



SELF STUDY REPORT

FOR

1st CYCLE OF ACCREDITATION

SHIVAJIRAO S. JONDHALE COLLEGE OF ENGINEERING

**BEHIND VENKATESH PETROL PUMP, SONARPADA DOMBIVLI (EAST)
421204**

www.shivajiraojondhalecoe.org.in

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Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

April 2019

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Shivajirao S. Jondhale College of Engineering (SSJCOE) is a self-financed private Engineering Degree college established in 1994, approved by AICTE, New Delhi, recognised by Director of Technical education (DTE), Government of Maharashtra and affiliated to the University of Mumbai, Mumbai. Currently the College is celebrating its Silver Jubilee year. The Institute is managed by Samarth Samaj Trust renowned for imparting quality technical education. Samarth Samaj, a registered public trust was founded by Late Shri Sakharamseth H. Jondhale in the year 1960.

The College campus is spread over a sprawling 15.25 acres with beautiful landscape. It is the only college on the Central line of Mumbai having such a huge expanse of College campus.

The Institute currently runs six undergraduate programs viz. Computer Engineering, Chemical Engineering, Electronics and Telecommunication Engineering, Information Technology, Mechanical Engineering and Production Engineering. Choice Based Credit Grading System (CBCGS) has been implemented for all programs in which the Departmental level and Institute level electives have been added according to the need of industries.

SSJCOE is renowned for its state of the art infrastructure and qualified and experienced faculty. All faculty members strive to create industry-ready professionals by instilling quality technical education combined with ethical responsibility to contribute to the society. In addition to the curriculum prescribed by the University of Mumbai, rigorous teaching-learning processes and monitoring system, intensifies the learners innovative thinking and problem-solving capabilities. The students are encouraged to participate in co-curricular and extra-curricular activities conducted by our active Students Council and NSS wing, which provide a plethora of opportunities to enrich their personality.

Vision

To impart quality technical education for creating competent and ethically strong professionals with capabilities of accepting new challenges.

Mission

- Our efforts are dedicated to impart quality education based on a balanced programme of instructions and practical experiences.
- Our strength is to provide value based technical education to develop core competencies and ethics for overall personality development.
- Our endeavour is to impart in depth knowledge and versatility to meet the global challenges.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- Effective leadership and vision of the management team with the thirst towards working for excellence in education.
- The institute is located in Dombivli city and provides convenient accessibility for all. It is the only College campus on the Central line of Mumbai which is spread over 15.25 acres of land.
- A large number of highly qualified, experienced faculty have been associated with the institute since the time of its inception, indicating a good staff retention ratio.
- Management encourages faculty to pursue research. The faculty has undertaken around 26 research projects funded by University of Mumbai, Mumbai in the last five years. Some of the faculty members are approved guides for M.E and PhD.
- To further encourage research, presently 16 faculty are pursuing research in their respective fields of expertise. Some of the staff have also filed patents during their research work.
- At student level, students have represented the institute and even won prizes at research activities like State level Avishkar Research Convention, national level events like at Smart India Hackathon (SIH) and taken part in Start up Yatra ventures.
- There is a good representation of faculty members in BoS and various University related activities.
- Constitution of various committees involving management members, teaching and nonteaching staff for decentralized and smooth administration.
- The institute has dedicated computer laboratories for each department with all computers in network and internet facility with a speed of 52 Mbps.
- Besides each department has a Smart classroom with ICT facilities like smart board, projectors etc.
- Adequate rest rooms for boys and girls, well -equiped gym and ample space for outdoor sports and cultural activities.
- Besides academics, during the last five years the college has conducted around 45 extension activities under the NSS unit and Students Council of the college .
- Field/industrial visits are arranged for students.
- For smooth conduction of academics, remedial lectures are conducted and counselling and mentoring of students is done at a regular basis.
- Education oriented campus built with state-of-art infrastructure provides a unique environment to the young minds that promote culture, art, sports and human values.
- Excellent library with e-sources, e-journals, NPTEL facilities is available.

Institutional Weakness

- More industry exposure is required for the students to compete in a global scenario.
- Consultancy activities amongst the faculty needs to be encouraged.
- Shortage of funds received from Government and Non government bodies for research activities.
- Vocational Programmes can be included.
- Efforts need to be taken to receive Industry sponsored projects for UG students and faculty.

Institutional Opportunity

- The Training and Development cell of the institute can increase industry Institute interactions .

- Expansion of Research programs.
- Exploring green initiatives for sustainable development of society.
- MoU's with industries for value added courses and interaction which ensures greater employability.
- Training the faculty members in the latest technologies as per industry requirement.
- Arranging seminars and workshops on entrepreneurship.

Institutional Challenge

- Meritorious students opting for professional programmes other than engineering and technology.
- To increase the employability of students.
- To draw more students towards the core disciplines of engineering.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Shivajirao S. Jondhale College of Engineering (SSJCOE) Dombivli (E) is affiliated to University of Mumbai, Mumbai. Choice based credit grading system has been implemented by all the six programs with the department level elective subject for third year and department level as well as institute level elective subjects for final year engineering, from the academic year 2016 – 17. Senior faculty members from our institute have significant contribution in the design of university syllabus and also examination activities.

The college conducts Value Added programs and add-on programs for professional skill enhancement of students. Students are encouraged to take up internships in various industries. Social awareness and Community services are included in the students through various NSS activities.

The institute regularly conducts the feedback on curriculum and teaching, learning process. The outcomes of the feedback are taken for corrective measures. The institute has structured feedback mechanism from all the stake holders including Students, Teachers, Alumni and Parents.

The Institute takes various feedbacks such as feedback of faculty for theory and practical, Course exit survey, Graduate exit survey, Alumni feedback, feedback on facilities, etc.

Teaching-learning and Evaluation

To nurture critical thinking, creativity and scientific approach among students the institute imparts innovative methods for teaching and learning. The academic calendar is prepared well in advance and is strictly followed to achieve better performance in all aspects. Along with the traditional chalk and board method, faculty use ICT tools to instill technical knowledge and creativity in students.

The Institute strictly follows evaluation reforms instructed by University of Mumbai. The institute academic calendar in concurrence with the University calendar, is prepared in advance before the commencement of the semester. Induction program is arranged by institute for the newly admitted students well in advance before commencement of academic year. Through this program students are introduced to college infrastructure, student associations and are also made aware about the examination pattern, marking scheme, internal

assessment and grading system. The evaluation pattern is as prescribed by the University of Mumbai.

For smooth conduction of End Semester Examination, examination cell in-charge prepares guidelines. Examinations are conducted as per University of Mumbai norms.

Effective and careful scrutiny is done after assessment for college level examinations and gadgets are prepared. The result analysis of final year student is done and tabulated.

The institute provides photocopies of assessed answer book and provision for revaluation after the declaration of results for those who applied for it by filling prescribed forms and paying fees. Revaluation is done as per guidelines given by University of Mumbai from time to time.

The process of attainment of COs, POs and PSOs begins with framing appropriate COs for each course of the program from first year to final year. The COs of each course are mapped to the POs. As per the calculations of attainments of individual COs of each course, the PO attainment is evaluated using direct tools contributing to 80 %, indirect tools contributing to 20 %. Considering the performance of students, teachers can modify the teaching learning process for the overall development of students and to achieve the POs.

Research, Innovations and Extension

The promotion of 'research culture' on campus is realized by the staff actively publishing their research work in reputed journals and presenting their work in international and national conferences and also patent filing. Around 95 conferences and 210 research articles, papers, books chapters have been contributed by our faculty members in various disciplines during the last 5 years. The students also have been participated and won prizes in research activities by presenting their research projects at Mumbai University organized research conventions.

The institute encourages the staff to pursue higher education and sponsors their research for Doctoral programmes. At present about 16 faculties in the college from various departments are pursuing their doctoral degree. The institution ensures that adequate resources in the way of NPTEL video lectures, technical magazines, international and National journals are provided to the students and staff. State-of-the art Laboratories are available for teachers to pursue research/academic activities.

A committee for Research and Development in the college engages in encouraging the faculty to undertake research projects useful to the society by encouraging them to apply and undertake research projects funded by Government and non-Government agencies, create awareness about protection of intellectual property rights, promote filing of patents etc. The institute can proudly say that the faculty has undertaken total 28 projects funded by University of Mumbai in the last five years. The Institution has taken initiatives like setting up an Incubation centre and IPR cell in the college for creation and transfer of knowledge. The institution regularly conducts workshop / seminars on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices. Start-ups incubated on-campus is encouraged by the college.

The Institute believes in serving the community through extension activities, which is a social responsibility of all educational institutions. The Institute has a well-established NSS wing with active student involvement, which serves as a nodal point for community-related work.

Industry-academia related activities include training, student internships and industrial visits. For making

collaborative endeavors formal agreements or understanding between the institution and industries have been signed under which various activities like training programs, workshops, seminars etc. are regularly conducted.

Infrastructure and Learning Resources

The institute has adequate facilities for teaching-learning process. The campus is spread over 15.25 acres which is big enough to accommodate the facilities such as laboratories, classrooms and tutorial rooms, workshops, seminar halls, drawing hall, canteen, central library, computer center, boys and girl's common rooms etc. Smart classrooms and computer laboratories are available for each department with internet facility. Management ensures to provide adequate infrastructure facilities to accomplish the ever increasing requirements for effective teaching-learning process. Besides curriculum, various technical, cultural and sports activities are conducted in the college campus throughout the year.

A well-furnished, air-conditioned central library with adequate reading room capacity and Library Management Software is accessible to all the students and staff. Library contains a good number of text books, reference books, journals, periodicals, multimedia PCs to access E-journals and Shodhganga etc. Number of new books are added to stack room every year.

High speed broadband internet is available in the campus for staff and students. An ERP system is available and is utilized by administrative office, library, faculty and students. Institute has adequate number of classrooms with ICT facilities and modern teaching techniques such as smart boards, LCD projectors, and video recording.

There are well established systems and procedures for maintaining and utilizing physical, academic and support facilities. The entire infrastructure is well maintained with the support of external agencies. The issues like electrical and civil maintenance work, requirement of books, journals or other facilities and equipment, requirement of sports equipment and accessories are appropriately and regularly handled by concerned authorities.

Student Support and Progression

The institute has an excellent student support and progression system for providing holistic development of students through academic, co-curricular and extra-curricular activities. The institute's administrative section provides guidance and assists students to get government scholarships and free ships.

Institute puts efforts for students' progression to higher education by providing guidance for competitive examination and requisite support through various training activities and seminars. Pre-placement training sessions are conducted for students in coordination with external agency and faculty members for enhancing placement opportunities.

The Language Laboratory helps to enhance the overall communication skills of the students. The laboratory sessions help the students to improve their oral abilities.

Bridge course is conducted for first year engineering students in the area of core engineering subjects. To have one to one interactions with students on regular basis the institute has constituted student mentoring and support system. Mentoring gives students a friendly environment which has Mentors to guide students to excel in their Academic Goals as well as understand their personal problems and solves them with the counselling process.

The social and ethical awareness among the students also gets developed through this activity. Remedial coaching is provided for slow learners to improve their academic performance.

The institute has a very active Student's Council formed by a well-established process. The council works in coordination with the faculty members in carrying various activities. The institute promotes active participation of the students in various co-curricular and extracurricular activities.

Through established committees like Grievance committee, Anti Ragging committee and sexual harassment redressal committee, institute ensures environment of safety and security for students. Students participate in National and International technical as well as sports competitions and grab the awards.

Every year different social activities are organized under NSS Cell to impart social and ethical qualities amongst the students. Guidance on Yoga and meditation is provided to students every year for overall wellbeing of the students.

Governance, Leadership and Management

Vision of the institute emphasizes on imparting quality education and involves all its stake holders in decision making process. The Institute encourages participative management by involving faculty members for solving problems and taking decisions at various levels for effective growth of institute (CDC, IQAC, HODs and coordinator of committees).

The Institute encourages decentralization by delegation of authority and operational autonomy to departments and also for various committees. Strategic plans are framed in line with institute's vision and mission statements and several committees and bodies are constituted within the institute for smooth functioning of academic and administrative activities.

The Institute believes in strength of human resource which is a key for progress of any organization. Several employee welfare schemes are initiated for benefit of teaching and non-teaching staff. The Institute encourages faculty to attend workshops, STTPs, FDPs and conferences on recent trends to enhance the quality of teaching and learning process. Our institute motivates and encourages staff to pursue for higher studies by providing financial support and to undertake research work. The institute has performance appraisal system for the staff.

The Institute is a non-aided self-financed co-education institute. Main source of income for institute is tuition fee and development fee from the students. This income is utilized by preparing annual budget to meet the day to day expenditures. The institute has effective mechanism for auditing the institute accounts.

Internal Quality Assurance Cell is established in 2017 by the Institute for continuous improvement of quality and achieving academic excellence. It has introduced several quality reforms to improve teaching-learning processes and adopting ICT enabled environment for smooth functioning of academic and administrative processes.

Institutional Values and Best Practices

Our institute always has a mission to impart a value based quality technical education. The institute believes in education where students learn all values like gender equality, environment consciousness and sustainability,

inclusiveness and professional ethics. Every student, may be boy or girl gets equal treatment. Institute provides equal opportunities to students by conducting various activities through the academic year. These activities allow them to strengthen their human values, improve bonding and spread message of communal harmony. They learn the importance of national integration. Being one of the oldest institutes in the Thane district, Maharashtra it is the first choice for local and nearby students. Institute provides safety and security to its staff and students.

Institute believes in environmental consciousness and therefore promotes green practices. Large number of trees planted in the campus. A 60 KW solar system is installed as a renewable energy source. Energy consumption is reduced with LED. Students participate in green projects initiated by RTO, Dombivli to contribute to local community. Our institute is always a centre for various activities conducted by Government of Maharashtra and University of Mumbai because of its approachable location. The institute believes in cleanliness and so contributes in Swachh Bharat Abhiyan. It takes social responsibility and allow to conducts various activities related to health and hygiene, like eye checkup camp, blood Donation camp, health checkup camp for all students, staff and local community. Institute provides all supports and sources to differently abled student. Our final year students complete projects based on social issues (wheel chair with various provisions, Coconut tree climber), environmental issue (use of solar system). Institute also promotes national consciousness and conducts activities related to national issues, fundamental rights and duties. Being transparent in its functioning the Institute strictly follow all norms of University of Mumbai, Mumbai.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	SHIVAJIRAO S. JONDHALE COLLEGE OF ENGINEERING
Address	Behind Venkatesh Petrol Pump, Sonarpada Dombivli (East)
City	Dombivli East
State	Maharashtra
Pin	421204
Website	www.shivajiraojondhalecoe.org.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Jagdish Wasudeorao Bakal	0251-2872560	9594962007	0251-2872580	bakaljw@gmail.com
Associate Professor	Pramod Ramdas Rodge	0251-2872570	9869132422	0251-2481544	pramod.rodge@rediffmail.com

Status of the Institution	
Institution Status	Self Financing and Private

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details

Date of establishment of the college	11-06-1994
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University to which the college is affiliated/ or which governs the college (if it is a constituent college)

State	University name	Document
Maharashtra	University of Mumbai	View Document

Details of UGC recognition

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

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

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	10-04-2017	12	

Details of autonomy

Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	No
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Recognitions

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

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Behind Venkatesh Petrol Pump, Sonarpada Dombivli (East)	Urban	15.25	11681.94

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Chemical Engineering	48	HSC AND CET	English	60	29
UG	BE,Computer Engineering	48	HSC AND CET	English	90	62
UG	BE,Electronics And Telecommunication Engineering	48	HSC AND CET	English	60	39
UG	BE,Information Technology Engineering	48	HSC AND CET	English	40	20
UG	BE,Mechanical Engineering	48	HSC AND CET	English	60	37
UG	BE,Production Engineering	48	HSC AND CET	English	60	8

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	8				19				73			
Recruited	1	0	0	1	2	11	0	13	8	10	0	18
Yet to Recruit	7				6				55			
Sanctioned by the Management/Society or Other Authorized Bodies	0				0				61			
Recruited	0	0	0	0	0	0	0	0	30	31	0	61
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				20
Recruited	16	4	0	20
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				10
Recruited	5	5	0	10
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	1	0	0	0	1	0	0	0	0	2
M.Phil.	0	0	0	0	0	0	0	1	0	1
PG	0	0	0	2	10	0	6	9	0	27

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	1	0	0	1
M.Phil.	0	0	0	0	0	0	0	1	0	1
PG	0	0	0	0	0	0	28	30	0	58

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

Details of Visting/Guest Faculties					
Number of Visiting/Guest Faculty engaged with the college?	Male		Female		Total
	1	1	0	2	

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
		UG	Male	1032	7	0
	Female	397	4	0	0	401
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	139	147	148	141
	Female	74	77	75	73
	Others	0	0	0	0
ST	Male	13	10	10	10
	Female	8	8	10	8
	Others	0	0	0	0
OBC	Male	252	242	237	222
	Female	122	123	131	105
	Others	0	0	0	0
General	Male	582	607	637	677
	Female	209	229	210	222
	Others	0	0	0	0
Others	Male	96	114	114	99
	Female	50	52	55	46
	Others	0	0	0	0
Total		1545	1609	1627	1603

3. Extended Profile

3.1 Program

Number of courses offered by the institution across all programs during the last five years

Response: 308

File Description	Document
Institutional Data in Prescribed Format	View Document

Number of programs offered year-wise for last five years

2017-18	2016-17	2015-16	2014-15	2013-14
6	6	6	6	6

3.2 Students

Number of students year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1440	1545	1609	1627	1603

File Description	Document
Institutional Data in Prescribed Format	View Document

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

2017-18	2016-17	2015-16	2014-15	2013-14
185	185	185	185	185

File Description	Document
Institutional Data in Prescribed Format	View Document

Number of outgoing / final year students year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
408	404	406	398	318

File Description	Document
Institutional Data in Prescribed Format	View Document

3.3 Teachers

Number of full time teachers year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
93	97	97	102	99

File Description	Document
Institutional Data in Prescribed Format	View Document

Number of sanctioned posts year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
100	100	100	100	100

File Description	Document
Institutional Data in Prescribed Format	View Document

3.4 Institution

Total number of classrooms and seminar halls

Response: 24

Number of computers

Response: 251

Total Expenditure excluding salary year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
478	293	379	219	349.5

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

1.1.1 The institution ensures effective curriculum delivery through a well planned and documented process

Response:

Shivajirao S. Jondhale College of Engineering is affiliated to University of Mumbai & follows the curriculum prescribed by the University. The college has strategized ways & means to strengthen the teaching learning process.

- Before the start of each academic year university issues a detailed academic calendar with the details about the date of commencement of each semester, oral and practical examinations, Term end, end semester exams etc.
- Based on University Academic calendar, the institute prepares its own academic calendar well in advance before the start of the semester. It includes internal assessment schedule, university examination schedule, schedule for co-curricular and extra-curricular activities.
- Head of each department allocates theory and laboratory work load to faculty members according to their choice. The department time table for each semester is prepared to indicate specific class & laboratory hours. The class time tables are displayed on common notice board. Final year projects are also decided and allotted as per interest area of students.
- Every faculty member maintains course files which contain lesson plan, notes, previous year question papers and academic record book . Laboratory manuals are prepared so that students can understand and correlate theory with practical application.
- The college encourages its faculty members to attend orientation programs to improve the teaching learning process. The college provides ample books, reference materials to ensure effective delivery of the curriculum. Various bridge courses are conducted for the first-year students to analyse and understand the fundamental concepts.
- Weak students with respect to academics are identified and remedial classes are arranged for them. Guest lectures, seminars, Add-on and value-added programs are conducted to supplement the curriculum inputs. Effective delivery in the analytical subjects is ensured by conducting tutorial classes as per the time table.
- Faculty members encourage the students to do innovative project work. They are motivated to do research work and to present papers in seminars and conferences and also publish in journals national and international repute. The head of the department and the Principal do a periodic review of the syllabus covered by the faculty members and monitors the student attendance.
- To monitor the performance of the student, Internal Assessment Tests are conducted twice in a semester along with regular assessment. It is ensured that 40% of the syllabus is covered before the first Internal Assessment test and 70% of the syllabus is covered before the second Internal Assessment test. Oral/Practical examinations are conducted as per university norms before university theory examinations. To strengthen the bond between teachers and students the teaching faculty is entrusted with the task of mentoring 15 - 20 students on academic and personal issues.

File Description	Document
Any additional information	View Document

1.1.2 Number of certificate/diploma program introduced during the last five years

Response: 0

1.1.2.1 Number of certificate/diploma programs introduced year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
00	00	00	00	00

File Description	Document
Details of the certificate/Diploma programs	View Document

1.1.3 Percentage of participation of full time teachers in various bodies of the Universities/ Autonomous Colleges/ Other Colleges, such as BoS and Academic Council during the last five years

Response: 47.13

1.1.3.1 Number of teachers participating in various bodies of the Institution, such as BoS and Academic Council year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
12	11	8	8	7

File Description	Document
Details of participation of teachers in various bodies	View Document
Any additional information	View Document

1.2 Academic Flexibility

1.2.1 Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years

Response: 74.68

1.2.1.1 How many new courses are introduced within the last five years

Response: 230	
File Description	Document
Details of the new courses introduced	View Document

1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented	
Response: 100	
1.2.2.1 Number of programs in which CBCS/ Elective course system implemented.	
Response: 6	
File Description	Document
Name of the programs in which CBCS is implemented	View Document

1.2.3 Average percentage of students enrolled in subject related Certificate/ Diploma programs/Add-on programs as against the total number of students during the last five years											
Response: 69.66											
1.2.3.1 Number of students enrolled in subject related Certificate or Diploma or Add-on programs year-wise during the last five years											
<table border="1"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>1413</td> <td>1535</td> <td>1492</td> <td>773</td> <td>170</td> </tr> </tbody> </table>		2017-18	2016-17	2015-16	2014-15	2013-14	1413	1535	1492	773	170
2017-18	2016-17	2015-16	2014-15	2013-14							
1413	1535	1492	773	170							
File Description	Document										
Details of the students enrolled in Subjects related to certificate/Diploma/Add-on programs	View Document										
Any additional information	View Document										

1.3 Curriculum Enrichment

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

Shivajirao S.Jondhale college of Engineering is affiliated to University of Mumbai and follows the curriculum prescribed by the University. As part of the curriculum, there are few basic courses and topics included in many other core courses to integrate cross cutting issues relevant to Gender, Environment and Sustainability, Human Values and professional ethics.

Course Code : - FEC106

Course Name : - Environmental Studies

Semester : - I

Department : - All Department

Students have a compulsory course on Environmental Studies in First year. The course gives basic knowledge about Environment and creates awareness about various Environmental problems and important means of protecting our Environment by preventing pollution.

Course Code : - FEC206

Course Name : - Communication Skills

Semester : - II

Departments : - All Departments

This is a compulsory Course, which provides importance and effective use of Communication Skills. The Course makes the student proficient in public speaking and presentation skills.

Course Code : - CHC506 / CPL502 / ETS506 / TEITC506 / MEL501 / PEL501

Course Name : - Business Communication and Ethics

Semester : - V

Departments : - CH / CM / EXTC / IT / ME / PR

Business Communication and Ethics is another compulsory course across all the programs which gives the knowledge of professional and ethical responsibilities and report writing. This course helps to inculcate professional and ethical attitude, team work skills & effective communication skills in their life which helps them to excel in their professional carrier.

Course Code : - CHC803

Course Name : - Environmental Engineering

Semester : - VIII

Department : - Chemical Engineering

This particular course focuses on the following issues

- 1.Importance of Environmental pollution control.
- 2.Effect of water pollution on human beings.
- 3.Flow to treat waste water.
- 4.Air pollution sources & effects on man & environment.
- 5.Air pollution control methods & equipment.
- 6.Solid waste management.
- 7.Noise pollution measurement & control , effect on man & environment.

Gender :- The College has established WDC (Women's Development Cell). The committee is headed by senior faculty member and monitors the problems of girl students. Separate boys and girls rooms are available with the first aid facility in the institute. Mentoring and Counseling is done by faculty members. A college has an anti-ragging committee to ensure a ragging free Environment.

Moral and Ethical Values: -

The college has an active NSS team which organizes various activities like

- Tree plantation
- Women's Safety Workshop
- Swachh Bharat Abhiyan
- Road Safety program

The students are constantly engaged by the NSS wing in Community Development activities. This motivates the students to do social service. The NSS team regularly visits surrounding villages where people are made aware of various social, moral & ethical issues. The students are allotted various responsibilities in cultural events, seminars, workshops etc. which helps them to improve their team building and organizational skills.

File Description	Document
Any Additional Information	View Document

1.3.2 Number of value added courses imparting transferable and life skills offered during the last five years

Response: 15

1.3.2.1 Number of value-added courses imparting transferable and life skills offered during the last five years

Response: 15

File Description	Document
Details of the value-added courses imparting transferable and life skills	View Document
Brochure or any other document relating to value added courses.	View Document
Any additional information	View Document

1.3.3 Percentage of students undertaking field projects / internships

Response: 15.42

1.3.3.1 Number of students undertaking field projects or internships

Response: 222

File Description	Document
List of students enrolled	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.4 Feedback System

1.4.1 Structured feedback received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni and 5) Parents for design and review of syllabus-Semester wise/ year-wise

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: A. Any 4 of the above

File Description	Document
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	View Document

1.4.2 Feedback processes of the institution may be classified as follows:

A. Feedback collected, analysed and action taken and feedback available on website

B. Feedback collected, analysed and action has been taken

C. Feedback collected and analysed

D. Feedback collected

Response: B. Feedback collected, analysed and action has been taken

File Description	Document
Any additional information	View Document

NAAC

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average percentage of students from other States and Countries during the last five years

Response: 0.25

2.1.1.1 Number of students from other states and countries year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
2	3	6	5	4

File Description

Document

List of students (other states and countries)

[View Document](#)

Institutional data in prescribed format

[View Document](#)

2.1.2 Average Enrollment percentage (Average of last five years)

Response: 65.19

2.1.2.1 Number of students admitted year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
195	209	258	256	288

2.1.2.2 Number of sanctioned seats year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
370	370	370	370	370

File Description

Document

Institutional data in prescribed format

[View Document](#)

Any additional information

[View Document](#)

2.1.3 Average percentage of seats filled against seats reserved for various categories as per

applicable reservation policy during the last five years**Response:** 63.68

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

2017-18	2016-17	2015-16	2014-15	2013-14
107	101	121	118	142

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

2.2 Catering to Student Diversity**2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners****Response:**

Students are identified as advanced or slow learners on the basis of their classroom performance, personal interaction in laboratory (Lab) sessions and results of test1 during Internal assessment. In classroom interactions, teachers test the knowledge of students by asking basic questions based on the prerequisite requirement of the subject learnt during the earlier years of education. This helps to identify the ability of students to recall and apply the basic concepts of science and Engineering. Lab session provides personal interaction, where teachers check the role of involvement and understanding level of each individual student. Test 1, which is conducted at the mid of the term is used as a performance indicator for slow learner who need mentoring and remedial classes. Students who score above a set limit are advanced learners who are also identified through their performance in classroom and laboratory interactions.

Initiatives for advanced Learners

- The college library provides lot of journals and books, through which students can gain knowledge on the advanced topics. The library also has access to many e-journals and various video lectures.
- Students are encouraged to take up mini projects modify and test their own design using various application and open source simulation software's.
- They are encouraged to undergo internship in industries to gain practical knowledge.
- Institute provides a platform for the advanced learners by organizing intra and intercollegiate technical events.
- They are encouraged to participate in National level competitions like Hackathon, Avishkar etc.
- Students are encouraged to present posters and projects at inter-collegiate levels and publish their papers in national and international journals

- Add-on courses are conducted to cover syllabus beyond curriculum.
- They are motivated to undertake inter-disciplinary projects
- Students are encouraged to appear for various competitive exams like GATE, GRE, TOFEL, GMAT, CAT etc. and take up higher education.
- Students are motivated by the Institute during the Annual function by offering merit cum means scholarship and also motivated by HODs of the concerned departments to perform better in the University examinations and to score good marks.

Initiatives for slow Learners

Special care is taken by the faculty to encourage slow learner to improve the overall academic performance of the students.

- The students discuss their problems with subject teacher and mentor during mentoring and counselling session.
- Pre-requisite content is covered before starting the topic.
- Based on the performance in internal assessment, assignments and practical session, remedial lectures are conducted to ensure better learning.
- Personal counseling on academics by subject teacher and counseling by mentor on other stress related issues are carried out.
- The facility of self learning by accessing NPTEL videos is available.
- Faculty members motivate the slow learners, the result of which are reflected in test2 and end semester exams.
- Faculty members are always available for help and guidance.

File Description	Document
Any additional information	View Document

2.2.2 Student - Full time teacher ratio

Response: 15.48

File Description	Document
Any additional information	View Document

2.2.3 Percentage of differently abled students (Divyangjan) on rolls

Response: 0.14

2.2.3.1 Number of differently abled students on rolls

Response: 2

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

2.3 Teaching- Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Response:

Institute ensures the development of the students through student centric learning process. Various methodologies are used for enhancing learning experiences.

- Formal Methodology is the method in which content delivery is done by using chalk and duster in a participative manner. The students are engaged to participate in the classroom discussion by asking various questions and sharing with them knowledge of the practical applications.
- Case-studies on various subjects are conducted and students are involved to participate through group discussion, fun activity and quizzes.
- Students are involved into applying problem solving methodology during Tutorial Session's of the relevant subjects.
- Technology assisted methods (ICTs) like Youtube-videos, PPTs , NPTEL Lectures and smart classrooms interactions enrich the students participation and understanding of the subject.
- Guest lectures by experts from the industry as well as educational institutes, add-on courses / bridge courses are organized by the respective departments to bridge the syllabus gap.
- Practical and Hands-on training experiences are given to the students during workshops and skill development courses. They are assigned tasks during the sessions and are made to troubleshoot the same. Thus they learn and understand through experiments.
- The institute also conducts Tech-Fest (COLOSSEUM) to facilitate and encourage students to participate in technical, extra-curricular activities. Competitions such as Crack the code, Circuit-o-mania are conducted to explore their abilities to learn and develop themselves.
- Professional societies and student chapters IETE, CSI, ISME, IICHE student forum of national/ international associations are vital. Students are encouraged to present and publish technical papers in national/ international journals. This develops a sense of Group learning and ethical values are developed in them.
- Moreover, the thought provoking methods such as mini projects and main projects are imbibed in the students and critical thinking is brought into them. This develops self learning and students learn to solve problems by applying troubleshooting techniques.
- Students are encouraged to use various Experiential learning tools like Open source Software's, Simulation labs, Application software's available with various departments where they learn to modify and test their design.
- Students are encouraged to participate in project competition such as E-yantra, Smart India Hackathon, Aavishkar, MEGA ATV and poster presentation to gain their knowledge through practical and collaborative learning.
- Students develop their sets of lines of code for line follower robot and participate in national level robotic competition (E-Yantra) which is organised by IIT Mumbai.

The students are motivated to learn and develop themselves through various participative, collaborative and experiential learning.

File Description	Document
Any additional information	View Document

2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.

Response: 74.19

2.3.2.1 Number of teachers using ICT

Response: 69

File Description	Document
List of teachers (using ICT for teaching)	View Document

2.3.3 Ratio of students to mentor for academic and stress related issues

Response: 17.35

2.3.3.1 Number of mentors

Response: 83

File Description	Document
Any additional information	View Document

2.3.4 Innovation and creativity in teaching-learning

Response:

To nurture critical thinking, creativity and scientific approach among students the institute imparts innovative methods. It could be a pathway created to farther the interest of the student and the institution.

- Institute implements various programme for staff like FDPs ,STTP; the benefits of which passes on to the students to understand the subjects and its application.
- Along with traditional teaching more innovative and creative way of communicating, sharing and facilitating knowledge development for student through various electronic media are implemented.
- The innovative way of teaching through PPTs, charts, e-learning resources through NPTEL are adopted.
- The institute conducts workshops and seminars on recent trends. Using real world examples, the teaching strategy in the classroom makes learning more meaningful and also creates an excitement

in learning.

- Faculty's use ICT tools while teaching and learning. Students are given case studies to elaborate their ideas. The faculties always try to engage themselves to train the students in different multidisciplinary areas.
- Faculty's involve the Students to participate in group discussion, fun activity, quizzes, and problem solving methodology during Tutorial Session's of the relevant subjects.
- Smart classrooms are available for audio and video interactive lectures.
- The faculty's deliver lecture and illustrate through PowerPoint presentation, word documents and through media like YouTube videos, blogs etc. Demonstrating through YouTube videos gives a better visual realization of the flow of activities which makes the teaching learning process more energetic and provides a more attractive environment which creates transparency between students and teachers.
- Faculty's teach and expose the students to use of various simulation and open source software's which brings about Critical thinking into the students during Project work and various competitions where they learn to use and troubleshoot their design.
- Faculties interact with the students during workshops, skill development courses where they are assigned various tasks and are made to troubleshoot the same. Thus they learn and understand through experimentation.
- Technical events are conducted and judged by the faculty members to explore the abilities of the students to learn and develop themselves.
- Faculty's continuously motivate the Students for participating in project exhibition and technical poster presentation to gain practical knowledge and imbibe into the students a sense of group learning.
- Thirty two students from Mechanical Engineering department formed a group under the supervision of a faculty and registered for Mega ATV championship in 2017-18. They designed and developed a ATV (All Terrain Vehicle) and participated in Mega ATV championship held at GOA in 2018-19 and got 52nd rank all over India.

These innovative activities make the students more capable for the market demand.

File Description	Document
Any additional information	View Document

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years	
Response: 97.6	
File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	View Document

2.4.2 Average percentage of full time teachers with Ph.D. during the last five years

Response: 1.66

2.4.2.1 Number of full time teachers with Ph.D. year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
3	2	1	1	1

File Description**Document**

List of number of full time teachers with PhD and number of full time teachers for 5 years

[View Document](#)

Any additional information

[View Document](#)

2.4.3 Teaching experience per full time teacher in number of years

Response: 10.67

2.4.3.1 Total experience of full-time teachers

Response: 992

File Description**Document**

Any additional information

[View Document](#)

2.4.4 Percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years

Response: 1.02

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1	0	0	0	0

File Description**Document**

Institutional data in prescribed format

[View Document](#)

e-copies of award letters (scanned or soft copy)

[View Document](#)

2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years**Response:** 12.8**2.4.5.1 Number of full time teachers from other states year-wise during the last five years**

2017-18	2016-17	2015-16	2014-15	2013-14
13	13	13	13	12

File Description	Document
List of full time teachers from other state and state from which qualifying degree was obtained	View Document
Any additional information	View Document

2.5 Evaluation Process and Reforms**2.5.1 Reforms in Continuous Internal Evaluation(CIE) system at the institutional level****Response:**

We at Shivajirao S. Jondhale College of Engineering Dombivli (E) strictly follow evaluation reforms instructed by University of Mumbai. Induction program is arranged by institute for the newly admitted students well in advance before commencement of academic year. Through this program students are made aware about examination pattern, marking scheme, internal assessment and grading system. Verification of admission forms and students eligibility is done at the start of academic year by class advisors of each class.

At institute level two internal assessment tests per semester are conducted for each subject and results are declared within a week. Test 1 is based on 40% syllabus coverage and Test 2 is on 70% syllabus coverage. Question bank for every subject is given to students. It is mandatory for every concerned subject teacher to prepare synoptic answering and marking scheme for test papers as well as for university papers. Model answers are discussed in the class. This helps students to know their shortcomings and areas of improvement. The students can see their evaluated answer sheets and discuss the same with concerned faculty. Once students are cleared with their doubts mark sheets are generated and result is displayed on the notice board of respective department. The average of tests marks is considered as internal assessment marks for Semester End Examination.

The evaluation of term work contains experiment marks, assignment marks, mini project, attendance, their performance in the laboratory, group discussions, presentations etc. The evaluation pattern is as prescribed by the University of Mumbai. Oral and practical examinations are conducted at the end of semester. The institute appoints examiners for oral and practical examinations as per University norms from the panel of

examiners provided by the University. Internal marks of each student are uploaded on university website for Semester I, II, VII and VIII. On Screen marking is done for Semester I, II, VII and VIII examinations by respective subject teacher as per guidelines of University of Mumbai.

For smooth conduction of End Semester Examination, examination cell In-charge prepares guidelines. Through meetings junior supervisors are made aware about these guidelines. Masking, coding and decoding method are used to handle all answer sheets securely. Moderation of answer books is done by external examiners appointed by institute from the panel of examiners provided by University of Mumbai. Internal and External examiners are made aware about the grace marks. Result at institute level is prepared by assigned faculty members appointed by institute. Effective and careful scrutiny is done after assessment for college level examinations and gadgets are prepared. All results of end semester examination are displayed on departmental notice board and one copy of result is given to respective department. Students are notified about submission of applications for revaluation and photocopy of answer book. Student's performance and its analysis is done department wise. The institute follow the reforms of evaluation through the above transparent process as instructed by University of Mumbai.

File Description	Document
Any additional information	View Document

2.5.2 Mechanism of internal assessment is transparent and robust in terms of frequency and variety

Response:

The schedule of internal assessments are communicated to students and teaching staff through institute's academic calendar. The institute's indigenous internal assessment is transparent with due formative and summative evaluation. For effective implementation of continuous Internal Assessment system at the institute level, the institute conducts two tests per semester. The syllabus for internal assessment will be communicated to students well in advance.

Test papers are set based on course outcomes and in consultation with Head of department. Synoptic answering is prepared by faculty-in-charge. The answer books are shown to students after evaluation providing sufficient transparency and accountability. Assessment marks are displayed on the notice board. The internal assessment system is transparent.

Students are encouraged to participate in mini-projects demonstration, model exhibition, programming skill competitions, projects, technical paper presentation, workshops, seminars etc. Assignments and tutorials are given in each semester and timely submissions are ensured by departments.

Practical and oral examinations are conducted by internal and external examiners as per University of Mumbai norms. All records are maintained properly. The head of departments submits the examination related documents to the examination section. Evaluation process is carried out based on guidelines provided in the syllabus. This is used to monitor students learning.

The institute strictly follows the University of Mumbai norms and guidelines for conducting end semester examinations. The schedule for end semester examination is communicated during semester when schedule

is released by the University of Mumbai. The institute forms internal squad committee, examination committee for smooth conduct of examinations.

The faculty of institute is relieved for university duties related to evaluation, conduction and flying squads for examinations. The university flying squad team visits the institute during examinations.

For examination and documentation work, the institute has appointed Examination-In-Charge as per guidelines given by the University of Mumbai from time to time. To make awareness regarding examination and evaluation Principal calls the meeting before examination in each semester. Examination cell Committee communicates with junior supervisors, understudy supervisors and senior supervisors. During examination centralised seating arrangement is made and examinations are conducted in examination blocks. Junior supervisor, Understudy Supervisor, Senior Supervisor and Chief Conductor ensures smooth conduct of examinations. Duration of paper assessment is clearly decided (i.e. assessment should be done within 5/7 days) from the date of examination of respected subject.

The results are declared within specified time allotted by University of Mumbai.

The institute provides photocopies of assessed answer book after the declaration of results for those who applied for it by filling prescribed forms and paying fees. The students can apply for revaluation of their answer books of end semester examinations. Revaluation is done as per guidelines given by University of Mumbai from time to time.

Hence the Institute ensures the transparency and robustness of Internal Assessment and end semester examinations through the above mentioned processes.

File Description	Document
Any additional information	View Document

2.5.3 Mechanism to deal with examination related grievances is transparent, time-bound and efficient

Response:

The students are the main stakeholders in any education imparting Institute and it's our endeavor to make all efforts to ensure transparency in all the activities at various stages. Taking this spirit in consideration, the institute has decided to frame mechanism for examination related grievances.

The internal assessment test schedules are prepared as per the academic calendar and communicated to the students well in advance. The marks obtained by the students in internal assessment tests are displayed on the departmental notice board. The marks obtained by the students of F.E & B.E.in internal assessment tests are uploaded periodically on the University web portal.

At College level in case of test, after conduction and evaluation of the test, the subject teacher shows evaluated copies of their test papers to the students. The students can approach the teachers, in case they need a clarification on the award of marks. Here, teacher clarifies doubts regarding evaluation.

Examinations are conducted as per University norms. Once results are declared student can apply for photocopy and revaluation, if they found any discrepancy in the photocopy they report to exam section.

Students can apply for grievances by one of the following ways

1. **If the total is incorrect:** The institute verifies the details in available records and guides the students with possible solutions at institute level or refers them with proper document to the University.
2. **If some questions are not checked:**

A] In case of theory papers (S.E & T.E.)

After result is declared, students can apply for photocopy and revaluation within stipulated time. Photocopies are given to students to maintain . After receiving photocopy, if the student finds any discrepancy in the answer sheet mentioned above, the students have to fill grievances form in the exam section. Examination cell committee take corrective action to maintain transparency in complete process which is **time bound** and send modified result to the University. The result is communicated to the concerned student. Thus the whole process is carried out **efficiently**.

B] In case of theory papers (F.E & B.E.)

After result is declared, students can apply for photocopy and revaluation within stipulated time. The students fill the form by paying prescribed fees. The students belonging to SC/ST and NT category gets relaxation in fees amount. The data of students applying for photocopy and revaluation is send to University. The University sends the photocopies of students on Principal's mail id. The photocopies are forwarded to the students. If the student finds any discrepancy, he/she can apply for grievances. The further action is taken by University of Mumbai. Thus the whole process is carried out efficiently.

File Description	Document
Any additional information	View Document

2.5.4 The institution adheres to the academic calendar for the conduct of CIE

Response:

The institute strictly follows evaluation reforms instructed by University of Mumbai from time to time. The University publishes in advance, the academic calendar for curricular activities.

The institute academic calendar in concurrence with the University calendar is prepared in advance before the commencement of the semester. The institute academic calendar consists of dates for commencement of term, dates for commencement of internal assessments, sports, cultural festivals, technical festivals, Parents Meeting, test I and II ,term end, Practical Examinations and theory examination and commencement of new term.

The departmental academic calendar additionally consists of departmental STTP, FDP, add-on courses,

value added courses, remedial classes, submission, oral and practical examination etc.

Based on the departmental academic calendar course plan is prepared. The systematic planning of the lessons and the implementation of the planning are clearly indicated in the course plan. The number of hours required to complete each module and its topics, the required reference book or text book for each module or topic are clearly mentioned in the course plan. The staff members prepare course plans before the commencement of every semester with a view to syllabus coverage. If required, they also conduct extra classes to cover the left out portions/syllabus. Every week the course plan is signed by Head of the Department, further the Principal duly sign the same every fortnight.

The time table incharge prepares time table in consultation with respective HOD and displays on Departmental notice board before the commencement of semester. The test I and II are conducted upon completion of 40% and 70% of the syllabus respectively. Each semester Parents meeting is conducted as scheduled in academic calendar.

The academic monitoring committee appointed by the Principal, monitors day to day conduction of the theory lectures and practical based on the time table. The HODs, in turn, convene departmental meetings and motivate the faculty members to complete the syllabus within the stipulated time.

The Internal assessment, oral, practical and Theory examination are conducted as scheduled in academic calendar.

The objectives and strategies which are planned by IQAC are executed during the entire session. Thus institution adheres to the academic calendar for the conduct of Continuous Internal Evaluation (CIE).

File Description	Document
Any additional information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students

Response:

The vision and mission of the institute emphasizes on promoting value education through motivated trained faculty to prepare the students to accept the challenges of globalization. The vision and mission statements are displayed on the college website and at various prominent positions in the college building. Programme Educational Objectives (PEOs), Programme Outcomes (POs), Program Specific Outcomes (PSOs) and Course Outcomes (COs) have been defined by every department. Vision, Mission, PEOs are attached in journals. The Vision, Mission, PEOs, POs, PSOs and COs are disseminated on the college website.

Course outcomes are the statements that describes what students should be able to do at the end of the course. Course Outcomes are a comprehensive set of learning goals that are fostered and developed across

that particular course. They reflect the competencies needed to meet the challenges of that course. All the faculties have framed appropriate COs for each course of the program from first year to final year in a four-year engineering degree program.

The course outcomes relate to:

1. understanding the concept of data / Information / functions / components
2. Application of concepts related to subject area suitably in a particular environment.

The University of Mumbai has specified the course outcomes and based on that, Course outcomes are framed with minor modification using action verbs of learning levels suggested by Bloom's Taxonomy wherever required. Students are made aware of vision, mission, PEOs, POs, PSOs, and COs during their lectures and laboratory sessions. Teachers were involved in the formulation of PEOs, COs and PSOs through departmental meetings.

Program Outcomes are what knowledge, skills and attitudes a graduate should have at the time of graduation. The Program outcomes are framed based on the Graduate Attributes set by National Board of Accreditation.

The Graduate attributes are the disciplinary expertise or technical knowledge that has traditionally formed the core of most university courses. They are the qualities that also prepare the graduates as an agent for social good in an unknown future.

Further Program Specific outcomes are framed on the core areas of the Program. The program specific outcomes are statements that describes what a graduates of a specific educational programme should be able to do.

At the end of every semester, all the departments evaluate POs and COs by using assignment, tutorial and test results, course exit survey, graduate exit feedback etc.

File Description	Document
COs for all courses (exemplars from Glossary)	View Document

2.6.2 Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution

Response:

To create an academic environment for achieving excellence and to sustain the same, it is important to analyse attainment levels of Course Outcomes (COs), Program Outcomes (POs) and Program Specific Outcomes (PSOs). The efficiency and effectiveness of the process is continuously assessed and improved by taking inputs from experts in Department Advisory Board.

The marks in tutorials and assignment, performance in test examination, attendance percentage etc. are the tools for evaluating CO attainment. Term work marks are calculated based on these assessments.

Considering the performance of students, teachers can modify the teaching learning process for the overall development of students and to achieve the POs.

The process of attainment of COs, POs and PSOs begins with framing appropriate COs for each course of the program from first year to final year. Then, a correlation is established between COs and POs in the scale of 1 to 3, 1 being the slight (low), 2 being moderate (medium) and 3 being substantial (high). A mapping matrix is prepared in this regard for every course in the program including the elective subjects in concern with senior faculty and Head of department.

1. Course Outcome (CO) attainment: Calculation of Course Outcome attainment is based on the following components:

Direct Tools:

- Internal Evaluation: Lab performance, Assignments, Tests examination, Term Work.
- External Evaluation: End Semester Oral/Practical and End Semester Theory Examination

Indirect Tools:

Course Exit Survey

Direct tools contributes to 80 % weightage whereas indirect tools contributes to 20 % weightage.

2. Program Outcome (PO) attainment: Calculation of PO attainment is based on the following components

- **Direct tools:** Course Outcome attainment
- **Indirect tools:**

1. Graduate Exit Survey
2. Alumni Feedback
3. Employer Survey
4. Parents Feedback

PO attainment using direct tools:

The COs of each course are mapped to the POs. As per the calculations of attainments of individual COs of each course, the PO attainment is calculated for that course and subsequently for all the courses in that programme. Final PO attainment is calculated by multiplying with a weightage of 80 %.

PO attainment using indirect tools: Indirect tools are based on survey taken as Graduate exit, Alumni Feedback, Parents Feedback, Employer Feedback. Final PO attainment is calculated by multiplying with a weightage of 20 %.

File Description	Document
Any additional information	View Document

2.6.3 Average pass percentage of Students**Response:** 94.01

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 408

2.6.3.2 Total number of final year students who appeared for the examination conducted by the institution

Response: 434

File Description**Document**

Institutional data in prescribed format

[View Document](#)**2.7 Student Satisfaction Survey****2.7.1 Online student satisfaction survey regarding teaching learning process****Response:**

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

3.1.1 Grants for research projects sponsored by government/non government sources such as industry ,corporate houses, international bodies, endowment, chairs in the institution during the last five years (INR in Lakhs)

Response: 7.4

3.1.1.1 Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years(INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
1.15	1.845	0.28	2.77	1.35

File Description

Document

List of project and grant details

[View Document](#)

e-copies of the grant award letters for research projects sponsored by non-government

[View Document](#)

3.1.2 Number of research projects per teacher funded, by government and non-government agencies, during the last five year

Response: 0.29

3.1.2.1 Number of research projects funded by government and non-government agencies during the last five years

Response: 28

3.1.2.2 Number of full time teachers worked in the institution during the last 5 years

Response: 98

File Description

Document

Supporting document from Funding Agency

[View Document](#)

Funding agency website URL

[View Document](#)

3.2 Innovation Ecosystem

3.2.1 Institution has created an ecosystem for innovations including incubation centre and other

initiatives for creation and transfer of knowledge**Response:**

Our institution has initiated many methods to promote research activities for creating an ecosystem for innovation through Incubation Center and other promotional cells/committees. Our institute has a devoted Research and Development Cell and IPR cell which aims at developing a research culture in the College by promoting research related activities. Presently around **16** faculty in our institution are pursuing their Ph.D degrees based on their extensive and original research in their chosen fields.

The faculty members are also motivated to take up research activities utilizing the technical facilities available in the college by way of research projects from various funding sources. In the last five years our faculty has received and undertaken around **28** research projects sanctioned by the University of Mumbai, Minor Research Grants. The institution also seeks to enhance the general research capability of faculty and students by way of participating in conferences, seminars, workshops, project competitions etc.

The Incubation centre of our college facilitates encourages and monitors research activities. The Incubation center of our college was established on 28th August 2015-16, to enable our students get first-hand experience in entrepreneurship, promote innovation driven activities and provide comprehensive range of support including space, mentoring, computing facilities and an array of other benefits. Through the incubation center, students gain hands-on experience in innovation and entrepreneurship.

Our Incubation Centre seeks to identify the scientific talents of students and translate student ideas into innovations. The Incubation centre encourages a research attitude in the students such that they can participate in research activities at college level, university level, state and national level. Our students have taken advantage of the Incubation centre in our college for development of new ideas in their respective fields and have projected their innovative ideas at various state level, university level, national level activities like **AVISHKAR** –Research convention organized by University of Mumbai and **SIH-Smart India Hackathon** –(An initiative by Ministry of HRD, AICTE), **Start up India** and also many intercollegiate research events.

AIMS AND OBJECTIVES OF INCUBATION CENTRE:

- For students to be job creators instead of job seekers
- Entrepreneurship encouragement.
- Student and faculty Innovation.
- Collaboration with industry, regional stakeholders.
- Creation of knowledge sharing mechanisms.
- Mentoring of students for research related activities.

The college has a Incubation Centre Cell. The constitution of the committee is as under:

1. Dr. J.W. Bakal - Chairman
2. Prof. Bhavna Thakur - Member.
3. Prof. Diksha Bhawe - Member.
4. Prof. Reena Chaudhari - Member (Co-ordinator).
5. Prof. Urjashree Patil - Member.

Functions of the Committee:

Creating research culture among faculty members and students.

Motivating faculty to undertake minor and major research projects from various government/non-government funding agencies.

Encouraging students to take part in research related activities like state-level, national research competitions.

General procedure:

1. Students need to submit an application form in the incubation centre.
2. Screening of applications by Incubation Committee based on innovativeness, area of application, social impact etc.
3. Provide Incubation Center support for the approved projects/ideas.
4. Approaching the companies with which we have done MoU with the research idea.

File Description	Document
Any additional information	View Document

3.2.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the last five years

Response: 38

3.2.2.1 Total number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
11	9	5	8	5

File Description	Document
Report of the event	View Document
List of workshops/seminars during the last 5 years	View Document

3.3 Research Publications and Awards

3.3.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research**Response:** Yes

File Description	Document
Institutional data in prescribed format	View Document

3.3.2 The institution provides incentives to teachers who receive state, national and international recognition/awards**Response:** Yes

File Description	Document
e- copies of the letters of awards	View Document
Any additional information	View Document

3.3.3 Number of research papers per teacher in the Journals notified on UGC website during the last five years**Response:** 0.02**3.3.3.1 Number of research papers in the Journals notified on UGC website during the last five years**

2017-18	2016-17	2015-16	2014-15	2013-14
9	1	0	1	0

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

3.3.4 Number of books and chapters in edited volumes/books published and papers in national/international conference proceedings per teacher during the last five years**Response:** 0.78**3.3.4.1 Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings year-wise during the last five years**

2017-18	2016-17	2015-16	2014-15	2013-14
14	12	20	24	6

File Description	Document
List books and chapters in edited volumes / books published	View Document
Any additional information	View Document

3.4 Extension Activities

3.4.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years

Response:

The college promotes regular engagement of faculty, students and staff with neighborhood community for their holistic development and sustained community development through various activities. Every year, students and staff participate voluntarily in the following community based activities :

1. The NSS college unit and staff take part in various initiatives like organizing camps, Swachh Bharat initiatives, blood donation camps, voter awareness programmes, workshops, rallies and road shows with themes like cleanliness, tree plantation drives, traffic rule awareness, demonetization and digital payment, and empowerment of women.
2. Continuous voluntary activities by students to maintain cleanliness in and around the college surroundings and create awareness about the role of clean environment in human health and contribute to the National Swachh Bharat Abhiyan.
3. Blood Donation camps have been organized in the college.
4. Engagement with NGOs regarding awareness of social issues.
5. Health Checkup Camps were organized.
6. Women Empowerment programmes and activities were conducted. Women's day is celebrated in our college, in which various activities were conducted related to women's safety, women empowerment
7. Road safety awareness programmes were conducted.
8. Civic awareness workshops were conducted.
9. Tree plantations activities were conducted.

10. Free eye check up programs were conducted.
11. International Yoga day was celebrated by staff members & students.
12. Voter awareness programmes were conducted.
13. Street Act on Cleanliness were presented by NSS Volunteers.
14. Road Safety programmes were organized along with Manpada Traffic Police.
15. NSS volunteers presented Street Act on Road Safety at Pendharkar College Square, Dombivli and Lodha Square, Palava.
16. NSS Residential Camp was organised at Shivbhakt Anudanit Adivasi Ashram Shala, Varyachi Vadi, Post-Lavhali, Badlapur. In the camp, various activities were arranged like – Road widening in the adopted village, Swachhata Abhiyan (cleaning of Samaj Mandir and Village Premises).
17. Various seminars are arranged on – Role of Youth in Society, Meditation & Pranayam & Andhshraddha Nirmulan.
18. Street Act on Water Conservation & Education Awareness was presented.

Impact & Sensitization:

Exposure to extension and outreach activities sensitize the students towards social issues and also to legal and social remedies. The activities conducted lead to :

Social development: Students are motivated towards doing good for the community and they also become aware of their responsibility towards social issues and their social responsibilities towards society.

Physical Development: Through activities like YOGA, students become aware of the importance and benefits of YOGA and they understand the importance and benefits of these activities in leading a healthy and stress free life.

Emotional Development: Ethical values like empathy towards others are promoted through activities like blood donation camps which help students to understand that they can contribute to the society by donating blood that can save many lives at no cost.

Moral Development: Qualities like patriotism and righteousness are imbibed in students.

File Description	Document
Any additional information	View Document

3.4.2 Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years

Response: 6

3.4.2.1 Total number of awards and recognition received for extension activities from Government /recognised bodies year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
2	1	2	1	0

File Description	Document
Number of awards for extension activities in last 5 years	View Document
e-copy of the award letters	View Document

3.4.3 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

Response: 46

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

2017-18	2016-17	2015-16	2014-15	2013-14
16	10	14	4	2

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach programs conducted with industry,community etc for the last five years	View Document
Any additional information	View Document

3.4.4 Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

Response: 69.41

3.4.4.1 Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1347	1283	1499	1012	242

File Description	Document
Report of the event	View Document
Average percentage of students participating in extension activities with Govt. or NGO etc.	View Document
Any additional information	View Document

3.5 Collaboration

3.5.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc during the last five years

Response: 155

3.5.1.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
55	40	33	16	11

File Description	Document
Number of Collaborative activities for research, faculty etc.	View Document
Any additional information	View Document

3.5.2 Number of functional MoUs with institutions of National/ International importance, Other Institutions, Industries, Corporate houses etc., during the last five years (only functional MoUs with ongoing activities to be considered)

Response: 11

3.5.2.1 Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years (only functional MoUs with ongoing activities to be considered)

2017-18	2016-17	2015-16	2014-15	2013-14
3	3	1	3	1

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	View Document
Details of functional MoUs with institutions of national, international importance, other universities etc during the last five years	View Document
Any additional information	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The institution has adequate facilities for teaching- learning. viz., classrooms, laboratories, computing equipment, etc.

Response:

The college is situated on a sprawling **15.25** acres of lush green campus with built up area of **12000** square meters. All the infrastructure facilities provided are as per the AICTE norms which augment learning facilities and promote a good teaching-learning environment. Each department has dedicated laboratories, classrooms and tutorial rooms considering contact hours following the University syllabus for each course. The campus is well furnished with **21** classrooms, **06** tutorial rooms, **55** laboratories, **04** workshops, **03** seminar halls and a drawing hall for conducting regular classroom and laboratory sessions in the single shift. Facilities like canteen, central library, computer centre and open auditorium are available in the campus. Separate boys and girls common rooms are available for students.

All the classrooms are well-furnished and spacious enough to ensure proper circulation of fresh air and light. They are equipped with electric fittings, fans, lighting, dais, podium, green boards and few of them are smart classrooms equipped with ICT facilities.

All the departments have laboratories equipped with sufficient number of required experimental setups. Every department has separate computer laboratory. Computer laboratories are utilized for online examinations, aptitude test, project development and competitions by the students of all departments apart from their regular practical sessions. Departments conduct various add-on programs; value added courses and skill development programs in their respective classrooms and laboratories. College is successfully handling the Application Receiving Center (ARC) from 2011-12 and Facilitation Centre (FC) from 2016-17 for First year and direct second year Engineering Centralised Admission Process allotted to the college from Director of Technical education, Mumbai, Government of Maharashtra.

Centralized facilities like computer center and separate language lab are provided to enhance the soft skills and linguistic skills of the learners. The laboratories and other infrastructure are updated time to time considering the requirements of students and as stated in the revised syllabi. A well-furnished, air-conditioned central library is accessible to all and having a reading room capacity more than 100 seats, stack rooms with a good number of text books, reference books, journals and multimedia PCs to access E-journals, Shodhganga, E-books etc.

Basic facilities like potable water and gents and ladies washrooms are provided on every floor of all the buildings. Special provision of ramps and washroom is also made for physically challenged. Building terraces are used for development purpose of special projects like solar power generators. College management ensures availability of adequate physical infrastructure considering AICTE norms and procures equipment for fire safety purpose, CCTV surveillance and fire extinguishers all over in the campus.

Management is keenly interested towards the optimum utilization of all the infrastructure and physical facilities and ensures all the seminar halls, auditorium and laboratories are utilized efficiently throughout the year. Management ensures to provide adequate infrastructure facilities to accomplish the ever

increasing requirements for effective teaching-learning process.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

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

Response:

College organizes extra-curricular activities like sports, cultural activities, NSS, yoga etc. to build confidence, team spirit, leadership quality, unity, time management, concentration and so on throughout the year.

I) Sports:

The college have huge playgrounds of nearly 2.5 acres to organize outdoor games such as Cricket, Box cricket, Badminton,, Volleyball, Football, Kabaddi etc. The college has provided indoor sports facilities such as Table Tennis, Chess, Carrom, Snooker and free weight exercises in well-equipped gymnasium.

Achievements:

Our college Volleyball team won zonal competition in Thane and qualified for Inter-Zonal competition. Our student **Abhijeet Shinde** represented India at Asian games during 2014-2015 held at Incheon, South Korea and also in Junior Asian games held in Bangkok, Thailand. He also won 1 Gold and 1 Bronze at all Indian Inter-University gymnastic championship held at Punjab University, Chandigarh in 2017, won 5 Gold and 1 Silver at Senior State Championship at Pune. Further, **Girish Malkar** has successfully completed the 56th Sunk Rock House to the Gateway of India sea swimming race on 18th February 2017. Our student **Venkatesh Patange** has successfully completed 2 km swimming in Goa Swimathon 2018. Our student **Amey Shinde** won 2 gold medals in “International Aerobic championship for All 2018” at Moscow, Russia. **Akshay Navale** won many medals in various powerlifting championships at state and national levels.

II) Cultural Activities:

A huge open area and open auditorium is available in college for cultural activities. Each year, we organize annual cultural festival named ‘*Odyssey*’. Our institute has a student council for organizing various technical events and cultural activities like singing, group dance, fashion-show, bodybuilding, photography, rangoli, painting exhibition, short-film festival and so on.

Marathi Vangmay Mandal is established in our college from the year 2013-14. Its purpose is to introduce Marathi literature, culture, customs, traditions, rituals to all the students. We also celebrate **Marathi Bhasha Din** under the banner **Srujan** every year to promote students to upsurge the use of state language

Marathi.

III) Tech-Fest:

“**Collosum**” is organized every year in odd semester by all the departments of college to carry technical activities like Algorithms, Oscillations, Resilience, Iteration, Radianze, Nirmitee conducting different activities such as paper presentation, poster presentation, robotic activities , net gaming, CAD War, Quiz, Cycle Assembly, etc. which are very popular among the students.

IV) NSS:

The motto of NSS is “Not Me, But You”. The National Service Scheme (N.S.S) activity was started in the college from academic year 2014-15. This is the first time that the NSS unit has been sanctioned by University of Mumbai to a self-financing Engineering college. The allotted strength of the unit is 50 and various activities are undertaken among the students.

V) Yoga and Meditation:

Our college celebrates “*International Yoga Day*” every year. We invite expert yoga trainers to give information and demonstration. We also conduct yoga and meditation sessions for staff and students separately.

VI) Use of building terraces:

Our college building has 5 wings and huge terrace area. It is used for building project like *Solar Power Generation*.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

4.1.3 Percentage of classrooms and seminar halls with ICT - enabled facilities such as smart class, LMS, etc

Response: 66.67

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 16

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	View Document
any additional information	View Document
Link for additional information which is optional	View Document

4.1.4 Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.

Response: 23.34

4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
61	76	59	86	81

File Description	Document
Details of budget allocation, excluding salary during the last five years	View Document
Audited utilization statements	View Document
Any additional information	View Document

4.2 Library as a Learning Resource

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

Response:

Francis Bacon writes, "Reading makes a full man; Conference a ready man; and writing an exact man." The institution has treasure of knowledge called Library having a huge collection of text books, reference books, national and international journals and academic CD's. All books and other various knowledge resources are accessible for regular reading and reference purpose.

Well reputed E-journals like IEEE and Springer are subscribed every year. Online NPTEL courses are available for students and Staff. A wide range of text books are collected and organised in stack room. More than 35000 volumes and 7400 titles of books are available to shape the future of young minds. Nearly 100 national and international journals and periodicals are available for up-to-date knowledge of recent technology and innovations.

Multimedia software and developing library network, DELNET is utilized in the world of technology. Students and Staff members can access, read, download and print open journals and research papers in the library. The students also enjoy audio-visual aids like video lectures of expertise on multimedia PC. Library is partially automated using ILMS SLIM21 software. Recently college has upgraded to ERP system to carry out daily library management activities and library functions.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resources for library enrichment

Response:

We have more than 35000 volumes and 7400 titles of books available in the library. With addition to this many National and International journals, reference books, handbooks are utilized in the library by Staff as well as students. There is a good collection of other books which are rarely found in other libraries, shops, conference, seminars, and workshops. These rare books give conceptual, theoretical, practical knowledge and extra information related to studies to the learners. The available books are treasures of the college. It is used to enrich the eminence of the institution and knowledge of learners' while pursuing their academic and professional development. The collection includes many important publications like handbooks, process handbooks, Encyclopaedia and many such more rare knowledge resources. We have collected these books while keeping in mind learners' thirst for knowledge.

These rare books are currently unavailable in the market and even some of them are out of print by the publishers. Most of these books are expensive and rarely available and hence are not easy to refer. The college is also providing access to all these books in reference section. This is a world of technology. The latest sources of knowledge like encyclopaedias, internet, Wikipedia, blogs and webinars are used by faculties and learners.

The library has good collection of number of educational CD's. These are well managed in the library Department wise. Also NPTEL lectures CD's are available in library for the students and faculties. Students and Staff listen, understand and study the contents available in the CD's. It creates interest among learners in teaching and learning process. The learners feel confident and it is easy for use.

This is a world of Information Technology. We have a treasure of information available in the form of E-books, links, videos, audios and is available to read, understand and download by students and faculty members. The rare books are available on website <https://www.rarebooksocietyofindia.org>.

This is a world of multimedia. The proper use of multimedia is done in the educational sector to make the learning sessions interesting and interactive. Keeping this view in mind, the institute provides additional knowledge to learners through multimedia. Multimedia facility is available in the Library which provides E-Resources for staff and learners. This creates teaching and learning easy, interesting, adaptable and useful.

This is a world of competitive examination. Many regional and National newspapers like Times of India, Indian Express, Hindustan Times, Loksatta, Maharashtra Times etc. are available for learners. This is useful to enrich general knowledge and current affairs of many regional, national and international day-to-day facts. This prepares learners to give competitive exams like IELTS, MPSC, UPSC etc.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

4.2.3 Does the institution have the following:

- 1.e-journals
- 2.e-ShodhSindhu
- 3.Shodhganga Membership
- 4.e-books
- 5.Databases

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: B. Any 3 of the above

File Description	Document
Details of subscriptions like e-journals,e-ShodhSindhu,Shodhganga Membership etc	View Document
Any additional information	View Document

4.2.4 Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)

Response: 12.75

4.2.4.1 Annual expenditure for purchase of books and journals year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
11.38	10.18	21.42	16.15	4.6

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	View Document
Audited statements of accounts	View Document
Any additional information	View Document

4.2.5 Availability of remote access to e-resources of the library

Response: Yes

File Description	Document
Any additional information	View Document

4.2.6 Percentage per day usage of library by teachers and students

Response: 9.78

4.2.6.1 Average number of teachers and students using library per day over last one year

Response: 150

File Description	Document
Any additional information	View Document

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

The institute administration had taken advantage of the internet revolution by integrating ICT into the learning environment for all students and staff. The internet service is provided and maintained by an experienced service provider. The regular maintenance is carried out to obtain better service with minimum obstacle.

An ERP system is managed by the staff of Information Technology Department in which all the activities falls within the ambit of computer based working environment. ERP software facilities are utilized by Account section, Administration section, library, faculty and students.

The college has well established IT facilities throughout the institute campus. Each department has its own IT structure with an adequate number of desktop, laptop, printers and scanners. Each department has dedicated computer lab, seminar hall and E- learning facilities. Institute has adequate number of classrooms with ICT facilities and modern teaching techniques such as smart boards, LCD projectors, and video recording system.

Currently there are more than 250 computers available in the campus for students and staff. All the computers in a laboratory are LAN connected with a limited geographical area. The college regularly updates the software and hardware structure according to academic requirements. Networking equipment (Switches, routers, firewalls) and good transmission support is used to interconnect and communicate all the devices.

Free high speed broadband internet and LAN/ WiFi facilities are available in the campus for all staff and students. The speed of WiFi and broadband internet are upgraded time to time according to the requirement. The institution acquires new improved version of computers and peripherals. The software is acquired according to the requirement of each department and the students are allowed to undertake project related activities by using software and hardware.

CCTV are installed for rigorous surveillance and monitoring all events within the institute campus. In addition, the institute is a regular organizer of online exams for much reputable organization such as Tata Consultancy Service (TCS), GATE, PET of University of Mumbai, JEE etc. This provides excellent exposure to online exams and offers the opportunity as well as a revenue generation.

File Description	Document
Any additional information	View Document

4.3.2 Student - Computer ratio

Response: 5.74

File Description	Document
Any additional information	View Document

4.3.3 Available bandwidth of internet connection in the Institution (Lease line)

>=50 MBPS

35-50 MBPS

20-35 MBPS

5-20 MBPS

Response: >=50 MBPS

File Description	Document
Any additional information	View Document

4.3.4 Facilities for e-content development such as Media Centre, Recording facility, Lecture Capturing System (LCS)

Response: Yes

File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	View Document
Link to photographs	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years

Response: 82.67

4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
396	219	305	194	303

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	View Document
Audited statements of accounts.	View Document
Any additional information	View Document

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

Response:

The maintenance, repair and cleaning of college campus, equipment, laboratories, library, sports complex, computers, classrooms and other infrastructure and support facilities is done by external agencies

appointed by College management.

Two type of maintenance is done on regular basis:

1. Daily maintenance 2. Yearly or semester- wise maintenance.

1. Daily Maintenance: Lab equipment's and instruments are maintained daily by lab in charge with the help of lab assistant and non-teaching staff.

2. Yearly or semester-wise maintenance: All the equipment's and instruments are checked by lab in charge with the help of lab assistant and non-teaching staff periodically.

1. Computer and support facility maintenance:

AMC contract is given to external agency for the maintenance of all computers within the college. Staff from the AMC service provider company maintains the computers and peripherals.

Internet connectivity, College website and network connectivity are maintained by Computer and IT departments.

The purchases of new computers, printer refilling, antivirus etc. is supervised by the departments.

Laboratory and other equipment are maintained by technical supporting staff. In case of any major repairs, service is hired from outside agencies.

2. Maintenance of Physical facilities

Each department lodges a complaint about the electrical and civil maintenance work and gives their requirements to Principal. These requirements are forwarded to management for getting sanctioned and work order is given to the concerned external agencies.

The civil work related to renovation and maintenance of entire college building is carried out by external agencies on contract basis.

3. Maintenance and utilization of Library

The Librarian is the sole in-charge of the library. All the maintenance and utilization of library resources are supervised by librarian. Requirement of Books, journals or other facilities and any related maintenance is forwarded to management through Principal.

For proper utilization of library resources, previously library management software SLIM 21 and now ERP software is available in the library. Multimedia facility is also available for students and staff.

Utilization of library

The textbooks and reference books from stack room can be borrowed by staff and students. But books and other materials like journal, reference books and periodicals from reference section cannot be borrowed and require to use in library reading room only.

The college library is mainly used for following purpose:

1. To read library books
2. To borrow and return library books
3. To consult reference material
4. To read newspaper
5. To use reading room for own study purpose.

Students and staff members frequently visit library for above mentioned purposes. They regularly borrow and refer textbooks and refer journals, periodicals, handbooks, technical manuals and other audio and video reference materials including NPTEL lectures.

4. Maintenance of Sports complex

The Sport in charge looks after all the indoor and outdoor sports facilities as well as gymnasium. Student has to take permission from the sport in charge for the utilization of the same.

Requirement of Sports Equipment and Accessories or other facilities and any related maintenance is forwarded by Sport in charge to management through Principal.

5. Maintenance of Classrooms

The Classrooms are maintained and cleaned daily. The Administrative staff in-charge supervises all these activities, Furniture and electrification of classrooms regularly. Separate class rooms are allotted to each department for conducting lectures and tutorials.

Some physical facilities like seminar hall, workshops, drawing hall, computer centers and some laboratories are shared by departments. For the proper utilization of these shared resources intimation and approval of the concerned in charge is essential.

Other Maintenance Activities:

The college is having Generator back up, which is also maintained by administration office staff.

Maintenance of garden, tree plantation, landscape maintenance, external and physical beautification of the college campus is done regularly. Student volunteers from college NSS unit, student forums undertake plantation work periodically on the campus in the form of social service.

Maintenance, cleaning, housekeeping, sanitary maintenance and cleaning of all the class rooms, sports complex, laboratories and library have been outsourced. Respective departments supervise these activities.

Round the clock security on the college campus is done by the external agency appointed for security purpose.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

NAAC

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years

Response: 53.3

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

2017-18	2016-17	2015-16	2014-15	2013-14
846	836	857	816	805

File Description

Document

Upload self attested letter with the list of students sanctioned scholarships

[View Document](#)

Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years

[View Document](#)

5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution besides government schemes during the last five years

Response: 3.72

5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
57	57	59	61	57

File Description

Document

Number of students benefited by scholarships and freeships besides government schemes in last 5 years

[View Document](#)

Any additional information

[View Document](#)

5.1.3 Number of capability enhancement and development schemes –

1. For competitive examinations
2. Career counselling
3. Soft skill development
4. Remedial coaching
5. Language lab
6. Bridge courses
7. Yoga and meditation
8. Personal Counselling

A. 7 or more of the above

B. Any 6 of the above

C. Any 5 of the above

D. Any 4 of the above

Response: A. 7 or more of the above

File Description	Document
Details of capability enhancement and development schemes	View Document
Link to Institutional website	View Document

5.1.4 Average percentage of student benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years

Response: 61.95

5.1.4.1 Number of students benefited by guidance for competitive examinations and career counselling offered by the institution year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1217	1301	825	710	739

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	View Document
Any additional information	View Document

5.1.5 Average percentage of students benefited by Vocational Education and Training (VET) during the last five years

Response: 0

5.1.5.1 Number of students attending VET year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
00	00	00	00	00

File Description	Document
Details of the students benefited by VET	View Document

5.1.6 The institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases

Response: Yes

File Description	Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document
Details of student grievances including sexual harassment and ragging cases	View Document
Any additional information	View Document

5.2 Student Progression

5.2.1 Average percentage of placement of outgoing students during the last five years

Response: 31.01

5.2.1.1 Number of outgoing students placed year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
142	137	128	113	84

File Description	Document
Self attested list of students placed	View Document
Details of student placement during the last five years	View Document

5.2.2 Percentage of student progression to higher education (previous graduating batch)

Response: 2.21

5.2.2.1 Number of outgoing students progressing to higher education

Response: 09

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education	View Document

5.2.3 Average percentage of students qualifying in State/ National/ International level examinations during the last five years (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

Response: 40.78

5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil services/ State government examinations) year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
12	14	19	20	00

5.2.3.2 Number of students who have appeared for the exams year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
28	36	30	34	10

File Description	Document
Upload supporting data for the same	View Document
Number of students qualifying in state/ national/ international level examinations during the last five years	View Document

5.3 Student Participation and Activities

5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at national / international level (award for a team event should be counted as one) during the last five years.				
Response: 5				
5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year-wise during the last five years				
2017-18	2016-17	2015-16	2014-15	2013-14
0	0	1	2	2

File Description	Document
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	View Document
e-copies of award letters and certificates	View Document

5.3.2 Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution	
Response:	
<p>The Institute has a very active Student Council formed by a well-established process. The process starts with inviting applications from the students for the various posts of the Student Council. It consists of General Secretary, Sports Secretary, Cultural Secretary, Technical Secretary, NSS representative, NCC representative and Ladies representative.</p> <p>A selection committee comprising of Principal, HOD's, In-charge Sports Director, Faculty Coordinator for Cultural and NSS In-charge is formed for the selection of the Cultural, Sports, Technical Secretary, NSS, NCC & Ladies representative from Second, Third & Final year through an Interview process. The member of Student Council formed has representation from all the departments and together they act as a link between the Students and the Institute.</p>	

To ensure proper handing over of responsibilities from the previous council, the formation is done at the start of the odd semester of the academic year. The new council takes charge immediately after formation of Students Council.

The Student Council also forms various dedicated teams for tasks such as Marketing, Public Relations, Logistics, Fund Raising, Social Media Management, Multimedia Editing and Photography based on the student's interests. This helps the students to gain first-hand expertise and a better understanding of these fields. Several clubs such as music, dramatics, literary, robotics also work along with Student Council.

The Student Council along with professional chapters and NSS plan & organize all extracurricular events and prepare an event calendar. All the events are organized as per standard procedure set by the institute. The college allocates significant funds for the smooth conduction of all major activities.

Alongside organizing the college festival, various workshops and skill development sessions are organized throughout the academic year. The members also play a vital role in various Institute level committees like the college Women Development Cell, Anti-ragging committee and IQAC committee. They are involved in all the activities that define the life of a student. Involvement of the students in various administrative bodies make them more responsible and strengthen their bonding with the institute.

Right from the orientation of the first year engineering students to farewell of the Graduating students, the council plays an integral part in the organization and execution of these activities.

File Description	Document
Any additional information	View Document

5.3.3 Average number of sports and cultural activities/ competitions organised at the institution level per year

Response: 29.4

5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
30	30	29	29	29

File Description	Document
Report of the event	View Document
Number of sports and cultural activities / competitions organised per year	View Document

5.4 Alumni Engagement

5.4.1 The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non financial means during the last five years

Response:

Shivajirao S. Jondhale College of Engineering, Dombivli has constituted Alumni Committee which is functional and formed with an objective to nurture a bond with alma mater, to enhance placement and internship opportunities and to also help in building up the network of the alumni. The Institute effectively networks and collaborates with alumni which have seen an increase in the number of alumni interacting with the students every year.

The main objectives of the Alumni committee are

- To have a platform where the alumni, existing students and staff of the institute can interact, renew old bonds with the Alma-mater, foster new ties and revive the nostalgic college moments.
- To effectively network and collaborate with alumni every year which provide a platform for the students to interact with their seniors in industry and get expert guidance regarding professional requirements and industrial / emerging technological trends.
- To increase assistance for Internships and Placement for current students.
- Participation of alumni in activities contributing to the general development of the department / institute.
- To provide feedback with respect to curriculum, facilities, developmental activities, etc.

The Alumni Committee is working very hard towards achieving these objectives

The Nonfinancial means through which alumni contribute to the Institute are as mentioned below

- They help us to identify gaps in the curriculum through their structured feedback on curriculum in-order to keep pace with the recent advancements in the industry. They suggest Add-on, Value Added course and Workshop to mitigate the gap.
- They also contribute to enhance placement activities by informing about the recruitment drive arranged by their companies and guide them for interviews.
- Establishing Memorandum of Understanding between the Institute and Alumni Entrepreneurs. Through these MOU with our college, our alumni have conducted seminars; internship programs to inspire students which help them progress in their individual fields.
- Our alumnus Mr. Pranav Phadke from Department of Computer Engineering conducted value added course on “Android and Application Development” under the organization Brainfloss Solution, LLP, Dombivli which benefited many students.
- Our alumnus Mr. Pravin Jagdale from Department of Chemical Engineering organized a seminar based on “Project Engineering and Management” & “Entrepreneurship” under the Organisation Eurofine Chemical Industries and Oasis Chemical Industries, Dombivli.
- Mr. Manan C. Vora from Department of Production Engineering organized a seminar on “Entrepreneurship Development in Process Equipment Design” under the Organisation Sunrise Engineering, Dombivli.
- Our Alumni has also contributed to increasing assistance for Internships and Placement for our

students. Our alumnus Mr. Saket Divekar from Department of Electronics and Telecommunication Engineering is providing internship on 3D Modelling, Blender Software and Inkscape under the Organisation Ayravat Software from 2014 onwards every year to our ET, IT and Computer students.

- Our alumni, Mr. Nikhil Mirgil and Mr. Bipin Sharma of Express roadways provided placement assistance to Mechanical and Production students. Ujwal Industries, Ivision Group of Industries founded by our alumni also assisted for placement activities.

Our alumni are working hard in collaboration with the Institute for the development of the Institute.

5.4.2 Alumni contribution during the last five years(INR in Lakhs)

? 5 Lakhs

4 Lakhs - 5 Lakhs

3 Lakhs - 4 Lakhs

1 Lakh - 3 Lakhs

Response: <1 Lakh

File Description	Document
Alumni association audited statements	View Document

5.4.3 Number of Alumni Association / Chapters meetings held during the last five years

Response: 6

5.4.3.1 Number of Alumni Association /Chapters meetings held year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
2	1	1	1	1

File Description	Document
Number of Alumni Association / Chapters meetings conducted during the last five years.	View Document
Any additional information	View Document
Report of the event	View Document

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

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

Response:

Vision of the institute:

To impart quality technical education for creating competent and ethically strong professionals with capabilities of accepting new challenges.

Mission of the institute:

- Our efforts are dedicated to impart quality technical education based on balanced Programme of instruction and practical experiences.
- Our strength is to provide value based technical education to develop core competencies and ethics for overall personality development.
- Our endeavor is to impart in depth knowledge and versatility to meet the global challenges.

The institute is working under the frame work of AICTE, DTE and University of Mumbai. The governing body ensures infrastructure facilities and takes policy decisions for the effective growth of the institute. The vision-mission of the institute have been decided with active participation of Alumina, Industry people, employers, parents, faculty members. The Principal in consultation with LMC/CDC sets the direction towards the fulfillment of vision mission through perspective plan. SSJCOE leadership communicates the vision-mission statement to all the stake holders by displaying on institute website , classrooms , laboratories, library, academic record book, Seminar hall and administrative office of the institute. SSJCOE leadership ensures more emphasis on teaching and learning processes, by ensuring the learners to be more practical oriented through organizing seminars, workshops, Industrial visits and internships.

SSJCOE leadership provides the learners with value added courses, add-on courses to make them more industrial competent and employable. SSJCOE leadership ensures organizing technical and cultural events for developing overall personality of the students with inculcating good human values to be professional in the globally challenging world. SSJCOE encourages participative management by involving faculty members for solving problems and taking opt decisions at various levels for the effective growth of institute. The levels are:

CDC level: It is an apex decision making body, which takes important decisions about academics, upgradation of learning resources, infrastructure, budget and sanctioning of study leave.

IQAC level: IQAC plays an active role in monitoring academic and other activities for continuous improvement in academic performance.

HOD level: Plan and implement the activities like distribution of work load, time table, monitoring of teaching, arranging workshops, seminars, guest speakers, recommend leave.

Coordinators of Different Committees : Faculty coordinators of the committee's plan and execute the activities.

6.1.2 The institution practices decentralization and participative management

Response:

Effective planning, co-ordination, implementation and monitoring is done through the delegation and decentralization of power. SSJCOE encourages decentralization by delegation of authority and operational autonomy to department and also for various committees. Principal in co-ordination with HOD's, senior faculty members, appoint the coordinators and members of the committee. The coordinators review the work of committees for smooth functioning of co curricular and extracurricular activities. Academic decentralization is done through Dean Academics in coordination with the support of HODs and teachers of various departments. Administrative decentralization is achieved through Registrar in coordination with office staff. Student affairs are dealt through Dean Students affair in association with faculty coordinators and student's council.

Annual Technical Fest – Colosseum : A case Study

In the Endeavour to encourage holistic development of students, the college annually organizes an intercollegiate level technical festival 'Colosseum'. Colosseum aims at boosting the technical skills and creativity of the students thereby helping them to gain technical, practical knowledge and promote the talent of students, to inspire the students by expanding their horizons beyond engineering. The Annual technical fest **Colosseum** is organized by college in odd semester. Colosseum consists of Radianze, Nirmiti, Resilience, Oscillation, Algorithm, Iteration which are organized by various departments such as Chemical, Production, Mechanical, Electronics and Telecommunication, Computer, Information Technology respectively. The student from various colleges participates in the event.

The event is conducted in a systematic manner as follows:

Principal, HOD's of all department and senior faculty members appoint faculty coordinator to conduct technical festival colosseum as per the academic calendar. Initially, the notice is displayed on institute notice board regarding formation of student's council specifying various posts upon receiving circular from university of Mumbai. The Students Council selection committee comprising of Principal, HOD's, Faculty In-charge for sports, Faculty In-charge for Cultural and NSS In-charge is formed for the selection of the Cultural , Sports , Technical Secretary, NSS, NCC & Ladies representative from Second, Third & Final year through an Interview process.

The faculty coordinators , the institute level selected Students Council conducts the meeting and propose the plan to form various committees like hospitality, inauguration, transportation, registration, project exhibition, technical quiz, publicity etc. The technical secretary along with heads of committee's forms different sub-committees among them depending upon types of events & perform regular meetings and execute the activities. The publicity of the technical fest is done by publicity committee at college level and Intercollegiate level. The certificates and poster of colosseum is decided by faculty coordinators and student council. The Principal conducts the meeting with the faculty coordinators for the smooth conduction of the program. On successful completion of program the Institute appreciates concerned

students and staff coordinators.

File Description	Document
Any additional information	View Document

6.2 Strategy Development and Deployment

6.2.1 Perspective/Strategic plan and Deployment documents are available in the institution

Response:

The College was established in the year 1994 with 3 branches of engineering. Subsequently 3 more branches of engineering were added in 1999. Right from the inception, the college has functioned with good quality policy. The institute has perspective plan for development and it is developed by the Principal with the help of all HODs and senior staff.

Perspective Plan for the development of college:

1. To provide modern education to all students by enhancing the quality of teaching and learning
 - To conduct STTP, FDP, conferences on recent trends and motivate faculties for participation.
 - Creating adequate infrastructure for use of modern teaching aids.
 - Strengthen student's placements and employability by having more Add- On courses, Value Added Programs, workshops and personality development programs.
 - To offer elective, interdisciplinary, skill-based and ability-enhancement programs under Choice-Based Credit Grading System(CBCGS)
2. To motivate for higher studies and inculcate the research among staff and students
 - Encourage and motivate the faculties for higher studies like M.E., M.Tech, PhD
 - Encourage faculty members to undertake research work
 - To establish an effective R&D cell and strengthen the context of research
 - To establish Incubation Center
3. To improve industry –Institute Interaction
 - Providing platform to the students to undertake internship program
 - Signing MoU with the industry to exchange the knowledge and expertise in related program of engineering
 - Make an effort to educate the students for entrepreneurship
 - To develop Industry Institute Interaction Cell
4. Quality Assurance Measures
 - To obtain accreditation from NACC and NBA

- The formalization of IQAC is done in the A.Y 2017-18 and since then IQAC is functioning with focus to develop, drive, deploy and review the quality policy. The IQAC works closely with the management and the Principal to drive and implement the quality assurance processes across the institution. The cell meets twice in a year to review the progress of implementation and accordingly makes policy decisions where ever necessary.

5. Extension Activities

- Developing leadership qualities in students through various curricular and co-curricular activities.
- To arrange programs like blood donation, health checkups, Yoga, meditation, etc.

To motivate for higher studies and promotion of research among staff

The institute aims to promote various activities for the growth of faculties in the campus. Faculties are encouraged for the minor research grant of University of Mumbai. The institute aims to nurture research culture in the college by encouraging research in newly emerging trends and challenging areas of engineering, technology, science and humanities to maintain and disseminate current information about relevant research policy areas. To upgrade the knowledge of faculties for research and development activities, our institute extends its full support.

File Description	Document
Any additional information	View Document

6.2.2 Organizational structure of the institution including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism

Response:

Shivajirao S. Jondhale College of Engineering has well established organizational structure to execute smooth functioning of administrative and academic processes. The governing body is the highest decision making body constituting members of the management, Principal and nominated faculty members.

The constituents of the organization structure is as follows:

Principal, Heads of the Departments, and co-ordinators of various committees have adequate participation in making decisions in academic and administrative processes under their purview.

1. Governing Body

The Governing Body besides being the supreme administrative authority of the college shall have the following additional functions:

- To monitor the academic and other related activities of the college
- To consider the recommendations of the Staff Selection Committee

- To consider the important communications, policy decisions received from the University, Government, AICTE, etc.
- To monitor the students and faculty development programs
- To implement the recommendations of the Governing Body
- To pass the annual budget of the college.
- To approve the income and expenditure of the college annually.

Following are the members of Governing Body:

2017-2018

Dr. Shivajirao S. Jondhale	President	
Mr. Yeshwant A. Kamble	Member	
Mr. F. C. Shejul	Member	
Mr. Popat K. Shepal	Member	
Mr. Sopan M. Shepal	Member	
Nominee of A.I.C.T.E –Regional Officer (Ex –Officio)	Member	
Nominee of Council of Regional Committee (Industrialist/Technologist/Educationist)	Member	
Nominee of University of Mumbai	Member	
Nominee of State Government Director of Technical Education (Ex –Officio)	Member	
Nominee of State Government (Industrialist/Technologist/Educationist)	Member	
Prof. Smita Lonkar	Member	
Prof. Pramod Rodge	Member	
Dr. J. W. Bakal	Principal & Member Secretary	

2. Local Managing Committee

It is an apex decision making body, which takes important decisions about academics, upgradation of learning resources, infrastructure, budget and sanctioning of study leave.

Following table contains the list of local managing committee members.

2017-18

Dr. Shivajirao S. Jondhale	President	
Prof. S. A. Lonkar	Teacher Representative	
Prof. A. D. Leelamani	Teacher Representative	
Prof. A. M. Kulkarni	Teacher Representative	
Mr. F. C. Shejul	Non-Teaching Representative	
Dr. V. S. Khatkul	Member & Local representative	
Mr. Milind Chaudhari	Member & Local representative	
Mr. Prashant Ghorpade	Member & Local representative	
Dr. J. W. Bakal	Principal & Member Secretary	

3. Administrative Set Up (Refer Additional information)

4. Functions (Refer Additional information)

5. Service Rules, Recruitment Procedures, Promotional Policies (Refer Handbook)

6. Grievance redressal mechanism

The Grievance Redressal Committee was constituted to probe into the student and staff grievances.

The Grievance Redressal Committee attempts to address genuine problems and complaints of students and staff.

Objectives:

- To create a platform where students can point out their problems, regarding academic and non-academic matters.
- Get suggestions from the students for improvement.
- Take necessary steps for improvement in the light of grievances.

Mechanism: (Refer Additional Information)

Functional Committee:

Sr. No.	Name of the Staff	Position	Designation
1	Dr. J. W. Bakal	Chairman	Principal
2	Prof. P. R. Rodge	Member	HOD Dept. of Computer Engineering
3	Prof. Varsha Magar	Member	HOD Dept. of Mechanical Engineering
4	Prof. J. S. Pujari	Member	HOD Dept. of First Year Engineering

File Description	Document
Any additional information	View Document

6.2.3 Implementation of e-governance in areas of operation

- 1.Planning and Development
- 2.Administration
- 3.Finance and Accounts
- 4.Student Admission and Support
- 5.Examination

A. All 5 of the above

B. Any 4 of the above

C. Any 3 of the above

D. Any 2 of the above

Response: A. All 5 of the above

File Description	Document
ERP Document	View Document
Details of implementation of e-governance in areas of operation Planning and Development,Administration etc	View Document
Any additional information	View Document

6.2.4 Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions

Response:

Various committees and cells are in force for the smooth conduction of the day to day work of the institution such as:

College Development Committee (CDC)

Internal Quality Assurance Cell (IQAC)

NAAC Steering Committee

SC-ST Committee

Anti-Ragging Committee

Anti-Ragging Squad Committee

Internal Complaint Committee (ICC)

Grievance Redressal Committee

Placement Committee

Research & Development Committee

Examination Committee

Library Advisory Committee

OBC Committee

Students Council

Counselling Committee

Industry Institute Interaction Cell (IIC)

Training and Placement Committee activities

Training and placement Committee focuses on improving institutional effectiveness by integrating strategic training courses within the existing engineering curriculum. The Committee is constituted of senior faculty as Training and Placement Officer and one faculty from each department as a member. The Committee meeting is held thrice in a year. Previous year activities are reviewed and discussed and based on that activity calendar is prepared for the current academic year. Training and placement Committee

plans activities for SE, TE and BE students of all Departments. The committee activities encompass different stages of career planning like aptitude tests, soft skill training, and career options . In general, activities for SE, TE and BE students include seminars on career guidance, Internship, job opportunities and higher education after completion of degree. Guidance regarding the preparation of various examinations like GATE and Overseas Education, etc are arranged. The much required Aptitude test training program is conducted for the students. The various competitions and exhibitions are also held for students.

Activity: Seminar on Carrier Guidance

The above activities were planned in the meeting held on July 2017, January 2018 and April 2018. The Career Counselor was invited as a guest speaker for the event. The speaker guided students on how and when to start preparing for entrance exams like GATE, Overseas Education and also explained admission process for higher education in India as well as abroad.

File Description	Document
Any additional information	View Document

6.3 Faculty Empowerment Strategies

6.3.1 The institution has effective welfare measures for teaching and non-teaching staff

Response:

SSJCOE believes in the strength of human resource in the institute. The institute has self motivated and deterministic staff members who contribute towards the progress of the institute. SSJCOE could mark its footprint around Mumbai region, within very short span of time because of the involvement of staff members aligned with institutional goal and to acknowledge the same the institute takes care for the welfare of staff members. Some of the initiatives and Welfare measures taken by the institute are listed below :-

- 1) Encouragement for the faculty for attending workshop, conferences, seminars, short term courses and faculty development program.
- 2) The institute provides sponsorship to Teachers to pursue higher education (M.E., M.Tech & Ph.D)
- 3) Encourages the faculty to become member of professional bodies and to participate in the activities organized by them.
- 4) Encourages the faculty to visit the industry in their domain.
- 5) Promotes and motivates the faculty to use ICT tools in their teaching learning process.
- 6) Encourages the faculty for publication of research papers in Journals or conferences.

- 7) Institute provided Mediclaim policy for all teaching and Non-teaching staff.
- 8) The institute provides **10** days paid and **20** days half paid medical leave per year to all teaching and non teaching staff.
- 9) The institute provides study leave to acquire the higher education to all teaching staff.
- 10) The institute provides paid maternity leave to all female employees.
- 11) Casual leave facility is provided to teaching and non teaching staff.
- 12) Earned leave is provided to Principal, administrative and class IV staff.
- 13) Institute organizes free Eye checkup and health checkup camps to ensure the better health of all the employees.
- 14) Institute organizes training programs as per the need for skill development of non teaching staff.
- 15) Uniforms are provided to all class IV staff .
- 16) Gratuity is received by an employee in gratitude for their services offered to the institute.
- 17) Employees Provident Fund facility is provided to the staff.
- 18) The institute provides summer and winter vacation for teaching and supporting staff as per University of Mumbai guidelines .
- 19) Provision of canteen in the campus.
- 20) Provision of on campus Gymnasium facility.
- 21) Provision of 24/7 on campus security.
- 22) Sanitary Napkin Vending Machine is installed.
- 23) Provision of ample secure parking area is provided.
- 24) First aid facility and Doctor on call is available.
- 25) Accidental insurance policy for all staff members.
- 26) Building insurance, fire and safety provision.

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

Response: 28.3

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

2017-18	2016-17	2015-16	2014-15	2013-14
93	12	11	14	04

File Description	Document
Details of teachers provided with financial support to attend conferences,workshops etc. during the last five years	View Document
Any additional information	View Document

6.3.3 Average number of professional development /administrative training programs organized by the institution for teaching and non teaching staff during the last five years**Response: 5.8**

6.3.3.1 Total number of professional development / administrative training programs organized by the Institution for teaching and non teaching staff year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
09	07	07	05	01

File Description	Document
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	View Document
Any additional information	View Document

6.3.4 Average percentage of teachers attending professional development programs viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Program during the last five years**Response: 50.75**

6.3.4.1 Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
77	71	70	22	04

File Description	Document
Details of teachers attending professional development programs during the last five years	View Document
Any additional information	View Document

6.3.5 Institution has Performance Appraisal System for teaching and non-teaching staff

Response:

Process for Performance Appraisal system (PAS) For Teaching and Non Teaching Staff:

The faculty feedback forms for Theory and Practicals are distributed among the students .

The filled feedback forms are submitted to Head of Department.

The assessment of the feedback forms is done by the Head of department.

The assessed feedback forms and performance appraisal forms are prepared by Head of Departments. The same are discussed with Principal.

The one to one faculty meeting is done with the Principal in the presence of Head of Department.

Corrective measures are taken by the faculty.

Our PAS consists of three level of assessment.

1. Feedback from students for each faculty
2. Self appraisal report
3. Performance Appraisal from HOD for each faculty.

Feedback Forms collected from students for all courses.

The students of each class are given feedback forms concerning the faculty who are dealing with theory courses and Laboratories or workshops at the end of each semester by Head of Department. The questionnaire is designed to collect their feedback on the basis of a four point scale as Excellent, Very Good, Good, and Satisfactory . Parameters like Time management, verbal communication, Interaction, Inspiration, self confidence, command over the subject etc. are included in the questionnaire.

Self appraisal report from Faculty

Self appraisal report is submitted by each faculty to the Head of the Departments providing details regarding the subject taught, duties carried out other than teaching during the semester ,Number of publications done along with their details , number of projects guided, Extra responsibilities and any other Accomplishments.

Feedback from Head of the department for all faculties.

At the end of each semester faculty performance appraisal form is prepared and evaluated by Head of the Department for each faculty based on students feedback and the information provided by the individual faculty in self appraisal report . The form consists of two parts: Teaching Assessment, performance and general Attributes. The questionnaire is designed to provide HOD's feedback on the four point scale as Excellent, Very Good, Good, and Satisfactory in respect of the parameters.

Corrective measures:

The faculty appraisal committee consists of HOD and Principal. The contents of both the feedback are shared with each faculty member individually during the meeting. Those with average performance in certain areas are suggested to improve the performance. This feedback system works as an eye opener for the faculty and has led to the improvements in faculty's performance and quality of teaching.

A letter of Appreciation is given to the faculty members by the Head of the Department and the Head of the institute to encourage them for better performance.

File Description	Document
Any additional information	View Document

6.4 Financial Management and Resource Mobilization**6.4.1 Institution conducts internal and external financial audits regularly****Response:**

The Institute has an effective mechanism for auditing the Institute accounts. The auditing process of SSJCOE takes place in two stages External audit and Internal audit. Chartered accountant audits the accounts of the institute regularly as per the rules and guidelines. The external auditor is appointed by the trust who executes the statutory audit and gives his report on audit every year. The last audit was carried out in the month of September 2018.

The internal audit of accounts of the Institute is carried out by team of internal auditors occasionally.

The internal auditor checks the accounts to see if all entries are properly recorded for the smooth running.

File Description	Document
Any additional information	View Document

6.4.2 Funds / Grants received from non-government bodies, individuals, Philanthropists during the last five years (not covered in Criterion III) (INR in Lakhs)

Response: 0

6.4.2.1 Total Grants received from non-government bodies, individuals, philanthropists year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
00	00	00	00	00

File Description	Document
Details of Funds / Grants received from non-government bodies during the last five years	View Document

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

Response:

Shivajirao S. Jondhale College of Engineering is a non aided Self Finance Co-Education Institute. The main source of income of Institute is Tution Fee & Development Fee from the students. This income is utilized to meet routine day to day expenditure of the Institute. i.e. Salary & Non Salary expenses. As per Annual requirement proposed budget is prepared on the basis of last year actual Expenditure. The budget is prepared by the Principal, Head of Department and Registrar. This Budget is finalized in the meeting of Local Managing Committee(LMC) / College Development Committee (CDC) . The LMC forwards the proposed budget to the Governing body for final approval.

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

Response:

A Local Managing Committee (LMC) consisting of Management representative, Principal, Teaching staff and non teaching staff representatives used to work towards overall development of college. LMC ensured the continuous improvement in quality of institute in every aspect. LMC maintained a practice to remain in touch with alumni and various industry experts. Their feedback helped to improve and make

required changes in academics as well as administration of the college.

IQAC Committee of Institute was constituted on 15th July, 2017 as per the NAAC guidelines. IQAC reviews the present systems and proposes the action plan to enhance the quality of academic and administrative systems. IQAC promotes number of activities to make everyone familiar with quality assurance strategies and processes.

Two practices institutionalized as a result of IQAC initiatives are given below:

1. Incremental improvement in Academic Record Book:

Academic record book from 2013-14 to 2015-16 contained

- a. Time table for teachers
- b. Weekly Teaching load
- c. Teaching Schedule (Course Plan)
- d. Students' Attendance day wise
- e. Continuous Assessment of Practicals and assignments
- f. Term work Calculation Sheet

The improvement was done in the academic record book from year 2016-17. Academic record book from 2016-17 to 2017-18 contained following changes.

- a. Vision–Mission of the Institute and Department
- b. Academic Calendar
- c. Term work Marks Distribution
- d. Course Objectives and Outcomes
- e. Assignment and experiment plan, marks distribution
- f. Unit test 1 and 2 Question wise marks distribution
- g. Space provided to paste duly signed Course plan

These changes were useful for CO- PO mapping and CO-PO attainment.

As decided in the IQAC meeting-4, in the academic record book from 2018-19 the method of students' attendance was changed and the other points were kept same. This initiative simplified the academic record book by saving faculty time.

2. Inculcating Research attitude:

For enhancing the research capability amongst the faculty and students, in the institute following actions are taken:

- a. Appointment of Dean Research and Development
- b. Encouraging the faculty members to undertake research work under the minor research grant proposals and provide the necessary facilities.
- c. Incubation centre with research facilities and resources for students which provides the environment to participate in
 - State level research convention Avishkar
 - National level events like Smart India Hackathon
 - Start up Yatra India (Start up Maharashtra)
- d. Encouraging Industry-Academia innovative practices by signing MoUs with different agencies.

The college has established a IPR policy to provide awareness to the faculty and students about IPR and educate them about the procedure of patent filling and copyrights.

File Description	Document
Any additional information	View Document

6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms**Response:**

Institute has well planned teaching learning process and has predefined methodology for carrying out the process. The process is reviewed at regular interval and is assisted by taking stakeholder feedback for improvements.

Principal, Heads of all departments and Dean academics take continuous review of teaching learning process in the following manner.

1. Allocation of subjects by HOD depending on choices given by faculty.
2. Academic calendar preparation before the commencement of term.
3. Preparation of time tables.
4. Preparation of course plan.
5. Academic Monitoring of conduction of regular lectures and practicals.
6. Checking of Course plan is done by HOD weekly and by Principal fortnightly.

7. Conduction of Test 1 (IA 1) and Test 2 (IA 2) as per academic calendar.
8. Declaration of test results within a week.
9. Student mentoring for improvement of test results.
10. Conduction of remedial classes.
11. Various feedbacks forms from students for overall improvement.
12. Course outcome attainment is done at the end of each semester.

The methodology of learning outcome attainment is shown in the tabular form.

Assessment Tools for evaluation of Course Outcome are categorized into Direct and Indirect attainment.

Method	Assessment tools	Source of data	Weight	When data is collected
Direct assessment	End semester examination (Theory)	University Gazette copy	80%	Declaration of result
	Internal assessment (Unit test 1 & 2)	Unit Test 1, 2 (tutorials if applicable)	20%	End of semester
	End semester examination (Lab)	University Gazette copy	50%	Declaration of result
	Internal evaluation (Lab)	Experiment and its performance	50%	Throughout the semester
Indirect assessment	Course exit survey	Online survey	20%	End of the semester

Program outcome and Program Specific outcome is done after completion of graduation and is done in the following manner

Method	Assessment tools	Source of data	When data is collected	Levels obtained	Evaluation
Direct assessment	End semester examination	University Gazette copy	80%	Declaration of result	$A1=0.2X1 + 0.8X2$
	Internal assessment	Unit Test 1, 2 (tutorials if applicable)	20%	End of semester	$A1=0.5X1 + 0.5X2$ (Lab)
	End semester examination (Lab)	University Gazette copy	50%	Declaration of result	
	Internal evaluation (Lab)	Experiment and its performance	50%	Throughout the semester	
	Course exit survey	Online survey	20%	End of the semester	
Indirect Assessment	Graduate exit survey	Offline	20%	End of year	Z

Sample Case 1: Remedial classes

Remedial classes are conducted for students who have scored less or failed in the Test 1 (Internal Assessment-1) in different subjects. After the Test 1 (Internal Assessment-1) result is declared, for students who have less marks in the subject or who have failed in the Internal Assessment -1 and are in a verge of failure, a remedial session in each of the subject is conducted by the respective faculty. The time table for the same is displayed for the students. Students are informed to attend the remedial classes and topics which are difficult to understand are taught during the class. Also in subjects where numericals are

required to be solved like mathematics, students are given numerical to solve in the class and any difficulty in solving them is addressed by the faculty and guided by them to learn subject in a better manner. Previous university question papers are discussed and numericals asked are solved. Overall it is observed that remedial classes have helped students to perform better in the Test 2 (Internal Assessment-2) as well as improved the semester end results.

Sample Case 2: Final year Project Evaluation Mechanism

The selection of the Project topics is done based keeping in mind their relevance to academics/society and the Course objectives. Students are asked to select their area of interest, go through the published research papers/articles and select 2-3 topics related to recent advances in that area. The Project Committee members either finalize one problem statement or they give suggestions to make modifications or else they reject it and ask for new problem statements. When the problem statement is finalized by the Project Committee, the project title is submitted to Project Co-ordinator.

Project groups are assigned to faculty members having expertise in particular area.

A continuous monitoring mechanism is followed, where the students meet their respective guide every 8 days. Students maintain a log book of the meetings with their respective guides.

The pre-final review of the project progress is taken by the Project Committee in the form of power point presentation/seminar/poster presentations. The Project committee takes review of work done before the final presentation and instruct students for any changes/modifications in design if required. Every group is encouraged to write a paper in Journal or participate in project competitions/poster presentation competitions organized by various engineering colleges.

Process for monitoring and evaluation

Semester	Subject	Nature of work	Monitoring and evaluation process
VII	Project Stage I	Literature survey	Report
		Design	Presentation
		Knowledge of tools	Progress
		Synopsis	Report
		Presentation	Report and Presentation
		University oral exam (external evaluation)	Report and Presentation
VIII	Project Stage II	Implementation	Project Demonstration
		Testing / Results	Project Demonstration
		Documentation	Project Report
		Final Project Demonstration	Project Report and Demonstration
		University oral exam (external evaluation)	Project Report and Demonstration

Final year Project Evaluation Mechanism monitoring and evaluation has successfully helped in developing the confidence of students to participate in state level research convention Avishkar, National level events

like Smart India Hackathon and Start up Yatra India.

6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year

Response: 9.6

6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
18	8	9	9	4

File Description

Document

Number of quality initiatives by IQAC per year for promoting quality culture

[View Document](#)

6.5.4 Quality assurance initiatives of the institution include:

1. Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback collected, analysed and used for improvements
2. Academic Administrative Audit (AAA) and initiation of follow up action
3. Participation in NIRF
4. ISO Certification
5. NBA or any other quality audit

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: B. Any 3 of the above

File Description

Document

e-copies of the accreditations and certifications

[View Document](#)

Details of Quality assurance initiatives of the institution

[View Document](#)

6.5.5 Incremental improvements made during the preceding five years (in case of first cycle) Post accreditation quality initiatives (second and subsequent cycles)

Response:

The institute takes lot of efforts to improve the quality in all aspects as per the requirements of the students, and all other stakeholders. Some of the initiatives taken during last five years are listed below:

1. Higher education Sponsorship for the staff members to upgrade their qualification.

Program	Year	Number of Staff Members
M.E.	2013 - 14	7
	2014 - 15	7
Ph.D.	2012 - 13	2
	2013 - 14	2
	2014 - 15	3
	2015 - 16	5
	2016 - 17	4
	2017 - 18	2
	2018 - 19	1

2. MOUs signed by different departments.

Year	Number of MOUs Signed
2017 - 18	3
2016 - 17	3
2015 - 16	1
2014 - 15	3
2013 - 14	1

3. Short Term Training program (STTP) and Faculty Development program (FDP): Every year the institute conducts FDPs and STTPs for the staff members to upgrade their technical knowledge and synchronize with latest trends and technologies.

Value Added Programs (VAPs) were initiated in 2013-2014 and are conducted yearly by various departments to enhance additional skills required for the overall development of the students.

Year	FDP	STTP	Add-on Programs	Value added Programs
2013 - 14	0	0	4	1
2014 - 15	0	0	29	3
2015 - 16	4	0	37	3
2016 - 17	4	0	35	3
2017 - 18	5	4	32	5

4. Library Facilities: The highlight of the institute is a spacious Air-Conditioned Library with variety of books with journals and other resources. Along with the specified books for the curriculum, number of books on competitive exams are available.

5. Research and Development cell works hard to motivate the students to participate in various technical competitions such as

- State level research convention Avishkar
- National level events like Smart India Hackathon
- Start Up Yatra (Start Up Maharashtra)

Incubation Centre and IPR cell was established in 2015-2016 with research facilities for students and staff.

Research grants received from Government and Non-government sources:

Year	Number of Staff	Amount in Rupees
2013 - 14	5	1.35 Lakhs
2014 - 15	9	2.77 Lakhs
2015 - 16	1	0.28 Lakhs
2016 - 17	8	1.84 Lakhs
2017 - 18	5	1.15 Lakhs

6. The institute is having life membership of professional bodies like IETE, CSI, ISME, IICHE and IEEE etc.

7. The Institute appreciates our students' achievements by awarding merit scholarships to three toppers from every department.

8. All examination related processes have been automated with latest software.

9. Seminars, workshops, soft skill courses like personality development, career guidance etc. are arranged regularly by training and placement cell for the overall development of the students.

10. There is a gradual improvement in the level of participation in conferences and publications of technical papers by students and staff members in the last five years.

11. Use of e-resources by staff and students has drastically increased during last five years.

12. Internet speed has increased to 52mbps to ensure the better use of e-resources.

13. Number of seminar halls have increased to three to accommodate more number of activities.

14. Staff cabins are renovated to take care of their academic privacy and confidentiality. More storage space has been allotted to assure more comfort of the staff in order to ensure better efficiency in their work

15. ERP System has been introduced in 2018-19 to automate almost all the processes which consumed a lot of time and efforts of staff.

16. Submitted IIQA report to NAAC.

NAAC

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Number of gender equity promotion programs organized by the institution during the last five years

Response: 6

7.1.1.1 Number of gender equity promotion programs organized by the institution year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
2	1	1	1	1

File Description

Document

Report of the event

[View Document](#)

List of gender equity promotion programs organized by the institution

[View Document](#)

7.1.2

1. Institution shows gender sensitivity in providing facilities such as:

1. Safety and Security
2. Counselling
3. Common Room

Response:

Safety and Security:

1. The institute campus has a strict Security checks at entrance for all persons. Students and staff wear Identity cards. Institute has installed CCTV Cameras at different locations such as Institute Entrance, Library, Workshop, Student Section, Principal's Office, all corridors. Tilt and Zoom cameras also installed near institute entrance. The college is equipped with fire extinguishers and fire fighting system. All laboratories are equipped with fire extinguishers. Outside Agency has been appointed for institute cleanliness and security services. Security guards are available for twenty four hours. Nearby police station contact numbers and toll free help line numbers are displayed on notice boards at strategic locations including ladies common room. College bus facility is available for students at the time of late night events i.e. during Annual fest etc, held in the institute.
2. College conduct safety and security awareness session with the help of traffic police department as

many of our students from local area uses their vehicle for commutation.

3. Self defense workshop conducted for women employee and girl students of the college.
4. Health awareness program related to women are organized for ladies staff and girls student of the college

Counseling:

The objective of counselling is to facilitate Academic, Emotional, Social and cognitive development of students. For every batch of students in a class, we appoint a Mentor who use to keep a record of every student. Mentor regularly meets the students, communicate with them guide them to solve their personal and academic problems. College also organize seminars on stress management, team building and leadership training.

Common Room:

In our college two separate common / rest room are provided, one each for boys and girls. Any time if students want to relax they can use these rooms. Basic facilities are provided for rest and relaxation.

File Description	Document
Any additional information	View Document

7.1.3 Alternate Energy initiatives such as:

1. Percentage of annual power requirement of the Institution met by the renewable energy sources

Response: 89.65

7.1.3.1 Annual power requirement met by the renewable energy sources (in KWH)

Response: 96400

7.1.3.2 Total annual power requirement (in KWH)

Response: 107530

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	View Document
Any additional information	View Document

7.1.4 Percentage of annual lighting power requirements met through LED bulbs

Response: 10.85

7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)

Response: 5184

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 47760

File Description	Document
Details of lighting power requirements met through LED bulbs	View Document
Any additional information	View Document

7.1.5 Waste Management steps including:

- **Solid waste management**
- **Liquid waste management**
- **E-waste management**

Response:

Solid waste:

1. Bio-degradable waste from college canteen, Dead leaves of the trees, reasonably large amount of waste papers and others solid waste is generated in the college. The waste bins are placed in the corridor and in every required place in the campus. The green waste is usually not burnt but is collected centrally. It is segregated properly and handed over for proper utilization.

2. Hazardous waste from chemicals and acids are found in Chemistry and Chemical Engineering Laboratories. Proper ventilation and adequate exhaust provision is provided in chemistry and Chemical Engineering Laboratories.

3. Paper waste consisting of journals, answer sheets are sold to purchaser.

4. Students from NSS has initiated drive to make notebooks out of unused blank pages and give it to poor and needy children in nearby villages.

5. Metal scrap of workshop is sold to scrap dealer.

Liquid Waste:

All Liquid waste from canteen and laboratories are properly disposed.

E-Waste:

1. Old version Computers and peripherals are sorted properly.
2. Electronic equipments which became outdated due to technological advancement and / or change in syllabus are kept in dead stock. Dead stock to be controlled by administrative office.

File Description	Document
Any additional information	View Document

7.1.6 Rain water harvesting structures and utilization in the campus

Response:

1. Our institute have proper Rain Water Harvesting System approved by KDMC.
2. Rooftop of institute is main catchment area of rain water. Water from pipes connected to roof top and from properly sloped roads, seeps to deep down in the land so that water level can be increased.
3. Drip irrigation is used for watering the plants in the campus.
4. There is natural water reservoir in the campus which helps to harvest the rain water. Rain water stored in this is used across the year for watering the plants.

File Description	Document
Any additional information	View Document

7.1.7 Green Practices

- **Students, staff using**
 - a) **Bicycles**
 - b) **Public Transport**
 - c) **Pedestrian friendly roads**
- **Plastic-free campus**
- **Paperless office**
- **Green landscaping with trees and plants**

Response:

The rapid development in urban area has led to various environmental issues. To support, build and maintain healthy environment in the college it becomes necessary to adopt green practices. Institute initiates the Green Campus activities which will support environmental sustainable development.

Public Transport: Many of the staff and students residing in nearby locality use public transport such as

buses and Auto rickshaw.

Pedestrian friendly roads: The campus has wide roads within the institute.

Plastic free campus: In our campus food served in the canteen in paper/reusable plates. First year students initiated movement for a plastic free campus.

Paperless office: Institute purchased ERP (Enterprise Resource Planning) software system and implementing it. Use of ERP software effectively reduces paper work and save time. In addition to this, Notices and Circulars by Principal and admin office are conveyed to all by SMS and whatsapp messages. Class Advisors also use paperless method to remain in connect with their students.

Green landscaping: Number of trees are planted in the college campus to maintain greenery. This also improves quality of air inside the campus. Regular plantation of trees and its maintenance is done.

Energy Conservation: Buildings are designed with a small court yard at the centre. All rooms are provided with large windows which help to circulate natural air and ample daylight in the class rooms. Air conditioners provided in the laboratories are energy efficient and maintained properly. Notices regarding switching off fans, tubes and electrical appliances when not in use are displayed throughout the campus to avoid wastage of energy.

File Description	Document
Any additional information	View Document

7.1.8 Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years

Response: 0.18

7.1.8.1 Total expenditure on green initiatives and waste management excluding salary component year-wise during the last five years(INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
3.28	.03	.01	.38	.068

File Description	Document
Green audit report	View Document
Details of expenditure on green initiatives and waste management during the last five years	View Document
Any additional information	View Document

7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:

1. Physical facilities
2. Provision for lift
3. Ramp / Rails
4. Braille Software/facilities
5. Rest Rooms
6. Scribes for examination
7. Special skill development for differently abled students
8. Any other similar facility (Specify)

A. 7 and more of the above

B. At least 6 of the above

C. At least 4 of the above

D. At least 2 of the above

Response: B. At least 6 of the above

File Description	Document
Resources available in the institution for Divyangjan	View Document
Any additional information	View Document

7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years

Response: 21

7.1.10.1 Number of specific initiatives to address locational advantages and disadvantages year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
4	5	4	5	3

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	View Document
Any additional information	View Document

7.1.11 Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)

Response: 12

7.1.11.1 Number of initiatives taken to engage with and contribute to local community year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
6	2	2	1	1

File Description	Document
Report of the event	View Document

7.1.12

Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff

Response: Yes

File Description	Document
Any additional information	View Document
URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics	View Document

7.1.13 Display of core values in the institution and on its website

Response: Yes

File Description	Document
Any additional information	View Document
Provide URL of website that displays core values	View Document

7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations

Response: Yes

File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	View Document
Any additional information	View Document

7.1.15 The institution offers a course on Human Values and professional ethics

Response: Yes

File Description	Document
Any additional information	View Document
Provide link to Courses on Human Values and professional ethics on Institutional website	View Document

7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions

Response: Yes

File Description	Document
Any additional information	View Document
Provide URL of supporting documents to prove institution functions as per professional code	View Document

7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years

Response: 13

7.1.17.1 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
5	2	2	2	2

File Description	Document
List of activities conducted for promotion of universal values	View Document
Any additional information	View Document

7.1.18 Institution organizes national festivals and birth / death anniversaries of the great Indian personalities

Response:

INDEPENDENCE DAY AND REPUBLIC DAY:

The college celebrates the National festivals by organizing the flag hoisting ceremony on Independence Day as well as on Republic Day. Student council members and NSS students also attend the same.

MAHARASHTRA DAY:

Flag hoisting is done on Maharashtra Day, 1st of MAY to commemorating the formation of the state of Maharashtra.

MAHATMA GANDHI JAYANTI:

On the occasion of Gandhi Jayanti, Cleanliness drive is organized by students in our college.

TEACHER'S DAY CELEBRATION:

The students of various departments organize various events for teachers as a mark of teacher's day celebration. This is celebrated in the honor of our former President Dr. S. Radhakrishnan, an exemplary teacher, great scholar and promoter of education.

SHIVAJI JAYANTI:

Shivaji jayanti is a festival celebrated in the state of Maharashtra, on 19th February. It is the birth anniversary of founder of Maratha empire 'Chhatrapati Shivaji Maharaj'.

NAVRATRI FESTIVAL:

Student council organizes Garba (Dandiya) in the campus. All the students and staff participate in that. On Ninth day of navratri every department host the Aayudh Puja for their lab instruments. Many students and staff participate in that.

PUNYATITHI OF OUR FOUNDER:

Every year, on 24th January, Our trust Declares, this day as non instructional day as a tribute to our founder Late Shri. Dada Saheb Jondhale. We all pay homage by garlanding his photograph. Sometimes lectures arranged by our trust on the topics addressing various social values and ethics.

MARATHI DIVAS:

Our college students have Marathi Vangmay Mandal named as 'Srujan'. This committee celebrates Marathi Divas on February 27 every year as regulated by state government. This day is birthday of eminent Marathi poet V. V. Shirwadkar, popularly known as 'KUSUMAGRAJ'. Students celebrate this day with full enthusiasm.

ENGINEER'S DAY:

Every year on 15th September we celebrate Engineer's Day as a tribute to great engineer and Bharat Ratna M.Visvesvaraya.

YOGA DAY:

As directed by government from year 2015 International Yoga Day is celebrated in India on 21st June. Our students, teaching and non-teaching staff participate in this activity.

File Description	Document
Any additional information	View Document

7.1.19 The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions**Response:**

Our college is affiliated to University of Mumbai, Mumbai. For admissions, institute strictly follows centralized admission process laid down by the Director of Technical Education (DTE), Government of Maharashtra, Mumbai. Institution maintains complete transparency in all its financial activities. Fees collection, salary, payments of various purchase of equipments / material, raw material for laboratories, consumables etc. is done by either Demad Draft or Cheque or bank payment whichever is acceptable.

For Academics, college strictly follows University of Mumbai, Mumbai rules and regulations. Full transparency is maintained for internal assessment.

Administrative and management system is fully defined and transparent. Effective mechanism is maintained to take the feedback from stake holders to improvise the system.

7.2 Best Practices

7.2.1 Describe at least two institutional best practices (as per NAAC Format)

Response:

Best Practice 1:

1. Title of the Practice: Professional Enhancement of Faculties.

2. Objective:

We are living in a scientific era, where technology is changing very fast. So it is very important for faculties in professional teaching to keep them updated. Our college management decided to allow their staff to upgrade qualification and skills whenever required. The knowledge so acquired in-turn will be reflected in the teaching-learning process and beneficial to the students.

3. The Context:

Latest developments in technology have had tremendous impact on professional education.

- For good teaching-learning process associated faculty members have to keep them up-to-date with latest development. Knowledge of latest development is mandatory. It has great impact on professional education.
- With a change in AICTE policies, M.E. and Ph.D. degree has become mandatory for acquiring various teaching posts.
- Understanding the need for professional development of existing faculty members, management allowed them to pursue higher degree. Faculty members are allowed to work on research papers or organize activities leading to research or take up higher studies.

Professional development / Higher study/ Attending seminar/workshop/conference etc	Period	Salary	Inc
	As applicable		
Ph.D.	-For course work fully relieved, as required. -For research work, relieved whenever needed.	Full Salary with payment of full Fees.	Full Salary with payment of full Fees.
M.E./ M. Tech.	-For 1st year (Relieved as per timetable of respective P.G.institute)	Full Salary with payment of full Fees.	Full Salary with payment of full Fees.

-For research work, relieved
Whenever needed.

4. The Practice:

In order to focus on the professional development of faculty members,

- Encourage faculty members to pursue higher studies, paper publication, presentation etc.
- Enhance the teaching learning process by encouraging faculty members to participate in Short Term Training Programs / Workshops / Conferences, etc.
- Encourage faculty members for higher studies leading to Ph.D. wherein faculty member is relieved for attending research related activities. This would enable them to concentrate on research and produce quality outcome.
- Encourage supporting, non teaching staff to remain up dated with latest technological developments or to pursue higher degree for Career advancement.

5. Evidence of Success:

Faculty Members Enrolled and completed PhD :

Departments	COMP	EXTC	HSS	MECH	CE
Enrolled for Ph.D.	5	6	2	--	
Ph.D. Completed			1	1	

6. Problems Encountered and Resources required:

- Many workshops / conferences are organized during working semester. Also, large number of faculty members want to enrol for it. But on duty or study leave cannot be sanctioned for many teachers due to loss of teaching-learning processes which could affect the performance of the students.
- If many senior faculty members pursuing Ph.D. need study leave at same time for research work, it affects teaching learning process.

Best Practice 2:

1. Title of the Practice: Students associations and council

2. Objective:

1. To bring out talents of students and use them for their betterment.
2. To help students to sharpen their skills so that they can manage their own affairs.
3. To inculcate team-spirit and provide environment to work as a team.
4. To give practical lessons in management, organization, group behavior, planning, finance, fund-raising etc. and thus to equip the students to face job-market with confidence.

3. The Context:

In order to create a sense of belonging in each student and to show their potentials, institute introduced good practice of having Student council and Student's Association of each department.

4. The Practice:

Every Department of the college have their own **Student Association** of professional bodies. Committee members for this association are selected by respective HOD and in charge faculty of respective department. Once the committee is formed, then student's activity of every department is planned properly for the academic year.

Student Council represents all the students of institute. Every year members of the Student Council for various posts are selected by a committee of Principal, all HOD's and in charge staff of student council and sports. Student Council organizes co-curricular and extra-curricular activities at institute level like sports (Krida Ratna), Technical Festival (Colosseum), College Festival (Odyssey) etc. During Technical Festival Student council and Student Association of respective department organizes technical events.

5. Evidence of Success :

All students taking part in different activities organized by council and Student's association, rewarded with certificates and prizes. The best part of such activities is the overall development of students. This also develops their team spirit. Students learn to respect each other. Students and teachers work together for betterment of institute.

6. Problems Encountered and Resources required:

- Many of students are from rural areas. So they do not come forward for participation.
- Being located at the limits of urban area, Students have to reach home in time.

File Description	Document
Any additional information	View Document

7.3 Institutional Distinctiveness**7.3.1 Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust****Response:**

The college has a vision to impart a quality technical education for creating competent and ethically strong professionals. College intends to provide a friendly and healthy environment to students. It has a distinct decentralise work system, by which students get benefited. Due to decentralised work culture every individual takes responsibility of allotted work. Each staff member contributes and shows their participation in decision making.

Principal and all HOD's from department jointly decides the different team of teachers for various work load.

It starts from admission process of students. There is a team of teachers during admission process to help out every student, parents coming to college. These teachers guide / counsel them wherever needed.

Every department appoints Class advisor for every class. He / She verify student's eligibility before they go for taking admission for next academic year. Class advisor also clarify/solve any matter of students of his/her class at any time. This process builds a strong bonding between respective teacher and student. Other documents like mark sheet, convocation, stationary etc. also made available to students at department level only. Responsibility of this work is given to Department's supporting staff. Every department also appoint mentor for a limited number of students from each class. Student can approach mentor any time for any of his/her problem either academic or personal. For any major issue mentor can discuss along with class advisor or respective HOD.

A Team of examination section in-charge, teaching and supporting staff is there to complete examination section related work. This work includes smooth conduction of examinations, timely paper correction and moderation by respective staff, gazette checking and final mark sheet checking.

Dean Academics, to coordinate college strategic planning, supervising, evaluating, and supporting departments in a manner that promotes excellence in teaching learning process. Dean Academic is the link between students, faculties, departments and college Principal.

Dean Students Affairs, provide leadership and maintain a cordial relation between various student's groups ensuring proper organization of students activities over the academic year. Dean also tries to build a good bonding of Alumni with college. Alumni bonding with institute help in many ways to develop the college.

Dean Research & Development, encourages and help out students to participate in various inter college technical competitions at state or national level. Dean also motivates students for research activities and pursues them to publish research papers. Dean also motivates and facilitates staff for minor research activities.

Various activities carried under student's professional chapter guided by in-charge faculty members of respective departments. Supporting and non teaching staff also helps the students for smooth conduction of these activities.

5. CONCLUSION

Additional Information :

Our college is strategically located in Dombivali and easily accessible to students. Ours is one of the engineering colleges in Mumbai having a sprawling campus of 15.25 acres totally dedicated to Engineering with adequate infrastructure and beautiful landscape which are the key elements that attract number of engineering aspirants every year to this institute..

A large number of highly qualified, experienced faculty have been associated with the institute since the time of its inception, indicating a good staff retention ratio.

Management encourages faculty to pursue research. The faculty has undertaken around 26 research projects funded by University of Mumbai, Mumbai in the last five years. Some of the faculty members are approved guides for M.E and PhD.

Presently 16 faculty are pursuing research in their respective fields .Some of the staff have also filed patents.

Ours is one of the first engineering colleges to initiate NSS unit under which we have conducted many activities to inculcate qualities like leadership, social responsibilities and dignity of labour.

Our students have won accolades in the field of science and technology and sports.

Our students have won many prizes at research activities like State level Avishkar Research Convention, national level events like at Smart India Hackathon and participated in Start up Yatra India ventures.

Our college Volleyball team won zonal competition in Thane and qualified for Inter-Zonal competition. Our student **Abhijeet Shinde** has represented India at Asian games held at South Korea and also in Junior Asian games held in Bangkok, Thailand. He also won 1 Gold and 1 Bronze at all Indian Inter-University gymnastic championship held at Punjab University, Chandigarh in 2017, won 5 Gold and 1 Silver at Senior State Championship at Pune. Further, **Girish Malkar** has successfully completed the 56th Sunk Rock House to the Gateway of India sea swimming race on 18th February 2017. Our student **Venkatesh Patange** has successfully completed 2 km swimming in Goa Swimathon 2018. Our student **Amey Shinde** won 2 gold medals in “International Aerobic championship for All 2018” at Moscow, Russia. **Akshay Navale** won many medals in various powerlifting championships at state and national levels.

Concluding Remarks :

Being one of the oldest colleges for technical education, SSJCOE is a reputed institute in the University of Mumbai, Mumbai.

As per our mission of the college, we are dedicated to impart quality technical education by employing our strength to provide value based education to produce competent engineers high on skills, competencies and ethics, with ever-ready and dedicated approach of management and faculty to introspect and upgrade

continuously.

Along with curriculum implementation the institute also motivates its students to excel in co-curricular and extracurricular activities and thus providing holistic environment for the student development.

NAAC