangli)	-	Rs.120,000/-

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

Sr. No	Name of the Faculty (PI)	Funding Agency & Year	Amount Sanctioned(status)
1	Dr. Seema Lathkar & Ms. Reshma Chavan	University of Mumbai 2015-16	25,000/-
2	Dr. S M Sabnis & Dr. Sunita Pal	University of Mumbai 2015-16	46,000/-

18. Research Centre /facility recognized by the University: Nil

19. Publications:

- A. Number of papers published in peer reviewed journals (national / international) by faculty and students
- B. Number of publications listed in International Database (For Eg: Web of Science, Scopus, and Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- C. Monographs
- D. Chapter in Books
- E. Books Edited

- F. Books with ISBN/ISSN numbers with details of publishers
G. Citation Index
H. SNIP
I. SJR,
J. Impact factor,
K. h-index

Sr. No.	Name of the faculty	A	B	C	D	E	F	G	H	I	J	K
1	Dr. Seema V Lathkar	20	20	-	1	-	-	-	-	-	2.9	-
2	Dr. SM Sabnis	16	16	-	-	-	-	3	-	-	3.1	1
3	Prof. Sayalichoudhary		4	-	-	-	-	-	-	-	-	-
4	Dr. Praksh Badhane	14	14	-	-	-	-	3	-	-	3.1	1
5	Dr. sunita Pal	5	4	-	-	-	-	71	-	-	3.4	4
6	Prof. SindhuTayade	-	9	-	-	-	-	-	-	-	-	-
7	Prof. SwapnaMamidwar	-	3	-	-	-	-	-	-	-	-	-
8	Mr Ram Bhise	-	4	-	-	-	-	-	-	-	-	-
9	Mrs. RekhaJawale	-	1	-	-	-	-	-	-	-	-	-
10	Ms. Reshma Chavan	-	2	-	-	-	-	-	-	-	-	-
11	Ms. Farah Vanu	-	1	-	-	-	-	-	-	-	-	-
12	Ms. Sheetalsonawane	-	1	-	-	-	-	-	-	-	-	-
13	Ms. AlkaPurohit	-	1	-	-	-	-	-	-	-	-	-
14	Dr. DeepikaDandekar	-	1	-	-	-	-	-	-	-	-	-

20. Areas of consultancy and income generated:

Sr. No.	Area of consultancy	Name of the Industry/ Organisation	Income generated
1	Water Testing(for society)	SES	--

21. Faculty as members in:

- a) National Committees: ISTE
b) International Committees: Nil
c) Editorial board: Nil

22. Student Projects: NA

23. Awards / Recognitions received by faculty and student

a. Students

Sr. No.	Name of Students	Awards received by the faculty and students with year	Recognition received from reputed professional bodies agencies, nationally and internationally
1	Sidharath Jhakus	1 st position in	State level scholarship

		college(HSC) (2014-15)	
2	Sajan kumar	Appreciation certificate (2014-15)	MKCL Maha IT genius compition
		1 prize (2014-15)	Tatto-making competition
		1 prize (2014-15)	T-shirt painting competition
3	Vivek pandey	1 st(2015-16)	Dot -2 Technical fest .in A. C. Patil College of engineering kharghar
4	Bhavik H Panchal	1 prize(2014-15)	Inter college Dance Competition.
5	Bhuvanesh Pradip Rane	1 prize (2015-16)	D A V National meet
6	Sushant Nikam	1 prize(2015-16)	Skit competition
7	Prashant Nikam	1 prize(2015-16)	Skit competition
8	Vishwabhusan Sanjay Dabhade	Gold medal (2015- 16)	Best fighter amongst all male fighter

b. Faculty Awards:

Sr No	Name of Faculty	Department	Award	Year
1	Mrs. Sayali Chaudhari	F.E.	Star Performer Award	2013-14
2	Dr. S.V. Lathkar	F.E.	Research Award	2014-15
3	Dr. S. V. Lathkar	F.E.	Pillar of Strength Award	2014-15
4	Dr. Sunita Pal	F.E.	Star Performer Award	2014-15
5	Dr.Seema Lathkar	FE Engg.	Best teacher Award NECTET	2010
6	Dr.Seema Lathkar	FE Engg.	Best Department Award	2013-14
7	Dr.Seema Lathkar	FE Engg.	Best Paper Presentation	2010
8	Dr.Seema Lathkar	FE Engg.	Best HOD	2012
9	Mrs.Sayali Chaudhari	FE Engg.	Best Paper Presentation	2010
10	Mrs. SindhuTayade	FE Engg.	Best Paper Presentation	2010
11	Dr. Sunita Pal	FE Engg.	Best Paper Presentation	2014
12	Ms. Reshma Chavan	FE Engg.	Best Paper Presentation	2014

i. Ph.D:

Sr.No	Name of faculty	Year of award
1	Dr. Seema Lathkar	2015
2	Dr. Sunita Pal	2014

3	Dr. Suhas Sabnis	2015
4	Dr. Prakash Bhadane	2015
5	Dr. Ram Bhise	2016
6	Dr. Dipika Dandekar	2014
7	Dr. Roly Sinha	2013

ii. ME toppers : Nil

24. List of eminent academicians and scientists / visitors to the department

Sr. No.	Name	Designation	Company/ Organization	Experience in years
1	Dr. Anita Goswami-Giri	HOD , Bandokar college , Thane	Bandodkar college , Thane	25 yrs
2	Dr. S S Inamdar	Director	Singhad education complex	24 yrs
3	Dr. Jangum	Principal	Science college, Thane	30 yrs
4	Dr. J.G. Bakal	Prinipal	YTCOE COLLEGE, Karjat	30
5	Dr. Dimple Dutta	Sr. Scientist,	BARC	15 yrs
6	Dr. U.V. Bhosale	Principal	RJIT Varsova	21
7	Dr. V.S. Desale	Professor	Mumbai University	25
8	Dr. Rajendra Deore	Professor	Mumbai University	22
9	Dr. Ajitkumar	Professor	ICT Matunga	19
10	Dr. V.V. Hemasudar	Professor	SIWS, Wadala	18
11	Dr. Manoj Mishra	Professor	Khalsa College Matunga	15
12	Dr. Manik Patvardhan	Professor	Ruia Matunga	15
13	Dr. Anjali Panigrahi	Professor	Chetana Education Bhandra	25
14	Dr. N.M. Kondap	Principal	Science College	40
15	Dr. S.V. Taralkar	Professor	MIT, Alandi	20
16	Dr. M.R. Kurup	Professor	Vaze College Mulund	40
17	Dr, S.C. Thakurdesai	Professor	GogtaeJonglekar College Ratnagiri	30
18	Dr. M.B. Patil	Professor	MIT, Alandi	10
19	Dr. P.N. Pabrekar	Principal	ICELS Motiwala Jhunjuwala College Vashi	32

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National

Sr. No.	Event with Year	Funding Agency	Amount (Rs)
1	National Seminar on Sustainable Development(2011-12)	ISTE	5000

2	National Conference(2010-11)	ISTE	5000
3	National Conference(2011-12)	PNB	10000
Total			20,000/-

a) International: Nil

26. Student profile programme/course wise: NA

27. Diversity of Students

Year	Name of the Course	% of students from the same state	% of students from other state	% of students from Aboard
2014-15	CIVIL(shift-I)	99.18	0.81	N.A
	CIVIL-(Shift-II)	94.64	5.35	
	MECH(shift-I)	97.61	2.38	
	MECH(Shift-II)	95	5	
	IT	93.47	6.52	
	COMPUTER	96.55	3.44	
	AUTOMOBILE	97.95	2.04	
	EXTC	94.91	5.08	

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? : N/A

29. Student progression :N/A

30. Details of Infrastructural facilities

a. Library :Central library

Library holdings	2011-2012		2012-2013		2013-2014		2014-2015		2015-16	
	No.	Co.	No.	Co.	No.	Co.	No.	Co.	No.	Co.
Text books	399	1404 60.00	87	2771 4.00	9	474 6/-	316	1326 65.00	31	1353 4/-
Reference books	50	1890 8.00	13	5704. 00	2	105 9/-	19	7780. 00	12	7828/ -
Journal/periodicals	43 (27* 16#)	1852 41.00	30 (30*)	1838 5.00	24 (24*)	183 85/-	24 (24*)	1762 6.00	14 (11*& 3#)	1953 6/-
e-resources	3000	2100 00.00	3714	4190 67.00	7350	448 172/ -	-	-	4082	6741 6/-

No. – Number, Co. – Total Cost

Journal/periodicals - * National Journal, # International Journal

e-resources- (ABI),(PRO QUEST,MGH), (EBSCO,J-GATE),(J-GATE)

Departmental library: 338books available

b. Internet facilities:100 MBPS & WIFI campus

c. Class room with ICT facility: 9 class room (70sq .m) LCD facility is available.

Area Details:

a) **Laboratories**

Sr. No.	Laboratory	Area	Cost (Rs.)
1	Applied Physics	180sq.m	8,41,545/-
2	Applied Chemistry	180sq.m	6,24,608.00/-
3	Drawing hall	150 sq. m	1,03,475/-

31. Number of students receiving financial assistance from college, university, government or other agencies

- Economically weaker students of SC, ST, OBC and OC, whose parent income is less than 1.0 Lakh per annual get tuition fee reimbursement and scholarship from state Government.
- Some of the students getting financial assistance from the college for presentation of the papers and for attending conferences/workshops.:

Data provide in other department evaluation reports.

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

Sr. No.	Name of Activity	Date		Name of Expert/ Speaker	Total Student participants
1	IV at Mahabaleshwar(17-19 feb. 2011)	17-Feb	19-Feb-11	nil	120
2	IV Aurangabad (18 th and 19 th Feb 2011	18-Feb	19-Feb	nil	300
3	Site visit – Sewage Treatment Plant Kharghar.	10th Aug.to 2015	21st Aug 2015	Mr. John	540
4	Seminar on Ambition in youth by Manshakti Kendra, Kharghar	14Aug.2015	14Aug.2015	Manshakti team	180
5	Seminar on Role of student in quality enhancement of higher education	25thAug .2015	25thAug.2015	Dr. P.N. Pabrekar	180
6	Seminar on aptitude and confidence building	3rd Sept.2015	3rd Sept.2015	Mr.Vivek	578
7	Guest lecture in Applied Physics by Dr. Karkare	28/9/2015	28/9/2015	Dr.Karkare	150
8	Guest Lecture in Applied Chemistry by Dr.Arпита Pal	29/9/15	29/9/15	Dr.Arпита Pal	150
9	Guest lecture in BEE by	30/9/15	30/9/15	Mrs.Shruti	160

	Prof.ShrutiNema			Nema	
10	Applications of Engineering Mechanics by Prof.S.N. Teli	12/10/15	12/10/2015	Mr.S.N. Teli	160
11	Preparation for Engineering Mechanics Prof.S.N. Teli	13/10/15	13/10/2015	Mr..S.N. Teli	160
12	EVS poster competition	18/9/2015	18/9/2015	Mrs.. Sindhu Tayade	18
13	Debate competition	18/9/15	18/9/2015	Mrs..AnjuVar gis&Prof.Nee rjaGodbole	10
14	Self Defence Workshop	8/3/16	8/3/16	Mr. Manoj Barde& Miss DiptiPowar	60
15	Expert Lecture for Mathematics	14/3/16	14/3/16	Dr. S V Lathkar	120
16	Expert Lecture for SPA	1/4/16	1/4/16	Mrs.VaishaliJ hadav	80
17	Expert Lecture for Engineering Drawing	6/4/16	6/4/16	Mrs. M. Bhoir	62

33. Teaching methods adopted to improve student learning

Sr. No.	Innovations in Teaching methodology
1	Demonstrations
2	Application based teaching
3	Industrial visit
4	Remedial lectures
5	Special teaching for slow learners
6	Project based learning
7	Power point presentation
8	Role play
9	Chalk board
10	Use of LCD
11	Video lectures of NPTEL
12	Case study
13	Supervised study

a) Teaching Innovations

Sr. No.	Innovations in learning methodology
1	Minimum passing formula
2	Revision
3	Paper solutions
4	Problem and solution based learning

5	Continues assessment of students by timely given assignments and timely corrections
6	Additional knowledge gained through arrangements of expert talks

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Sr. No	Name of the Activity	Date
1	SES Marathon	17 September, 2013, 21 September, 2014
2	Orphanage visit	18 September, 2015
3	NSS Day Celebration & Seminar on Personality Development	24 September, 2015
4	Cleanness Drive in Campus (Swachata Bharat Abhiyan)	26 September 2015
5	Run for Unity on birth anniversary of Sardar Vallabhbhai Patel	31 October ,2015
6	Yusuf Malalaprogramme	07 November,2015
7	Celebration of Indian constitution day	26 November 2015
8	Homage to 26/11 Martyrs	26 November 2015
9	Workshop on Road Safety	02 December 2015
10	Workshop on Cyber crime	15 December 2015
11	Meeting of Programme officer and students about Awareness about Wetland	11 December 2015
12	Cleanness Drive near ustav chock	07 January 2016
13	Celebration of Yuva day	12 January 2016
14	YIN Elections in college	20 January 2016
15	Free Health checkup camp for Teaching and Non-teaching of Saraswati college of Engineering	27 th to 29 th January 2016
16	Free Health checkup camp for Teaching and Non-teaching of Revera Institute of Technology	02 February 2016
17	Cleanness Drive on Kharghar Railway Station	06 February 2016
18	07 Days special Residential Camp at Nere	11 th February to 1February 2016
19	Second Cleanness Drive in SES campus	27 February 2016
20	Free Health checkup camp at kharghar Railway Station	23 rd February to 25 February 2016
21	Self defense workshop for girl students	8 March 2016
22	Mega Blood Donation Camp at Kharghar Railway station	16 March 2016
23	JalJagrutisaptah (Water Awareness week)	16 to 22 March 2016
24	Oath on water literacy week	22 March 2016

35. SWOC analysis of the department and Future plans

STRENGTHS

1. Well qualified and experienced faculties
2. Well planned and executed teaching learning process.
3. Intensive coaching during the start and end of semester to cover 100% syllabus.
4. Well-equipped labs
5. Special and remedial lectures for slow learners.

Weakness:

1. Students admitted are new to the college environment so they take time to cope with subjects.
2. Most of the students are from vernacular medium so they find English as a difficult language to write and understand.
3. Due to short semester and lengthy syllabus teachers cannot take active part in research.

Opportunities:

1. Department is continuously striving for all over personality development of students.
2. Department has taken various steps to help economically backward students and run various add on courses for the moral and spiritual development of students
3. Department is trying to fill the generation gap among teachers and students so the students can share their problems easily with teachers.

Future plans:

1. Department has planned to execute full-fledged Research and development cell for teachers and student.
2. Department will organize various program for over all personality development of students and faculties.
3. Department is planning to expand the consultancy work.
4. Department is planning to some vocational courses for students.

Annexures

Saraswati College Of Engineering

Engineering Programme	Technical Training	Research	Publication	
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DECLARATION BY THE HEAD OF THE INSTITUTION

I certify that the data included in this Self-Study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the peer team will validate the information provided in this SSR during the peer team visit.

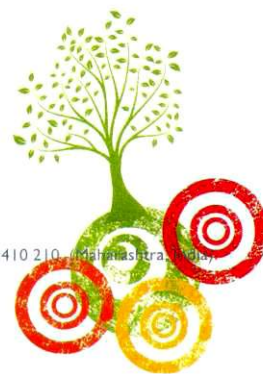
Place: Kharghar

Date: 19/07/2016

Signature of the Head of the institution

Campus:
Plot No - 46, Sector 5, Behind MSEB Sub-Station, Near Utsav Chowk, Kharghar, Navi Mumbai - 410 210, Maharashtra, India.
Tel.: 022 - 27743706 / 07 / 08 / 09. Fax: 022 - 27743712. Email: registrarsaraswati@gmail.com
Website: www.scoe.edu.in / www.rvoit.edu.in

a (Saraswati Education Society) endeavor
(Approved by AICTE. Reg. by Maharashtra Govt. DTE, Affiliated to Mumbai University
An ISO 9001-2008 Certified Institute



Saraswati College Of Engineering

Engineering Programme	Technical Training	Research	Publication	
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Certificate of Compliance


This is certify that Saraswati College of Engineering fulfils all norms

1. Stipulated by the affiliating University and/or
2. Regularly Council/Body(such as UGC, NCTE,AICTE,MCI,DTE,DCI,BCI etc.) and
3. The affiliation and recognition is valid as on date.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the regulatory Council, as the case may be.

In case the undertaking submitted by institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.

Date: 19/07/2016
Place: Kharghar,(Navi Mumbai)


Dr. Manjusha Deshmukh
Principal
Saraswati College of Engineering

Campus:
Plot No - 46, Sector 5, Behind MSEB Sub-Station, Near Utsav Chowk, Kharghar, Navi Mumbai - 410 210, Maharashtra, India.
Tel.: 022 - 27743706 / 07 / 08 / 09. Fax: 022 - 27743712. Email: registrarsaraswati@gmail.com
Website: www.scoe.edu.in / www.rvoit.edu.in
a (Saraswati Education Society) endeavor
(Approved by AICTE, Reg. by Maharashtra Govt. DTE. Affiliated to Mumbai University
An ISO 9001-2008 Certified Institute





All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

F.No. Western/1-2809555040/2016/EOA/Corrigendum-2

Date: 12-May-2016

Corrigendum

To,
The Secretary,
Tech. & Higher Education Deptt.
Govt. of Maharashtra, Mantralaya,
Annexe Building, Mumbai-400032

Sub: Extension of approval for the academic year 2016-17.

Ref : Application of the Institution for Extension of Approval for the Year 2016-17

EOA Issued on	F.No. Western/1-2809555040/2016/EOA	30-Apr-2016
EOA Printed on	F.No. Western/1-2809555040/2016/EOA	05-May-2016
Corrigendum 1	F.No. Western/1-2809555040/2016/EOA/Corrigendum-1	05-May-2016
Corrigendum 2	F.No. Western/1-2809555040/2016/EOA/Corrigendum-2	12-May-2016

Sir/Madam,

In partial modification of the letter F.No. Western/1-2809555040/2016/EOA/Corrigendum-1 and in terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	Western	Application Id	1-2809555040
Name of the Institute	SARASWATI COLLEGE OF ENGINEERING, KHARGHAR, NAVI-MUMBAI	Permanent Id	1-1630347
Name of the Society/Trust	SARASWATI EDUCATION SOCIETY	Institute Address	PLOT NO-46 SECTOR-5 KHARGHAR NAVI-MUMBAI, NAVI-MUMBAI, RAIGAD, Maharashtra, 410210
Institute Type	Unaided - Private	Society/Trust Address	PLOT NO. 46/46A, SECTOR - 5, NEAR UTSAV CHOWK , KHARGAHR,,KHARGHAR,RAIGAD,Maharashtra,410 210

Opted for change from Women to Co-ed and Vice versa	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved and Vice versa	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable



To conduct following courses with the intake indicated below for the academic year 2016-17*

Application Id: 1-2809555040			Course	Full/Part Time	Affiliating Body	Intake Approved for 2016-17	NRI Approval status	PIO / FN / Gulf quota Approval status	Foreign Collaboration/Twinning Program Approval status*
Program	Shift	Level							
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER ENGINEERING	FULL TIME	Mumbai University, Mumbai	18	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING	FULL TIME	Mumbai University, Mumbai	18	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	MANUFACTURING SYSTEMS ENGINEERING	FULL TIME	Mumbai University, Mumbai	18	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	STRUCTURAL ENGINEERING	FULL TIME	Mumbai University, Mumbai	18	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	AUTOMOBILE ENGINEERING	FULL TIME	Mumbai University, Mumbai	60	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	Mumbai University, Mumbai	120	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER ENGINEERING	FULL TIME	Mumbai University, Mumbai	60	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING	FULL TIME	Mumbai University, Mumbai	120	NA	No	N
	1st	UND	INFORMATION	FULL	Mumbai	60	NA	No	N



All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

ENGINEERING AND TECHNOLOGY	Shift	ER GRADUATE	TECHNOLOGY	TIME	University, Mumbai				
ENGINEERING AND TECHNOLOGY	1st Shift	UNDERGRADUATE	MECHANICAL ENGINEERING	FULL TIME	Mumbai University, Mumbai	120	NA	No	N
ENGINEERING AND TECHNOLOGY	2nd Shift	UNDERGRADUATE	CIVIL ENGINEERING	FULL TIME	Mumbai University, Mumbai	60	NA	No	N
ENGINEERING AND TECHNOLOGY	2nd Shift	UNDERGRADUATE	MECHANICAL ENGINEERING	FULL TIME	Mumbai University, Mumbai	60	NA	No	N

*Corrigendum for- Restoration of Intake
,Restoration of Intake

The above mentioned approval is subject to the condition that SARASWATI COLLEGE OF ENGINEERING, KHARGHAR, NAVI-MUMBAI shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Note: Validity of the course details may be verified at www.aicte-india.org

Prof. Alok Prakash Mittal
Member Secretary, AICTE

Copy to:

- The Regional Officer,**
All India Council for Technical Education
Industrial Assurance Building
2nd Floor, Nariman Road
Mumbai - 400 020, Maharashtra
- The Director Of Technical Education,**
Maharashtra
- The Principal / Director,**
SARASWATI COLLEGE OF ENGINEERING, KHARGHAR, NAVI-MUMBAI



All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
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PLOT NO-46
SECTOR-5
KHARGHAR
NAVI-MUMBAI,
NAVI-MUMBAI, RAIGAD,
Maharashtra, 410210

4. **The Secretary / Chairman,**
SARASWATI EDUCATION SOCIETY
PLOT NO. 46/46A, SECTOR - 5, NEAR UTSAV CHOWK , KHARGAHR,,
KHARGHAR, RAIGAD,
Maharashtra, 410210
5. **Guard File(AICTE)**

University of Mumbai



URGENT/BY HAND
No. Aff-II./ICD/16-17/ 4/4
Mumbai-400 032.
8/ June, 2016.

To,
✓ The Principal,
Saraswati Education Society's
Saraswati College of Engineering,
Plot No. 46, Sector- 5, Behind MSEB Sub Station,
Near Utsav Chowk, Kharghar,
Navi Mumbai.

Sir.

With reference to your application dated 29th August 2015 for granting continuation/extension of affiliation for teaching the course of the Engineering degree course for the academic year 2016-17, I am to inform you that the Academic Council at its meeting held on 23rd May, 2016 **vide item No. 3.1** resolved as under.


"The Institutions to whom, the AICTE has granted extension of affiliation and where LIC committees of Mumbai University have also recommended the approval for Continuation / Extension, the same be granted to such Engineering Colleges for the academic year 2016-17".

In pursuance to the above resolution of the Academic Council, I am to inform you that your college be granted continuation of affiliation of the teaching courses (1) Civil Engineering (120) (2) Computer Engineering (60) (3) Electronics & Telecommunication Engineering (120) (4) Mechanical Engineering (120) (5) Information Technology (60) (6) Automobile Engineering (60) and continuation & extension of affiliation of the teaching courses (1) Civil Engineering (2 Shift) (60) (2) Mechanical Engineering (2 Shift) (60) for the academic year 2016-17.

Further that aforesaid affiliation is granted subject to condition that the college authorities gives an undertaking in writing that they will fulfill the conditions mentioned in the report to the satisfaction of the Academic Council and payment of the requisite affiliation fees for the respective years. Also the concerned college will participate in the examinations related work and the teachers involve in the Central Assessment Scheme of the University in both halves of the examinations

A copy of the report of the Local Inquiry Committee is enclosed for your information & compliance, accordingly.

Yours faithfully,


(SANTOSH SONAVANE)
Offg. DEPUTY REGISTRAR
AFFILIATION SECTION

Encl.:As above



Alcumus
ISOQAR

CERTIFICATE OF REGISTRATION

This is to certify that the Management System of:

Saraswati College of Engineering

**Sector 5, Near Utsav Chowk, Plot No. 46, Khargar Navi,
Mumbai-410 210, Maharashtra, India**

has been approved by ISOQAR



13424

ISO 9001: 2008

Scope of Activities

Providing education in Engineering streams following the AICTE and the University of Mumbai norms, guidelines and Syllabus

Certificate Number:	13424
Initial Registration Date:	26 May 2015
Expiry Date:	26 May 2018

Signed:
Steve Stuble, Technical Director
(on behalf of ISOQAR)

This certificate will remain current subject to the company maintaining its system to the required standard. This will be monitored regularly by ISOQAR. Further clarification regarding the scope of this certificate and the applicability of the relevant standards' requirements may be obtained by consulting ISOQAR.

ISOQAR Limited Cobra Court, 1 Blackmore Road, Stretford, Manchester M32 0QY
T: +44 (0)161 865 3699 F: +44 (0)161 865 3685 E: enquiries@isoqar.com www.isoqar.com

This certificate is the property of ISOQAR and must be returned on request



TO WHOMSOEVER IT MAY CONCERN

This is to certify that Saraswati Education Society's Saraswati College of Engineering, Plot No. 46, Sector-5, Behind MSEB Sub Station, Near Utsav Chowk, Kharghar, Navi Mumbai-410 210 is affiliated to the University of Mumbai since 2004 and the following Courses are conducted in the said college.

Sr. No	Course	Duration	Affiliation (Permanent/Temporary)	Period of Validity for the years (s)
1	Mechanical Engineering Shift I	4 Years	Temporary	up to 2016-17
2	Mechanical Engineering Shift II	4 Years	Temporary	up to 2016-17
3	Civil Engineering Shift I	4 Years	Temporary	up to 2016-17
4	Civil Engineering Shift II	4 Years	Temporary	up to 2016-17
5	Computer Engineering	4 Years	Temporary	up to 2016-17
6	Automobile Engineering	4 Years	Temporary	up to 2016-17
7	Electronics & Telecommunication Engineering	4 Years	Temporary	up to 2016-17
8	Information Technology	4 Years	Temporary	up to 2016-17
9	Mechanical Engineering PG	2 Years	Temporary	up to 2016-17
10	Civil Engineering PG	2 Years	Temporary	up to 2016-17
11	Computer Engineering PG	2 Years	Temporary	up to 2016-17
12	Electronics & Telecommunication Engineering PG	2 Years	Temporary	up to 2016-17

This Certificate is issued on the request of the Principal of the said College for submitting the same to the NAAC, Bangalore, accordingly.


(Dr. M. A. KHAN)
REGISTRAR