



SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

SARASWATI COLLEGE OF ENGINEERING, KHARGHAR

PLOT - 46, SECTOR- 5, KHARGHAR, NAVI MUMBAI

410210

www.sce.edu.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

July 2022

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Saraswati College of Engineering, Kharghar, Navi Mumbai is established in 2004. We aspire to be universally accepted as autonomous center of learning in Engineering Education. Saraswati College has lush green surroundings creating healthy atmosphere for better learning environment. The college provides transportation facility from Campus to Kharghar station for students and faculty. SCOE is provided with spacious buildings to accommodate reception, auditorium, office, classrooms, staff rooms, drawing halls, workshop, computer center, conference halls, examination hall, cafeteria, sports rooms, canteen, and placement cell. Well defined policies, dedicated and experienced work force, a fully equipped library and state of art laboratories are few of the strong points which are worth mentioning. This facilities count us one of the **Top Engineering College in Navi Mumbai**.

SCOE has transparent admission policy, to all sections of society as per the provisions of Maharashtra State. College participates in Centralized Admission Process conducted by Government of Maharashtra.

SCOE has laid a lot of emphasis on quality education. We have devised an in-house network for quality assurance, that relentlessly ranks & keeps an eye on the quality of teaching is being imparted to the students. We groom & coach every student in a way that they can “blend in” with the corporate world with their great confidence and conceptual clarity.

The rapid development in the field of technology has accelerated the demand for value based engineering education which is qualitative, progressive, multidimensional and globally competitive. We give the students an ideal learning environment through interactive class–room teaching, tutorials, lab work, industrial visits and industry experts talks for the industrial exposure.

Persistent efforts are being made by our placement team to place our students in encouraging and respectable positions in the industry.

We, at SCOE keep on striving to inculcate the best of qualities as an Engineer, as a Professional and as a Human Being at precise scale in our students. Looking at our track records, SCOE has achieved many feathers in terms of good results, placements and extracurricular activities too. This journey is succeeding more gloriously year after year making Indian Engineers to rule the world.

Vision

To be universally accepted as autonomous center of learning in Engineering Education and Research.

Mission

- **To educate students to become responsible and quality technocrats to fulfill society and industry needs .**

- **To nurture students creativity and skill for taking up challenges in all facets of life.**

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

Strength

- Rigorous and monitored teaching and learning through well trained, experienced and dedicated faculty
- Add on courses/ programs on Soft skill and Technical skill for students
- Student centric environment
- MOUs with foreign Universities and Patent & Research publications done through college
- Holistic development of students through various student associations, clubs and promoting students towards national and international competitions
- Participative management for smooth conduction of college activities
- College involvement towards social causes through various endeavors
- Green campus, pollution free environment and easily accessible location
- Continuous improvement in academic results, college placements and salary package of students

Institutional Weakness

Weakness

- Quality of students at entry level
- Less number of consultancy project work
- Less funded research projects
- Less international placements
- We cannot provide credit benefit to students for Add on courses as we are affiliated to University of Mumbai

Institutional Opportunity

Opportunities

- Improvement in the NIRF Ranking
- Applying for NBA accreditation
- Applying for Autonomy
- Zero waste management supporting complete green campus
- Strengthening Alumni network and Entrepreneurship cell

Institutional Challenge

Challenges

- College located in an educational hub with 11 engineering colleges in a radius of 10 kilometers
- Flexible academic eligibility criteria at DSE level lessens the admissions for core branches
- Unequal competition between core engineering and IT specific engineering branches
- Irregularity and dependency on Govt. regulated Financial resources

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Saraswati College of Engineering (SCOE) is affiliated to University of Mumbai (MU), Maharashtra. The institute follows the curriculum designed by University of Mumbai (MU). The choice base credit system provides flexibility by offering optional courses at Department and Institute level.

The College has qualified and committed faculty members. Detailed planning and completion of courses are ensured by teachers by following an academic calendar and teaching plans. Apart from traditional chalk and talk methods, teachers are encouraged to impart the curriculum through innovative teaching methods such as presentations, assignments, group discussions, seminars, industrial visits and projects. Teachers also use technology-driven methods like Microsoft Teams, ZOOM, Smart boards, videos and Google classrooms.

The compliance of academic procedures and their continual improvement is ensured through systematic audit by IQAC. Teaching learning processes are continually improved based on students results and students feedback. Examinations and all academic activities are conducted as per the academic calendar and student grievances are addressed timely. Student-faculty ratio is optimally maintained to facilitate student centric learning environment. Results of outcome assessment and feedback from students, teachers, and other stake holders serve as input for continuous improvement in curriculum.

Students are encouraged to enrol for relevant certificate courses to reinforce their placement opportunities. The college provides opportunities for better exposure to the students by conducting field trips, technical training programs and conducts training workshops by inviting resource persons from various institutes and industries. Courses relevant to Gender sensitivity, Professional ethics, Human Values and Environment sustainability are integrated in all branches which cater to building moral and ethical standards among students to make the curriculum more viable and effective.

The institute follows a system of identifying advanced and slow learners. Special attention is given to slow learners through intensive coaching, remedial teaching, assignments, Bridge courses, tests, mentoring, counselling, and Parent-Teachers meetings. Advanced learners are encouraged to publish research articles, participate in poster competitions and skill enhancement activities.

Teaching-learning and Evaluation

Admission process in the institute is transparent and follows the norms/regulations of DTE Maharashtra and University of Mumbai. Students of different backgrounds and abilities are admitted on merit through Central Admission Process.

Consistent efforts are taken by the institute for effective teaching learning process, so as to meet the diverse needs of students. Based on different learning abilities, students are grouped as Slow Learners, Advanced Learners along with Moderate Learners.

The learning experience of the students in SCOE is enhanced by providing them platform for various student centric activities such as Workshops/Seminars/ Add on courses organized under various professional bodies, Internships, Project competitions, Industrial Visits/ Site visits, NPTEL/HUEWAEI courses, etc.

The institute has the most pertinent atmosphere which motivates the faculty to make use of various ICT facilities and make teaching learning process more outcome based. Faculty prepares videos of their lectures which are shared with students via learning platforms like SCOE Youtube channel and Google classroom. These video lectures allow the faculty to incorporate audio-visual tools, digital resources and animations thus making lectures more informative and interesting to students.

Institute follows Continuous assessment system which involves assessment of students through Internal Assessment (IA) exam, Term work (TW) and Project reviews during the semester.

To minimize the occurrence of any examination related grievance, all examinations such as Internal Assessment (IA), oral/practical exam and End Semester University exams are conducted in the Institute in a fair and transparent manner as per the guidelines given by University of Mumbai (UoM).

Institute has well-defined POs, PSOs and Cos, which are communicated digitally to all stakeholders by displaying them on official website (<https://www.sce.edu.in>). These are made well conversed to students by making them part of Laboratory manuals, Project reports, Journals, Mini Project Reports, Internship reports etc.

Course Assessment Reports (CAR) are prepared for all courses and used to calculate the Program Outcome attainment and Program Specific Outcome attainment. To improve the attainments levels, if needed, Add on course/workshops and any other similar activity is conducted to supplement the overall learning.

Research, Innovations and Extension

SCOE has well defined policies to nurture research culture amongst the students and faculty. The institute provides necessary infrastructure to conduct research projects. Institute has received research grants of 40.12 lakhs from reputed organizations like BRNS, IEI and University of Mumbai. The institute also has 25 patents published to its credit. Patent publication is supported and sponsored by the institute. Institution has signed 35 MoUs and maintains close ties with industry and international/national collaboration for academics and research.

Institute has R & D Cell to encourage faculty members and students to publish their research output in national/international journals and conferences. R & D cell help faculty to organize and attend conferences/STTP/FDPs/workshops. Students are motivated to participate in project competitions organized by University/AICTE/ IITs/ Professional bodies (like Avishkar, etc.). Students have won several awards and recognitions at various competitions

Entrepreneurship Development Cell for Innovation and Incubation (EDCII) provides the mentoring and infrastructural support for the entrepreneurship project. Some of our Entrepreneurship projects are Aquaponic farming, Urban Mushroom farming, Biodegradable packaging, Resin furniture, Electric vehicle, etc. Urban

mushroom farming is recognised by various competitions at University level and National level.

Various students clubs and committees (ACE, CESA, ETSA, RACE, SAIT, MESA, NSS and Rrotract Club) are active in the college to inculcate moral, ethical and social values in students. It inculcates leadership quality in students and encourages them to execute multidisciplinary projects and organize seminars, workshops, awareness generation programmes, training, etc.

As a result of the above associations and the programmes organized by them, many of our students/ex-students have successfully launched their own start-ups.

NSS unit of SCOE is highly active and participates in different activities such as Personality development program, Elocution competition, Swachcha Bharat Abhiyan. As a part of “youth for sustainable development” program with special focus on watershed management and waste land development, NSS unit adopted a small village called Borimal Pada. NSS unit is actively involved in helping flood affected & drought affected people, cancer patients and donation for orphanages and old age homes. Tree plantation and cleanliness drives are arranged from time to time.

Infrastructure and Learning Resources

The Institute has adequate infrastructure and learning resources in the campus to achieve its vision and mission of excellent **center of learning in Engineering Education and Research**. It has excellent infrastructural facilities spread over 2.2 Acres of land located in a Metro city. The Institution The Institution has adequate facilities for teaching- learning. It includes 46 Laboratories, 33 classrooms, 02 Seminar Halls, 2 Drawing Hall, 2 workshop along with common instructional facilities like Language Lab & Computer Centre. The college has one indoor auditorium with seating capacity of 600 with LCD projector, Internet & PA system. Every department is equipped with a Computer lab having internet connectivity. Out of 35 classrooms 28 classrooms are equipped with ICT facilities. College has Canteen and Bus facility for students. In Gymnasium, Cardio exercises equipment such as cross trainer, treadmill etc. is available. Around 30-40 students utilize the facility every day.

College Central library is having 600 Sq.mtr. area. College library uses library management system E- Vidya for its functioning. Digital Library and the reading hall with a seating capacity of 200 is made available. There are 27096 books available at present, Around 90 journals & E-journals purchased every year.

Institute has a central IT maintenance team for catering to the needs of internet connectivity, website, and upgradation. ICT resources have been sufficiently strengthened in the institution with Computer to Student ratio being about 1: 3.73. Computing facilities along with internet facility available is sufficient to fulfill the needs of all the departments, library, and office.

Outsourced housekeeping staff takes care of maintenance and cleanness of campus. Expenditure on maintenance of physical facilities from last five years is around Rs. 456.0388 Lakh. An in-house Civil Engineer, System Administrator and a technician are appointed for the purpose of Maintenance of the building, computers, and equipment. An electrician is appointed to supervise the wellbeing of electrical fixtures and electrical connections in the college.

Student Support and Progression

Students are the key strength of SCOE. The Teaching and Learning process is enhanced through expert lectures, talks, seminars, workshops, project competitions, and industry visits. Such activities help the students to understand and learn about the advance technologies used in the industries.

The Institute conducts various seminars and training sessions to create awareness and prepare the students for the competitive exams such as GATE, IELTS, CAT etc.. The Study Abroad Cell (SAC) of SCOE frequently organizes international seminars and expert talks. Industry experts and education professionals motivate the students regarding the higher education in foreign universities. SAC also organizes international internship programs to promote project based learning. The Training and Placement cell of SCOE works consistently towards the overall personality development of the students. The T&P Cell conducts events and programs to guide and inspire the students for achieving the best in their professional career.

The *SCOE Alumni Association* is a registered alumni association. It conducts alumni meet and organizes regular seminars and workshops. They share their experiences with the new aspirants of SCOE so that it gives them an idea of the competitive job arenas.

“*Nakshatra*” the Cultural fest of SCOE is conducted every year by SCOE-student council. Students participate in various cultural and sports activities which are a part of the fest.

SCOE provides financial support to students through government and private scholarship schemes.

Governance, Leadership and Management

SCOE is affiliated to the University of Mumbai, and committed to provide quality education to students. The college promotes decentralized, participative management and the governance is carried out by the Saraswati Education society, the advisory board, Principal, academicians, and faculty representatives based on the guidelines as stipulated by AICTE.

The perspective plan from 2021 to the year 2026 shows the gradual development of the well-developed procedures fulfilling the vision and mission of SCOE.

Budgeting and its implementation process are conducted through an organized process. The major source of funds is the institutional fees of students and is utilised for student activities. The students and the student council are involved in the departmental associations, clubs & committees for the holistic development of students. Funds received from non government organizations are utilized for conducting various activities.

Based on the organogram structure, Principal takes guidance and approvals from the Saraswati education society for various activities of the college and interacts directly with the Registrar, respective Deans, Head of Department of respective branches, Head of exam cell, Chief Accountant, and the student council for conduction of various activities in the department/ college. E-governance is implemented for major areas of operations.

The Training and placement and the Study abroad cell activities have been successfully implemented at SCOE and believes in imparting necessary training to the students to meet the expectations of the industry achieving 100 % placement and providing adequate job opportunities.

SCOE has welfare schemes for both teaching and non-teaching staff members and financial support provided for workshops etc. The Appraisal system is based on parameters evaluated via the Appraisal process combining the API (Academic Performance Index) points and the Self Appraisal points. Separate formats are followed for the Teaching and Non-teaching staff. Training programs are conducted for the staff members for professional development.

The framing, implementation, and monitoring of institutional policies, through IQAC, QMS, Best practices, CDC, addressing of grievances through assigned committees is well placed at SCOE. Under IQAC, project-based learning helps students to apply the knowledge learnt in theory lessons during lectures.

Institutional Values and Best Practices

SCOE has always strived towards promoting gender equity in the campus by taking various measures. In SCOE, Equal opportunities are provided to all individuals irrespective of gender, race, caste, colour, creed, language, religion. The institute is co-educational and has always strives to maintain a safe and secure environment for all students as well as staff.

To enhance employability skills, SCOE concentrated on developing various qualities in students. These included Communication skills, Leadership, Problem solving ability, teamwork, reliability, planning, organization, technology friendly and Initiative nature.

The institute has established an entrepreneurship development cell for innovations and incubation (EDCII) to organize the entrepreneurship talk/seminars and nurture startups. Currently, EDCII has incubated two companies on campus. The first company named AGRESA deals in agrotech business. The second company named METAPODS deals with manufacturing and selling of exotic resin-based furniture.

The Institute has conducted several programs for providing an inclusive environment for all and has taken various initiatives for promoting tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities.

The students' role in caring for Society reflects the essence of democratic living and upholds the need for selfless service and appreciation of the other person's point of view and also to show consideration for fellow human beings. It underlines that the welfare of an individual is ultimately dependent on the welfare of society on the whole.

In order to let the students stay rooted with Indian culture and develop a sense of harmony towards culture, SCOE celebrates various festivals on campus. Nakshatra is an inter-college festival wherein all students irrespective of caste, gender participate in the annual festival of the college. This gives an opportunity to all students coming from various backgrounds to learn, participate and interact with others.

SCOE NSS conducted food donation drive, flood relief drive, Tree Plantation, Clean up drive at many places. Old age and Orphanage visits, Book donation drive, say no to drugs rally and Youth Cultural Exchange Program. During Pandemic, the Institute ensured that staff children day care facilities were arranged on campus and arrangements for their online classes were taken care of.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	SARASWATI COLLEGE OF ENGINEERING, KHARGHAR
Address	Plot - 46, Sector- 5, Kharghar, Navi Mumbai
City	Kharghar
State	Maharashtra
Pin	410210
Website	www.sce.edu.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Manjusha Pradip Deshmukh	022-27743706	7738677011	-	principal.scoe@gmail.com
IQAC / CIQA coordinator	Sujata Bhairnallykar	022-	9920622380	-	sujata@comp.sce.edu.in

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
Date of establishment of the college	17-09-2004

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	25-06-2021	12	

Details of autonomy

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

Recognitions

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

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Plot - 46, Sector- 5, Kharghar, Navi Mumbai	Urban	3.71	15542

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,Civil Engineering	12	HSC Science with CET and Three year Diploma Engg.	English	180	16
UG	BE,Mechanical Engineering	12	HSC Science with CET and Three year Diploma Engg.	English	180	10
UG	BE,Computer Engineering	12	HSC Science with CET and Three year Diploma Engg.	English	60	60
UG	BE,Information Technology	12	HSC Science with CET and Three year Diploma Engg.	English	60	60
UG	BE,Automobile Engineering	12	HSC Science with CET and Three year Diploma	English	60	14

			Engg.			
UG	BE,Computer Science And Engineering Artificial Intelligence And Machine Learning	12	HSC Science with CET and Three year Diploma Engg.	English	60	54
UG	BE,Computer Science And Engineering Data Science	12	HSC Science with CET and Three year Diploma Engg.	English	60	60
PG	ME,Structural Engineering	12	HSC Science with CET and Three year Diploma Engg.	English	18	18

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	0				0				92			
Recruited	0	0	0	0	0	0	0	0	8	27	0	35
Yet to Recruit	0				0				57			
Sanctioned by the Management/Society or Other Authorized Bodies	7				15				67			
Recruited	4	3	0	7	5	10	0	15	11	56	0	67
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				1
Recruited	0	1	0	1
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				67
Recruited	55	12	0	67
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				20
Recruited	15	5	0	20
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/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	3	4	0	0	3	0	0	6	0	16
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	5	7	0	36	72	0	120
UG	0	0	0	0	0	0	0	0	0	0

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

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

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male	Female	Others	Total
		6	4	0

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	1896	0	0	0	1896
	Female	405	0	0	0	405
	Others	0	0	0	0	0
PG	Male	28	0	0	0	28
	Female	10	0	0	0	10
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Category		Year 1	Year 2	Year 3	Year 4
SC	Male	263	240	268	286
	Female	67	67	84	82
	Others	0	0	0	0
ST	Male	40	40	41	55
	Female	13	13	12	13
	Others	0	0	0	0
OBC	Male	426	405	444	484
	Female	103	115	134	138
	Others	0	0	0	0
General	Male	1001	873	961	1103
	Female	196	203	231	260
	Others	0	0	0	0
Others	Male	210	202	219	254
	Female	59	62	60	61
	Others	0	0	0	0
Total		2378	2220	2454	2736

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	Saraswati College of Engineeringg is affiliated to University of Mumbai (UoM), Maharashtra. The institute follows the curriculum designed by UoM. The choice base credit system provides flexibility by offering optional courses at Department and Institute level. At institute level optional courses UoM offers Management, environment, Cyber Security law and disaster mitigation related subjects. At department level optional courses UoM offers subjects on core courses. Students are encouraged to take multidisciplinary projects.
2. Academic bank of credits (ABC):	As institute is affiliated to UoM, and follows curriculum designed by University, this facility

	cannot be provided.
3. Skill development:	No matter the industry, a diverse range of skills is necessary to excel as an engineer. The Institute always observes the changes in technology. We interact with industry experts and academicians to identify the domains for skill development of faculty and students. To keep track of revolution of Industry 4.0 revolution, the Institute offers the skill development courses in various domains like Artificial Intelligence, Internet of Things, Machine Learning, Deep Learning, Robotics, Natural Language Processing, Catia, STAAD PRO, Python etc for various time duration. Institute promotes project based learning where students are made to think and find solution to technology that they learn. The Institute has Incubation and Innovation Centre. The Institute's has Entrepreneurship Development Cell for Incubation and Innovation (EDCII).
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	The Institute implements peer teaching where senior students teach juniors students. The NSS unit of Institute encourages the student to visit rural areas for understanding the real-life problem and to provide solution for the same. The Institute conducts annual one-week NSS Camp in rural areas. During the camp students live in village. This gives opportunity to understand rural culture. Project under taken by NSS students was construction of low cost water tanks, solar panel installation etc for village people. NSS students generally interact with villagers and juniors in local language. Institute has various cultural clubs for students like dance, music, fashion, drama, oratory club etc. It gives opportunity to students to know about local culture and society. These clubs are run by the students for the students. Institute celebrates "Marathi Day" every year.
5. Focus on Outcome based education (OBE):	For outcome-based education, analysis and attainment of Course Outcomes (COs), Program Outcomes (POs) and Program Specific Outcomes (PSOs) is important as it helps to improve the quality of teaching and learning process. For every course, the attainment of COs, POs, and PSOs are calculated using Course attainment calculation sheet considering all aspects of teaching and learning process. Course Outcomes (CO) attainment is done by direct and indirect assessment. The direct assessment is carried out by the evaluation done throughout the semester

via assignments, practicals/tutorials, internal assessment, mini project. At the end of the semester, the total term work marks are evaluated and all these parameters are mapped to the COs, POs and PSOs. The weightage for direct and indirect assessment is considered 80% and 20% respectively. Indirect assessment of COs is calculated from responses received from Course Exit survey at the end of the semester. Finally, the overall attainment of Course Outcome is calculated collectively from direct and indirect assessment. Program Outcomes attainment calculated from the CO attainment using direct and indirect assessment method. In direct assessment, the COs of each course is 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 program. For the indirect PO assessment different surveys are conducted by the institute at departmental and institutional levels. Indirect assessment of POs are calculated on a 3 point scale from the responses obtained from feedback taken from Course exit survey, alumni, graduates and employers and Program Exit Survey. A survey is conducted and analysis is done for final year students after completion of program. Here again the total attainment is calculated as the weighted average of the direct and indirect attainment. Calculation of the Program Specific Outcomes attainment from CO attainment is also done by direct and indirect assessment. Mapping of every CO is done with the PSOs and the attainments are calculated on a 3-point scale. This forms the direct assessment component of the PSOs. Indirect assessment of PSOs are calculated on a 3-point scale from the responses obtained from feedback taken from Course exit survey, alumni, graduates and employers, Program exit survey. Course Assessment Reports (CAR) is prepared for all courses offered by all programs. These are used to calculate the Program Outcome attainment and Program Specific Outcome attainment.

6. Distance education/online education:

The Institute implemented online teaching learning during pandemic. It organizes webinars by experts from reputed academic Institute and industry time to time. In last two years multiple online sessions are organized on various technical domains. Online

Alumni talks are arranged for the students for career guidance. Online talks are arranged to guide students to pursue study abroad. Faculty lectures are uploaded on SCOE YouTube Channel which enables 24*7 learning. College is member of IIT Bombay Virtual lab. Institute also has IIT Bombay remote Center. Students are encouraged to register for NPTEL, SWAYAM, Coursera, and Udemmy Courses. The Institute conducted online workshops, seminars, conferences, project competitions etc.

NAAC

Extended Profile

1 Program

1.1

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

2020-21	2019-20	2018-19	2017-18	2016-17
724	722	555	581	562
File Description		Document		
Institutional data prescribed format		View Document		

1.2

Number of programs offered year-wise for last five years

2020-21	2019-20	2018-19	2017-18	2016-17
8	8	8	8	8

2 Students

2.1

Number of students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
2378	2220	2454	2736	2803
File Description		Document		
Institutional data in prescribed format		View Document		

2.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
339	348	348	366	366

File Description	Document
Institutional data in prescribed format	View Document

2.3

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

2020-21	2019-20	2018-19	2017-18	2016-17
771	736	756	731	753

File Description	Document
Institutional data in prescribed format	View Document

3 Teachers

3.1

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

2020-21	2019-20	2018-19	2017-18	2016-17
120	126	119	140	165

File Description	Document
Institutional data in prescribed format	View Document

3.2

Number of sanctioned posts year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
133	135	135	186	186

File Description	Document
Institutional data in prescribed format	View Document

4 Institution

4.1

Total number of classrooms and seminar halls

Response: 37

4.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
475.049	630.54	755.561	339.95	747.36

4.3

Number of Computers

Response: 637



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:

As the college is affiliated to Mumbai University, Maharashtra, the college follows the University-prescribed curriculum. All the programmes are approved by AICTE, New Delhi and DTE, Govt. of Maharashtra. The Institution meticulously develops action plans for effective implementation of the curriculum and highest priority is given for academics.

The detailed process is given below:

- Academic Calendar: The academic calendar of the Institution reflects curricular, co-curricular and extra-curricular activities planned for the semester which is based on the University calendar. A common academic calendar of events is prepared in the beginning of every semester and published on the college website.
- Academic calendar of events includes academic schedule like starting and ending dates of the semester, commencement of theory and practical examinations, internal test dates, student feedback, PTM, working days, guest lectures, workshops, seminars, sports & cultural event details and holidays.
- At department level, elective subjects choice is taken from the students. This activity is carried out one month before the start of semester.
- Each faculty member submits choice of subject. Individual teachers are given the freedom to select the subject of their expertise. Head of the department (HOD) allocates both theory and practical subjects according to faculty competency and request.
- The lesson plan and course study material such as lecture notes, question bank, lab manuals are prepared by the allotted faculty members as per the curriculum. Soft copies of the same is also provided to the students.
- A timetable committee is formed with the Principal as chairman, Dean Academics and coordinator from each department as members and is responsible for the preparation of the time table and master timetable.
- The academic control committee oversees all the academic activities viz., syllabus completion, lab and Test conduction, Project and Seminar reviews, and any other issues of academic importance like checking quality of lecture delivery, counselling of teachers, if required.
- Unit wise syllabus coverage and number of practical sessions conducted are periodically reviewed every month by every department's academic coordinator and HoD through compliance report and are addressed suitably.

· Effectiveness of course delivery is ascertained through the performance of students in Internal Assessment examinations, periodic tests. Students online feedback is taken on every course. Dean academics attends lectures & ACC takes oral feedback from students to ensure that the desired standards are fulfilled.

· Regular meetings with parents/ guardian, class-advisor in the presence of HOD and academic coordinator of the department is carried out twice in a semester to discuss their ward's performance.

· To improve the performance of the slow learning students, additional coaching classes are accommodated in the time table. The institution facilitates coaching for students interested in MS degree at abroad universities, GATE for students who want to flourish in technical studies.

· Soft skills training & additional Technical training is also imparted for overall development, enhancement of communication skills and employability.

File Description	Document
Upload Additional information	View Document

1.1.2 The institution adheres to the academic calendar including for the conduct of CIE

Response:

Preparation and adherence to Academic Calendar:

Institute receives semester wise academic calendar from University of Mumbai, (affiliated university). The university publishes the academic calendar for both the semesters. The College Academic Control Committee prepares a comprehensive college level academic calendar every semester based on the academic calendar received from the university.

Academic calendar is prepared before the start of the semester and made available to all the students, teaching, non-teaching staff and also made available on the college website. The institution strictly adheres to all the dates given in the academic for Continuous Internal Evaluation (CIE). The faculty also strictly adhere to the academic calendar while preparing their teaching plans. All the assessments and surveys are being strictly conducted as per the Academic Calendar.

The Academic Control Committee regularly monitors whether adherence to the teaching plan as per the academic calendar is being followed or not. The timetable of the internal examinations is displayed in advance. In case of any last minute deviations in the given schedule by the university, due to unforeseen circumstances, the institution adopts the revised schedule. The internal examination related activities like the evaluation of the answer scripts, display of marks for students is undertaken in a systematic and time bound way, strictly adhering to the university academic calendar.

The institution collects feedback from the students during the semester regarding the performance of teachers. Feedback from all stakeholders on curriculum that is, from students, faculty, parents, alumni is collected. It is analyzed and the inputs are used for subsequent year planning for better performance of the students.

Process of Effective Curriculum Implementation and Continuous Internal Evaluation (CIE) :

·Every faculty member prepares a teaching plan of entire semester in-line with the department's academic calendar. The number of lectures planned (48 hours) and the number of lectures actually conducted, facilitates identification of gaps, if any, and necessary corrective actions are taken for filling the gap.

·Internal evaluation is done as per the guidelines of UoM. The evaluation of students is done through Theory – In semester, End Semester examinations, online examinations, oral /practical examinations. The details of these examinations are announced well in advance and the external examiners are appointed approved by University.

· Continuous termwork assessment and mock exams of laboratory work is carried out to assess the laboratory skills acquired by students.

·Internal Audits are conducted every semester, where inter department staff members are appointed as Internal Auditors.

· Feedback from the teachers, parents and student is used to identify barriers of learning like understanding, visualization, communication (written and oral), mathematical, psychological, socio-economical, physical etc.

· We have mentoring system, where each faculty is attached with some 15 students, who maintains a record of those students performance in their Examinations and keep track of their academic and overall growth.

File Description	Document
Upload Additional information	View Document

1.1.3 Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the last five years

1. Academic council/BoS of Affiliating university
2. Setting of question papers for UG/PG programs
3. Design and Development of Curriculum for Add on/ certificate/ Diploma Courses
4. Assessment /evaluation process of the affiliating University

Response: C. Any 2 of the above

File Description	Document
Institutional data in prescribed format	View Document
Details of participation of teachers in various bodies/activities provided as a response to the metric	View Document

1.2 Academic Flexibility

1.2.1 Percentage of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented

Response: 100

1.2.1.1 Number of Programmes in which CBCS / Elective course system implemented.

Response: 8

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

1.2.2 Number of Add on /Certificate programs offered during the last five years

Response: 145

1.2.2.1 How many Add on /Certificate programs are offered within the last 5 years.

2020-21	2019-20	2018-19	2017-18	2016-17
37	46	23	12	27

File Description	Document
List of Add on /Certificate programs	View Document
Brochure or any other document relating to Add on /Certificate programs	View Document
Any additional information	View Document
Link for Additional information	View Document

1.2.3 Average percentage of students enrolled in Certificate/ Add-on programs as against the total number of students during the last five years

Response: 70.54

1.2.3.1 Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
1375	2220	1792	1142	2245

File Description	Document
Details of the students enrolled in Subjects related to certificate/Add-on programs	View Document
Any additional information	View Document

1.3 Curriculum Enrichment

1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics ,Gender, Human Values ,Environment and Sustainability into the Curriculum

Response:

The Institution, has taken up many initiatives over the years which has provided a platform to integrate cross- cutting issues relevant to Gender sensitization, Environment and Sustainability and Professional Ethics into the Curriculum.

Professional Ethics

- Workshop/ seminars under the heading ‘Nurture’ and ‘Campus to Corporate’ are conducted for enhancing soft skills for the students.
- The university curriculum includes a mandatory subject titled “Business Communication and Ethics (BCE)”, and Soft Skills and an elective subject named “Professional Ethics and CSR – ILO8025” which inculcates ethical standards which imparts the ethical values, responsibilities.

Gender Sensitization

As a co-educational institute, measures towards gender sensitization in terms of equality are taken for both the genders in all aspects. The institution has a strong contingent of women as faculty and students.

- The institute has established a ‘Ladies Grievance Cell’ to handle the sensitive issues regarding the Women’s right and security.
- Women’s Day is celebrated with enlightening lectures and activities. Lecture on women health, safety and related issues are arranged.
- The institution is also working towards building a strong inclusive society. Gender equity promotional programmes are conducted specially for transgenders.

Human Values

College encourages the faculty and students to participate and implement the programmes which contribute to societal awareness for various issues.

- NSS unit and Rotaract club of the institute regularly conduct camps in the nearby villages in order to create an insight into the societal needs in the minds of the students. NSS, SCOE has also adopted villages called Borimalpada, District Raigadh and Shirsonchpada, District Nashik. The residential camps are also organised in these villages.

- Students visit old age homes, homes for destitute children, etc. quite frequently. Under the aegis of NSS club of the institution, Blood donation camp, health camps, village adaptation, Yoga and sports activities are organized.

- National festivals and international commemorative days like Independence Day, Shivaji Jayanti etc. are celebrated to bring in unity and harmony among the students. Teacher's day, Engineers Day, World Environmental Day, Foundation day are also celebrated.

- The institution encourages a practice of celebrating religious festivals like Ganesh Chaturthi, Dusshera and Deepostav on Deepawali to emphasise on our culture and heritage.

Environment and Sustainability

- The present curriculum offers Environmental Sciences in the first year as mandatory subject and open electives named, "Environmental Management – ILO8029" to provide in-depth knowledge about environment protection and sustainability.

- Final year students are encouraged to take socially relevant projects which address issues viz. green energy, biogas, waste management, water management etc. Institute has patent granted on project on plastic waste management.

- The institution conducts programmes like Tree plantation, seminars that enhance and inculcate remedial practices for issues on environment and sustainability, eco-friendly environment awareness, plastic waste management are conducted.

- Student volunteers are trained to ensure eco-friendly Ganesh Visarjan (immersion of idols) in the nearby water body during Ganesh Festival.

File Description	Document
Upload the list and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum.	View Document
Any additional information	View Document

1.3.2 Average percentage of courses that include experiential learning through project work/field

work/internship during last five years**Response:** 5.26**1.3.2.1 Number of courses that include experiential learning through project work/field work/internship year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
030	30	30	36	36

File Description	Document
Programme / Curriculum/ Syllabus of the courses	View Document
MoU's with relevant organizations for these courses, if any Average percentage of courses that include experiential learning through project work/field work/internship	View Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Any additional information	View Document

1.3.3 Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year**Response:** 73.25**1.3.3.1 Number of students undertaking project work/field work / internships**

Response: 1742

File Description	Document
List of programmes and number of students undertaking project work/field work/ /internships	View Document
Any additional information	View Document

1.4 Feedback System

1.4.1 Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders 1) Students 2)Teachers 3)Employers 4)Alumni

Response: A. All of the above

File Description	Document
Any additional information (Upload)	View Document
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	View Document
URL for stakeholder feedback report	View Document

1.4.2 Feedback process of the Institution may be classified as follows: Options:

- 1. Feedback collected, analysed and action taken and feedback available on website**
- 2. Feedback collected, analysed and action has been taken**
- 3. Feedback collected and analysed**
- 4. Feedback collected**
- 5. Feedback not collected**

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

File Description	Document
Upload any additional information	View Document
URL for feedback report	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

Response: 90.96

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

2020-21	2019-20	2018-19	2017-18	2016-17
653	579	524	732	732

2.1.1.2 Number of sanctioned seats year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
678	696	696	732	732

File Description

Document

Institutional data in prescribed format

[View Document](#)

Any additional information

[View Document](#)

2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (exclusive of supernumerary seats)

Response: 69.3

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

2020-21	2019-20	2018-19	2017-18	2016-17
216	244	240	264	262

File Description

Document

Average percentage of seats filled against seats reserved

[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 and organises special Programmes for advanced learners and slow learners

Response:

Consistent efforts are taken by the institute for effective teaching learning process, so as to meet the diverse needs of students. These efforts are continuously monitored and reviewed by all the faculty members associated with the particular class. Based on different learning abilities, students are grouped as Slow Learners, Advanced Learners along with Moderate Learners. Periodic Parent Teacher meetings are organised where faculty members, and mentors interact with the parents of all learners and update them about the performance of their ward. It helps to enhance the performance of slow learners and groom advanced learners. Though all the students are given focused academic coaching, special and added efforts are being taken for Slow and Advanced learners.

Identification of Different learning levels of students:

- Overall performance of each student in various activities is analyzed and then students are grouped as per their learning abilities.
- Subject teachers analyze the performance in previous end semester/year exam and Internal Assessment I.
- Students are also analyzed based on their participation & performance in class activities, test, discussions, lab works etc.
- General observation by subject teachers considering student's responses during lectures, tutorials/practical, group discussions etc.
- Inputs from faculty mentors are also considered.

Special efforts for Slow Learners:

- Subject teachers & Mentors identify the students with slow learning abilities in a particular subject, and then give extra attention to enhance their performance.
- Extra lectures and Doubt clearing sessions are arranged for group of students having difficulties in learning particular topic and personalized attention is given to student as required.
- Remedial lectures are conducted for students to clear KTs of the previous semesters on the difficult topics.
- Soft skill training is imparted to them so as to boost their confidence.
- One on one counseling through Proctor System is provided.
- Extra care has been taken for all lateral entry students for all subjects (esp. Maths III) in sem III.
- Extra lab sessions, additional tutorial hours, practice question sets are provided to clear concepts on various topics.
- Extra time for Divyangjan Students is given during the written examinations, as per university guidelines.

Extra efforts for Advanced Learners:

- Students are motivated to enroll & complete advanced level courses as NPTEL/

Coursera/SWAYAM, HUWAIE etc

- Students are trained to develop critical problem solving skills that would prepare them for GATE/MPSC/UPSC/ other competitive exam
- Students are mentored to take advanced courses or post graduate courses available at global level by providing guidance through Study abroad cell.
- Additional training is provided to students related to add on courses, aptitude training etc for better Placement
- Students are motivated to participate in various inter collegiate/ university level/ national/international level competitions viz project competitions, hackathons etc
- Students having inclination towards research are motivated to publish their research work in reputed conferences and journals and also for patent filing.
- Students are motivated by appreciating and rewarding their achievements, which also brings enthusiasm to other students.

File Description	Document
Upload any additional information	View Document

2.2.2 Student- Full time teacher ratio (Data for the latest completed academic year)

Response: 19.82

File Description	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:

The learning experience of the students in SCOE is enhanced by involving various practices such as experiential learning, participative learning and problem solving techniques reinforcing the class room learning.

Experiential Learning:

- Students are encouraged to enroll for internships in industries during winter/summer break. This gives them exposure to industrial practices.
- Technical associations/Student chapters like Prahar Racing Club/Indian Water Work Association/ ISTE / ISHRAE/ Department Student's Associations etc organize various activities for students to give them hands on experience on emerging technologies.

- Students learn management skills from the activities which are solely arranged by students through Students Association/Departmental student committees/ Clubs etc. This also inculcates leadership and team building skills in students, thus helps in their holistic development.
- Students learn the engineering concepts by actually performing the laboratory experiments, mini projects and final year projects.

Participative Learning:

- Students participate in various industrial/site visits to augment their theoretical knowledge. This also gives them exposure to the professional world.
- Students are motivated to deliver Seminars/ presentation on topics from syllabus and content beyond syllabus, which help them to develop self-learning attitude and boost their technical knowledge.
- Participation in Group discussion conducted under programs like ‘Nurture’ and ‘Soft skill Training’ helps students to develop interactive skills and enhances their presentation skills.
- Institute motivates students for self-learning by participating in courses offered by NPTEL, SWAYAM, HUEWAEI, etc.
- Students are promoted to participate in various competitions at inter collegiate, university, state/ national/ international level, to broaden their exposure.
- Every year institute organizes, Inter-Collegiate Project Competition which gives, a platform to students for exhibiting simple and innovative solutions to the pre-defined problems.
- Institute arranges various Workshops/ Seminars/ Add on Courses for students, which enables them to get more detailed knowledge in particular area relevant to current industrial requirements.
- Institute encourages the use of ICT tools and techniques as a students’ centric innovative teaching learning practice for effective curriculum planning and delivery. This includes use of Google class room, SCOE Youtube channel for resource sharing. Students are also facilitated with Digital library, where students can take benefit from e- books and e- journals.

Problem Solving Learning:

- Students are inculcated with the problem solving attributes through Mini Projects & Projects. Faculty helps students to formulate the problems, and students try to find technical solutions which are feasible though innovative.
- Students are even sensitized to the nearby social conditions, and they work to find sustainable and affordable solutions for the basic living. This includes Construction of low cost ferrocement water tank at nearby Adhivasi pada’s. Ferrocement tanks are fully constructed by students using natural materials and this has resolved the water scarcity problem faced by the villagers.
- Various Softwares are being developed by students which are useful for real time problems like online feedback, Event Management Records.
- Often students provide ecofriendly/energy saving solutions which could easily be implemented, as the solar lighting, green lab used by the institute are developed by students only.

File Description	Document
Upload any additional information	View Document

2.3.2 Teachers use ICT enabled tools for effective teaching-learning process.

Response:

The institute has the most pertinent atmosphere which motivates the faculty to make use of various ICT facilities and make teaching learning process more outcome based.

SCOE is a recognized Remote Center of eOutreach program of IIT Bombay. Courses conducted under it have enriched SCOE faculty members with advanced teaching methods adopted by eminent teachers/professors of various IITs

Faculty prepares videos of their lectures which are shared with students via learning platforms like SCOE Youtube channel and Google classroom. These video lectures allow the faculty to incorporate audio-visual tools, digital resources and animations thus making lectures more informative and interesting to students. For this institute have 2 recording rooms.

Google Classroom is being used by our faculty members as a resource sharing platform. Assignments/quizzes are given out through such classrooms or through Google forms.

Google Meet and Zoom platforms are used by faculty members to conduct online lectures, practicals, Project seminars, Mini Project discussions, webinars etc, during Covid 19 pandemic situation. IITB Virtual Lab is been used for conducting practicals in online mode. Modern teaching aids like Smartboards, Projectors, and Internet enabled Computer systems are used for classroom instruction as well as other student learning processes.

Institute is a member of National Digital Library and faculty members are also registered for NDL. Institute facilitates students and faculty with digital library (e-books, e-journals), to promote self- learning of students and to make them familiar with the latest trends and technology.

Students can have thorough practice for Aptitude using the dedicated software. Concentrated efforts are taken to improve students' aptitude skills by giving them intense training session. Similarly students are provided opportunity to practice for GATE examination using dedicated Software.

The institution encourages the students to participate in the Robotics and Embedded System contest by establishing an advanced center under e-Yantra.

During pandemic, students are encouraged to take part in various online technical competitions like AICTE Chatra Vishwakarma Awards, University level-Avishkar, National level Hackathons, etc. Students are also motivated to present technical papers in journals and conferences.

Plagiarism Checker X2017 Professional Software, an anti-plagiarism tool, is used to check the plagiarism of the technical paper and report written by final year students.

Faculty members & Students are encouraged for online courses like Swayam MOOCs through NPTEL, Coursera, VLabs to stay updated with upcoming technologies. Skill based learning is facilitated with additional certificate courses, workshops and training for teachers to stay updated in their domain. Institute conducts STTP/FDP especially on ICT Tool and Techniques and encourages teachers to participate in such workshops organized by other institutions.

Students' employability is augmented by organizing various industry relevant certificate courses, workshops and training programs. These courses are conducted after the academic schedule and mostly on weekends or in vacations.

File Description	Document
Upload any additional information	View Document
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	View Document

2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)

Response: 20:1

2.3.3.1 Number of mentors

Response: 120

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll.	View Document
mentor/mentee ratio	View Document
Circulars pertaining to assigning mentors to mentees	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: 87.14

File Description	Document
Year wise full time teachers and sanctioned posts for 5years(Data Template)	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Any additional information	View Document

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

Response: 10.24

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

2020-21	2019-20	2018-19	2017-18	2016-17
14	12	9	17	17

File Description	Document
List of number of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. and number of full time teachers for 5 years (Data Template)	View Document
Any additional information	View Document

2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)

Response: 11

2.4.3.1 Total experience of full-time teachers

Response: 1320

File Description	Document
List of Teachers including their PAN, designation, dept and experience details(Data Template)	View Document
Any additional information	View Document

2.5 Evaluation Process and Reforms

2.5.1 Mechanism of internal assessment is transparent and robust in terms of frequency and mode

Response:

Institute follows Continuous assessment system which involves assessment of students through Internal Assessment (IA) exam, Term work (TW) and Project reviews during the semester as prescribed by the University Of Mumbai (UoM).

1. Internal Assessment Exam: In a semester, two IA exams are conducted each of 20 marks and of one hour duration. IA exam pattern is explained to the students at the beginning of the semester. IA-1 is based

on 40% of the syllabus and is conducted in February/August. IA-2 is based on remaining syllabus and is conducted in April/October. The average of marks obtained in IA-1 and IA-2 is considered for Internal Assessment. Dates and timings of IA exams are decided as per institute academic calendar. The IA exam schedule is displayed on the notice board by the departmental IA exam in charge. The syllabus of IA exam is disseminated to students in the class well in advance by the subject in charge. Question paper for IA is prepared considering weightage for different modules as given in the university syllabus, by the subject in charge and submitted to departmental IA Exam Coordinator. All the questions are mapped to COs & POs. Faculty members prepare the model solutions with marking scheme and evaluate the answer books within 7 working days after the examination is over. The solution of each question is discussed and the evaluated answer books are shown to students to maintain transparency.

2. Term Work (TW): TW marks are given for each course, mini project and BE project as per UoM guidelines. The TW marks given to each student consider, marks obtained from assignments, experiments/tutorials and attendance. Submission and issuance date of assignments for a course is announced by the respective teachers. Questions are mostly of subjective type and of higher order thinking skills. Assessment of TW is done on regular basis and thus continuous assessment is practiced.

3. Practical: Laboratory work planning is done by each faculty as per the syllabus. Lab manuals are prepared considering the UoM guidelines. Students maintain a lab journal consisting of the executed experiment with related theory, algorithm or flowchart, output/results, as per the subject requirement and is regularly evaluated by the teacher on weekly basis. Few practical beyond syllabus, but relevant for the syllabus are also conducted as required. Mini projects (if any): are subjected to periodic reviews by the faculty members for continuous assessment followed by final demonstration and report writing.

4. Final Year project work: Progress of each BE Project is monitored by the Project Guide on weekly basis. Also the progress of project work is evaluated by conducting progress seminar, where students present progress of work in presence of faculty members of department. TW marks for the project is the weightage of marks obtained in reviews, work done and quality of report and research publication. At the end of both semesters of final year, as per the university schedule, final viva is arranged where students demonstrate their project in presence of both external and internal examiners.

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

2.5.2 Mechanism to deal with internal/external examination related grievances is transparent, time-bound and efficient

Response:

To minimize the occurrence of any examination related grievance, all examinations such as Internal Assessment (IA), oral/practical exam and End Semester University exams are conducted in the Institute in a fair and transparent manner as per the guidelines given by University of Mumbai (UoM).

The examination section has all the facilities such as adequate infrastructure and CCTV surveillance, separate and restricted room for printing of question papers, separate area for assessment of answer books to ensure confidentiality and security during the examination.

Students get their hall tickets well before the start of examination. In case of any grievances like non-issuance of hall tickets and correction in name, students write the application to Controller of Examination (CoE) and it is resolved immediately.

The End semester examination is conducted under the supervision of Junior Supervisors and Senior Supervisors. The specially appointed squad of institute, CoE and vigilant squad from university also take rounds in all the classrooms during the examination. Students may report grievances regarding any doubt/misprint in question papers to the Junior supervisors during the examination. The doubt is further reported to Senior supervisors, COE and to the University. The clarification from the university is communicated to COE. Further it is forwarded to the Senior Supervisors, Junior Supervisors and to the students in each classroom and record of the same is maintained by the exam cell.

Any student found indulged in unfair means, the proof of evidence and the answer book are seized and submitted to COE and the student is provided with a new answer book to write further. After the examination, both the answer booklets (old & new) along with the copying material are placed in a separate envelope and both the student and the Junior supervisor are asked to give a written explanation. An Unfair Means committee is set up after every exam to deal with all such cases. The decision of the committee after approval by the Principal is intimated to student.

For second year and Third year examinations, the marks are entered and verified by the respective faculty members and re-verified by the exam staff. Certain numbers of answer booklets of each subject are rechecked by the appointed moderator from other colleges from UoM and then finally the results are prepared.

After the result declaration, students can apply for the photocopy of the corrected answer book within stipulated time period. Students may raise grievances due to 'totaling mistake', 'non-assessment of any answer' and apply for revaluation of their answer book. Subject experts from other colleges are appointed for revaluation of answer books wherein the original marks scored by the students are masked for fair evaluation. After the end of main examination, Institute examination cell ensures the preparation and submission of ESE results to UoM within 45 days and revaluation results in next 15 to 20 days obtaining necessary approval from university.

All other grievances, that require communication with the university examination section, are promptly done by the institute examination section, submitting necessary documents to the university.

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

2.6 Student Performance and Learning Outcomes

2.6.1 Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

Response:

AICTE/ National Board of Accreditation have defined 12 POs thus maintaining uniformity across all branches of Undergraduate Program in Engineering. Aligning to these POs institute has developed 12 POs for all the undergraduate programs of SCOE.

Program Specific Outcomes (PSOs) and Program Educational Objectives (PEOs) have been defined and stated after much deliberations and involvement of stakeholders. This has been done for all undergraduate programs being offered at the institute.

Along with this Course Outcomes (COs) for each and every course of the program, which represent the expected knowledge and skills acquired by the students at the end of a course. In general, six COs are listed out for every course across all programs.

University of Mumbai has specified the course outcomes for each course (theory and laboratory), in its syllabus. Based on that, subject faculty in the institute has defined COs for the respective courses to improve the efficiency and effectiveness of the course content delivery. Bloom's taxonomy is also thoroughly considered while defining the COs. The Course Assessment Report is prepared for all courses. It includes COs for a particular course and its attainment and mapping with POs & PSOs.

The well-defined POs, PSOs and COs are communicated digitally to all stakeholders by displaying them on official website (<https://www.sce.edu.in>). This are made well conversed to students by making them part of Laboratory manuals, Project reports, Journals, Mini Project Reports, Internship reports etc.

POs, PSOs and Cos are also added in the course file of each course by the faculty member. Thus every faculty member revives the concept of Outcome based education and diligently tries to ensure attainments of outcomes.

POs are conveyed to all the students at the beginning of every semester. Every faculty member communicate the significance of Cos and its linking with POs & PSOs in the very first lecture for all courses. Thus students are made aware about the learning outcomes of the course.

Internal Assessment(IA) question paper clearly displays the associated COs, POs and Performance indicator (PI) along with Blooms Taxonomy level. Two IA conducted in a semester cover all six COs for a course.

Webinars and meetings have been conducted, in the institute, to educate the teachers about the outcome-based education and its implementation.

COs and POs are effectively disseminated through various Curriculum enrichment programs and extra-curricular activities. Relevant COs/POs are communicated during every activity.

POs and PSOs are widely displayed in college premises using Sun boards and printed charts placed in

Common Areas, Instructional Rooms (Classrooms), Laboratories, Seminar halls, HOD cabins.

File Description	Document
Upload COs for all Programmes (exemplars from Glossary)	View Document
Upload any additional information	View Document
Past link for Additional information	View Document

2.6.2 Attainment of programme outcomes and course outcomes are evaluated by the institution.

Response:

For outcome-based education, analysis and attainment of Course Outcomes (COs), Program Outcomes (POs) and Program Specific Outcomes (PSOs) is important as it helps to improve the quality of teaching and learning process.

For every course, the attainment of COs, POs, and PSOs are calculated using Course attainment calculation sheet considering all aspects of teaching and learning process.

Course Outcomes (CO) attainment is done by direct and indirect assessment. The direct assessment is carried out by the evaluation done throughout the semester via assignments, practicals/tutorials, internal assessment, mini project. At the end of the semester, the total term work marks are evaluated and all these parameters are mapped to the COs, POs and PSOs. The weightage for direct and indirect assessment is considered 80% and 20% respectively. Indirect assessment of COs is calculated from responses received from Course Exit survey at the end of the semester. Finally, the overall attainment of Course Outcome is calculated collectively from direct and indirect assessment.

Program Outcomes attainment calculated from the CO attainment using direct and indirect assessment method. In direct assessment, the COs of each course is 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 program. For the indirect PO assessment different surveys are conducted by the institute at departmental and institutional levels. Indirect assessment of POs are calculated on a 3 point scale from the responses obtained from feedback taken from Course exit survey, alumni, graduates and employers and Program Exit Survey. A survey is conducted and analysis is done for final year students after completion of program. Here again the total attainment is calculated as the weighted average of the direct and indirect attainment.

Calculation of the Program Specific Outcomes attainment from CO attainment is also done by direct and indirect assessment. Mapping of every CO is done with the PSOs and the attainments are calculated on a 3-pointscale. This forms the direct assessment component of the PSOs. Indirect assessment of PSOs are calculated on a 3-point scale from the responses obtained from feedback taken from Course exit survey, alumni, graduates and employers, Program exit survey.

Course Assessment Reports (CAR) is prepared for all courses offered by all programs. These are used to calculate the Program Outcome attainment and Program Specific Outcome attainment. Course attainments are routinely discussed in the HOD's meetings and deliberations are made when a certain course reports a low level of attainment. Action is initiated to improve the attainments levels by offering Add on course/workshops and any other approach to supplement the overall learning in the particular subject and thus help in improving attainment levels. The attainments of the COs, POs and PSOs are reviewed by the HODs and Principal.

File Description	Document
Upload any additional information	View Document
Paste link for Additional information	View Document

2.6.3 Average pass percentage of Students during last five years

Response: 93.99

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

2020-21	2019-20	2018-19	2017-18	2016-17
769	731	717	686	619

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

2020-21	2019-20	2018-19	2017-18	2016-17
771	736	756	731	753

File Description	Document
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	View Document
Upload any additional information	View Document
Paste link for the annual report	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response: 3.33

File Description	Document
Upload database of all currently enrolled students (Data Template)	View Document

NAAC

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

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

Response: 41.89

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

2020-21	2019-20	2018-19	2017-18	2016-17
1.77	14.50012	4.06446	18.683	2.87

File Description	Document
List of endowments / projects with details of grants	View Document
e-copies of the grant award letters for sponsored research projects / endowments	View Document

3.1.2 Percentage of teachers recognized as research guides (latest completed academic year)

Response: 1.67

3.1.2.1 Number of teachers recognized as research guides

Response: 2

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

3.1.3 Percentage of departments having Research projects funded by government and non government agencies during the last five years

Response: 77.42

3.1.3.1 Number of departments having Research projects funded by government and non-government agencies during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
5	5	5	4	5

3.1.3.2 Number of departments offering academic programmes

2020-21	2019-20	2018-19	2017-18	2016-17
7	6	6	6	6

File Description	Document
Supporting document from Funding Agency	View Document
List of research projects and funding details	View Document
Paste link to funding agency website	View Document

3.2 Innovation Ecosystem

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

Response:

The Research and Development Cell (R & D Cell), Entrepreneurship Development Cell for Innovation and Incubation (EDCII), and other collaborative units of the Institution have created an ecosystem for innovations for the creation and transfer of knowledge.

R & D Cell: It aims to nurture research culture amongst the students and faculty by providing an environment conducive for research where faculty and students continuously update and enhance their knowledge. It provides necessary infrastructure to conduct research projects. Institute has received several research grants from reputed organizations like BRNS, IEI and University of Mumbai. The institute also has 25 patents published in its credit.

It motivates faculty to write and submit effective research proposals to various Government/ non- govt. funding agencies. It encourages students and faculty to publish their research output in national and international journals as well as motivates for patent publication. Students and faculty are encouraged to present and publish their research work in conferences and seminars. R & D cell help faculty to organize and attend conference/STTP/ FDPs/workshops/ seminars/Training. It motivates students for participating in research activities, project presentations and competitions like **Avishkar**, etc. It has contributed for development of **Eyantra Lab** supported by **IITB**.

Entrepreneurship Development Cell for Innovation and Incubation (EDCII) - It provides the mentoring and

infrastructural support for the entrepreneurship project. Some of our Entrepreneurship projects are Aquaponic farming, Urban Mushroom farming, Biodegradable packaging, Resin furniture, Electric vehicle, etc. The EN- cell organizes various lectures by entrepreneurs including our alumni facilitating industrial interactions to impart knowledge about the practical aspects of starting an enterprise.

International and National Academic and Research Collaboration: Institution also maintains close ties with industry and international/national collaboration for academics and research. Some of them are:

- Ural Federal University, Russia
- AIMST University, Malaysia
- France International Graduate School, France
- University of Canberra, Australia
- Estonian Entrepreneurship University for Applied Sciences, Estonia
- Western Sydney University, Australia

National Academic and Research collaborations are listed below:

- IIT, Bombay
- BARC, Mumbai
- CEMS India
- ISHRAE
- Reliance Jio, India
- Society of Automotive Engineers, India
- ISTE, India
- STM Journals, Delhi
- Indian Welding Society, Tiruchirappalli
- Centre for Invention, Innovation and Incubation, Kharghar

• **Other initiatives:**

Various students clubs and committees (ACE, CESA, ETSA, RACE, SAIT, MESA, NSS and Rotract Club) involving students and faculties are active in the college to inculcate moral, ethical and social values in students. It inculcates leadership quality in students and encourages them to execute multidisciplinary projects and organize seminars, workshops, awareness generation programmes, training, etc.

Start -ups: As a result of the above associations and the programmes organized by them, many of our students/ex-students have successfully launched their own start-ups. Some of them are:

- D'Carbonising Center India by Mohnish Choudhary, Automobile dept. 2018-2019 batch. He received best start up award for his venture from Mumbai Mayor Mrs Kishori Pednekar.
- Meal Arte (supplier nutritious food to gym) by Arjun Chauhan (Mechanical Dept. 18/05/2020).
- AGRESA by Rohit Ghuge (Mechanical 20/10/2021)

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

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

Response: 31

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

2020-21	2019-20	2018-19	2017-18	2016-17
9	10	5	3	4

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

3.3 Research Publications and Awards

3.3.1 Number of Ph.Ds registered per eligible teacher during the last five years

Response: 1.5

3.3.1.1 How many Ph.Ds registered per eligible teacher within last five years

Response: 3

3.3.1.2 Number of teachers recognized as guides during the last five years

Response: 2

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
Any additional information	View Document
URL to the research page on HEI website	View Document

3.3.2 Number of research papers per teachers in the Journals notified on UGC website during the last five years**Response:** 0.51**3.3.2.1 Number of research papers in the Journals notified on UGC website during the last five years.**

2020-21	2019-20	2018-19	2017-18	2016-17
16	24	12	13	04

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

3.3.3 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years**Response:** 0.26**3.3.3.1 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
4	8	6	8	9

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

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

The main objective of extension activities is to develop student's personality through community service, making them socially aware, make them understand the problems prevailing in society, nurture ethical and moral values and their social liabilities. The institute motivates students to involve in all the extension activities. This participation inculcated various important skills and values in students like understanding social responsibilities, organizational skill, leadership qualities, utilizing their technical knowledge for social welfare, taking up projects of societal concerns, ethical behavior, etc.

Objectives of extension activities are:

- Recognize the needs and problems of the community and involve them in problem-solving
- Develop among themselves a sense of social responsibility
- Utilize their knowledge in finding practical solutions to individual and community problems
- Develop competence required for team work and sharing of responsibilities
- Gain skills in mobilizing community participation
- Acquire leadership qualities and democratic attitudes
- Develop capacity to meet emergencies and natural disasters and
- Practice national integration and social harmony

The outcomes of the activities:

- The extension activities have induced in the minds of students to work as a team member.
- Exposure to rural life, their problems and initiative for probable use of technology to make village life easier.
- Develop the overall personality of the students, for getting good employment
- Understand real life problems and developing lifelong learning skills.
- The interpersonal skills are developed among the students.

Various students clubs and committees (ACE, CESA, ETSA, RACE, SAIT, MESA, NSS and Rotract Club) conducts activities like blood donation camps, health check-up camps, Swachha Bharat Abhiyan, helping poor sections of society Marathon on drug abuse, Akhand Bharat and women empowerment, etc. are conducted by the institute. Rural development program is also undertaken by NSS unit of SCOE by adopting villages like Behrang in Panvel Taluka, Borimal Pada, Shirshoncha Pada, Vasara in Nashik.

The major National Level projects undertaken through extension activities are AIDS awareness, afforestation, blood donation camps (21), cleanliness of environment, rain water harvesting initiative, sewage treatment plant provision, disaster management, pulse polio immunization, health awareness rallies, eco friendly Ganesha making workshop, tree plantations etc.

NSS unit of SCOE is highly active and participates in various different activities such as Personality development program, Elocution competition, Swachha Bharat Abhiyan. As a part of "youth for sustainable development" program with special focus on watershed management and waste land development, NSS unit of SCOE adopted a small village called Borimal Pada where water tank of 7000 litres capacity of water, 75 CCT, 5 toilets were constructed. Solar panels were installed and Prathama pathshala was renovated. Woman self-defense workshop is organized every year. NSS unit is actively involved in helping flood affected & drought affected people, cancer patients and donation for orphanage. Tree plantation drives are arranged time to time.

File Description	Document
Upload any additional information	View Document

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

Response: 3

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

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	2	1	0

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

3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

Response: 239

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

2020-21	2019-20	2018-19	2017-18	2016-17
135	32	26	28	18

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach Programmes 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 at 3.4.3. above during last five years**Response:** 44.35**3.4.4.1 Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations such as Swachh Bharat, AIDs awareness, Gender issue etc. year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
2378	826	880	692	656

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 Collaborative activities for research, Faculty exchange, Student exchange/ internship per year****Response:** 307**3.5.1.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship year-wise during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
64	72	56	55	60

File Description	Document
e-copies of related Document	View Document
Details of Collaborative activities with institutions/industries for research, Faculty exchange, Student exchange/ internship	View Document
Any additional information	View Document

3.5.2 Number of functional MoUs with institutions, other universities, industries, corporate houses etc. during the last five years**Response:** 35**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**

2020-21	2019-20	2018-19	2017-18	2016-17
10	7	7	2	9

File Description	Document
e-Copies of the MoUs with institution/ industry/corporate houses	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 infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

Response:

The Institution is located near MUMBAI_PUNE Expressway and Kharghar Railway station. The institute caters to all the needs of stakeholders. It has excellent infrastructural facilities spread over 2.2 Acres of land of Metro city. The total carpet area of 15554 Sq.m. The Institution also has 46 Laboratories, 34 classrooms out of which 28 Smart classrooms, 02 Seminar Halls and 01 Auditorium with seating capacity of 600. All departments have classrooms equipped with ICT facilities.

Number of classrooms: 34 (Seating Capacity of 75 -80)

All the classrooms are equipped with adequate lighting, good ventilation and Podium. Maximum classrooms are equipped with Internet connectivity, LCD projectors.

Technology Enabled Learning Rooms (smart classrooms):

Number of rooms: 28 (Seating Capacity of 75 -80)

Smart classrooms are equipped with LCD Projector with Smart interactive board facility, internet connectivity, Audio and Video facilities for effective Teaching learning process.

Number of Seminar Halls: 02 (Seating Capacity of 200 to 250)

Seminar Halls are equipped with LCD Projector with white board facility, internet connectivity, Audio and Video facilities.

Number of Drawing Halls : 02 (Seating Capacity of 120 to 150)

Drawing halls are equipped with Drawing tables, Chairs, Fans, Light with good ventilation and ambience.

Number of Laboratories: 46(Seating Capacity of 30 to 40)

All the Laboratories are equipped with state-of-the-art facilities with periodic maintenance mainly system maintenance, antivirus updating, software updating, calibration and servicing. Each lab is provided with necessary display boards and adequate safety measures. In addition to the regular curriculum labs, the college established some labs in collaboration with the industry for skill upgradation in advanced technologies in the last five years.

Library: Library is also enabled with digital library with internet connectivity and reading room facility. The library has a total of 27096 books, 5135 Titles. It has subscribed to online journals of J-Gate Science and Technology, KNIMBUS library Portal and it is subscribing 90 Journals in print. All Departments are

having department libraries for ready reference.

Computing equipment: The entire campus is facilitated with mobility aware internet connectivity and with abundant bandwidth. All computers are connected to the campus LAN network. A Central Computing Centre with 35 Desktop.

File Description	Document
Upload any additional information	View Document

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

Response:

The institution gives adequate importance to Sports and games. Institute has enough facilities for both outdoor and indoor games.

Outdoor games:

Adequate facilities are provided for Box Cricket, Volleyball, Ball badminton, Kho-Kho and Throw ball.

Indoor games:

The college has 160 sqm. built-up area available to facilitate indoor games such as Table Tennis, Carom and Chess.

User rate: Around 200 students utilize the facility every day.

Encouragement for Participation:

- Attendance is provided to the students who represent the college at Inter-University, National and International competitions.
- Traveling and DA is provided for the student to participate in the events.
- Sports material and uniform is provided to the college teams to participate in the events.
- Annual social gathering “NAKSHATRA” is organized every year where various sports competitions are organized.
- Meritorious sports persons of the college are rewarded.

Gymnasium:

Gymnasium is available in college campus. Cardio exercises equipment such as cross trainer, treadmill are available in the gymnasium. Around 30-40 students utilize the facility every day.

Yoga:

- A 70 Sqm. capacity hall is provided for Yoga.
- International Yoga Day is celebrated every year with 500 students and faculty participating in the event.

Cultural Activities:

To promote cultural events among students in the campus, cultural clubs were constituted by the college. It encourages the students to participate in District, State, National level, Inter Collegiate and Inter University cultural festivals. Different clubs such as Oratory, Dance, Music, Art, Fashion, Photography and Drama clubs are constituted at Institute level. Cultural festival is conducted every year in the month of February-March.

File Description	Document
Upload any additional information	View Document

4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)

Response: 75.68

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 28

File Description	Document
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	View Document
Upload any additional information	View Document

4.1.4 Average percentage of expenditure, excluding salary for infrastructure augmentation during last five years(INR in Lakhs)

Response: 12.94

4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
75.76	84.84	49.71	50.02	104.66

File Description	Document
Upload Details of budget allocation, excluding salary during the last five years (Data Template)	View Document
Upload audited utilization statements	View Document

4.2 Library as a Learning Resource

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

Response:

Saraswati College of Engineering library plays a dynamic role in meeting the present and future needs of its scientific community by selecting, acquiring, circulating appropriate scientific and technical information through different channels of communication. The institute library was established in 2004.

- Institute Library is spacious, well-furnished and has a huge reading hall
- It provides information resources like books, journals, newspapers, and other resources such as e-books, e-journals, Videos, CDs and DVDs which furthers the knowledge and thought process of the users.
- The library has a total of 27096 books, 5135 Titles. It has subscribed to online journals of J-Gate Science and Technology, KNIMBUS library Portal and it is subscribing 90 Journals in print.
- NPTEL Facility (National Program on Technology Enhanced Learning) to access web & video lectures is available in the library. Library has membership in National Digital Library of India (NDLI) which is sponsored and mentored by the Ministry of Education, Government of India, through its National Mission on Education through Information and Communication Technology (NMEICT). The institute library also has membership in e-Shodh Sindhu; consortium for higher education electronic resources which provides access to e-resources of universities, colleges and centrally funded technical institutions in India.
- The library is equipped with **e-Vidya**, Library management System Software Package by 'Biyani technologies' which is an Integrated Library Management System (ILMS) with Barcode Scanner that supports all in-house operations of the library. The Central Library can be accessed through the On-line Public Access Catalog (OPAC) within the campus premises. The software supports all operations of the Library as described below in a central database and integrated approach. Management and administrators can retrieve real- time information and view all the information online.
- The database of all books is maintained.
- For every book, information such as, title, author, publisher name, publishing year, volume ISBN, branch, bill number, and number of copies, is saved.
- Daily book-issue/ return records can be maintained and retrieved whenever required.
- Branch wise books lists can be generated.
- Overdue reports for the books can be generated.
- All books of the library are barcoded as this ILMS provides a barcode printing option.
- All information of a library, their activities, purchase, issue and receipts, registers, etc. can be viewed.
- Completely secure system with Password protected user access.

The information about ILMS and other e-resources available in the library is presented to the staff and students regularly.

File Description	Document
Upload any additional information	View Document

4.2.2 The institution has subscription for the following e-resources

- 1.e-journals
- 2.e-ShodhSindhu
- 3.Shodhganga Membership
- 4.e-books
- 5.Databases
- 6.Remote access to e-resources

Response: A. Any 4 or more of the above

File Description	Document
Upload any additional information	View Document
Details of subscriptions like e-journals, e-ShodhSindhu, Shodhganga Membership , Remote access to library resources, Web interface etc (Data Template)	View Document

4.2.3 Average annual expenditure for purchase of books/e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

Response: 5.33

4.2.3.1 Annual expenditure of purchase of books/e-books and subscription to journals/e-journals year wise during last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
3.85	4.28	5.37	6.62	6.53

File Description	Document
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the last five years (Data Template)	View Document
Audited statements of accounts	View Document

4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the latest completed academic year

Response: 6.41

4.2.4.1 Number of teachers and students using library per day over last one year

Response: 160

File Description	Document
Details of library usage by teachers and students	View Document
Any additional information	View Document

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

In this modern era, internet communication is very important in the teaching- learning process. The infrastructural development along with its IT facilities including WiFi is given top priority as we realize the correlation between adequate infrastructure and effective teaching – learning process. IT infrastructure facilities are created taking into consideration the requirements of all the stakeholders. It includes:
Hardware: It includes server, firewall, router, networking switch and computing facilities

a) **Server:** Institute has 5 high configuration servers

Antivirus Server : IBM X3200 M2 With Zeon Processor, 500 GB HDD 4 GB RAM for Antivirus Server

Master Server: IBM X3200 M2 With Zeon Processor, 500 GB HDD 4 GB RAM for Windows OS deployment & WSUS patch update.

Account Server: HPE ML110 Gen10 3204 1P 16G NHP Svr Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W)/ 1x16GB RDIMM DDR4 1 TB HDD for Tally

Exam Server: HPE ML110 Gen10 3204 1P 16G NHP Svr Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W)/ 1x16GB RDIMM DDR4 1 TB SSD for Exam Software

PTC Creo server: Intel Core i3 Processor, 4 GB RAM , 500 GB HDD from Creo Server

- b) **Networking Switch:** D-Link 24 Port Switches (32)
- c) **Firewall:** Sophos XGS 2100 is the main firewall to provide optimal performance and efficiency to meet the expanding security needs.
- e) **Other peripherals:** Institute has 53 printers which include laser and Inkjets, 18 projectors
- f) **Computing Facilities:** Institute has 637 computing machines with configuration as i3 processor, i5 Processor, 4GB RAM, 500GB hard disk, 3.10 GHz CPU speed.

Software: 4 legal system software like Windows, Linux etc. and 38 application software like PTC Creo, Solid Edge, ORACLE. Etc. Students are encouraged to work on open source software.

Internet and Wi-Fi: The campus has an internet connection of 100 Mbps bandwidth, providing anytime anywhere access to knowledge and learning resources.

Service Provider: Reliance Jio Ltd., Bandwidth available: 100Mbps,

Gateway level Security & Gateway level antivirus & antispam is implemented using Sophos XGS 2100 Firewall.

File Description	Document
Upload any additional information	View Document

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

Response: 4:1

File Description	Document
Upload any additional information	View Document
Student – computer ratio	View Document

4.3.3 Bandwidth of internet connection in the Institution

Response: A. 750 MBPS

File Description	Document
Upload any additional Information	View Document
Details of available bandwidth of internet connection in the Institution	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage of expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the last five years(INR in Lakhs)**Response:** 14.28**4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year-wise during the last five years (INR in lakhs)**

2020-21	2019-20	2018-19	2017-18	2016-17
159.56	88.59	80.9	28.62	34.68

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	View Document
Audited statements of accounts	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:**

Cleanliness beautifies the campus, makes it delightful and improves focusing on study. Knowing this, every effort is made to create a clean and beautiful campus. The Institute has a garden which is regularly maintained. Adequate human resources are deployed exclusively for maintenance and upkeep of campus infrastructure.

The Institute has a robust system and well defined procedures for maintenance of all facilities. The procedure is followed as below for the maintenance: -

The request for maintenance is entered in a register maintained by the Estate Manager at the Institute level.

1. Routine Maintenance``

Cleaning, Dusting, Sweeping and Mopping of all areas is undertaken daily by the contractual housekeeping staff and is supervised by the supervisor. For minor repairs, the Institute has a workforce of carpenters, electricians, plumbers and civil contractors.

1. Préventive Maintenances:

Electrical maintenance: - The activities related to maintenance of electrical fittings, public address system, pump rooms etc. are supervised and done by the Institute's electrician.

Air conditioning: - Library and some laboratories of the institute are air conditioned. The maintenance of the heating, ventilation and air conditioning system is outsourced.

Lifts: All the lifts are maintained through AMC with Kone Elevators. Lift men are appointed in each lift to drop people at their required floors.

Water coolers and purifiers: - The equipment maintenance is done by the contractual agency with which the institute has AMC.

Pest control: - Pest control which includes combating general disinfection, rodent treatment and anti-termite is done periodically.

Gymnasium: - A well-equipped gymnasium facility is available for all the students. A full-time trainer is appointed in the gymnasium. The maintenance of the gymnasium is carried out by the maintenance department.

Fire Extinguisher: - As a safety measure every floor is equipped with a fire extinguisher. Its maintenance is taken care of by the contractual agency. Also, water pipelines are available at each floor in case of fire emergency.

Auditorium: - An elegant and spacious auditorium is available for conducting cultural as well as professional activities. It is maintained by the appointed staff of the Institute.

Garden: - The cutting, cleaning, watering, soiling etc. activities in the garden are done by the Institute's gardener.

First Aid facility: - First Aid Kit is available in each department to handle basic emergencies which are annually checked for outdated medicines and replaced with new stock. The safety measures to be taken in case of emergency are displayed in each laboratory. First aid room is also available at ground floor in case of emergencies. For critical Medical emergencies, MOU with G.D. Pol Hospital is signed. This hospital is 1 Km away from the institute.

1. Classroom Maintenance

All the classrooms are well ventilated with natural light and air due to which students are able to study in the natural ambience. Every day, all the classrooms are cleaned, swept and mopped by the contractual staff appointed. Dustbin is provided at each floor.

Most of the classrooms are ICT enabled. For the maintenance of classroom furniture and electrical equipment, there is a dedicated carpenter, electrician and system administrator.

CCTV is installed in the campus at necessary places for the security purpose. All the classrooms are utilized optimally during college hours.

Laboratory Maintenance

The institute has two full-time system administrators and an independent maintenance room for carrying out IT maintenance.

Major troubleshooting of the hardware and systems is done by the system administrators of the Institute. Fire extinguishers are installed in all departments.

Every day in the morning all the laboratories are swept and mopped, properly by the dedicated cleaning staff.

Each laboratory has a Lab in-charge who is a teaching faculty and a Lab assistant who is responsible for the maintenance of it. To maintain the record of Equipments and their repair maintenance, there is a laboratory register which is updated by the Lab Assistant. Consumable equipment record is maintained by lab assistants. Power cables are properly insulated and laid away from pathways. All the computer labs are provided with proper internet connection so as to conduct experiments smoothly. Lab time table and list of experiments are displayed in all labs.

In case of any damage or theft the matter is first conveyed to the HOD by the lab in- charge and then further required action is taken. All mentioned physical facilities are supported by continuous supply of electricity with generator sets of adequate power. The generators and all supporting facilities are well maintained for undisturbed performance.

1. Maintenance of Indoor sports complex

This Institute has a well-equipped Gymnasium for the students. Students can exercise and play indoor games such as Carom, Chess, and outdoor games such as Table Tennis, box cricket, and volley ball. Students are allowed to play light music for their entertainment. Entry of the students inside the Gym is monitored by an entry register. For outdoor games Karnala Sports academy is made available for the students. Maintenance of all sports equipment is done periodically.

f) Maintenance of library

The books are kept in good condition by binding them regularly. Review and discard of obsolete books are carried out periodically.

File Description	Document
Upload any additional information	View Document

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 last five years

Response: 60.66

5.1.1.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
1608	1519	1570	1293	1570

File Description	Document
upload self attested letter with the list of students sanctioned scholarship	View Document
Upload any additional information Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years (Data Template)	View Document

5.1.2 Average percentage of students benefitted by scholarships, freeships etc. provided by the institution / non- government agencies during the last five years

Response: 0.25

5.1.2.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
14	12	2	1	0

File Description	Document
Upload any additional information	View Document
Number of students benefited by scholarships and freships institution / non- government agencies in last 5 years (Date Template)	View Document

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

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

Response: A. All of the above

File Description	Document
Details of capability building and skills enhancement initiatives (Data Template)	View Document
Any additional information	View Document
Link to Institutional website	View Document

5.1.4 Average percentage of students benefitted by guidance for competitive examinations and career counselling offered by the Institution during the last five years

Response: 73.49

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

2020-21	2019-20	2018-19	2017-18	2016-17
1928	2220	2157	1243	1487

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

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

Response: A. All of the above

File Description	Document
Upload any additional information	View 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

5.2 Student Progression

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

Response: 36.22

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

2020-21	2019-20	2018-19	2017-18	2016-17
251	233	272	301	299

File Description	Document
Upload any additional information	View Document
Self attested list of students placed	View Document
Details of student placement during the last five years (Data Template)	View Document

5.2.2 Average percentage of students progressing to higher education during the last five years

Response: 20.49

5.2.2.1 Number of outgoing student progression to higher education during last five years

Response: 158

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education (Data Template)	View Document
Any additional information	View Document

5.2.3 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 47.71

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

2020-21	2019-20	2018-19	2017-18	2016-17
25	06	02	04	00

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

2020-21	2019-20	2018-19	2017-18	2016-17
34	08	05	08	00

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 (Data Template)	View Document
Any additional information	View Document

5.3 Student Participation and Activities

5.3.1 Number of awards/medals won by students for outstanding performance in sports/cultural activities at inter-university/state/national / international level (award for a team event should be counted as one) during the last five years.

Response: 24

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

2020-21	2019-20	2018-19	2017-18	2016-17
5	5	8	5	1

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

5.3.2 Institution facilitates students' representation and engagement in various administrative, co-curricular and extracurricular activities following duly established processes and norms (student council, students representation on various bodies)

Response:

For holistic development of the students of SCOE there are various active student chapters categorized differently so that students can excel and learn the administrative capabilities thus giving them great advantage in their career.

Category A: International/ National Level Committees: Students here are the members of nationally and internationally recognized organizations. The Committees are: **ISHRAE, CSI, SAE, ISTE, IWWA and IETE**. Activities like expert talks, seminars, Industrial Visits, Placement Drives, and Workshops are organized under the banner of these organization memberships. Student Leaders of IWWA received various awards for their active involvement.

Category B:

1. Department Level Committees: Every department forms a student association and organizes co-

curricular and extra - curricular activities under the guidance of the association mentors for their respective department. Activities like Industry Visits, Field Visits, Workshops, Seminars and Intra-domain competitions are conducted. The Committees are: **ACE, CESA, ETSA, RACE, SAIT and MESA**

2. Team Prahar Racing: The Prahar Racing India is a student association of SCOE Kharghar. The objective of the Team Prahar Racing is to design and build formula car, All Terrain Vehicle and participate in Formula student Race Car competitions nationally and internationally. The team has participated in various competitions and has won various awards like securing **First Rank in Design and Cost Events** (Combustion Category) in the **FSS 2019 Coimbatore** competition arranged on 10/10/2019.

3. Entrepreneur's Network Cell: SCOE Entrepreneur's Network cell stands for young aspiring entrepreneurs. The Cell is primarily responsible for stimulating, sustaining and supporting entrepreneurial ventures within the campus, providing them with necessary assistance, infrastructural support and resources.

Category C: Committees for Social and Extra - Curricular Activities:

1. College Students Council

The Student Council is constituted every year. Its primary objective is to give students an opportunity to develop leadership by organizing and carrying out various college activities like **Annual Festival Nakshatra Celebration**, Independence Day etc.

Saraswati College of Engineering also runs various Student Clubs like Sports, Dance, Fashion, Music, Media, Art, Drama and Orator club. These clubs help students in developing a multifaceted personality by way of providing training. It helps them to work in a team.

2. National Service Scheme: SCOE Kharghar has a recognized **NSS Team** which renders service to the nation. They carry out various programs, like Tree Plantation, Blood Donation Drive, Flood Relief Camp, Cleanliness Drive, Water Literacy and Conservation Program, etc to involve them in their problem solving process. Team NSS has adopted remote villages such as Borimala Pada and worked for their development along with the public administrations.

3. Rotaract Club: Rotaract club of SCOE brings together people aged 18 and older to exchange their ideas with the leaders in the community. The members coordinate with their respective zone and carry out various activities like Blood Donation Camp, Sui Dhaga Competition, Orphanage Donation Camp, Program on Leadership & Personality Development, etc.

Thus Saraswati College of Engineering is giving a wider platform to the students to nurture their skills and enhance their administrative, Co-curricular and extracurricular areas of expertise.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

5.3.3 Average number of sports and cultural events/competitions in which students of the Institution participated during last five years (organised by the institution/other institutions)**Response:** 18.8**5.3.3.1 Number of sports and cultural events/competitions in which students of the Institution participated year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
12	25	17	25	15

File Description	Document
Upload any additional information	View Document
Report of the event	View Document
Number of sports and cultural events/competitions in which students of the Institution participated during last five years (organised by the institution/other institutions (Data Template)	View Document

5.4 Alumni Engagement**5.4.1 There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services****Response:**

The Alumni Association of Saraswati College of Engineering was formed in September 2020, named as “Saraswati College of Engineering-Alumni Association”. Our Alumni Association works for the overall development of students and the institution. It acts as a link between the pass out students, current students and the institution.

Alumni meet is arranged in the institute every year. In the meeting, the views of the Alumni, their valuable suggestions are noted. Based on alumni students' suggestions, various add-on courses are organized in the department to meet the industry requirement, train our students and make them employable. SCOE Alumni Association notably contributes in the highlighted areas:

Career Guidance & Counseling: The Alumni Association, counsel the students giving them proper guidance towards achieving their aims and goals. Alumni share their experience which motivates students for their career development in various domains.

Placements: Alumni share their experience which creates awareness among the students and gives them an opportunity to perform in this cut - throat competitive market. Alumni also come forward

and help students get placed at their respective organizations.

Internship Programs & expert guidance from Industry: Alumni help in providing Internship to meritorious students in their organization and also provide guidance to them from the industry experts.

Alumni Seminar & Workshop: Regular seminars and workshops are conducted by the Alumni Association of SCOE in various technical areas. The Automobile department of SCOE organizes various Alumni talk series every year. NSS members of SCOE, each year, arrange for a Social camp where the Alumni motivate the students to come ahead for a social cause and help the society. ISHRAE of the mechanical department organizes various programs like ISHRAE Installation Ceremony, Jamboree and Job Junction where the Alumni Association share their success journey, give job insights, and inspire the students. Rotaract Club of SCOE conducts various programs both social and technical in which the Alumni guides the students and encourages them.

Book Donation: Alumni Association of SCOE has taken great efforts to help the students in need and have donated their books and other study materials to the underprivileged students as an immediate relief measure to them. It is a mark of tribute to the institute and to support the needful students.

Mentorship and Scholarship: Alumni Association of SCOE conducts various events and programs to mentor students to achieve their best in their professional career. They also come forward and help in scholarship programs, such as Tata Trust, Mahalaxmi Temple Trust, JJ Foundation, Navi Mumbai Mahanagar Palika Scholarship, Kalsekar Trust, etc.

Entrepreneurship Awareness Program: Some Alumni choose to become entrepreneurs during their academic career and come up with their own start-ups and excel as successful entrepreneurs. They share their life skills, experience, success stories and the challenges of their journey with the student which motivates and creates awareness among them to set their goals to flourish in their entrepreneurship skills.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

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

Response: E. <1 Lakhs

File Description	Document
Upload any additional information	View Document
Link for any additional information	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 and in tune with the vision and mission of the institution

Response:

SCOE – Vision and Mission

Vision: To be universally accepted as autonomous center of learning in engineering education and research.

Mission:

- To educate students to become responsible & quality technocrats to fulfill society and industry needs.
- To nurture student's creativity and skills for taking up challenges in all facets of life.

Saraswati College of Engineering was established in 2004 with a vision to impart quality technical education to the students. The college is affiliated to the University of Mumbai, following the syllabus structure designed by the university. The Institute is committed to provide quality education to students, supporting the needs of all the stakeholders maintaining the pursuit of professional excellence. The institute is also entrusted to support societies and communities through educational, intellectual, social and cultural endeavors. To fulfill the vision and mission of the college, the institute has established its mechanisms, procedures and best practices to achieve excellence in education and research.

Governance and Management:

The college promotes decentralized, participative management and the governance is carried out by the top management, the Saraswati Education society and the advisory board involving renowned administrators, academicians and faculty representatives. The Governing Body delegates authority to the Principal who further shares it with the designated Deans, the Heads of Departments, and the Coordinators of various committees. The governing tasks includes the framing, implementation and monitoring of institutional policies, through IQAC, QMS, Best practices, deployment of duties, addressing of grievances through assigned committees. The college balances compliance and regulatory matters taking decisions for the sustainable academic development.

The faculty plays a vital role in positive development of the institute as well as students by following all the procedures approved by the institute. Faculty communicates plans for supporting slow learners, establishing various programs, conduction of curricular and extracurricular activities, encouraging enthusiastic learners for professional skill development, up grading & designing the laboratories, taking up in house R & D projects, recruitment of faculty and negotiation & purchase of new equipment. The Deans, Head of departments and faculty is a part of the budgeting and its implementation process. The students along with the student council are involved in the various associated departmental associations, clubs & committees to help students nurture their skills and for the overall holistic development of students. The college management is supportive towards faculty, academics and administrative work in for strengthening

teaching– learning process, academic, entrepreneurship development and research. . A healthy environment is maintained by the higher authority giving work satisfaction to the staff members.

There is continuous communication done with the regulatory bodies, like, the DTE, University of Mumbai, Municipal Corporation and others etc. to ensure proper compliance of procedures.

The perspective plan from 2021 to the year 2026 shows the gradual development of the well developed ISO procedures implemented currently and further implementation fulfilling the mission and vision of the college.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

6.1.2 The effective leadership is visible in various institutional practices such as decentralization and participative management

Response:

The institute believes in the practices of decentralization in all academic and administrative activities. The decentralization reflects in various functional bodies like Management, Governing Body, College Academic Committee, IQAC Committee, Administrative, NSS committees, SCC committee and various committees to monitor, plan and execute smooth functioning of the Institute.

Management:

Participative management culture is always helpful towards academics and administrative work in the Institution. Management supports the faculty for strengthening teaching– learning process, development in academics, entrepreneurship and Research.

Administration:

The Registrar is administration head of the institute, supported by office staff. Principal monitors the academic processes. It is observed that decentralization of system improves work effectiveness and smooth functioning of Institute.

Anti-ragging & General Grievances cell:

During the Induction program of FE all the students and parents are made aware of anti-ragging law. Care has been taken that no student shall involve in any kind of physical and mental ragging. The institute campus is totally ragging free and not a single incident has been registered till date.

Case Study of Decentralization and Participative Management:

Case Study 1:**International Conference on “sustainability development with recent trends & Advances in engineering to support “Make in India” initiative [ICSRTAE-2021]”**

The college had organized Two International conferences. One for Comp/IT/EXTC Department, titled as “**International Conference on Advance Information and Communication Technologies[ICAICT-2021]**” & another for Civil/Auto/Mech Department, titled as “**International Conference on Sustainability Development with Recent Trends &Advances** in engineering to support “Make in India” initiative[ICSRTAE-2021]” on 7th May 2021.

This conference provided a common platform to engineers, researchers and Industry professionals to share their knowledge and research outcomes. Permission to organize the International Conference was taken from the concerned authorities. This was followed by finalization of conference themes/ tracks under which abstracts and full length paper submission was invited. There were a total 5 tracks/ themes in an International Conference on Industry 4.0 - Advances in Engineering and Sustainability for the ‘Make in India’ initiative (ICAESM). Conference was organized in association with the University of Mumbai

Accepted papers were reviewed by a review committee and papers were published in Souvenir. Selected quality papers were published in Journals.

New ideas raised in the conference would support in opening new avenues in the areas of green technology initiatives, pollution prevention technologies, sustainable construction & manufacturing, innovative business processes and recent trends in Civil, Mechanical and Automobile Engineering.

CASE STUDY 2: College Development Committee

College Development Committee (CDC) is formed which actively participates in discussions with the Management. The CDC is the highest decision making body in the college responsible for the administrative, academic growth of the institute. The CDC meets at least 4 times in a year.

Committee Member Hierarchy: The CDC consists of Chairperson of the management , Secretary of the management , Principal , one head of department, three teachers, one non-teaching employee, four local members, Co-coordinator, Internal Quality Assurance Committee of the college,) President and Secretary of the College Students’ Council.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

6.2 Strategy Development and Deployment**6.2.1 The institutional Strategic / Perspective plan is effectively deployed**

Response:**Placement activity and higher studies**

The Training and placement cell and the Study abroad cell activities have been successfully implemented at SCOE. Training and Placement cell believes in imparting training to the students to meet the expectations of the Industry and to achieve 100 % placement by providing them job and customized training to increase placement opportunities. Every year companies participate in the campus placements offering profiles that are preferred by the students. Few of the activities conducted are listed below:

Training & Placements:

Students are trained for all the rounds for placements.

1. **Aptitude Test:** General Aptitude test and Company specific test series for students related to the respective topics such as- JAVA, .Net etc.

2. **Huawei- ICT Partnership Programs & competitions:** Conduction of Technical Courses, Certifications, competitions on IT technologies such as - Artificial Intelligence and Routing

3. **Remote center of IIT Bombay:** SCOE, as Remote Center of IIT Bombay since 2018, conducts workshops on the technical subjects, remotely delivered by faculties from IIT using A-VIEW software and Internet, as part of the National Mission on Education National Mission on Education through ICT (MHRD, Govt. of India).

3. **Soft-skill & Personality Development Program:** 'NURTURE' conducted as an Add on course to develop the soft skills, communication of the students and 'Campus to Corporate' program for their practice purpose.

4. **Tie-up/ MOU for Internship:** Inter shala, Hurt Shirt, Asha classes- Students can register for internship. Guidance for competitive exams, UPSC etc. is provided.

5. **GATE preparation & Internships:** GATE preparation through GATE Software where students can access aptitude tests, old question papers and prepare for placements.

6. **Companies visit for placements:** The campus placements have increased over the years with approx. 83 companies, including 23 new ones and top MNCs companies like; Wipro, TCS, Infosys, Cap Gemini, Godrej, Accenture have visited campus for placements. Approx. 117 offers were given to the students of 2020-2021 batches till the date. The average CTC increased up to INR (lakh) 3.5, minimum to INR 2.4 and maximum to INR 7.5 per annum for 2021 batch, recording a jump of 28.00 %. This year, the highest number of Job offers (26) were generated by TATA Consultancy Services.

Study abroad cell for Higher studies: The SCOE Study Abroad cell provides free of cost counseling, information to all the students regarding various universities, courses, documentation, loan guidance, application process, Sop writing, summer and winter internships etc.

The cell has MOUs with specific universities to help students with Internships, research collaboration and student exchange programs. Continuous follow-up on the admission process of students is done through

study abroad partners. Number of students interested in study abroad cell is approx. 103. Few amongst others of the MOU with partners are listed below:

Ural Federation University, Russia

AIMST University, Malaysia

University of Canberra, Australia

N+I network, Paris, France etc.

File Description	Document
strategic Plan and deployment documents on the website	View Document

6.2.2 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules and procedures, etc.

Response:

SCOE is managed by the Saraswati Education society and the advisory board involving administrators, academicians and faculty representatives based on the guidelines as stipulated by AICTE. The Governing Body delegates authority to the Principal who further shares it with the designated Deans, the Heads of Departments (HOD), and the Coordinators of various committees. The governing tasks also includes the framing, implementation and monitoring of institutional policies, through IQAC, QMS, Best practices, deployment of duties, addressing of grievances through assigned committees. The college strives to strike a balance between Compliance and Regulatory matters taking decisions for the sustainable academic development benefitting all the stakeholders.

SCOE follows decentralized process of operations and has delegated authority at various levels to ensure good governance.

As displayed in the Organogram, Principal takes guidance, directions and approvals from the top management body, the Saraswati Education Society and Board of Governance for various academic and administrative activities of the college. The Principal is the overall in-charge and an academic, administrative head that monitors the functioning and has powers accounting for the different activities, ensuring the smooth running of the institute. The college has IQAC and College Development Committee (CDC) working under Principal for strengthening the academic quality. These committees advise the principal and the authorities on quality initiatives required for the institute.

The Principal interacts directly with the Registrar, Deans- Academics, Administration, R & D, Higher studies & study abroad, Student career & development, Head of Department of respective branches, Head of exam cell, Chief Accountant and the Student council for conduction of activities in the department/college. This includes discussion on applying for research grants, consultancies, conduction of internal and end semester University examinations, training & placement activities, conduction of seminars/

conferences, co curricular, cultural activities etc.

All the Deans are responsible for further conduction of associated activities and tasks respectively. The respective Deans interact with the Hods of engineering branches regarding academics, career development, and abroad study for the students, R & D activities of college and administration of the complete college activities and premises.

The Registrar interacts with Head Student section regarding student administration, Head- Establishment and Head-HR for HR related tasks. The respective HOD interacts with the teaching faculty, non teaching staff, in- charges for various department committees to ensure conduction of student related academic, administrative, training and other co curricular activities of the department.

All service rules, regulations, code of conduct, policies and procedures, are mentioned and shared with the staff members through the college HR & Administrative policy etc. for the information of teaching and non teaching staff members.

The college follows the rules and regulations according to the norms of University of Mumbai, Government of Maharashtra and regulations by Governing Body of the Institute from time to time.

File Description	Document
Upload any additional information	View Document
Link to Organogram of the Institution webpage	View Document

6.2.3 Implementation of e-governance in areas of operation

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

Response: A. All of the above

File Description	Document
Screen shots of user interfaces	View Document
ERP (Enterprise Resource Planning) Document	View Document
Details of implementation of e-governance in areas of operation, Administration etc	View 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:**

The college (SCOE) has various welfare schemes for the benefit of both teaching and non-teaching staff members. Various training programs, seminars, workshops, etc., are conducted on a regular basis for the development of staff members.

The institute has a fee reimbursement scheme for STTP/Workshop/Trainings/Professional Membership. The Institute encourages faculty and staff members and also financially supports them to attend various programs/ conferences/STTPs.

The institute also reimburses travel cost for faculty or students for travelling to conferences outside of city. The Institute facilitates various soft-skills training programs for teaching and non-teaching staff members.

The Institute motivates and supports faculty members financially for acquiring higher degrees from renowned and accredited Universities. The college helps staff members to work on different research oriented projects or purchase required equipments, software which can be helpful to the project work and the college for further new projects.

Various recreational and health awareness programs are conducted for the development of staff members.

Other welfare measures for Teaching and non teaching staffs are:

1. Leaves: Medical/ casual/ Maternity/ Earned leave/ on Duty leave based on procedures and requirements.
2. E P F – Paid as per P F Act to all the employees.
3. Employee Insurance policy for teaching and nonteaching staff
4. Conducting Recreational programs- Women’s day, Teacher’s day, SCOE staff day- ‘Saptrang’
5. Financial support to staff for Research activities
6. Bus facility for staff from Kharghar station
7. Health awareness programs- Yoga etc.

File Description	Document
Upload any additional information	View Document

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: 45.31

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

2020-21	2019-20	2018-19	2017-18	2016-17
84	67	55	13	79

File Description	Document
Upload any additional information	View Document
Details of teachers provided with financial support to attend conference, workshops etc during the last five years	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: 6.6

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

2020-21	2019-20	2018-19	2017-18	2016-17
3	9	6	6	9

File Description	Document
Upload any additional information	View Document
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff	View Document

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).

Response: 23.35

6.3.4.1 Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
27	56	7	25	43

File Description	Document
Upload any additional information	View Document
IQAC report summary	View Document
Details of teachers attending professional development programmes during the last five years	View Document

6.3.5 Institutions Performance Appraisal System for teaching and non-teaching staff

Response:

At SCOE, the Appraisal system is based on several parameters evaluated via the Appraisal process combining the API (Academic Performance Index) points and the Self Appraisal points.

- Separate formats are followed for the Teaching and Non teaching staff.

Teaching staff Appraisal System:

For the Teaching staff, the Appraisal process follows a step by step approach and is based on the evaluation of Self Appraisal form and the API form along with the attached proofs as submitted by the faculty. All the criteria mentions in the form are considered for the appraisal process. The concerned Head of department evaluates the forms further and accordingly the final evaluation is done by the Principal along with the Dean Academics. A department wise list is prepared further for the final evaluation to be done by the Principal and the top management.

The criteria for the Teaching staff appraisal are as follows:

1. Co-curricular, extension, and professional development related activities
2. Student Feedback & HOD feedback
3. Co- curricular, Extension & Professional development related activities
4. Research and academic contribution at department/ college level
5. Other responsibility of Department/college level
6. Research funding received and Book/ monograph publication
7. Training programs/ workshops/ seminars attended /organized
8. Project guidance and Consultancy work
9. Awards/ Honours/ Recognition received
10. Examination work etc.

Non Teaching/ Support staff Appraisal System:

The Self Appraisal form and the API form is submitted by the Non teaching/ support staff with the required proofs. The evaluation of performance for non-teaching/ supporting staff is based on punctuality, hardworking nature, skills acquired, attitude and behaviour, other responsibility at college level etc. The evaluation is done by the respective Head of Department, Dean- Administration

and the Registrar. The final evaluation is done by the Principal and the college management authorities.

The criteria for the Non Teaching/ Support staff appraisal are as follows:

1. Work competency and regularity
2. Self Improvement skills
3. Behaviour with students, staff and other related professional skill sets
4. Department responsibilities

The Appraisal System follows a balanced approach after the evaluation of all criteria and accordingly the promotions/ increments are given to the concerned staff.

File Description	Document
Upload 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 Saraswati Education Society, parent body of the institution hires internal and external auditors annually. The audited accounts of SES are annually scrutinized by the Shikshan Shulk Samiti (Fee Regulating Authority) of the Directorate of Technical Education (DTE), Government of Maharashtra. We have our special team for conduction of internal audit.

Auditing processes of SES takes place in two stages namely, internal audit and External Audit. The auditors are reappointed by the Governing body each year. External financial audit is conducted as per the guidelines of institute of Chartered Accountant of India, and all accounting principles of ICAI guidelines are followed in the audit.

The Internal audit is carried out by Registrar Mr.Amar Shinde and Principal Dr. Manjusha Deshmukh and External audit is carried out by Sushant Phadnis & Co. The Internal auditors are in regular contact with the accounts department. Accounts department constantly verifies if there is any cash transaction done on daily basis. Most of the transactions are in non-cash mode and is done using Tally ERP 9 Software.

Greytip Software is used for salary related calculations, as well as sending Salary Slip and also for Income Tax purposes including generating of Form 16.

TDS Xpress software is used for TDS related work and it's helpful for generating Form 16A.

The salary of each employee is directly credited into their bank accounts (Punjab National bank).

Budgeting is a quite challenging activity in SES considering the 6 departments with varying requirements. Principal takes meetings with HOD's and discuss the requirements for the current academic year as per the changes in syllabus. Each department creates its own budget and the budgets of all departments are

consolidated at the college level in consultation with finance officer and governing body of the institution. All requirements are finalized and corresponding budget is submitted to the principal. The summary of the budget is submitted by Principal to the top Management for approval.

So far there is no audit objection from any of the auditor till date in our 16 years of existence. The accounting processes and practices are carried out carefully by proficient accountant. If there is any minor mistake pointed by the audit team then it the correction is done by the account section staff immediately. We are always taking care and preventive steps not to repeat mistakes in future. Regular monitoring of fund flow helps the institute to be financially strong so as to meet all financial commitments efficiently.

File Description	Document
Upload any additional information	View Document

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

Response: 2.63

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

2020-21	2019-20	2018-19	2017-18	2016-17
0	1.96	0.67	0	0

File Description	Document
Details of Funds / Grants received from of the non-government bodies, individuals, Philanthropers during the last five years	View Document
Any additional information	View Document
Annual statements of accounts	View Document

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

Response:

SCOE has a distinct method of budget for every academic year which is utilized for all academic, infrastructural and other resources. The major and only source of funds is the institutional fees of students. The fees approved, by the Government of Maharashtra, the Shikshan Shulk Samiti (Fee regulating body) of the Directorate of Technical Education (DTE), that the students pay is the main source of funds. Other sources of income include Funding projects from Government/University in research or through

consultancy.

Each year, the college proposes the budget based on the respective departments' requirements. Each department presents its own budget for machinery equipments, furniture etc. and student related activities to the Principal. The Principal discusses with the Deans and Head of department and further puts up the budget to the College Management and the Governing Body in a meeting. After discussion, the college management recommends the budget for approval. The budget is reviewed again by the management and approved after necessary changes. For any urgent or unplanned requirements, the college makes a provision for additional funds. The Accounts department and the governing body checks the annual expenditure, the budget allocated and provides feedback related to efficient use of financial resources. The institute has an organized procedure for sanctioning funds and for the settlement of bills.

Human resources are also managed properly. Equal distribution of workload is done among all the faculty and staff members. The salaries of teaching, non-teaching and administrative staff are fixed as per their qualifications and experience and are informed to the college management accordingly for approvals.

For any additional funding and utilization, faculty are encouraged to apply for research proposals to financial agencies such as AICTE, university, UGC or other bodies to get financial sanctions. Research proposals are sent to different research agencies for receiving grants. The amount received is generally utilized for the project work related expenses.

The examinations at college are conducted as per the examination policy of the university and exam fees are charged separately from the students. The main areas of funds utilization are- Infrastructural development, Library (books), Laboratory equipment, Staff Salary, estate maintenance, Gym, sports and recreational facilities, R&D, student annual festival and other miscellaneous expenses.

The college allocates the required amount for related student activities based on the budget. The students can apply for these funds for appropriate activities. They also collect sponsorship amounts through various sources for various student activities.

The College contributes for the Industrial visit for students and self supporting workshops etc. The amount or surplus received through registrations etc. is utilized back to organize more such programs. The college allows various agencies to utilize well equipped laboratories, class rooms and all other infrastructures for conducting various examinations, seminars through which the college generates extra and additional funds which is utilized for conducting further such activities.

File Description	Document
Upload any additional information	View Document

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:

To achieve the vision and mission of SCOE, many best practices have been applied by the respective departments. The two practices institutionalized as a result of IQAC initiatives are- Project based learning and Training and placement activities.

Project based learning (PBL):

- The objective of project based learning is to make students understand and apply the knowledge learnt in theory lessons during lectures. This helps students to understand their basic concepts and apply the knowledge in a live manner thereby enhancing their practical skills. Students have to do a 'Mini project' as well as a 'Final project' in their course learning tenure.
- The students are divided into groups and based on the topic and discussion with respective faculty in-charge, the final list is prepared department wise. PBL topic choice is given to the student groups; however, it aligns with the subjects and the course content of the particular semester and the department.
- The students are required to complete the project report and the required tasks as an addition to the course curriculum prescribed by the university. The student group takes guidance from their respective faculty project guides /co-coordinator.
- The evaluation, is based on the prescribed parameters like; innovative solutions, contribution towards society, skill learning and technological enhancements. The projects are examined by both internal & external examiners. The best projects are awarded with the certificate of appreciation.

Training & Placement:

The **Training and placement cell activities** have been successfully implemented at SCOE to train the students and to achieve 100 % placement by providing them adequate job opportunities. Few activities are as below:

- **Aptitude Test:** General Aptitude and Company specific practice test
- **Huawei- ICT Partnership Programs & competitions:** on technologies such as - Artificial Intelligence and Routing
- **SCOE-Remote center of IIT Bombay:** conducts workshops on various subjects.
- **Soft-skill & Personality Development Program: 'NURTURE'** conducted as an Add on course to develop the soft skill, communication and personality of the students; **'Campus to Corporate'** program for extra practice.
- **Tie-up/ MOU for Internship:** Inter shala, Hurt Shirt, Asha classes.
- **GATE preparation & Internships:** through GATE Software for all branches.

Companies visit for placements: Increase in placements with approx. 83 companies, including 23 new and MNCs companies like; Wipro, TCS, Infosys, Cap Gemini, Godrej, Accenture visiting the campus. The average CTC increased up to INR (lakh) 3.5, minimum to INR 2.4 and maximum to INR 7.5 per annum for 2021 batch, recording a jump of 28.00 %. This year, the highest number of Job offers (26) were generated by TATA Consultancy Services.

File Description	Document
Upload 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 and recorded the incremental improvement in various activities (For first cycle - Incremental improvements made for the preceding five years with regard to quality For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives)

Response:

IQAC being the Central body focuses on improvement of quality of education being done by various methods. The IQAC continuously reviews and takes steps to improve the quality of the teaching-learning process. For this the institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per the norms and standard academic practices. These practices are:

1. Academic Audit: The IQAC believes that audits are to be conducted periodically to ensure effective implementation of academic policies for ensuring and sustaining quality. The academic audit of the institution is conducted every academic year. All Faculty members prepare and organize the course file of allotted subjects in the formats provided by the AMC committee. Individual faculty members prepare systematic Teaching plans along with correlation to the Course Outcomes (COs), Program Outcome (POs) and Program Specific Outcome (PSOs). They organize a Course file which contains university syllabus, previous year question papers, theory and objective questions, class test question papers, slow learner activity schedule and course attainment document. Further it is verified by the Academic Coordinator/ HOD and Principal. The Committee member/ Academic Coordinator/ HOD and Principal further verify the teaching plan.

2. Academic Calendar: At the beginning of the academic year, the college schedules the academic calendar based on the University Academic Calendar, to fit in with various events like seminar/ guest lecture/ workshops/ FDP/STTP as a part of regular teaching-learning process. Proper planning of all academic activities is done and it gets reflected in the Institute level Academic calendar which is prepared well in advance before beginning of the semester

3. Academic Monitoring System: The institute monitors the performance of the students on a regular basis. To keep proper track of students and to decrease defaulters, the college takes appropriate measures for proper monitoring of students. At least 75% Attendance is compulsory in each semester. Slow Learner register is maintained and weak students are counseled regarding their progress of study. Extra classes for weak students are taken to solve their problems. Continuous monitoring of attendance and performance of students through the Academic monitoring system is done. Prompt communication to parents about their wards' performance and attendance is taken care through letters and message systems.

4. Course Feedback: Feedback from students is also taken individually by teachers for their respective courses, by Proctors, and directly through IQAC. Students are also free to approach the Dean and the Principal of the Institute for their feedback and suggestions. Committees are regularly conducted with students to take feedback and appropriate steps are taken to enhance the teaching-learning process. Feedback is properly analyzed and shared with the Principal, Deans, HODs and individual faculty members. Feedbacks are reviewed by HOD and Principal and it is communicated to the faculty members.

5. Student's feedback & Course Exit Survey – To ensure the quality of teaching and learning process feedback from students is taken twice in a semester. Along with teaching feedback, other feedback like Parents' feedback, Alumni feedback, Employer's feedback and Exit feedback are to be taken through online mode. Regular parent-teacher meetings are conducted once in a semester to enable discussion, obtaining parent feedback and taking improvement measures.

Saraswati College of engineering has developed the student feedback software in August 2017. It is not purchased software. It is our in-house developed software. At the time of admission college has been providing the educational email id to each student. For all academic related work students have to use this email id. For this activity our software team introduced a student feedback integrated portal.

6. Student's exam portal- Examination section has given online facility to in-house students for filling up examination forms via Google form and could successfully avoid the movement of students. The examination section of the institute provides online support for transcripts. Around 90 to 100 B.E. passed out students are applying to seek admission for higher studies and also for the company recruitment abroad/India. For faster disposal of certified / verified / bonafide documents, the exam section started issuing on line transcripts making an MOU with Pune (M.S.) based company 'TRUECOPY SUPPORT'.

7. Industrial Training: The College organizes industrial training, industrial visits, workshops, and guest lecturers from industry experts for students, to promote industrial involvement in academic practices. Industrial Training can make the students aware of the Industry Norms. The students get to work in a real work environment which can help them in understanding how an organization works. It also helps them in knowing the latest happenings in the industry. The institute also motivates the faculty and staff for arranging industrial training programs/ visits for the students to enhance their knowledge.

8. ICT in teaching and learning: The IQAC has advised the administration to enrich ICT infrastructure. ICT aims to bridge the gap between parents, educators, and students by encouraging sustainable, cooperative, and transparent communication methods. It also provides enhanced information-exchange mechanisms for educational institutions. The Institute provides all the support and resources needed for implementing ICT methods. The faculties use ICT to build dynamic classrooms and make lessons more enjoyable for students. The Deans and HOD's use ICT. They convey the message, send notices and study material to students. For this purpose, many class advisors have created whatsapp groups for students. The educational use of social-media has also been utilized to establish communication with the students and peers.

9. Smart-board/Projector/PPT presentation: In the college there are certain classrooms with smart boards and ppt presentations which are used by the teachers for presentation to deliver the lecture. With the help of smart board the lecture is interactive and great for demonstrations. Students would enjoy an interactive Smart Board lesson because the subject would come alive and bring reality into the classroom. Smart Boards provide a means of learning for all students, including students with different learning styles. Most students learn by actually doing and physically interacting with a medium, so Smart Boards would give students the opportunity to explore and manipulate concepts of a lesson. Motivational lectures and guest lectures are also organized with the help of Smart-board/Projector/PPT presentation.

File Description	Document
Upload any additional information	View Document

6.5.3 Quality assurance initiatives of the institution include:

- 1.Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements**
- 2.Collaborative quality initiatives with other institution(s)**
- 3.Participation in NIRF**
- 4.any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)**

Response: B. 3 of the above

File Description	Document
Upload e-copies of the accreditations and certifications	View Document
Upload details of Quality assurance initiatives of the institution	View Document
Upload any additional information	View Document
Paste web link of Annual reports of Institution	View Document

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

Response:

In SCOE, Equal opportunities are provided to all individuals irrespective of gender, race, caste, colour, creed, language, religion. Its unique work culture, healthy traditions and ethos have led to enrolment of 65% women staff.

Gender equity & sensitization is highlighted in curricular courses and treated with utmost sensitivity by the teaching faculty for example, the Department of First year engineering offers two courses “BCE” and “Soft skills” which addresses sensitization issues through presentations and discussions

The institute is co-educational and has always strives to maintain a safe and secure environment for all students as well as staff. Creating a safe environment in the institution is the key responsibility of security officers who are deployed 24x7 hrs at different entry points to the institution. The institution promotes gender sensitization through co-curricular activities like workshops, seminars, guest lectures, counselling etc.

Institute has always strived towards promoting gender equity in the campus by taking various measures

1. Women's Development cell in the college arranges Awareness programs like Importance of human rights, Rights of Women, Cyber security awareness programs related to the safety and security of women employees and students are conducted periodically.
2. Proctorial Committees are available for counselling of both males and females
3. There are separate gents and ladies wash rooms on each floor which are hygienically maintained. Girls common room, Rest rooms have been allocated on every floor for girl students.
4. Institute has appointed a lady Counsellor to cater to the needs of students
5. Vending machine for sanitary pads has been installed in girls common room for their hygiene maintenance
6. Creating and maintaining safe campus for women by taking various initiatives
7. Awareness campaigns on women safety, health awareness and gender sensitivity through rallies and camps by NSS and Rotary club student volunteers.
8. The institution has organised ‘Self-defence training’ for the girl students of the institution.
9. The institution constituted the following committees as per norms laid by University -Institution Grievance Redressal Committee, Anti-Ragging, Women’s anti harassment Committee, Disciplinary Committee, Vishakha Committee, Women development cell and Mentoring Programme cares for the well-being of students and staff in the institution
10. Representation of adequate woman staff members in various committees and professional bodies
11. Encouraging programs that will motivate women towards entrepreneurship
12. Special Sport promotion program for girls and staff like Female football, cricket team, dodge ball team that takes part in various university competitions.
13. Celebration of International women’s day is arranged every year by the Women’s development cell where various cultural and awareness programme are conducted.

14. During pandemic with the day-care being closed, the institute ensured that the staff children's day care facility be arranged in the campus where the facility required for children's. Online classes and general wellbeing were taken care off.
15. After Pandemic, women faculties who requested to work for half day were permitted. The Institution ensures to a gender sensitive ambience in the campus

File Description	Document
Link for specific facilities provided for women in terms of: a. Safety and security b. Counselling c. Common Rooms d. Day care center for young children e. Any other relevant information	View Document
Link for annual gender sensitization action plan	View Document

7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

1. Solar energy
2. Biogas plant
3. Wheeling to the Grid
4. Sensor-based energy conservation
5. Use of LED bulbs/ power efficient equipment

Response: C. 2 of the above

File Description	Document
Geotagged Photographs	View Document
Any other relevant information	View Document

7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- Solid waste management
- Liquid waste management
- Biomedical waste management
- E-waste management
- Waste recycling system
- Hazardous chemicals and radioactive waste management

Response:

Waste Management

Solid waste management:

- Waste management is intended to reduce adverse effects of waste on human health and to the environment.
- Segregated food waste are collected from the canteen and dumped in the pit for compost formation. Garden waste and dry leaves are also composted.
- Our Institute received green campus award ,appreciation from Senergy, AICTE
- The Compost pit is managed by the NSS unit of SCOE
- Civil Engineering syllabus includes subjects such as solid and Industrial waste management, Environmental Engineering where the students learn about various kinds of waste management.
- A patent was filed for the topic Title: System and Method to Manufacture Paver Blocks from Waste Plastic Bottle. This invention describes the use of waste plastic water bottles to produce paver blocks in desired shape.

Liquid waste management:

Sewage Treatment Plant-

- Treatment plant was installed in SCOE campus in the year 2015-2016 with a capacity of 100 m³/day.
- Wastewaters from various points are collected through drainage lines in a Buffer Tank. After Process this water is used for cleaning college buses and gardening purposes
- Ms. Priya Shinde (ME Automobile engineering student presented her dissertation on “Towards water Sustainability-A case study of common effluent treatment plant”.

Biomedical Waste Management

There is no biomedical waste generated on campus but a seminar was conducted by the civil department to create general awareness on the disposable process.

E-Waste management

- The institute takes sufficient measures to dispose of the e-waste generated inside the campus.
- The condemned electronic equipment's are handed over to the estate office at the end of year by all departments after proper inspection. Once the equipment are certified as obsolete it is then disposed to vendors
- Useful parts of unused electronic devices are taken out from the devices for reutilization.

Waste recycling system

- Wooden waste is recycled for preparation of in house artifacts and utility items which can be used in college campus
- Steel waste is recycled for in house fabrication of utility items and remaining waste is given for recycling to the vendors.
- Students files and paper waste is given for recycling through authorized vendors
- The regional Transport office panvel has appreciated the work on “End life of vehicle management: A Case study in Mumbai region” by Ms Ruchira Dhattrak (ME Automobile Engineering). This work creates awareness regarding social, economical & environmental effects of End life of Vehicles.
- A site visit to a Common effluent treatment plant (CETP) at koparkhairane was organized on 26th March 2019 for the Civil engineering students .Students were given a brief introduction about the

plant and processes involved .The waste water from the trans Thane creek industrial area is collected and treated in the plant .

Hazardous Chemical and radioactive waste management

Institute does not create dangerous chemical waste, as many diluted solutions are used for practical purposes. After cleaning the campus, the agency segregates the waste and disposes accordingly.

File Description	Document
Any other relevant information	View Document
Link for Geotagged photographs of the facilities	View Document
Link for Relevant documents like agreements/MoUs with Government and other approved agencies	View Document

7.1.4 Water conservation facilities available in the Institution:

- 1. Rain water harvesting**
- 2. Borewell /Open well recharge**
- 3. Construction of tanks and bunds**
- 4. Waste water recycling**
- 5. Maintenance of water bodies and distribution system in the campus**

Response: B. 3 of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document

7.1.5 Green campus initiatives include:

- 1. Restricted entry of automobiles**
- 2. Use of Bicycles/ Battery powered vehicles**
- 3. Pedestrian Friendly pathways**
- 4. Ban on use of Plastic**
- 5. Landscaping with trees and plants**

Response: A. Any 4 or All of the above

File Description	Document
Various policy documents / decisions circulated for implementation	View Document
Geotagged photos / videos of the facilities	View Document
Any other relevant documents	View Document

7.1.6 Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:

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

Response: A. Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Certification by the auditing agency	View Document
Certificates of the awards received	View Document
Any other relevant information	View Document

7.1.7 The Institution has disabled-friendly, barrier free environment

- 1.Built environment with ramps/lifts for easy access to classrooms.**
- 2.Divyangjan friendly washrooms**
- 3.Signage including tactile path, lights, display boards and signposts**
- 4.Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment**
- 5.Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading**

Response: A. Any 4 or all of the above

File Description	Document
Policy documents and information brochures on the support to be provided	View Document
Geotagged photographs / videos of the facilities	View Document
Details of the Software procured for providing the assistance	View Document
Any other relevant information	View Document
Link for any other relevant information	View Document

7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).

Response:

The Institute has conducted several programs for providing an inclusive environment for all and has taken various initiatives for promoting tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities.

1. Cultural diversity is about bringing people together from a diverse set of backgrounds and cultures and creating an environment that not only recognizes the differences between those cultures and backgrounds but celebrates them. Students from various regional and cultural backgrounds participate in such programs. These cultural events are organized at different levels-college level as well in other colleges.

- In order to let the students stay rooted with Indian culture and develop a sense of harmony towards culture, SCOE celebrates various festivals on campus.
- Nakshatra is an inter-college festival wherein all students irrespective of caste, gender participate in the annual festival of the college. This gives an opportunity to all students coming from various backgrounds to learn, participate and interact with others.

2. Communal Socioeconomic refers to the interaction between the social and economic habits of a group of people. To develop these interactions between the students and community welfare, a donation drive was organized to encourage the students to participate in the donation to help people.

- NSS conducted food donation drive, flood relief drive, Tree Plantation, Clean up drive at many places,
- Old age and Orphanage visits, Road safety rally, Book donation drive, say no to drugs rally and Youth Cultural Exchange Program.
- Every year students have organized blood donation camp.
- NSS students conduct Special Camps in villages. These camps are directed towards various social issues impacting the lives of the people in the community including social and cultural values among the young students. The volunteers mainly undertake awareness generation activities with regard to social issues.

3. To develop a sense of belonging to every religion and area, NSS unit of SCOE has organized 'Akhand Bharat and 'Run for Unity' event. Its aim is to celebrate the Unity in Diversity, strengthen, and maintain the existing bonds among the people. Various programs were conducted on gender sensitization, gender equality, transgender etc. through webinars, dance programs.

The ratio of female-male staff workers in SCOE is 65:35. This clearly shows the encouragement towards women workers in all departments of the institute. Also staff comes from various regions of India.

4. Rotaract club of SCOE have organized Animal welfare events. Its aim is to take care of the stray animals around us, feeding them and making safe and warm shelters for them.

5. A Fund raising superbikes exhibition event in favor of Voice OF Martyrs- an NGO working for our Soldiers families. After the exhibition a rally was also held to promote road safety in cooperation with the RTO. Fund raise by this event is donated to an NGO named as “Voice of Martyrs, Chandigarh”

6. During Pandemic, the Institute ensured that staff children day care facilities were arranged on campus and arrangements for their online classes were also taken care of.

File Description	Document
Link for supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document

7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

Response:

At SCOE we believe in giving holistic all round education to the students. And sensitizing students on our constitutional rights, values, duties and responsibilities is one of the primary educations given at the institute through various means.

SCOE undertakes different initiatives by organizing various activities to sensitize students and employees to the constitutional obligation.

Sensitization of students and employees of the Institution to the constitutional obligations is done through curriculum as well as through extra-curricular activities.

Many of the courses offered have topics which sensitize the students about the constitutional obligations

In engineering first year all students takes a course on Environment studies which gives them insight into environment acts, wildlife protection act, forest act, global environmental concerns etc.

There is an Institute level elective subject which is based on cyber security. In this subject students study various concepts related to cybercrime, cyberspace, Indian IT act etc. Also Seminar on “Cyber Crime

awareness” was organised by Civil Engineering students.

In addition to this many regular programs are conducted by the Women's development cell of the institute to educate women about their rights. Also seminars and workshops are conducted on days of national importance on various rights, duties and responsibilities of citizens.

NSS unit of the institution conducts a cleanliness drive to mark the occasion of Swachh Bharat Abhiyan in the college campus, railway station as well as in the nearby village area. An oath is taken by all students and faculties to keep their surroundings clean. Also many skits and dance performances are presented in various events related to sensitization. Various topics covered include corruption, responsibility of young, Child labour, Social media abuse, Mental Health etc.

Every year Republic day is celebrated on 26th Jan by organizing activities highlighting the importance of the Indian Constitution. The pledge is read on this occasion to create general awareness among the students and staff. Similarly constitution day is celebrated on 26th Nov every year. Independence Day is also celebrated every year to highlight struggle of freedom fighters

Every year students organises different activities that inculcate values necessary to render students in to responsible citizens. Events such as Kargil Vijay Divas celebration ,tribute to Martyrs, Rally to give tribute to Netaji Subhas Chandra Bose on his 125th Birth Anniversary, Republic Day, Jallianwala Bagh Massacre, National Integration Camp for youth, Martyrs day and Constitution day, Non violencerally, Akhanda Bharat, Swachha Bharat Abhiyaan, Nelson Mandela International Day, Celebration of Independence day of India, Quit India Movement were organised for Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens

File Description	Document
Link for details of activities that inculcate values necessary to render students in to responsible citizens	View Document

7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

- 1. The Code of Conduct is displayed on the website**
- 2. There is a committee to monitor adherence to the Code of Conduct**
- 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff**
- 4. Annual awareness programmes on Code of Conduct are organized**

Response: A. All of the above

File Description	Document
Details of the monitoring committee composition and minutes of the committee meeting number of programmes organized reports on the various programs etc in support of the claims	View Document
Code of ethics policy document	View Document

7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

Response:

To maintain harmony and healthy work atmosphere and to make the learners aware of the national pride and rich cultural heritage, the National/International commemorative days are regularly being celebrated in SCOE Campus

Our institution celebrates these events with great enthusiasm to commemorate the ideology of nationalism and to pay tribute to our great National Leaders.

College Celebrates following Commemorative days

World Water Day (22nd March): To spread awareness about conservation of water various student committees of SCOE celebrate world water day.

Kargil Vijay Divas (26th July): In the remembrance of martyr SCOE student committee celebrates Kargil Vijay Divas. Major General G.D Bakshi was invited as the chief guest who played an integral part during the deporting of Indian army during Kargil war.

Independence Day: SCOE celebrates Independence Day on 15th August every year. Secretary/Principal hoist the flag followed by the National Anthem

Republic Day: SCOE celebrates Independence Day on 26th January every year. Principal delivers a speech briefing about the constitution of India and responsibilities of the students towards Nation followed by the National Anthem.

Women Empowerment: Various women empowerment activities are carried out in SCOE. Few are listed below

1. Women's Day celebration 8th March. In this activity, female teachers present their performances, and a dedicated platform is provided to showcase their talents.
2. Women's equality Day celebrated on 26th August by the student association.
3. International day of girl child celebrated on 11 October

International Days:

1. World engineer's day celebrated on 15th September by conducting various technical competitions

2. International food day celebrated on 16th October by donating food to slum areas
3. Nelson Mandela day celebrated on 18th July to honor the great legacy of Mandela.
4. International Earth day is celebrated on 22nd April to pledge support for environment protection.
5. International plastic bag free day is celebrated on 3rd July to create awareness about the threat caused by plastic bags by arranging poster making competitions
6. International youth day is celebrated on 12th August to raise awareness about cultural and legal issues surrounding the youth by arranging seminars
7. International Environment day is celebrated on 5th June by planting trees at various locations of navi Mumbai to pledge for protection of the environment.
8. International Senior citizen's day is celebrated on 21st August. A visit to old age home is organized for the students
9. Literacy day celebrated on 8th September
10. World sign language day celebrated on 23rd September
11. International day of charity celebrated on 23rd September
12. International Doctor's day celebrated on 30th March

National Days:

- National Sports day is celebrated on 29th August.
- Sports day is celebrated every year during the annual nakshatra event.
- Children's day celebrated on 14th November
- Teacher's day is celebrated on 5th September in remembrance of Sir Vishweshawraiya.

- Nutrition day is celebrated from 1 September – 7th September to spread awareness about healthy food habits.

- National Doctor's day is celebrated on 1st July.
- National Science day is celebrated on 28 February.

File Description	Document
Link for Geotagged photographs of some of the events	View Document
Link for Annual report of the celebrations and commemorative events for the last five years	View Document

7.2 Best Practices

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

Response:

1. Holistic Education through Students clubs: Best Practice

Objective of the Practice:

Conventional learning aims to develop only intellectual capabilities. But holistic education aims to develop physical, intellectual, cognitive or mental, emotional, and social abilities.

The goal of this practice is to bring transformation in students' personality and aim at realizing the holistic and integral development of students. Thus, keeping the expectations in mind, SCOE has undertaken an experiential training programme called 'Holistic Education' through various students clubs and associations to enhance leadership skills in our students.

The Context:

Holistic education is a comprehensive approach to imparting education where educators seek to address the emotional, social, ethical, and academic needs of students in an integrated learning format. Emphasis is placed on positive college environments and providing academic and non-academic needs of the students. The purpose of education is to help students develop and be ready to face and succeed on the greatest test, called Life! Each student is unique and has his personality traits, interests, preferences, values, attitudes, strengths, and weaknesses. The educational curriculum must help students find their unique place in the world in alignment with the uniqueness they have. Holistic development is a thorough pathway to learning intended to help develop all the sides of the human brain. Conventional learning and education systems aim to develop intellectual capabilities only. But holistic growth aims to develop physical, intellectual, cognitive or mental, emotional, and social abilities.

The Practice

For holistic development of the students of SCOE there are various active student chapters categorized differently so that students can excel and learn the administrative capabilities thus giving them great advantage in their career. Thus SCOE is giving a wider platform to the students to nurture their skills and enhance their administrative, Co-curricular and extracurricular areas of expertise.

Category A:

International/ National Level Committees: Students are the members of nationally and internationally recognized organizations like ISHRAE, CSI, SAE, ISTE, IWWA and IETE. Activities like expert talks, seminars, Industrial Visits, Placement Drives, and Workshops are organized under these committees.

Category B:

1. Department Level Committees: Every department forms a student association like ACE, CESA, ETSA, RACE, SAIT and MESA and organizes co-curricular, extra - curricular activities and intra domain activities under the guidance of the association mentors for their respective department.

2. Team Prahar Racing: The objective of Team Prahar Racing is to design and build formula cars, All Terrain Vehicles and participate in various competitions nationally and internationally. Team Prahar racing also participated in national and international competition and secured various ranks in various competitions.

3. Entrepreneur's Network Cell: SCOE Entrepreneur's Network cell stands for young aspiring entrepreneurs. The Cell is primarily responsible for stimulating, sustaining and supporting entrepreneurial ventures within the campus, providing them with necessary assistance, infrastructural support and resources.

Category C:

Committees for Social and Extra - Curricular Activities:

1. College Level Students Council

The primary objective of the student's council is to give students an opportunity to develop leadership by organizing and carrying out commemorative days, events and festivals. Another objective is to create an environment where every student can voice out their concern /need.

2. National Service Scheme (NSS)

SCOE has a recognized NSS Team which renders service to the nation. They carry out various programs, like Tree Plantation, Blood Donation Drive, Flood Relief Camp, Cleanliness Drive, Water Literacy and Conservation Program.

3. Rotaract Club

Rotaract club of SCOE brings together people aged 18 and older to exchange their ideas with the leaders in the community. The members coordinate with their respective zones and carry out various activities like Blood Donation Camp, Program on Leadership & Personality Development, etc.

4. Dance Club/Music club

Objective of these clubs is to bring students of all years with similar interests together. Dancing is a great way to keep fit, socialize and learn a new skill.

5. Media Club

The Media Club of SCOE provides coverage for all types of campus activities and events with the aim of fostering a media culture and aptitude among college students. Club provides students with the opportunity to express their ideas and talent through media, communication and journalism.

6. Orator Club

Objective of the Orator club of SCOE is to develop public speaking skills, confidence and the unique talents of the students. The Orator's Club encourages the students to participate in Debates, Elocution, Group Discussion and competitions.

7. Photography Club

The objective of the photography club is to enhance the photography, cinematography & editing skills of the students. We aim to create an atmosphere for the students to discover, develop, deploy and express

their Creativity in Photo & video, capturing & editing skills.

8. YIN (Young Inspirators Networks)

Objective of YIN is to spread unique ideas; motivate & inspire students through various talk shows.

9. Entrepreneurship Development Cell

SCOE Entrepreneurship Development cell stands for young aspiring entrepreneurs who are passionate about business development. The ED cell provides the mentoring and infrastructural support for the entrepreneurship project. It also makes available the financial support to the students by approaching the appropriate investors.

10. Indian Water Works Association (IWWA)

The IWWA is a voluntary body of professionals concerned with and connected with water supply for municipal, industrial, agricultural uses and treatment and disposal of wastewater. IWWA focuses basically on the entire Water Cycle encompassing the environmental, social, institutional, and financing issues.

Evidence of Success

1. Student council of SCOE has organized various cultural programs to celebrate the cultural diversity of India. Students from various regional and cultural backgrounds participate in such programs. These cultural events are organized at different levels-college level as well in other colleges.
2. Donation drive was organized to educate people about the merits of donation and to encourage the students to participate in the donation to help people.
3. Every year NSS students and students from different departments organized blood donation camps in which many individuals acted as helping hands to construct a more concerned society where various donors donate blood for helping injured and needy peoples. SCOE has received many awards and appreciation letters for consistently organizing blood donation camps every year. SCOE also has received Appreciation letters for Social services.
4. NSS students conducted Special Camps in villages for NSS volunteers. These camps are directed towards various social issues impacting the lives of the people in the community including social and cultural values among the young students. In these villages the students constructed water tanks, eco-friendly toilets and also installed solar panels for the villagers
5. The institute has established an entrepreneurship development cell for innovations and incubation (EDCII) to organize the entrepreneurship talk/seminars and nurture startups. Currently, EDCII has incubated two companies on campus. The first company named AGRESA deals in agrotech business. The company grows and sells fresh mushrooms with the help of a novel evaporator cooler designed and developed in EDCII. The company plans to undertake other agricultural products like aquaponic farming for medicinal plants etc. The second company named METAPODS deals with manufacturing and selling of exotic resin-based furniture. The other ongoing projects in EDCII are development of mushroom leather, silk farming in small playhouses, aquaponic farming for medicinal plants, Mushroom mycelium based packaging, etc.

5. In order to let the students stay rooted with Indian culture, SCOE celebrates various festivals on campus like Marathi Bhasha Diwas, Tribute to Dr Babasaheb, Ganesh festival, Navratri, Diwali, Gandhi jayanti, Raksha bandhan.

6. NSS also conducted a food donation drive, flood relief drive, Tree Plantation, Clean up drive at many places, Old age and Orphanage visits, Road safety rally, Book donation drive; say no to drugs rally etc.

7. Rotaract club of SCOE have organized Animal welfare events. Its aim is to take care of the stray animals around us, feeding them and making safe and warm shelters for them.

8. A Fund Raising Superbikes Exhibition event in favor of Voice OF Martyrs, an NGO working for our soldiers' families. in this events various Superbikes and cars came to participate and exhibits their Bikes, Cars for students. Fund raise by this event is Donate to an NGO named as “Voice of Martyrs, Chandigarh”.

9. Nakshatra is an inter-college festival wherein other colleges are also invited to participate in all the events being held.

10. Team Prahar participated in FSEV Concept Challenge on 4th august 2021 and secured overall rank of 26th. Team prahar also participated in Coimbatore on 10/10/2019 and secured 1st rank in Design event and Cost presentation and lightest vehicle & secured 4th rank overall out of 24.

11. Tarun Soyal, student of Civil Department of SCOE has been felicitated by Certificate of Appreciation at 53rd Annual Convention 2021 organized at Hyderabad on 5th and 6th March 2021. This award is given for extensive Programs conducted during the last 2-3 years and considered him as a future potential leader of IWWA. Kiran Karjavkar, student of Civil Department of SCOE has been felicitated by Certificate of Appreciation at 52nd Annual Convention 2020 organized at NIT patna on 10th and 12th January 2020. This award is given for extensive Programs conducted during the last 2-3 years and considered him as a future potential leader of IWWA.

12. SCOE has been felicitated with Certificate of Appreciation by IWWA at 52nd Annual Convention 2020 organized at NIT Patna on 10th and 12th January 2020. This award was given to recognize the number of activities, workshops, seminars, site visits etc. conducted by the institute in the past 2-3 years.

Problems Encountered and Resources Required

1. Balancing Academics and co-curricular activity is a challenging task as in the semester pattern academics syllabus itself is very rigorous and managing holistic development activities is very demanding

2 Students entering in professional education belong to various higher secondary backgrounds. Importance they give to holistic education depends upon holistic roots developed in their previous institutions. Targeting awareness is the biggest challenge faced in the multidisciplinary education system.

3. Holistic development activities may underemphasize Academic Learning. A holistic approach may limit a student's time on academic aspects of learning. Making students aware about time management is the main aspect. Some parents may oppose students taking part in holistic educational activities.

4. Being affiliated to university of Mumbai we cannot allot credits to holistic development activities.

2. A Journey from Campus to Corporate: Best Practice

Objective of the Practice:

Most of the young people lack the necessary experience and skills to succeed in the market and corporate world.

The skill set that is mostly demanded by recruiters/employers includes Soft skills, domain knowledge expertise, decision making skills, learning skills etc.

We develop these skills set in the students

Objectives of the practice are

- 1.To make the students aware of the corporate culture by organising guest lecture, workshops, training
- 2.To provide requisite guidance ,training and practice session to every student as per their future career interest
- 3.Enhance students Communication skills through “Soft skills and Personality Development “Courses.
- 4.To Prepare students for Placement ,higher studies and entrepreneurship
- 5.Identifying suitable potential employers

The Context

Given the Intense competition in the workplace, possessing employability skills continues to remain vital for the success of our students. Students with good skills tend to adapt to change easily by learning new concepts and methods. Every year eminent companies participate in the campus placements offering profiles that are preferred by students

To enhance these employability skills, SCOE concentrated on developing various qualities in students. These included Communication skills, Leadership, Problem solving ability, teamwork, reliability, planning , organisation ,technology friendly and Initiative nature.

To imbibe these qualities in the students was the main task of the Training Cell of our college and accordingly a road map was created to start the journey towards developing these skills.

The training process was decided to be initiated right from First year of graduation to make the students corporate ready. Providing theoretical knowledge along with practical concept of the course with latest development in the relevant core field was the need of the hour which was emphasised along with the soft skills and personality development

The Practice- SCOE beliefs in emphasising following points to enhance employability skills

Staying update with current technology

Keeping abreast of technological changes is paramount to flourish in the industry.

Keeping a regular track of the technologies needed is important.

To enhance the skills of students and to expose them to real world challenges we have

1. **Huawei-ICT Partnership program**-SCOPE has signed an MOU with Huawei for Conduction of Technical courses and certification on emerging IT Technologies such as artificial Intelligence ,Cloud computing, Machine Learning, Routing & Switching.

2. **Remote Centre of IIT Bombay** -SCOPE has been identified as Remote Centre of IIT

Bombay since 2018. To develop learning abilities of students various workshops

on technical subjects are delivered remotely. In addition to the technical subjects, programs like “College to Corporate” are also conducted by IIT using

A-view software

3.**Soft skill & Personality Development Program**-Syllabus for Employability skills included Interview skills, Professional grooming ,Group Discussion, Debate, Extempore, Role play, Mock Interview, Quiz, Essay writing ,Grammar training ,Essay writing ,Office Etiquette , Resume writing, confidence building are regularly conducted for students from 2nd year itself in soft skills training .”Nurture” is also conducted as an add on course to develop soft skill, communication and personality development.

4. **Get acquainted with latest softwares:** Trainers are appointed to train students on latest technologies to bridge the gap between industry & institute

5.**TCS (Ninja/Digital)/Capgemini/Wipro/Godrej/Infosys Placement Drive Preparation**-To prepare students for the placement drive and provide confidence ahead of the actual campus placement drive .Students comes to know what kind of questions asks in technical ,Managerial and HR interview rounds .time management and the process

6. **Guidance from Industry**-.MOU’s are signed with various industries like Internshala. Interdisciplinary projects are undertaken so that students will be able to work in a multidisciplinary environment.

7. **Online-Test Series, Placement Practice session-Aptitude/Technical/GD**-To develop a consistency in their study, to develop the concept and logic in the field of quantitative aptitude, logical and reasoning, learnt tricks in solving various quantitative problem Self-assessment.

8 **Python Training** for Third year students are conducted for all branches students regularly with the help of efficient trainers

9. **Seminar** to create awareness about Opportunities for Mechanical/Civil Engineers in Software/IT industry were conducted

10. **Guidance from Industry**-.MOU’s are signed with various industries like Internshala. Interdisciplinary projects are undertaken so that students will be able to work in a multidisciplinary environment.

11. Project **Competitions (Avishkar)** is conducted for Final year students every academic year
12. **Technical fest** is conducted every year for students to showcase their technical talents in form of conference paper, poster presentation, and various competitions relevant to their field in order to develop their presentation skills
13. **International Conference** on various upcoming technologies are conducted every year
14. **Project Based Learning** had been a part of SCOE teaching culture from many years apart from syllabus students are given various mini project to enhance their practical concept
15. **Study Abroad cell for Higher studies** -Students are also interested in pursuing higher studies abroad. The cell provided the students guidance on various universities courses, documentation, loan guidance, internships etc .The cell has MOUs with specific universities to help students related to internships ,research collaboration and student exchange program. The partners included Ural federation university, Russia, AIMST University, Malaysia, University of Canberra, Australia, and Paris, France etc.

Evidence of SUCCESS

1. Due to the employability skills training, SCOE observed an increased in Placement with approx 83 companies including 23 new MNCs companies like Wipro, TCS, Infosys, Capgemini, Godrej and Accenture visiting the campus for placement
2. TCS has been regularly visiting the campus for placement and there has been a 10 times increase in placed students since 2016.
3. Similarly Wipro placement was doubled in 2021, Infosys also saw 3 times more placement since 2016, Capgemini also hired 7 times more students and Accenture placement also doubled by the year 2021.

Because of employability skills training overall SCOE was able to get 5 times more placement as compared to previous years and is continuously increasing.

4. The average CTC increased upto INR 3.5lakh and Maximum to INR 7.5 per annum for 2021 batch recording a jump of 28.00%.
5. Around 30 students went for higher studies and the percentage is increasing every year
6. EN Cell start up-The institute has established an entrepreneurship development cell for innovations and incubation (EDCII) to organise the entrepreneurship talk/seminars and nurture start-ups.

Currently, EDCII has incubated two companies on campus. The first company named AGRESA deals in agrotech business. The company grows and sells fresh mushrooms with the help of a novel evaporator cooler designed and developed in EDCII. The company plans to undertake other agricultural products like aquaponic farming for medicinal plants etc.

The second company named METAPODS deals with manufacturing and selling of exotic resin-based furniture. The other ongoing projects in EDCII are development of mushroom leather, silk farming in small polyhouses, aquaponic farming for medicinal plants, Mushroom mycelium based packaging, etc. Apart

from startups and projects, EDCII has also conducted many seminars, talks and alumni interactions for training the students involved in entrepreneurship and innovations.

Problems Encountered -While developing the skills in students we encountered various constraints due to following reasons. The Training cell tried best to overcome the hurdles so as to benefit maximum students

1. Poor Communication skill of students as few belongs to vernacular medium
2. Lacking Time Management as Academics and syllabus coverage takes the maximum time of the semester
3. Students Lacking Smartness in attempting Questions to score more than cut off
4. Lacking stress/anxiety Management
5. Gap between the syllabus and industry needs was a major concern as syllabus revision is done by university
6. Due to time constraints managing these trainings in regular timetable is difficult
7. Identifying and Inviting knowledgeable resource person from corporate world
8. Financial constraints of students and institute.
9. Constraints in getting Internship and providing practical exposure to students in industry
10. Not all students are technically sound even after being trained.
11. Lack of availability of latest Software's.

File Description	Document
Link for Best practices in the Institutional web site	View Document
Link for any other relevant information	View Document

7.3 Institutional Distinctiveness

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

Response:

Givers to Society

“Givers to society” SCOE tried to imbibe this quality in the students by developing their character, social consciousness and commitment, discipline and healthy and helpful attitude towards the community:

Every Drop Counts

Blood Donation camps

The NSS Unit of SCOE has been organizing BLOOD camps every year since its inception. Around 20-25 blood camps were organized since 2005. During the pandemic the 19 blood donation drives were organized. This activity was appreciated by University of Mumbai and had awarded the college for the same.

Jal Hai toh Kal Hai

Water Conservation

A 7 Day Residential Camp at Shirsoni Pada,

Tq- Mokhada, Dist. Palghar.

Students of NSS organized a Seven Days Special Camp at Shirsoni Pada, Tq- Mokhada, Distri. Palghar between 21/12/2016 to 27/12/2016.

Preliminary studies about rural infrastructure, basic requirements of the village was identified that, even though the village is situated in a region of average annual rainfall between 2200 mm to 2400 mm, people are still facing water scarcity. No water storage structure, no water supply/ water distribution scheme is available in the village.

NSS camp will be organized in this village with an aim of fulfilling the water requirements of the village.

Activity:-

1. The work of construction of water tanks/ desilting work were carried by students and villagers.
2. Also, apart from this, one of the major concerns of the entire village was having an open defecation system. This issue was solved by Bhagini Nivedita Utkarsha Mandal by Constructing six toilet blocks for boys and girls. Also, Dr. S. D. Umrikar, Director, Water and Sanitation Support Organization, Govt. of Maharashtra, has arranged to provide ten number of toilet blocks on war footing just before the camp on request of students. **B.**

Construction of Ferro cement tank

As the village is located in hilly terrain, it was decided to construct two water tanks. Actual construction of tanks started on 22.12.2016 and both the tanks were completed on 26.12.2016 in just four days.

Desilting Work

There are few bandharas on the stream flowing nearby the village. All these bandharas are full of silt and debris. Students and villagers contributed in desilting the bandhara. Some choke subsurface flows were opened in the bandhara, due to which substantial increase in water level in bandhara was observed.

Water Lifting Arrangements

The head difference between the source at the well and the water tank at top is 50 mtr. A solar pump was provided and HDPE pipes of length 600 mtr were laid.

Rain Water Harvesting

Both the water tanks are constructed nearby Anganwadi and Samaj Mandir at Shirsonipada. Arrangements were made so that rainwater from rooftop of Anaganwadi and Samaj Mandir will get collected in water tanks in the rainy season. With this roof top rainwater harvesting will be achieved. Also, overflowing water from tanks will be utilized for recharging ground water by constructing recharging pits nearby water tanks.

One of our student volunteer Pradnya Lathkar student of Civil Engineering received certificate of appreciation in 51st annual convention in January 2019

Residential camp at Borimal Pada, Khalapur

Tq. of Raigad district of Maharashtra

In between lush greenery and serenity, a village of Khalapur named Borimal Pada is situated. Sanitation, education, water supply and electricity were the basics the village couldn't endure.

Taking these challenges under consideration, NSS of SCOE provided the village a helping hand by adopting them for 3 years.

With multiple visits and surveys, the village council and the NSS unit along with Management of SCOE came down with a solution of eradicating lack of Sanitation and Water supply. The project was divided into three phases. Phase one consisted of construction of a Ferro cement water tank and 5 Eco-Toilets. The Ferro cement tank had a capacity of 7000 liters. The Ferro cement water tank was made under the guidance of IWWA officers, faculty members of SCOE and NSS Program Officers. With help of Art of Living (NGO), solar pumps were installed.

The next phase was conducted in the year of 2018-2019, where the construction of 75 Contenus contour Trenches (CCTs) for collecting and percolation of rainwater was created as well as Renovation of School. The measurement of slope and points of trenches were obtained by a device, Hydro marker made by the students. The whole initiative was supported and assisted by the Assistant Agricultural Officer of Agriculture Department (Khalapur).

The final phase was conducted in the year 2019-2020; the volunteers took the initiative to construct Bandhara again. Apart from construction of Bandhara, the volunteers renovated Ferro cement tank, washrooms, school, Samaj Mandir and daubed the whole village with Graffiti's.

The Principal of SCOE, ,NSS Program Officers and whole unit of NSS,SCOE was felicitated by Gram Panchayat for their tremendous contribution for making the place better.

Ride for Pride

Since 2016 SCOE has been organizing the Ride for Pride exhibition of extraordinary and rare vehicles on the college campus. In these events various Superbikes and cars were exhibited.

Ride for Pride 1 was organized first on 5th Feb. 2017, followed by ride for Pride 2 on 9th Feb 2018, Ride for Pride 3 on 8th Feb 2019 and Ride for Pride 4 on 7th Feb 2020

It is an Fundraising Superbikes exhibition event organized in favor of Voice OF Martyrs an NGO working for our Soldiers families. Fund raise by this event is donated to an NGO named as “Voice of Martyrs, Chandigarh”

Flood Relief Camp

Following high rain in late July and early August 2019, a series of floods had affected over nine states in India. To provide relief to the flood victims who lost everything in this natural disaster, SCOE tried to provide a helping hand to the victims as part of humanitarian work

Kerala Flood relief camp: 31st Aug 2017

Flood relief collection for Kolhapur: 13th Aug 2019

Flood relief Donation drive for Konkan region: 26th July 2021

Flood relief Donation drive for Sangli region– Aug 2019

File Description	Document
Link for appropriate web in the Institutional website	View Document

5. CONCLUSION

Additional Information :

- College is implementing new technological developments to educate students to become responsible and quality technocrats.
- College provides excellent work culture to all staff members by providing them flexible working hours, sabbatical leaves, compensatory off, early leave etc.
- Appointment of faculty is done by standard procedure with transparency.
- College encourage staff for attending various workshops, FDPs and provides reimbursement of fees.
- Students are encouraged to participate in various competitions like Hackathon, Project competitions, paper presentations, conferences etc.
- Students are also encouraged to participate in extracurricular activities.
- Industry visits are organized for the students at national and international level, giving them an insight into the industry.
- Certification courses are conducted for students for their overall development.
- NSS and Rotaract club of SCOE regularly conducts social activities like tree plantation, blood donation, orphanage and old age home visit, cleanliness drives donation of flooded areas etc.
- Cashless transactions are promoted in the college.
- Examination section has up to date records, has excellent infrastructure, and conducts examinations in a fair manner as per university norms.
- SCOE Study abroad cell encourage and guide students to pursue higher studies abroad and also helps them to get international internships.
- Training placement and carrier guidance cell conducts various in house training session for technical, soft skill and aptitude developments.

Concluding Remarks :

Saraswati College of Engineering has been established with a vision to become a leading research organization in the world & make the youth of India globally competent to take on the challenges with ever-expanding fields of technology. College is having excellent infrastructure, providing quality technical education to students. It has a team of motivated staff members for providing guidance to students.

- In “Times Engineering Institute Ranking Survey 2020”, SCOE secured 107th position in Top Engineering Institute in India, survey conducted by Times of India.
- College has been felicitated with Certificate of Appreciation by Indian Water Work Association (IWWA) at 52nd Annual Convention 2020 organized at NIT Patna on 10th and 12th January 2020.
- College has won “Best Institute of the year” under sub category “Innovative pedagogical approaches and tools” by Computer Society of India held in September 2019.
- College has won “Best Emerging Technical Institute Award-2019” by Dr. P V Pawar Research and Innovation Centre held in January 2019.
- College faculty won "Best Teacher" by Dr. P V Pawar Research and Innovation Centre-2019.
- College has secured second position in SENERGY Green Campus Award held in January 2019.
- College faculties received the award of "Best Principal, best HOD, best TPO, best faculty" by CSI-2018.
- College received Award of "Research Excellence" by IEAE-2018.

- College has won “Distinguished College Award” by Computer Society of India held in January 2017.
- Institute is accredited by NAAC for 1st Cycle in May 2017.
- College stood in top 100 in “AICTE Clean Campus Award-2017” held in October 2017.
- College Principal awarded with "Principal of the year" by IEAE-2017.
- College received certificate of appreciation by Panvel Municipal Corporation for having on site composting facility in campus.

The Institute has participated in National Institutional Ranking Framework (NIRF). Upgradation of laboratories and maintenance of college building is done on regular basis.

Saraswati College of Engineering promises a bright future for its students in terms of success.



6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																				
1.1.3	<p>Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the last five years</p> <ol style="list-style-type: none"> 1. Academic council/BoS of Affiliating university 2. Setting of question papers for UG/PG programs 3. Design and Development of Curriculum for Add on/ certificate/ Diploma Courses 4. Assessment /evaluation process of the affiliating University <p>Answer before DVV Verification : A. All of the above Answer After DVV Verification: C. Any 2 of the above</p>																				
1.2.1	<p>Percentage of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented</p> <p>1.2.1.1. Number of Programmes in which CBCS / Elective course system implemented. Answer before DVV Verification : 9 Answer after DVV Verification: 8</p> <p>Remark : Observation accepted & Input edited as per EP 1.2</p>																				
1.2.2	<p>Number of Add on /Certificate programs offered during the last five years</p> <p>1.2.2.1. How many Add on /Certificate programs are offered within the last 5 years. Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>28</td> <td>12</td> <td>23</td> <td>49</td> <td>37</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>37</td> <td>46</td> <td>23</td> <td>12</td> <td>27</td> </tr> </tbody> </table>	2020-21	2019-20	2018-19	2017-18	2016-17	28	12	23	49	37	2020-21	2019-20	2018-19	2017-18	2016-17	37	46	23	12	27
2020-21	2019-20	2018-19	2017-18	2016-17																	
28	12	23	49	37																	
2020-21	2019-20	2018-19	2017-18	2016-17																	
37	46	23	12	27																	
1.2.3	<p>Average percentage of students enrolled in Certificate/ Add-on programs as against the total number of students during the last five years</p> <p>1.2.3.1. Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>2245</td> <td>1142</td> <td>1792</td> <td>2331</td> <td>1375</td> </tr> </tbody> </table>	2020-21	2019-20	2018-19	2017-18	2016-17	2245	1142	1792	2331	1375										
2020-21	2019-20	2018-19	2017-18	2016-17																	
2245	1142	1792	2331	1375																	

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
1375	2220	1792	1142	2245

1.3.2 Average percentage of courses that include experiential learning through project work/field work/internship during last five years

1.3.2.1. Number of courses that include experiential learning through project work/field work/internship year-wise during last five years

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
147	145	153	169	196

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
030	30	30	36	36

Remark : Input edited considering Mini project, Major project & Internship per program

1.4.2 Feedback process of the Institution may be classified as follows:

Options:

1. Feedback collected, analysed and action taken and feedback available on website
2. Feedback collected, analysed and action has been taken
3. Feedback collected and analysed
4. Feedback collected
5. Feedback not collected

Answer before DVV Verification : A. Feedback collected, analysed and action taken and feedback available on website

Answer After DVV Verification: A. Feedback collected, analysed and action taken and feedback available on website

2.1.1 Average Enrolment percentage (Average of last five years)

2.1.1.1. Number of students admitted year-wise during last five years

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
653	579	524	803	822

Answer After DVV Verification :

--	--	--	--	--

2020-21	2019-20	2018-19	2017-18	2016-17
653	579	524	732	732

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17

2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (exclusive of supernumerary seats)

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
202	223	152	280	290

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
216	244	240	264	262

2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)

2.3.3.1. Number of mentors

Answer before DVV Verification : 128

Answer after DVV Verification: 120

Remark : Observation Accepted & Input edited as per EP 3.1

2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)

2.4.3.1. Total experience of full-time teachers

Answer before DVV Verification : 1776

Answer after DVV Verification: 1320

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

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17

9	10	5	3	4
---	----	---	---	---

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
9	10	5	3	4

3.3.2 **Number of research papers per teachers in the Journals notified on UGC website during the last five years**

3.3.2.1. **Number of research papers in the Journals notified on UGC website during the last five years.**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
16	24	12	13	4

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
16	24	12	13	04

Remark : Observation not accepted because of Number of research papers published with ISSN numbers only considered

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

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
106	119	62	62	63

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
4	8	6	8	9

Remark : Observation accepted & Input edited accordingly

3.4.2 **Number of awards and recognitions received for extension activities from government/ government recognised bodies during the last five years**

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
7	12	6	3	1

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	2	1	0

3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
227	43	29	43	22

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
135	32	26	28	18

3.4.4 Average percentage of students participating in extension activities at 3.4.3. above during last five years

3.4.4.1. Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations such as Swachh Bharat, AIDs awareness, Gender issue etc. year-wise during last five years

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
6534	1073	937	1013	713

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
2378	826	880	692	656

Remark : Observation accepted & Input edited as per Metric 3.4.3

3.5.1	<p>Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship per year</p> <p>3.5.1.1. Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship year-wise during the last five years Answer before DVV Verification:</p> <table border="1" data-bbox="306 389 1046 524"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>117</td> <td>155</td> <td>81</td> <td>120</td> <td>141</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="306 602 1046 736"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>64</td> <td>72</td> <td>56</td> <td>55</td> <td>60</td> </tr> </tbody> </table>	2020-21	2019-20	2018-19	2017-18	2016-17	117	155	81	120	141	2020-21	2019-20	2018-19	2017-18	2016-17	64	72	56	55	60
2020-21	2019-20	2018-19	2017-18	2016-17																	
117	155	81	120	141																	
2020-21	2019-20	2018-19	2017-18	2016-17																	
64	72	56	55	60																	
4.1.3	<p>Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)</p> <p>4.1.3.1. Number of classrooms and seminar halls with ICT facilities Answer before DVV Verification : 30 Answer after DVV Verification: 28</p>																				
4.1.4	<p>Average percentage of expenditure, excluding salary for infrastructure augmentation during last five years(INR in Lakhs)</p> <p>4.1.4.1. Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs) Answer before DVV Verification:</p> <table border="1" data-bbox="306 1292 1046 1426"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>99.73</td> <td>134.41</td> <td>253.65</td> <td>142.53</td> <td>173.97</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="306 1505 1046 1639"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>75.76</td> <td>84.84</td> <td>49.71</td> <td>50.02</td> <td>104.66</td> </tr> </tbody> </table> <p>Remark : Input edited considering expenses for Lab equipment, Electrical fixtures, water charges, Lab consumables, software purchasing etc.</p>	2020-21	2019-20	2018-19	2017-18	2016-17	99.73	134.41	253.65	142.53	173.97	2020-21	2019-20	2018-19	2017-18	2016-17	75.76	84.84	49.71	50.02	104.66
2020-21	2019-20	2018-19	2017-18	2016-17																	
99.73	134.41	253.65	142.53	173.97																	
2020-21	2019-20	2018-19	2017-18	2016-17																	
75.76	84.84	49.71	50.02	104.66																	
4.2.3	<p>Average annual expenditure for purchase of books/e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)</p> <p>4.2.3.1. Annual expenditure of purchase of books/e-books and subscription to journals/e-journals year wise during last five years (INR in Lakhs) Answer before DVV Verification:</p> <table border="1" data-bbox="306 2038 1046 2085"> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>																				

2020-21	2019-20	2018-19	2017-18	2016-17
5.59	4.41	5.54	6.62	6.24

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
3.85	4.28	5.37	6.62	6.53

Remark : Input edited as per Income & Expenditure statement provided by HEI

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

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
101.69	237.59	211.7	110.58	210.89

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
159.56	88.59	80.9	28.62	34.68

Remark : Input edited as per Income & Expenditure statement considering expenses for Repair & Maintenance

5.1.4 Average percentage of students benefitted by guidance for competitive examinations and career counselling offered by the Institution during the last five years

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
1928	2336	2157	1243	1487

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
1928	2220	2157	1243	1487

5.2.1	<p>Average percentage of placement of outgoing students during the last five years</p> <p>5.2.1.1. Number of outgoing students placed year - wise during the last five years. Answer before DVV Verification:</p> <table border="1" data-bbox="304 309 1046 443"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>257</td> <td>239</td> <td>279</td> <td>309</td> <td>308</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 521 1046 656"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>251</td> <td>233</td> <td>272</td> <td>301</td> <td>299</td> </tr> </tbody> </table>	2020-21	2019-20	2018-19	2017-18	2016-17	257	239	279	309	308	2020-21	2019-20	2018-19	2017-18	2016-17	251	233	272	301	299										
2020-21	2019-20	2018-19	2017-18	2016-17																											
257	239	279	309	308																											
2020-21	2019-20	2018-19	2017-18	2016-17																											
251	233	272	301	299																											
5.2.3	<p>Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)</p> <p>5.2.3.1. Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, etc.) year-wise during last five years Answer before DVV Verification:</p> <table border="1" data-bbox="304 1014 1046 1149"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>26</td> <td>06</td> <td>02</td> <td>05</td> <td>00</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 1227 1046 1361"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>25</td> <td>06</td> <td>02</td> <td>04</td> <td>00</td> </tr> </tbody> </table> <p>5.2.3.2. Number of students appearing in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT,GRE/ TOFEL/ Civil Services/ State government examinations) year-wise during last five years Answer before DVV Verification:</p> <table border="1" data-bbox="304 1518 1046 1585"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	2020-21	2019-20	2018-19	2017-18	2016-17	26	06	02	05	00	2020-21	2019-20	2018-19	2017-18	2016-17	25	06	02	04	00	2020-21	2019-20	2018-19	2017-18	2016-17					
2020-21	2019-20	2018-19	2017-18	2016-17																											
26	06	02	05	00																											
2020-21	2019-20	2018-19	2017-18	2016-17																											
25	06	02	04	00																											
2020-21	2019-20	2018-19	2017-18	2016-17																											
5.3.3	<p>Average number of sports and cultural events/competitions in which students of the Institution participated during last five years (organised by the institution/other institutions)</p> <p>5.3.3.1. Number of sports and cultural events/competitions in which students of the Institution participated year-wise during last five years Answer before DVV Verification:</p> <table border="1" data-bbox="304 1865 1046 2000"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>36</td> <td>62</td> <td>50</td> <td>47</td> <td>42</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p>	2020-21	2019-20	2018-19	2017-18	2016-17	36	62	50	47	42																				
2020-21	2019-20	2018-19	2017-18	2016-17																											
36	62	50	47	42																											

2020-21	2019-20	2018-19	2017-18	2016-17
12	25	17	25	15

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**

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
104	71	66	13	97

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
84	67	55	13	79

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**

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
16	12	8	10	13

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
3	9	6	6	9

6.3.4 **Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).**

6.3.4.1. **Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course year-wise during the last five years**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17

92	110	32	43	59
----	-----	----	----	----

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
27	56	7	25	43

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

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
5.10	3.12	8.94	1.46	0.9

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
0	1.96	0.67	0	0

7.1.4 **Water conservation facilities available in the Institution:**

1. **Rain water harvesting**
2. **Borewell /Open well recharge**
3. **Construction of tanks and bunds**
4. **Waste water recycling**
5. **Maintenance of water bodies and distribution system in the campus**

Answer before DVV Verification : A. Any 4 or all of the above

Answer After DVV Verification: B. 3 of the above

Remark : Observation accepted & Input edited as per supporting documents provided by HEI

2.Extended Profile Deviations

ID	Extended Questions															
1.1	<p>Number of courses offered by the Institution across all programs during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1"> <tr> <td>2020-21</td> <td>2019-20</td> <td>2018-19</td> <td>2017-18</td> <td>2016-17</td> </tr> <tr> <td>699</td> <td>658</td> <td>491</td> <td>439</td> <td>420</td> </tr> </table> <p>Answer After DVV Verification:</p> <table border="1"> <tr> <td>2020-21</td> <td>2019-20</td> <td>2018-19</td> <td>2017-18</td> <td>2016-17</td> </tr> </table>	2020-21	2019-20	2018-19	2017-18	2016-17	699	658	491	439	420	2020-21	2019-20	2018-19	2017-18	2016-17
2020-21	2019-20	2018-19	2017-18	2016-17												
699	658	491	439	420												
2020-21	2019-20	2018-19	2017-18	2016-17												

724	722	555	581	562
-----	-----	-----	-----	-----

1.2 **Number of programs offered year-wise for last five years**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
10	10	10	12	12

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
8	8	8	8	8

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
248	254	254	266	266

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
339	348	348	366	366

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
769	731	717	686	619

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
771	736	756	731	753

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
128	134	127	148	173

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17

120	126	119	140	165
-----	-----	-----	-----	-----

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
722.46	453.85	857.15	787.80	612.84

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
475.049	630.54	755.561	339.95	747.36