



SELF STUDY REPORT

FOR

3rd CYCLE OF ACCREDITATION

PROGRESSIVE EDUCATION SOCIETY'S MODERN COLLEGE OF ENGINEERING

**PES'S MODERN COLLEGE OF ENGINEERING 1186 A, SHIVAJINAGAR, OFF J M
ROAD
411005**

www.moderncoe.edu.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

(Draft)

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Progressive Education Society (PES) is a reputed educational organization in Maharashtra which was established in year 1934 in Pune, the educational hub of the country. The motto of PES is "EVER TO EXCEL". The activities of society have always been 'Progressive' and 'Modern'.

Modern College of Engineering was established in the year 1999, under the flagship of PES. Situated at central location in Pune city, the Institution is approved by AICTE, Directorate of Technical Education (DTE), Government of Maharashtra and is permanently affiliated to Savitribai Phule Pune University (SPPU). The Institution is UGC recognized under 2(f) and 12(B). Institution is twice accredited by NAAC and is now applying for its 3rd cycle. In the year 2019, National Board of Accreditation (NBA) has accredited Electronics and Telecommunication Engineering, Electrical Engineering and MCA Programs of the institution.

The Institution offers quality programs at Undergraduate and Postgraduate levels. Qualified and experienced faculty members are keen in imparting knowledge and skills to the students.

The Institution has the state of art infrastructure which includes ICT enabled classrooms, seminar halls, well equipped laboratories, computer center, workshop, language laboratory, audio/video laboratory, central library, sports and gymnasium facility, cafeteria and an auditorium. Medical facility is provided to staff and students. Career counseling, guidance and mentoring is provided to the students.

Following are few more credentials of the institution:

- Awarded best professional college by affiliating University.
- Confederation of Indian Industry (CII) Gold rank for consecutive three years.
- Received four star ranking for Institute Innovation Council, MHRD, for consecutive two years.
- Awarded with Atal Ranking of Institutions on Innovation Achievements (ARIIA) MHRD, Govt of India.
- Selected for MHRD's Unnat Bharat Abhiyan (UBA).
- Rated A and AA by IIT Madras for excellent performance in NPTEL.
- E-Yantra class A Award.
- Recognized as Swachhata Action Plan Institution by Department of Higher Education, Govt of India.
- Recognized as Industry center of excellence for eight organizations.

Principal has been awarded by

- ISTE as Best Principal.

- SPPU as Best Innovative Teacher.
- Rotary Club as Best Principal.
- P. E. Society as Best Teacher.

Vision

“To create a collaborative academic environment to foster professional excellence and ethical values”

Mission

The institute caters to the educational, social, cultural and economic needs of the society. All these characteristics are percolated in its policies. Quality educational programs and healthy practices are being implemented keeping in mind the policy of adherence to the values and principles of inclusion, responsibility and social accountability. These distinctive characteristics are reflected in the following mission statements of the institute:

- To develop outstanding professionals with high ethical standards capable of creating and managing global enterprises.
- To foster innovation and research by providing a stimulating learning environment.
- To ensure equitable development of students of all ability levels and backgrounds.
- To be responsive to changes in technology, socio-economic and environmental conditions.
- To foster and maintain mutually beneficial partnerships with alumni and industry.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- Institution is centrally located and well connected by road, rail and airways.
- Institution has active, participative and supportive management.
- Institution has adequate infrastructure facilities including well-equipped laboratories and research facilities.
- Institution has Library facility with adequate e-resources.
- Institution has Wi-Fi, ICT & other campus amenities
- Institution has Gymkhana, Sport facility and Hostel.
- Institution has well planned and standard procedures for ensuring quality in academic and administrative processes.
- Institution has well planned and documented process for considering the feedbacks from its stakeholders.
- Increasing percentage score in qualifying examination for first year students' admission thus good

intake quality.

- Effective implementation of Outcome Based Education (OBE) with student centric teaching-learning approach.
- Consistently good results of University Examinations
- Institution has good students' internships and placements and Enrolment for higher education & competitive examinations
- Institution is offering different Value added Course, Audit courses and skill development programs focused on employment.
- Institution has well planned research promotion schemes for students.
- Institution is offering Honour and Minor Courses focused on Industry requirements.

- Noteworthy achievements of students in co-curricular and extra-curricular activities
- Qualified and Experienced faculty members with good retention.
- Effective Use of ICT & Blended methods in Teaching-Learning
- Faculty members are participating in Curriculum Development / revision and have representation in Board of Studies (BOS) of affiliating university.
- Increase in Research publications of students and faculty members in reputed/ indexed Journals and conferences.
- Institution has collaborations with reputed organisations/ Industries and Professional Societies.
- Institution has well connect with alumni and good percentage of Entrepreneurship
- Institution is part of two flagship events by MHRD, Govt. of India:

1. Unnat Bharat Abhiyaan (UBA) and

2. Institution Innovation Council.

Institutional Weakness

- Academic flexibility is restricted.
- Limited number of funded projects.
- Number of patents registration need to be improved.
- Pre-Incubation and Incubation activities need to be improved.
- Placement in core companies can be improved.
- Faculty consultancy activities with industry need to be strengthen.

Institutional Opportunity

- To acquire status of autonomous institution.
- To get all programmes offered by the Institute accredited by accrediting agencies.
- To Improve Institution's ranking in ARIIA: Atal Ranking of Institutions on Innovation Achievements and NIRF: National Institutional Ranking Framework.
- To establish Centre of Excellence at different departments /specializations offered.

- To increase research & in-house project developments and strengthen the collaboration with nearby Industries /organizations.
- To enhance alumni role in Academics, Training & Placement activities.
- To increase outreach activities for community development

Institutional Challenge

- Students admitted are from different socio-economic backgrounds
- Restriction on resource availability
- Limitation on infrastructural expansion

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The Institution follows systematic processes for the effective curricular implementation and tries to adopt the concrete measures to improve and sustain the quality of higher education.

- The Institution being affiliated to Savitribai Phule Pune University (SPPU), systematically follows the recommended Choice Based Credit System (CBCS) for all UG and PG programmes.
- The Academic Planning and Development Committee (APDC) of the Institution as per the IQAC's well defined policies and processes. All programs follow the Institution's policy for the effective implementation of Outcome Based Education.
- Along with the mandatory courses as per the curriculum, students have been offered different Elective Courses and Audit Courses focussing on state of art technology, employability skill development respectively.
- The curriculum is ably supplemented with different certificate courses, training programmes and creative engagements. In last five years, about 340 such courses were offered by the Institution and more than 14000 students were benefitted by the same.
- Adhering to the Academic Calendar, the implementation of academic activities including Internal Examinations at the departmental level are periodically reviewed by the Head of the Department and APDC.
- The faculty members of the Institution are responsible for Internal Examinations. Many faculty members are contributing to the University level activities like Curriculum revision, Paper setting and assessment of External Examinations, Conduction of Faculty Orientation Program for all affiliated colleges after curriculum revision and so on.
- Faculty members from different departments are member of Board of Studies of SPPU and are also working as a Chairman for their course during University level examinations.
- More than 70% of courses offered include experiential learning through project work / Industrial visits / internships. Project based learning is practiced right from First year of UG programs offered.
- Audit Courses are conducted considering the crosscutting issues relevant to Professional Ethics, Human

Values, Environment and Sustainability. To address such issues co-curricular and extra-curricular activities are also conducted every year for the students.

- Institution obtains feedback on the syllabus, infrastructure and other facilities, Teaching-learning practices followed and about the activities conducted. Feedbacks obtained from stakeholders are analyzed and corrective measures are taken based on suggestions (if any).

Teaching-learning and Evaluation

The Institution focuses on implementation of student-centric teaching-learning methodologies and follows the well-defined Outcome Based Education (OBE) system based on AICTE's Examination reform policy.

? Student admission at the Institution is as per the guidelines of Directorate of Technical Education, State of Maharashtra and is based on Common Entrance Test (MH-CET). Average enrollment percentage for the last five years is 97.336 and the average percentage of seats filled against reserved category is 86.46.

? The Institution follows the systematic procedure to identify the advanced and slow learners. Students are encouraged to participate in various activities and competitions, are encouraged to publish their project work in Journals /Conference proceedings. The sufficient opportunities are provided for students to interact with Industry people, to complete different Certification courses and to attend skill development workshops. Institute arranges remedial and make-up classes for slow learners to cope-up the academic performance.

? Average of student to faculty ratio for last five years is 19.6:1.

? Experiential learning, Participative learning and problem solving are implemented to enrich the learning experiences of the students. For an effective teaching-learning, the ICT enabled tools are created and used effectively by the faculty members for curriculum delivery.

? Effective mentoring system is followed at the Institution.

? The average teaching experience of full time teachers in the same institution is 8.14 years. Total experience of full time teachers' during academic year 20-21 is 1684.12 years. Number of full time teachers with highest qualification as Ph.D is 37.

? The Institution follows the well defined process for internal assessment of students and any examination related grievances are addressed effectively.

? Course Outcomes (Cos) are defined for every Course offered by the Program. COs and Program Outcomes are communicated to students; and are displayed on the website. Learning outcomes are recorded through a well defined OBE policy.

? The average pass percentage of outgoing students is 93.54 during last five years.

? In addition to different feedbacks from students about the academic practices followed at every department, Student Satisfaction Survey based on teaching-learning is collected and analyzed at the end of academic year since year 2018-19.

Research, Innovations and Extension

Research, Innovations and Extension activities has been considered as one of the focus area of the Institutional activities.

- The Institution have established Innovation Cell, IPR Cell and have developed Project and Innovation Laboratories and research centers at various departments to systematically foster the innovation and research activities.
- Faculty members and students are encouraged to carry out research and development activities in collaboration with Industries, affiliating University and different Government/ Non Government Organizations/Agencies.
- The Institution has signed about 90 MOUs with different Industries / organizations.
- During the last five years, 437 research papers have been published by faculty members in the Scopus Indexed, UGC Care, Web of Science and Google Scholar journals. Also the faculty members have published 113 books/ book chapters.
- Almost 20 number of faculty members have completed their Ph.D. in the last five years which is indicative of the rate of professional advancement undertaken by the teachers.
- The Institution has established Institution Innovation Council (IIC) as per the norms of Innovation Cell, MHRD, Government of India (GOI). IIC in association Entrepreneurship Development Cell organizes different seminars, workshops, 'Idea to Product' development competitions and promotes students to participate in National level events like Smart India Hackathon (SIH). Students have won prizes in SIH and other Hackathons. IIC also prepares for ARIIA.
- The Institution has developed systematic policies and procedures for providing in-house funding for students projects / innovative ideas and for transforming their creative works into Intellectual Property.
- The Institution has more than 40 copyrights and has filled more than 30 patent applications.
- The Institution is part of Unnat Bharat Abhiyaan (UBA) 2.0, a flagship event of MHRD, GOI and has adopted five villages.
- The Institution has actively participated in Student Solar Ambassador Workshop organized globally on 150th Birth Anniversary of Mahatma Gandhi in 2019.
- The students and faculty members enthusiastically participate various extension activities through NSS, different techno-social clubs, UBA and different Professional Society Chapters.
- The Institution is recognized as Swachhta Action Plan Institution by Mahatma Gandhi National Council of Rural Education Department of Higher Education, Ministry of Education, GOI.

Infrastructure and Learning Resources

The Institution has a centrally located well-developed campus of 10.47 acres of land in metro city Pune, easily accessible to both the students and staff.

- The Institution has 37 ICT-enabled classrooms and 7 seminar halls with Wi-Fi/LAN facilities.
- The Institution has 72 well equipped laboratories covering all the programs offered and also has a well-equipped machine shop (workshop), e- Yantra and Robotics laboratory.
- The central library is fully automated with ERP WEB DESK software.
- The library has a huge stock of books (60,000+), journals (90+), and various e-resources.
- The library has professional memberships of Jayakar Library, ARAI, CSI, Maratha Chamber of Commerce Industries and Agriculture, Confederation of Indian Industry, EduSkills, e-Shodhsindhu, and National Digital Library of India. The library committee is responsible for updating, maintaining, and

utilization of library resources like books, journals, e-resources, and multimedia.

- The Institution has also maintained a separate departmental library in each department.
- The Institution has a playground of 6000 sq. m. and a sports complex of 200 sq. m. for badminton and table tennis.
- The Institution has a well-equipped gymnasium, cultural activity center, auditorium with more than 500 seating capacity, and a yoga center.
- The Institution has an audio recording room, language laboratory, Entrepreneur Development cell, NSS room, and a counseling room.
- The Institution has a student computer ratio of 3.1:1 with 1156 computer systems of HP, Lenovo and Dell procured with the latest configurations.
- A centralized Server is available with Sophos Firewall facilitates active directory services for user and storage management.
- The Institution has an internet bandwidth of 315 Mbps with three ISP leased lines and a Wi-Fi setup with Sophos UTM AP 55C Access Point.
- The Institution has well-defined procedures for the maintenance of physical academic and support facilities. The Institution makes annual maintenance contracts (AMCs) for housekeeping, Security, Lift, RO Plant, water tank cleaning, EPABX, fire extinguisher, CCTV, DG set, Computer network, UPS and battery, library management software, and website.
- Deadstock register is maintained for the laboratory apparatus, machines, computers, and printers. History cards are maintained to track the record of maintenance and the measuring instruments are calibrated time to time.

Student Support and Progression

The Institution focuses on Student Centric approach not only in teaching-learning practices but also in all the other co-curricular and extra-curricular activities. It takes all the necessary measures to provide necessary support to students in their academic and other activities.

- The Institution supports students by facilitating with scholarships and freeships programs offered by Government / Non-government Organizations, Industries and Individuals. In last 5 years on an average 64.75% students have been benefitted by scholarships and freeships offered by the Government.
- The Institution has a student council which is a part of various administrative/ statutory committees. The council plans and executes technical, managerial, cultural, and social activities on and off the campus.
- The Institution's Training and Placement cell organizes soft skills and Professional skills development sessions.
- More than 550 students from academic year 2020-21 have been placed through campus placement drives in core and software multinational companies.
- Guest sessions for competitive examination preparation, Orientation about higher studies and career guidance/ counseling are organized at each department. More than 2000 students have participated in such activities during academic year 20-21. In last 5 years on an average 50% students have been benefitted with such activities.
- Language labs are developed to conduct audit courses for German and Japanese Languages.

- Activities of Professional Student Chapters, Student Associations and Technical/ non-technical Clubs are focused towards all-round development of students. Through these platforms the students organize and participate in intra and inter-collegiate events.
- Well defined Grievance Redressal Mechanism is in place.
- Many students have received several awards and trophies in inter-collegiate sports and cultural fests.
- The Institution has different publications of its own like Magazine, Departmental Magazine and Newsletters which are edited, reviewed and published by the students.
- The Institution has a registered Alumni association. The alumni have expertise in various technical, non-technical domains; some of them are also working in Government Sector at administrative positions.
- The Alumni contribute actively in delivering Technical Talks, Guest Lectures, Webinars, hands-on workshops and as Judge for Projects and Competitions.
- The alumni are involved in IQAC and Department Advisory Board and provide valuable suggestions for the progress of the students.

Governance, Leadership and Management

The Institution's Vision and Mission statements incorporates the perspective of higher education, which are inclined towards technical, techno-social, and ethical values and were framed by considering inputs from various stakeholders and internal committees.

- The Institution has an efficient multi-layered governance structure. Board of Governors (BOG) being at the apex provides directives for the effective implementation of the Institution's academic and administrative activities.
- The College Development Committee (CDC) provides the framework of policies, structures, relationships, systems, and processes for the smooth functioning of the Institution.
- The Institution prepares a Strategic/Perspective plan and has well defined organizational structure for effective functioning.
- Governance in all areas is achieved through active participation of teachers in BOG, CDC and Internal Quality Assurance Cell (IQAC).
- The Institution has formed various committees that are constituted by faculty members to manage different institutional activities and to promote academic leadership.
- The IQAC monitors the functioning of all the committees relevant to teaching-learning, student progression and overall development of the institution.
- The institution has a variety of welfare schemes for teaching faculty members and non-teaching staff and it provides a caring and supportive working environment for them.
- Faculty members are provided with financial support to attend conference/workshops and towards membership fee of professional bodies like IEEE, WIE etc.
- During last five years, 11.4 average numbers of professional/administrative training programs were organized by the Institution for teaching and non-teaching staff. Grants are fetched for the same from

different funding agencies.

- On an average 64.8 percentage of teachers have attended FDP / Orientation programs/ STTPs in last five years.
- The Institution has a well-defined Performance Based Appraisal System in place.
- The Institution monitors the effective and efficient utilization of available financial resources.
- IQAC has been engaged actively in -Collaboration with other organizations/ industries, and funding agencies, Training to teaching and non-teaching staff for quality enhancement, Preparation of Self-Study/Assessment Reports of various accrediting bodies (or Institution Ranking) such as NAAC, NIRF, NBA, ARIIA, and CII etc. and Introduction of new programs/courses and augmenting required facilities.

Institutional Values and Best Practices

The Institutional values and best practices followed at the Institution are reflected in its Vision and Mission statements. Institutional activities are focused to reach the community, make the students aware about their responsibilities towards the community development in all possible ways. In addition,

- The Institution strives for equality for girls and boys from the perspective of age, gender, social background, race, caste, creed, skills, beliefs, customs, traditions, experience and learning level in all curricular and co-curricular activities to promote gender equity.
- The Institution follows a standard policy which prescribes the code of conduct for all the stakeholders, especially the students, teachers, administrators and support staff.
- The institution's Internal Complaints Cell always takes up any issues on priority and takes necessary actions.
- The institution organizes various programs under National Service Scheme (NSS), Institutional Social responsibility (ISR) Cell, Various Institutional Clubs, Forums and Student Associations to sensitize students and to inculcate a sense of values, rights, duties and responsibilities in them.
- The institution takes efforts to provide an inclusive environment to maintain harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities.
- The Institute has a differently abled friendly campus with facilities like elevators, ramps, toilets and other amenities.
- Energy conservation is being need of time; the Institution has taken initiatives towards creating facilities such as 80 KW Grid Tied Solar System wheeling to the grid. Use of LED lighting is practiced and a biogas plant is also installed at the campus. Water conservation is practiced through regular maintenance of water bodies, recycling of waste water and installing a Sewage Treatment Plant.
- The Institution's sprawling green campus in the heart of city has adopted environment-friendly policies with regard to plantation, solid / liquid / hazardous chemicals / E-waste management, use of renewable energy sources, restricted use of single use plastic and pedestrian friendly pathways. The Institution carries out green audits and energy audits on a regular basis.
- The Institution has an ED Cell and Institution's Innovation Council which conducts many activities for cultivating entrepreneurial spirit among students.
- At Institution systematically defined processes and code of conduct is followed by the students, teachers, administrators and other staff.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	PROGRESSIVE EDUCATION SOCIETY'S MODERN COLLEGE OF ENGINEERING
Address	PES's Modern College of Engineering 1186 A, Shivajinagar, off J M Road
City	PUNE
State	Maharashtra
Pin	411005
Website	www.moderncoe.edu.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Kalyani R Joshi	020-25513404	9011070917	020-25530957	principal@moderncoe.edu.in
IQAC / CIQA coordinator	Rupali S Kamathe	020-	9422945755	020-25530957	iqac@moderncoe.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	02-07-1999

University to which the college is affiliated/ or which governs the college (if it is a constituent college)

State	University name	Document
Maharashtra	Savitribai Phule Pune University	View Document

Details of UGC recognition

Under Section	Date	View Document
2f of UGC	10-09-2010	View Document
12B of UGC	10-09-2010	View Document

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	Extension for Approval attached

Details of autonomy

Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	Yes autonomydoc_1651047898.pdf
If yes, has the College applied for availing the autonomous status?	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	PES's Modern College of Engineering 1186 A, Shivajinagar, off J M Road	Urban	10.47	23512

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,Computer Engineering	48	Higher Secondary Certificate	English	120	119
UG	BE,Information Technology	48	Higher Secondary Certificate	English	120	120
UG	BE,Electronics And Telecommunication Engineering	48	Higher Secondary Certificate	English	120	118
UG	BE,Electrical Engineering	48	Higher Secondary Certificate	English	120	98
UG	BE,Mechanical Engineering	48	Higher Secondary Certificate	English	180	58
UG	BE,Artificial Intelligence And Data Science	48	Higher Secondary Certificate	English	60	59
UG	BE,Artificial Intelligence And Machine Learning	48	Higher Secondary Certificate	English	60	58

UG	BE,Electronics And Computer Engineering	48	Higher Secondary Certificate	English	60	57
PG	ME,Computer Engineering	24	Bachelor of Engineering	English	18	0
PG	ME,Electronics And Telecommunication Engineering	24	Bachelor of Engineering	English	18	0
PG	ME,Electrical Engineering	24	Bachelor of Engineering	English	18	0
PG	ME,Mechanical Engineering	24	Bachelor of Engineering	English	18	0
PG	MBA,Master Of Business Administration	24	Bachelors Degree	English	120	120
PG	MCA,Master Of Computer Application Engineering	24	Bachelors Degree	English	120	120

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	21				39				149			
Recruited	3	7	0	10	2	11	0	13	61	84	0	145
Yet to Recruit	11				26				4			
Sanctioned by the Management/Society or Other Authorized Bodies	0				0				48			
Recruited	0	0	0	0	0	0	0	0	8	40	0	48
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				66
Recruited	44	22	0	66
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				9
Recruited	4	5	0	9
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				25
Recruited	14	11	0	25
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				3
Recruited	2	1	0	3
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	3	7	0	1	10	0	3	17	0	41
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	1	1	0	58	67	0	127

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	2	0	2
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	8	38	0	46

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

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male	Female	Others	Total
	0	0	0	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	2565	26	0	0	2591
	Female	1018	17	0	0	1035
	Others	0	0	0	0	0
PG	Male	381	8	0	0	389
	Female	271	4	0	0	275
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years

Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	301	252	215	220
	Female	139	122	147	136
	Others	0	0	0	0
ST	Male	20	18	26	36
	Female	15	10	14	19
	Others	0	0	0	0
OBC	Male	535	440	445	452
	Female	262	241	261	247
	Others	0	0	0	0
General	Male	1233	1082	1142	1070
	Female	650	639	665	645
	Others	0	0	0	0
Others	Male	551	365	310	281
	Female	270	202	153	166
	Others	0	0	0	0
Total		3976	3371	3378	3272

1. Multidisciplinary/interdisciplinary:	For providing holistic academic growth of students, the curriculum provides choice based credit system. Students can opt for the interdisciplinary open elective subjects, audit courses and honours courses. Apart from academics, due measures are taken to inculcate multidisciplinary or interdisciplinary culture among students. They are encouraged to formulate teams from different disciplines while participating in various technical as well as non-technical events.
2. Academic bank of credits (ABC):	Institute encourages and ensures that the students opt for online courses through National schemes like SWAYAM, NPTEL. Due consideration for the obtained certification is given. We are in process of developing a system for ABC in our institute.
3. Skill development:	Institute is conducting the skill development courses as designed by affiliating university from third semester onwards, in various programs. These courses impart knowledge of technical hard skills as well as soft skills. Students' associations of the institute provide platform for co-curricular and extra-curricular activities. Hands on training sessions, spoken tutorials are conducted for all-round development of the students.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	For promoting the Indian languages, students are encouraged to participate in various art and cultural activities. Departmental clubs arrange training sessions on creative arts and culture, literary activity, proficiency modules and webinars showcasing importance of regional language on regular basis. As a result, students participate in art and cultural activities like 'Firodiya Karandak', which is a state level multiple art oriented event and 'Purushottam Karandak', which is also a state level Marathi theatre competition. 'Vakrutwa Prabodhini', a debate club, is an institutional platform for enhancing elocution skills. Annual social gathering named 'Spandan' is organized to inculcate linguistic skills and performing arts, which ultimately leads to enhancement in Indian cultural values.
5. Focus on Outcome based education (OBE):	The Institution has adopted outcome based education in all respects with clearly stated program outcome (PO), program specific outcomes (PSO) and course outcomes (CO). All courses are framed by giving due consideration to the cognitive ability. Institute has

	well defined policy to calculate attainment of COs and POs. In addition to the domain specific skills, the learning outcomes ensure ethics, social responsiveness as well as entrepreneurial skills, so as to make the students capable of contributing to environmental, social and economic wellbeing of the society.
6. Distance education/online education:	Infrastructural facilities at the institution are capable of supporting online teaching. The online platforms are extensively being used for engaging classes as well as for conducting workshops and webinars. Virtual laboratories are being used for conducting online practical sessions. Institution has adopted blended mode of teaching that combines online and offline resources. Lecture Management System is in place. Faculty members attended MOOCs, FDPs, and STTPs to strengthen the hold on the online teaching platforms and have also created academic material (videos, power point presentations, notes, lab manuals) required for online teaching and learning. Faculty members uploaded the developed material on varied online platforms like Google classrooms, Youtube. Students undergo online courses through schemes like SWAYAM, NPTEL, COURSERA, Spoken Tutorial.

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
526	512	506	498	484
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
14	11	11	11	11

2 Students

2.1

Number of students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
3976	3371	3378	3272	3197
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
514	442	442	442	442

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
1035	935	922	852	810
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
207	211	208	215	233
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
208	177	177	219	219
File Description	Document			
Institutional data in prescribed format	View Document			

4 Institution

4.1

Total number of classrooms and seminar halls

Response: 44**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
673.40497	1055.37797	982.65295	412.42253	897.00696

4.3**Number of Computers****Response: 1156**

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:

- P.E.S. Modern College of Engineering being affiliated with Savitribai Phule Pune University (SPPU), follows the **curriculum** prepared by the **University**.
- The University regularly updates its curriculum for UG and PG programs which ensures the curriculum meets the industry expectations required.
- In adherence to the **SPPU Calendar**, the Institution prepares the **academic calendar and planner**. In line with that, every **department** has an academic calendar and planner to ensure effective curriculum delivery.
- The **department academic calendar and planner** reflect the activities planned during the term such as term commencement, orientation program, curriculum delivery review, internal assessments, University practical/oral, In-Semester and End- Semester examinations, faculty meetings, and term conclusion, etc.
- Every department prepares an Activity planner which comprises plans for guest lectures, workshops, training programs, industrial visits, project competition /exhibition, and various club activities.
- Academic processes are streamlined with choice-based teaching load distribution based on the domain knowledge/area of specialization of the faculty. **Timetables** and laboratory setup are prepared before the term commencement.
- After every syllabus revision, the faculty members are made conversant and updated with the revised syllabus through orientation program.
- For effective **curriculum delivery**, faculty members maintain course files, curriculum booklets, lab manuals, logbooks, etc.
- **The course file** includes a **teaching plan** for theory and practical, course structure, syllabus, records of assessment technique, and study material.
- The curriculum booklet is circulated among the students at the time of commencement of the course. It comprises course structure, syllabus, teaching plan, a unit-wise question bank, assignments, etc.
- The lab manual covers the systematic description, directions for execution, and conclusion of lab work.
- To ensure effective **curriculum delivery**, the Head of the department (HOD) and academic coordinator reviews the course content delivery as per the academic planner.
- Project activities are conducted as per the project planner, which are monitored and recorded in the project logbook. Related activities include Project orientation, topic approval, reviews, competition cum exhibition, etc.
- Institution motivates faculty members to adopt innovative teaching-learning methodologies and effective use of ICT tools such as YouTube Channels, Web sites, Virtual Lab, etc.
- Blended teaching methods are adopted through various online learning platforms like Google suite, Microsoft Teams, etc.

- The curriculum delivery is enhanced by the utilization of smart classrooms with ICT facilities and well-equipped laboratories.
- The institution has a well-stocked library with the latest books, e-subscriptions, etc. The library resources are upgraded regularly.
- Mid-Term, End-Term, and Course exit feedback from students are analyzed and suggestions are duly considered for further curriculum planning and implementation.
- To enrich the faculty teaching skills; peer review feedback is also obtained which comprises teaching methodology, technical content delivery, and ICT content.
- Additional tutorials are planned and executed considering the difficulty level of the course.
- Curriculum enrichment is enhanced through content beyond the syllabus.
- University results are analyzed and corrective measures are taken accordingly.

File Description	Document
Upload Additional information	View Document
Link for Additional information	View Document

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

Response:

The Institution is affiliated with Savitribai Phule Pune University. In adherence with SPPU's Academic Calendar, the institution and departments prepare academic calendars and Planners. It includes academic activities like term commencement, term-end, and various Continuous Internal Evaluation (C.I.E) schedules for theory, practical courses, seminar, and project work. C.I.E records are maintained in the academic record booklet.

In line with Academic Planner, the Unit Tests, Multiple Choice Question (MCQ) examinations, Mock Practical/Oral examinations, Seminar, and Project Presentations are conducted. Various Assessments tools used are like Internal tests assignments, tutorials, presentations, Case studies, etc. These assessment tools are used for all courses for internal assessment.

To calculate CO attainment, External and internal assessment tools are used.

As per the Institution's policy 20% weightage is given to internal assessment and 80% to external assessment. The external assessment tools include; in-semester and end-semester theory examinations, practical/oral/seminar/project work, etc conducted by SPPU.

Internal Assessment Tools used and its procedures are as follows

Theory Courses: Students' performance is evaluated through

- Unit Tests
- Tutorials
- Assignments

Practical /Oral Courses:

- Lab performance and assignments are evaluated by concerned faculty as per rubrics.
- Technical skills are monitored through laboratory performance, presentations, mock orals based on practical/oral examination.
- Mini projects are implemented as a part of lab practice for respective courses.
- Mock Exams are scheduled at the end of the semester.

Seminar:

- Seminar Topics are selected and finalized on the basis of recent trends and technologies.
- The seminar guide evaluates seminar progress from time to time.
- Abstract, presentations, reports and posters, etc are submitted by students as a part of seminar work.
- Presentations are evaluated by internal and external evaluators.

Project :

- Project work is carried out by students in groups.
- Students are motivated to select projects on recent technologies with the awareness of the environment, sustainability, and professional ethics.
- Final year projects are application and research-based which include design, simulation, hardware, and software development.
- Industry Experts are invited/appointed as Adjunct Professors to guide students.
- Projects are reviewed as per the project planner/schedule/PERT (Program Evaluation and Review Technique) chart
- Project Exhibitions and competitions are organized in the institution, industry experts and alumni are invited as judges for the same. Suggestions given by them help students to improve the quality of projects.
- Students are motivated to participate in national and international project competitions.
- Project progress is thoroughly reviewed and evaluated by the guide and recorded in a logbook/diary as per the project planner.

Case Studies:

- Case studies are used as internal assessment tools for MBA (Master in Business Administration).
- The case study helps in understanding problems that need to be solved or analyzed for a business.
- Case studies are evaluated as per a rubric.

File Description	Document
Upload Additional information	View Document
Link for 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: A. All 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
Any additional information	View Document
Link for Additional information	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: 14

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: 342

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
60	111	69	56	46

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: 82.96

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
4612	3091	2252	1612	2915

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 integrates Cross-Cutting issues through Regular/Elective courses in the curriculum, Projects, audit courses, Value-Added/ Add on Courses, Co-curricular and extracurricular activities.

Regular/Elective Courses such as Indian Constitution, Human Rights, Managing for sustainability, Life skills, Cyber security, Business Research Methods, Electric Hybrid Vehicle, Renewable Energy Systems, Smart grid, Energy audit and management, Green IT principles and Management, Basic Civil Engineering, Rural Technology, and community development are covered in the curriculum.

· Final year projects are selected based on recent trends and technologies with the awareness of environmental sustainability, green energy, rural development, societal issues, health, safety, legal and

cultural issues.

- SPPU has recommended **audit courses** along with credit courses in the curriculum. Audit courses enhance the awareness of different issues which make an impact on human lives and enhance their skill sets to improve their employability. The Institution offers audit courses that address cross-cutting issues, such as Environmental studies (I & II), fire and safety, Human behavior, Science of happiness, Environmental issues and disaster management, Road safety management, Solar PV systems, Cyber and information security, Cybercrime and law, Intellectual Property Rights, etc.

- Students are encouraged to enroll in **Value Added / Add on Courses such as** NPTEL Courses, spoken tutorials, and skill development courses based on Gender Equality, Energy Conservation and Waste Heat Recovery, Ethical Hacking, Fundamentals of Electric vehicles- Technology and Economics, Interpersonal Skills, Introduction to Smart Grid, Wastewater Treatment and Recycling, Plastic Waste Management and soft skills.

- **Gender Equality and Gender Sensitization:** The Institution follows co-education. All practicals and projects of the curriculum are conducted without gender discrimination. Various activities addressing gender equality and gender sensitization are organized as

- Arogya Vyakhyanamala-Women Empowerment
- Guest Lecture on Healthy Attitude towards other gender equality,
- Initiative for the empowerment of women in slum areas etc.

An equal opportunity is given to both genders for organizing and participating in different activities.

- **Environmental and Sustainability:** It is inculcated among the students through regular awareness programs such as

- Tree plantation
- PUC camp for vehicles,
- Poster making competitions

- The Institution has participated in **Unnat Bharat Abhiyan** for technological interventions in the area of water resource management, sustainable agriculture, etc.

- **Human Values:** Efforts are taken for making students sensitive toward societal issues by organizing activities

- Blood donation Camps,
- Coaching of rural children
- Visits to old age homes, orphanages, etc.

- Activities are organized on national and international days such as World Health Day, International Women's day, Teachers day, Engineers day, Republic day, Independence day, Yoga day, etc.
- Professional ethics** are inculcated amongst students by faculty members. Industry experts and motivational speakers visit the Institution regularly and make students aware of plagiarism, the importance of intellectual property rights (IPR), violation of it and about work ethics, etc.
- The Institution also takes care of issues like social, moral, and legal implications of gender discrimination and maintain an environment in which students, teaching, and non-teaching faculty members can work together cohesively.

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: 32.72

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
177	167	171	159	153

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
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: 96.81

1.3.3.1 Number of students undertaking project work/field work / internships

Response: 3849

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: 97.34

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

2020-21	2019-20	2018-19	2017-18	2016-17
1291	1052	1089	1093	1029

2.1.1.2 Number of sanctioned seats year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
1284	1104	1104	1104	1104

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: 86.46

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
402	396	383	395	391

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:

The institution has a well-defined process for identifying advanced and slow learners. Learning levels of the students are identified by the Guardian Faculty Member, course teachers and mentor, based on student performance in:

- University Examination Results, Assignments and Class tests.
- During tutorials, Theory and Practical sessions.

Common efforts for Advanced and Slow Learners

Personal counselling / mentoring: Advanced learners are motivated to take efforts in order to excel in their academic performance and participate in competitive examinations and various competitions. Slow learners are guided by faculty members to improve their academic performance through counselling and discussions.

Peer Teaching and learning: This is beneficial to both the advanced and the slow learner. Advanced learners enhance their communication, presentation skills and knowledge by teaching their peers. It facilitates active learning in slow learners.

Initiatives taken by institution for Advanced learner

- Promotes students to enroll in various online MOOC courses like NPTEL, Spoken tutorial etc.
- Encourages students to become part of professional society activities and handle different office bearer positions.
- Encourages students to participate in extension / outreach activities and competitions. For selected activities namely BAJA, SUPRA, ROBOCON etc; the institution grants financial assistance.
- Motivates to opt for Honour Courses.
- Promotes Global certification to the students through the Centre of Excellence.
- Encourages the students to undertake application based in-house or sponsored projects and also to participate in National/ state /local level competitions.
- Promotes paper publications in International/ National/ state level journals/conferences.

- Provides funding for selected innovative projects.
- Promotes industry internships and skill development workshops to enrich practical knowledge.
- Provides awareness and the necessary platforms for participation in competitive examinations like GATE,GRE etc.

Efforts taken for slow learners

- Conducts remedial Classes and make up classes for improvement in the academic performance of students. The extra slots are allotted in the time tables.
- Conducts extra theory, practical sessions, quiz and MCQ tests to enhance their understanding.
- Arranges tutorials even though not included in the curriculum for analytical subjects for better understanding.
- Provides question banks, e-book links, unit wise notes, PPTs, assignments and lecture videos to the students for ready reference.
- Motivates to coordinate activities of various clubs.

File Description	Document
Upload any additional information	View Document
Past link for additional Information	View Document

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

Response: 19:1

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 institute takes efforts to ensure the use of student-centric methodologies for holistic development and to enrich the learning experience. These methodologies are adapted for better understanding and involvement of students. Students are guided by the faculty members, to develop and explore their skills effectively.

Experiential learning

- **Experiential learning is imbibed using software tools, various professional societies, and club activities, internships, industrial visits to help the students to enhance their conceptual understanding and practical knowledge.**
- **Simulation tools, demonstrative videos, and hands-on tools are made available to the students for implementing case studies and laboratory assignments.**
- **The platform is provided by Professional Society Chapters to conduct seminars, webinars, hands-on workshops, and industry expert lectures. Students are encouraged to participate in community development activities with the effective use of technology.**
- **Technical clubs coordinated by faculty members encourage active learning of students and their participation in various national and international competitions. The clubs conduct workshops, tutorials, and lectures to foster interest in various aspects.**
- **To get exposure to the industrial environment, students visit Industry and undergo internships.**
- **Social, arts, and life management-related clubs facilitate students to nurture innovative ideas through different activities.**

- **Community outreach programs, environmental consciousness, and health awareness drives are organized by the Institutional Social Responsibility (ISR) cell.**
- **Students learn performing art from theatre workshops organized by the Art Circle. This helps students to nurture and showcase their talent in cultural competitions such as 'Firodia' and 'Purshotam' etc.**

Participative learning

- **To develop leadership skills; students are motivated to participate in activities in collaboration with student associations, professional society students chapters, industry, cultural fest, NSS, and NGOs.**
- **Peer learning, think-pair-share, role play, debates, group discussions, flipped classrooms enable students to participate during classroom sessions.**
- **Students participate in teams for, project development, project exhibitions/competitions, and technical paper writing. Students learn to work in a team considering the diversity of team members.**
- **Students enroll and complete the MOOC courses, NPTEL, spoken tutorial, Coursera, webinars, and certification courses.**
- **Students actively participate as writers, editors, and designers for newsletters, magazines published in the institution.**
- **Students successfully learn and execute; technical and leadership skills under MPulse, a**

Techno-Management event of the institute.

- National Social Scheme (NSS) helps students to work in teams and learn the importance of social, environmental aspects.

Problem-solving

- Students undertake projects to solve industrial, societal, and environmental problems.
- ‘Unnat Bharat Abhiyan’, ‘Smart India Hackathon’, ‘Robocon, BHAU’, ‘BAJA’ are different platforms that provide opportunities for students to find solutions to real-life problems.
- The Ministry of Human Resource Development (MHRD), Govt. of India has established ‘MHRD’s Innovation Cell (MIC)’, our institute has set up the Institution’s Innovation Council (IICs). This council promotes innovation in the Institution through multitudinous modes.
- An Incubation center under ED Cell has encouraged students to come up with their own innovative ideas, develop them further, and present them through our flagship event ‘PRO-START’. It has been established at the campus “PRO-START at MCOE”.

File Description	Document
Upload any additional information	View Document
Link for additional information	View Document

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

In addition to the traditional classroom teaching methodologies; the institute encourages faculty members to use ICT-enabled tools effectively in the teaching-learning process. Digital Library resources, e-resources, are also being used for effective teaching. Subsequent efforts are taken by the institute to provide an e-learning environment. This helps students to understand the concepts clearly and enhances quality of content delivery.

To make students aware of tools used in industries, open-source software such as WEKA, Rapid Miner, Packet Tracer, GDB Compiler, Scilab, and Xilinx etc, are made available during theory and laboratory teaching. For effective teaching-learning, laboratory sessions are conducted using different simulation software like JFlap, VisuAlgo, LabView, MATLAB, ETAP, AutoCAD, SolidWorks, and MasterCAM etc. Virtual laboratories are also used to conduct labs through simulations.

Open Educational Resources (OERs) like YouTube Videos, websites, and channels created by faculty members are used effectively for curriculum delivery. Videos created by faculties are uploaded on institute YouTube channel- 'PESMCOE'. WordPress has been used by faculty members to create personalized websites to share resources with students. Most of the faculty members have undergone hands-on training to use these tools and have been introduced to new pedagogies of teaching like Peer learning, Think Pair Share, flipped classroom, and Roleplay etc. This helps in applying the student-centric approach to the learning process.

The tools and platforms used for teaching and sharing resources are Microsoft Teams, Zoom, Google-suite, Moodle, and Learning Management Software (LMS). To teach analytical courses in online mode, faculty members have used various online tools like- whiteboard in Microsoft teams, and Jamboard in Google meet. Google classroom is used to manage and post course-related information, learning material, quizzes, lab submissions and evaluations, assignments, etc.

To increase the involvement of students in classrooms, internal assessment of students is carried out using Google Quiz, Edmodo, and Kahoot. In online mode as per the SPPU guidelines, external assessments were conducted by creating Google Forms by faculty members.

ICT tools are used for implementing and solving problems in co-curricular activities, such as ROBOCON, BAJA, and SUPRA. Students make use of Solidworks for mechanical designing, Arduino IDE, for microcontroller design, and Altium for PCB design to develop a product to participate in ROBOCON. Solidworks and Ansys is used in developing products for BAJA and SPURA competitions.

To create an interactive class environment, Smart Boards are used by the faculty members. Due to its touchscreen feature, the smartboard creates better visuals and enables it to accommodate different learning styles, like- note-taking, and brainstorming.

The use of ICT in the teaching-learning process helps to improve the conceptual understanding and academic performance of the students.

Institute has state-of-the-art infrastructure, ICT-enabled classrooms, smartboards, audio systems, web cameras, and a high-speed internet connection to enrich the blended teaching-learning process.

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: 19:1

2.3.3.1 Number of mentors

Response: 207

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: 108.16

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:** 11.21**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
37	23	22	23	14

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:** 8.14**2.4.3.1 Total experience of full-time teachers**

Response: 1684.12

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:**

The institution is affiliated to Savitribai Phule Pune University (SPPU) and adheres to the Examination Scheme of SPPU. SPPU Examination Scheme includes in-semester, end-semester, oral/practical examinations, and term work.

All internal assessments are planned and executed as per the academic planner. This academic planner is based on the University Academic Calendar. The adherence of assessment schedules is meticulously observed. Internal assessment mechanism is robust and follows the standard examination norms. Assessment tools are selected based on the structure and syllabus prescribed by the University and discussed with course teachers and domain / module coordinators. They are communicated to the students during the induction / orientation program.

The internal assessment is carried out with a number of objectives:

- To understand the learning levels of students
- To identify the slow and advanced learners to carry out special efforts / initiatives
- To improve the performance in external examination and better attainment of course outcomes (COs)
- Term work evaluation

Various assessment tools for Continuous Internal Evaluation (CIE) and their frequency of conduction are as follows:

Sr. No	Teaching Scheme	Internal Assessment Tools*	Frequency of conduction per Semester
1	Theory	Unit Test Exam	2 / more
		Open Book Test	1
		MCQ Test	1
		Assignments	3 / more
		Tutorials	1
		Quiz	1
		Case Study	1
2	Practical	Practical assessment	Continuously throughout the semester
		Quiz	1
		Case Study	1
		Industrial Visit	1
		Field Visit	1
		Study tour report	1
		Group Discussion	1
		Mock Oral Practical Examination	1
3	Project and Seminar	Mock Seminar	1
		Project Exhibition	1
		Project Competition	1

* Internal assessment tools and its conduction frequency are selected as per need of the course.

In order to maintain transparency and robustness in internal assessment following points are taken into consideration:

1. **Assessment rubrics:** Assessment rubrics are defined for theory, practical, assignments, tutorials, seminars, and project presentations. Those are conveyed to students during theory and practical sessions.
2. **Student Awareness :** To prepare for the internal assessments, a question bank consisting of oral questions, previous year university questions and MCQs is provided to the students in the Curriculum Booklet.
3. **Verification of question paper :** Every course coordinator sets the question paper as per Bloom's Taxonomy Levels. The quality of the question paper is verified by the Domain or Module Coordinator.
4. **Assessment and Evaluation :** For proper assessment and evaluation, the marking scheme and solution key are prepared by the course coordinator.
5. **Internal Evaluation :** After the internal assessment, in order to maintain transparency, solutions and answer sheets are discussed with students for performance improvement in university examinations.
6. **Mode of conduction :** The mode of conduction of internal assessment is online/offline and objective/subjective.

Internal assessment results in one-to-one communication of students with course teachers for improving learning abilities, better academic results, more internships and placements.

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:

The Institution conducts external theory and practical examinations as per the schedule given by SPPU and all internal assessments are planned and executed as per the Institution's academic planner.

The institution has a well-defined mechanism to deal with grievances that are related to the internal as well as external examinations. The Examination Committee of the institution coordinates and resolves related issues. Committee includes the Principal, College Examination Officer (CEO), and senior faculty members from each department.

The Internal Assessment tools such as Unit Tests, MCQ Test, Tutorials, Assignments, Practical Assessments, Projects, Seminars, Presentations and co-curricular activities like internships, paper publications, hands on workshops are considered for Continuous Internal Evaluation (CIE). Term work is evaluated on the basis of CIE.

Grievances in internal examination raised by students :

- Difficulties in attending the examination due to some personal genuine problem
- Due to network issues, difficulty in attending an online internal examination
- Discrepancies in term work marks

Grievances in external examination raised by students :

- Issues occurred in university exam form filling
- Problems raised due to wrong elective choice given in university exam form
- Inability to appear for University examination due to participation in technical or sports' events at University / National levels
- Data insufficiency or printing mistakes in question paper
- Discrepancy in marks in final examination result
- Requirement of scribes during University Examinations in case of physical disabilities or accidental issues

The grievances in internal examination are addressed by the Head of the Department, Guardian Faculty Members (GFM), and course teachers. For external examination, grievances are communicated through the departmental examination coordinator to the College Examination Officer (CEO). Then the CEO communicates it to the university authorities for resolving it efficiently at the earliest.

For internal examination, if a student fails to appear for the exam due to personal genuine problems, then he / she contacts the course teacher for the same and then the issue is resolved by the course teacher. After internal examination and evaluation; a solution with the marking scheme is discussed by the course teacher. The assessed papers of internal examination are discussed with students and suggestions are given for improvement. The students can view their marks after each test and approach the respective course teacher directly in case of any discrepancy. In the case of online examinations, an appropriate solution is given to resolve issues caused by network problems.

The Term work marks are allotted by the course teacher and are conveyed to the students. It is reviewed by the course teacher, guardian faculty member (GFM) and Head of the Department at department level. Further, it is checked by the College Examination Officer (CEO) at the college level. In case of discrepancies in Term Work marks, necessary action is taken to solve it to ensure transparency.

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:

- **Program outcomes (POs) are the graduate attributes, a student should possess after completion of the programme.**

Guidelines followed for framing CO statements:

- **The affiliated university has provided CO statements for every course.**
- **Course Outcome statements are revised for theory and practical courses separately, following the guidelines given by AICTE's Examination Reforms Policy and taking into consideration the course contents; wherever required.**
- **Only one active verb is used in the CO statement as per revised Bloom's Taxonomy.**
- **4 to 6 CO statements are defined for every Theory and Practical Course.**

Program outcomes and well-articulated Course Outcomes are displayed on the institute website for ready reference to all stakeholders.

Communication of POs and COs to the Teachers:

- **Institute encourages all faculty members to attend the Outcome Based Education (OBE) Workshops and Faculty Development Programs.**
- **CO statements are revised in presence of Head of the Department, accreditation coordinators, module/ domain coordinators and course incharges and shared with all faculty members.**
- **Program outcomes are discussed in Departmental Advisory Board (DAB) meetings.**
- **Program outcomes are displayed on notice boards in faculty cabins and in the department.**
- **Program Outcomes and Course Outcomes are included in the course file for the reference.**

Communication of POs and COs to the Students:

- Program outcomes are communicated to students in the Induction and Orientation programs at the commencement of every academic year.
- Program outcomes are also displayed in laboratories and all notice boards.
- At the commencement of the course, course in-charge communicates the Course outcomes during the theory and practical sessions.
- Curriculum Booklet, lab manual, project log book and various study material contains course outcomes.
- Internal assessment question paper includes the respective course outcome along with Bloom's taxonomy level.

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:**

Institute has a well defined policy document for Course Outcome (CO), Program Outcomes (PO) and Program Specific Outcomes (PSOs) attainment.

Process for CO Attainment:

Course Outcome Attainment is computed for all the theory, practical, seminar and project courses.

CO attainment is divided into internal and external assessment and carried out using various tools.

External Assessment has 80% weightage which includes University in-semester, end-semester

examination, oral/practical examination and term work assessment.

Internal Assessment has 20% weightage which includes continuous assessment for practical courses, theory courses, seminar and project work.

1. For theory courses, the assessment tools considered are unit test, MCQ test, assignments, tutorial, programming Skill Test.
2. For practical/ oral/ termwork courses, internal assessment tools considered are lab performance, mock practical / oral, mock seminar and project work presentation.

The attainment levels are considered taking average performance levels in the university examination. Attainment level is measured based on internal assessment and external assessment (university examination).

Attainment levels are considered as below:

For Example:

Attainment Level 1: 60% students scoring more than University average percentage marks or set attainment level in the final examination.

Attainment Level 2: 70% students scoring more than University average percentage marks or set attainment level in the final examination.

Attainment Level 3: 80% students scoring more than University average percentage marks or set attainment level in the final examination.

Attainment is measured in terms of actual percentage of students getting a set percentage of marks.

If targets are achieved then all the course outcomes are attained for that year. Higher targets are set for the following years as a part of continuous improvement.

If targets are not achieved then an action is planned to attain the target in subsequent years.

Course Attainment:

The set attainment level is finalized for the first batch (2015 to 19) as 50%. It is average passing percentage of 40 and first class 60, five percent improvement is considered for next batches and so for second batch (2016 to 2020) 55% and for the third batch (2017-2021) 60% .

For Example:

For 2020-21 batch (FE-2017-18 to BE-2020-21):

Attainment Level 1: 60% students scoring more than 50% marks out of the relevant maximum marks.

Attainment Level 2: 65% students scoring more than 50% marks out of the relevant maximum marks.

Attainment Level 3: 70% students scoring more than 50% marks out of the relevant maximum marks.

Process for PO and PSO Attainment :

PO and PSO Attainment is divided into two parts direct and indirect attainment

- Direct attainment has 80% weightage which is determined by taking average of all courses addressing that PO and PSO.
- In-direct attainment has 20% weightage which includes analysis of program exit survey, co-curricular and extra-curricular activities, employers feedback and alumni feedback and average is taken to get the **Indirect PO and PSO Attainment**.

The final program outcome and program specific outcome attainment is computed by adding direct and indirect attainment in the proportion of 80:20 respectively.

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: 93.54

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
1028	929	839	773	707

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
1035	935	922	852	810

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

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: 74.36

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
40.00	3.95	11.18	8.43	10.799

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: 7.25

3.1.2.1 Number of teachers recognized as research guides

Response: 15

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: 88.57

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
3	7	7	7	7

3.1.3.2 Number of departments offering academic programmes

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

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 Institution has created an ecosystem for research and innovation. It includes project and innovation labs, hardware and software research platforms, research journals, funding schemes, innovation and IPR cell, faculty and students' professional society memberships, collaborations, research experts and faculty mentors. The various initiatives taken by the Institution for creation and transfer of knowledge are as follows:

- **Research Center and Publications:** The institution has four Research Centers. The institution along with the parent society publishes two in-house research journals, 'Dnyanmay' and 'Chaitanya'. There are well equipped Research and Innovation labs at each department for project development.
- **Research Initiatives:** Project funding schemes are offered to encourage students to undertake research projects. Project based learning and internships are encouraged and students have completed it successfully. Teachers have developed innovative e-books applications for teaching-learning.
- **Technical Clubs/Labs:** The Institution has well equipped and dedicated labs, technical clubs for development of innovative projects. e.g. Robotics and E-Yantra Lab, Pegasus club(for vehicle development), Code Cook Club, Aero modelling club, etc.
- **Innovation Cell and IPR Cell:** It promotes and supports innovators for transforming their creative works into Intellectual Property (IP). It organizes seminars/workshops to enhance awareness

on IPR.

- **Professional Society Chapters** - The Institution has well established chapters under professional societies like IEEE, ISTE, IET, IETE, IEI, ACM, ASME, CSI, SAE, PMA, ISLE, S4DS. Various project competitions, seminars, community development activities, automobile prototyping activities are organized.
- **Collaborations:** The Institution is working in collaboration with **BHAU** Institute (Institute of Innovation, Entrepreneurship and Leadership at Govt. COE Pune). Institution has participated and won awards in many activities like 'Ideal village', 'Better school better India', 'Develop village develop India'
- **Institution Innovation Council (IIC):** The institution has a MHRD recognized IIC through which various activities on IPR, entrepreneurship and innovation are conducted throughout the year.
- **Unnat Bharat Abhiyan(UBA):** It is a flagship program of MHRD under which activities such as village and household surveys, Swachhata Hi Sewa, creating library facility for schools, health checkup camps are conducted.
- **Entrepreneurship Development (ED) Cell:** It is established to encourage students to consider self-employment as a career option. ED cell conducts Pro-Start (a merger of project and a start-up) event which aims to promote and upraise ideas of students towards their start-ups.
- **Major Achievements:**
 - Recognized as 'Band B' institution (rank between 26-50) in ARIIA 2020 and 'Best Promising Institution' in ARIIA 2021
 - Four-Star rated IIC by MHRD (for 2 years).
 - Received CII gold rank for consecutive three years
 - The Institution has more than 40 copyrights and has filled more than 30 patent applications.
 - Recipient of Smart India Hackathons (SIH) awards at National Level
 - Faculty and students have received appreciation certificates from Professional societies
 - Awards at national and international level for Robots and Vehicles developed by students.
 - Recipient of innovative project development awards in the I2I competition organized by the BHAU institute.
 - 400+ research publications in reputed journals and conferences.
 - Center of Excellence in collaboration with AICTE-ISTE-EduSkill

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: 274

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
73	82	51	38	30

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: 1.8

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

Response: 27

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

Response: 15

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: 2.03

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
82	80	82	116	77

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: 0.53

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
18	31	21	22	21

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:

Social responsibility is one of the priorities of our institution because we believe that our role as an engineering institution involves something more than simply imparting knowledge and skills to our students and developing them as active members of social change.

The institution promotes various extension activities under National Service Scheme (NSS), Institutional Social Responsibility (ISR) Cell, IEEE Student Chapter and various social clubs established at the institute. Institute has been selected under Unnat Bharat Abhiyan program (UBA, launched by MHRD) for rural development. Under UBA, the student volunteers organized village and household surveys, Swachhata Hi Sewa campaign, library facility for schools, health checkup camps in nearby adopted villages. The main aim is to identify development challenges in rural area and propose appropriate solutions for accelerating sustainable growth.

Entrepreneurship Development (ED) Cell at the Institution aims to encourage students to consider self-

employment as a career option. The cell conducts various activities to encourage students and provide them an opportunity to become social entrepreneurs, e.g.

- Vicharghan-A thought provoking and motivational lecture series,
- Social entrepreneurship initiative (participation in Ignited Innovators of India (I2I) - A techno-social project competition)

Institution has received many awards in the I2I competition for innovative projects.

The main aim of the NSS Unit is to develop a sense of social and civic responsibility in the students. Several activities are carried out such as cleanliness, tree plantation, water conservation, use of solar energy, women education, environmental awareness, national integrity, AIDS awareness, blood donation camps, health check-up camps, road safety and plastic eradication. In addition to this, volunteering for RAD test and ambulance donation project was carried out during pandemic. The student volunteers have organized weekly camps in nearby adopted villages.

National Cadet Corps (NCC) of the institution aims to groom students into disciplined and patriotic citizens. NCC cadets have participated in state level and national level camps of NCC and bagged Gold medals and championships in various camp activities.

Apart from this, there are various social clubs such as Rotaract clubs, Purna club, 'Seed of Hope' club, Dayitwa club, Traffic forum etc. Rotaract Clubs of the institution are established under Rotary International (RI). The main aim is to continuously encourage students to take active participation in welfare of society by engaging them in social activities. These clubs have received appreciation awards from RI for the exemplary performance. Other institutional clubs under ISR Cell organize activities for molding students into responsible citizens of the country, e.g. diet awareness, road safety, tree plantation, self-defense program for girl students, visit to orphanages and old-age homes and voters awareness.

Students have participated in IEEE- TDCS and received many awards. Its aim is to disseminate information about emerging technologies among rural and urban high school children.

Funding is received under AICTE- SPICES scheme that provides financial support to students' club for techno-social development.

The participation in extension activities helps students in sensitizing towards social issues and encourages them to provide solutions. This leads towards holistic personality development of students.

File Description	Document
Upload any additional information	View Document
Paste link for 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: 33**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
9	5	4	8	7

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: 121****3.4.3.1 Number of extension and outreach 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
22	31	40	22	6

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

3.4.4 Average percentage of students participating in extension activities at 3.4.3. above during last five years**Response: 47.19****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
1777	2152	2778	1048	421

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

3.5 Collaboration

3.5.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship per year

Response: 1573

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
367	306	325	402	173

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

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

Response: 97

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
15	10	17	9	46

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

NAAC

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 has been established in the year 1999. It has a well-developed campus of 10.47 acres of land. Its geographic location facilitates ease of access for students and staff. It offers 8 undergraduate and 6 postgraduate programs affiliated to the Savitribai Phule Pune University (SPPU). The Institution provides adequate availability and ensures the best possible utilization of physical infrastructure to support the teaching-learning process, co-curricular, extra-curricular activities and an ecosystem for research and innovation. It also fulfills the norms laid by AICTE, DTE, and SPPU. The facilities are regularly upgraded considering the need of stake holders.

Physical infrastructure like Classrooms, Tutorial Rooms, Laboratories, Machine Shop (Workshop) and Seminar Halls is available. In addition to this, the Institution has distinctive auditorium (capacity 500), administrative rooms, examination control room, central and departmental libraries, a computer center, a language laboratory, and an audio/video laboratory.

The available physical infrastructure is utilized to conduct co-curricular and extra-curricular activities, workshops, counseling sessions, training activities, and campus recruitments. All the departments have well-furnished faculty rooms with required technical aids. All the faculty rooms have a student-centric environment for regular mentoring, discussion, and guidance.

Classroom Facilities:

The Institution has 37 ICT-enabled classrooms and 7 seminar halls. All classrooms and seminar halls have Wi-Fi/LAN facilities for an effective teaching-learning process. They are well equipped with green boards, LCD projectors, an audiovisual facility, e-podium, Smart boards, Webcams, and Pen tablets. All the rooms are ventilated and well furnished. Seminar Halls are provided with modern facilities including video conferencing.

Laboratory Facilities:

The Institution has total 72 laboratories. All laboratories are well equipped with advanced hardware and software facilities. Departments have laboratories consisting of the latest equipment, licensed software, and open-source tools to cater to the requirements of curriculum & industry. The charts and models are displayed in the laboratories for a better understanding of concepts. The Institution has a well-equipped machine shop which facilitates the students to perform various machining processes required for projects. A Virtual Lab in collaboration with IIT Bombay is effectively utilized for online practical conduction. The Institution has AICTE- ISTE-Eduskills Industry Center of Excellence.

e-Yantra Robotics lab in collaboration with IIT Bombay facilitates students for experiential learning.

Library Facilities:

The central library is fully automated with ERP WEB DESK software and is equipped with e-resources. It provides physical facilities such as a reading hall and a reprographic facility. It has a book-bank scheme and OPAC software is used for quick access to library resources.

Computing facilities:

The Institution has state of art computing facilities with 1156 computers and servers with the latest configurations. The campus is Wi-Fi enabled and has secured intranet facility. The Institution has internet bandwidth of 315 Mbps. Various licensed communication platforms such as Google suite and Microsoft teams are utilized effectively for the teaching-learning process.

File Description	Document
Upload any additional information	View Document
Paste link for 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 has facilities to support students in sports, games, and cultural activities which helps in the all-round development of students.

Sports- The Institution has a spacious playground of 6000 sq. m. for outdoor sports like basketball, hockey, volleyball, handball, kabaddi, cricket, and Kho-Kho. The Institution has Physical Director for guiding and training the students in various sports. The Institution has made available kits for cricket, basketball, badminton, football, athletics, tennis and other sports. The indoor sports complex of 200 sq. m. is available for badminton and table tennis. These facilities can be availed beyond college hours also.

Gymnasium- The Institution has an air-conditioned gymnasium equipped with treadmills and strength machines. All types of bars, plates and benches, twister sitter and standing, abdominal board, chin up, cable cross over, decline and incline bench press, hyperextension, dipping with a hip flexor, power cage, seating and standing calf machine, heap adductor, jogging cycles, and double bars are available in the gymnasium.

Yoga Center- A yoga center with a capacity of more than 50 is available for students and faculty members.

Cultural - Art circle provides facilities required for drama, dance, and singing competitions namely Purushottam, Firodiya, Vinodottam Karandak, and street plays. Various digital instruments like Tabla, Zembe Drum set with microphone, mixer, and loudspeakers are made available for practice. The Institution has a cultural activity coordinator for guiding and training the students. Open-air theater and auditorium of 1047 sq. m. with a seating capacity of more than 500 audience is available for students to practice and perform various cultural activities.

The Institution has a spacious, hygienic canteen of 515 sq. m. area. Other facilities such as Wi-Fi Connection, Mobile Charging Points and water filters are provided in the canteen.

Additional Facilities- Dedicated laboratories, a workshop facility with adequate machinery, tools, and equipment are provided to students to encourage them to participate in national and international level competitions. SAE Vehicle Pit is provided to Pegasus club where students design, fabricate and build vehicles. Adequate facilities are provided to conduct activities like Traffic forum, Paryavaran Sanrakshan, Prerna, Technofuel, Rotaract, NSS, Astronomy, Personality Development in the Institution to enhance the technical, social, and life management skills of the students.

The Institution provides a well-equipped Training and Placement Centre of 94.09 sq. m. to facilitate the planning and execution of its activities. A Counselling center is provided for personal and professional counseling of the students and faculty. The Institution has an Entrepreneurship Development Cell to encourage the students in entrepreneurship development. The Institution has an Alumni cell for industry-institute interaction.

Under the Green campus initiative, the Institution has a sewage treatment plant, Biogas plant, Vermiculture and Vermicomposting unit. The solar PV plant of 80 kW installed on the campus is one of the major steps toward energy conservation.

The Institution has Girl's common room, sick room, and parking. The Institution has a girl's hostel. A banking facility is also provided in the campus. Other facilities for physically challenged persons (Lift, Ramp and Toilet) are available.

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

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

Response: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 44

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

4.1.4 Average percentage of expenditure, excluding salary for infrastructure augmentation during last five years(INR in Lakhs)**Response:** 41.76**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
395.00927	513.81184	384.09304	25.06714	504.96297

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
Upload any additional information	View Document

4.2 Library as a Learning Resource**4.2.1 Library is automated using Integrated Library Management System (ILMS)****Response:**

Institution Central Library was established in 1999 with the inception of the Institution. The total area of the library is 1118 sq. m. consisting of a spacious reading hall, textbook section, reference section, periodical section, issuing counter, and digital library section. The library has a huge stock of books (60,000+), journals (90+), and e-resources. The print collection includes textbooks, reference books, periodicals, and their bound volumes. In addition to this, books related to general reading, competitive examination preparation, and soft skills are also available. The e-resources like Science Direct (Elsevier), J-Gate, IEEE (Institute of Electrical and Electronics Engineers), CMIE (*Centre for Monitoring Indian Economy*), DELNET, ACM (Association for Computing Machinery), e-books package are subscribed regularly. Students and faculty access these resources through ERP System. The library has professional memberships of Jayakar Library, Automotive Research Association of India (ARAI), Computer Society of India (CSI), Maratha Chamber of Commerce Industries and Agriculture (MCCIA), Confederation of Indian Industry (CII), EduSkills, e-Shodhsindhu, and National Digital Library of India (NDLI). Under the Institutional repository, the Institution has a collection of e-content developed by faculty, NPTEL video lecture series, department publications and last five years' question papers of SPPU, affiliating university. The software and apps such as Kindle, typeset- research writing tool, Turnitin (plagiarism software), and Non-Visual Desktop Access (NVDA) are installed in the library and made available. The Institution has also maintained a separate departmental library in each department.

The library provides following facilities:

- Book bank facility for needy and SC/ST student
- Book issue for open book test on an hourly basis
- Reprographic services.
- Open access to all the students and staff.
- New arrivals of learning materials are displayed in the reading hall
- Online access to e-journals, e-books, and databases such as DELNET, NDLI etc.
- Plagiarism checking service
- Research writing tool
- Access to online courses – NPTEL, Coursera, Spoken Tutorial
- Book exhibition on different occasions

Library also conducts activities like celebration of birth and death anniversaries of great Indian personalities, library orientation program for first-year students, book exhibition and training session on access to e-resources.

Integrated Library Management System (ILMS)

The central library is automated since year 2006 with SLIM 21 library management software. From academic year 2020-21, cloud-based 'WEBDESK ERP' library management software system is implemented in the library.

ERP library management software contains different modules.

Acquisition and cataloging – It enables the library to create a database of the library materials for easy search.

Serial control – It enables to handle or control processes of journals.

Circulation – It enables to create and manage borrower transaction.

Web OPAC- It enables users to search for books, journals, or any other library materials. **Report generator**- It helps to generate various library reports.

Bar Code system- All library books are bar-coded. Books issue return process is carried out with the help of the barcode system.

Access to e-resources through ERP system- The library has given remote access to all the subscribed e-resources through the ERP system. Students and staff access these resources by using ERP accounts.

File Description	Document
Upload any additional information	View Document
Paste link for 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: 14.92

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
11.08453	12.78135	16.01580	12.98272	21.75456

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
Any additional information	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: 3.47

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

Response: 145

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

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

In this IT era, an IT facility plays a very important role in teaching and learning process. To fulfil norms of AICTE and Savitribai Phule Pune University the Institution has well equipped computing facilities, licensed software, Intranet and Wi-Fi facility. IT Infrastructure facilities have been augmented as and when there is change in technology to cope up with the IT requirements.

Computing Facility:

Institution has Computer systems of HP, Lenovo and Dell procured with latest configurations. Sophos Firewall XG430 has been installed in Central Server Room to provide secure internet facilities. A centralized Dell server with 32GB RAM- 12 cores facilitates Active directory services for user management and storage management. Servers are available for smooth conduction of various activities such as online examinations, webinars, online workshops, virtual lab etc. For smooth functioning uninterrupted backup facility is available. Printing facilities are provided to staff and students.

Blended teaching learning facility is available in the classroom equipped with Tablet-PC, e-podium, Projector, PA system, Smart Board and Video Capturing System. The Institute has 16 Lenovo 10th Generation Intel i5 computers; Wi-Fi enabled Network Printer and DLP Projectors on 18/02/2021.

Licensed Software:

The Institute has time to time procured updates in licensed application software like ETAP, AutoCAD, MATLAB and SOLIDWORKS. Computers are equipped with latest Licensed Antivirus Seqrite Endpoint Security. The Institute has language lab software to enhance communication skills of students. Language lab consists of instructor and student Module. The Institute has Google Suit, Microsoft Campus Agreement and Microsoft EDU-CLOUD latest updated on 29/12/2020 for conduction of online classes and meeting.

Enterprise Resource Planning (ERP) software is used for academic and administrative purposes since academic year 2019-20.

Intranet:

Institute has manageable CISCO switches with fiber connectivity and 215MBPS internet updated to 315 MBPS on August 2021 with three ISP leased lines providing service to administration, laboratories and Wi-Fi facility.

Wi-Fi Access:

Institute has Wi-Fi setup in entire campus with Sophos UTM AP 55C Access Point as a wireless controller for centralize management and security of wireless network across the campus.

The institute has separate Central Server Room in order to support IT infrastructure facilities. All IT facilities updated periodically.

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

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

Response: 3:1

File Description	Document
Student – computer ratio	View Document

4.3.3 Bandwidth of internet connection in the Institution

Response: A. 250 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: 5.06

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
43.88992	56.36674	49.15149	8.6576	56.96784

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:**

The Institution has a well-defined policy, system, and procedures for the maintenance and utilization of all its physical, academic, and support facilities.

Following procedure is adopted for maintenance of the facilities:

- 1.The maintenance coordinator reviews the requirements related to civil, electrical, furniture, equipment and computer peripherals on regular basis.
- 2.The maintenance is identified as either in-house or external, accordingly agencies are appointed to take care of regular maintenance and repair works if any.
- 3.The Infrastructure committee of the Institution proposes the budget for maintenance of physical, academic and support facilities.
- 4.A budget provision for maintaining various facilities is scrutinized by IQAC and approved by College Development Committee (CDC).
- 5.The sanctioned budget by CDC is made available to every department based on its requirement.

Physical Infrastructure:

The Institution makes annual maintenance contracts (AMCs) for housekeeping, Security, Lift, RO Plant, water tank cleaning, EPABX, fire extinguisher, CCTV and DG set.

The maintenance of all the restrooms and service areas of the premise is taken care by housekeeping agency. Water coolers are installed on each floor and are maintained periodically.

A private security agency that includes security-guards and bouncers looks after the safety of the entire premises. Fire extinguishers have been placed at strategic locations to ensure safety in case of emergency. The premise has emergency exit points and stair cases for quick evacuation at appropriate locations.

An EPABX system is installed in the campus for effective communication through intercom services.

The premise is secured by the provision of CCTV cameras. The Institution has power back up from two DG sets of 200 KVA and 62.5 KVA. AMC and regular maintenance of these DG sets is done by external agency.

A vermiculture and biogas plants has been set up in the Institution to enable the proper management and disposal of waste generated on campus.

The maintenance of civil, electrical work and furniture repairing is done by the contractors of the parent society.

Laboratory:

The laboratory apparatus, machines, computers and printers are tagged with the dead stock register (DSR) number after their purchase. The faculty members and lab assistants are trained by the expert technicians after the purchase of new laboratory equipment. The DSR is maintained at Institution level as well as at the department level. It is verified at the end of each year by the DSR verification committee. The measuring instruments are calibrated to ensure accuracy of readings. History cards are maintained in the laboratories to track the status of maintenance of the equipment effectively. In-house maintenance of equipment and machines is done by the lab assistants regularly. In case of major repair or maintenance work the concerned faculty sends the report to the infrastructure and central facility committee through the Head of the department. The committee reviews and assigns the work to the concerned external agency.

Library:

The Library is fully automated with SLIM21/WEBDESK ERP library management software. The library software is maintained and updated by external agency. The library committee has been formed for updating, maintaining and utilization of library resources like books, journals, e-resources and multimedia. The stock verification process is carried out every year to update the library resources.

The library facilitates:

- Book bank scheme for economically weaker and SC/ST students.
- Issue of reference books on one day basis
- Issue of two extra books facility on the maximum usage of books to encourage better utilization of library collection.
- An Annual subscriptions of e- resource to students and faculty for reference of projects and research work.

Sports Complex

The Director of Physical Education looks after well-equipped gymnasium, sports complex, playground, sports goods and makes arrangements for health checkup of students.

The maintenance and cleaning of gymnasium equipment is made periodically. The institution has a well maintained Indoor sports complex. Playground levelling and other repairs are done annually.

Computing Facility:

Computers and peripherals are maintained properly and serviced periodically. The maintenance of computers is completed in slots provided in academic time table. History cards are maintained for computers and peripherals in the laboratory to record the maintenance details. The preventive maintenance process is followed in-house by technical assistant of the department regularly. Major maintenance is carried out by external agencies. The college website is updated regularly by external agency.

Classrooms

Institution has adequate number of ICT enabled classrooms for teaching learning purpose. These classrooms are maintained and cleaned regularly to provide healthy atmosphere for students and faculty.

Canteen:

The Institution level canteen committee is formulated at beginning of academic year to closely monitor the quality of food, hygiene, kitchen area cleanliness and to take feedback regarding services of the canteen from staff and students. The committee members visit the canteen area periodically, prepare and submit the inspection report to the authorities. The observations of the inspection report and feedback taken from students, staff is communicated to the canteen contractor to upgrade the services given by him.

File Description	Document
Upload any additional information	View Document
Paste link for 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: 64.75

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
2584	2278	2284	2085	1913

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: 0.1

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
1	1	5	5	5

File Description	Document
Upload any additional information	View Document
Number of students benefited by scholarships and freeships 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: 49.97

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
2131	1607	1387	2034	1450

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: 47.78

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
551	461	488	387	308

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: 15.65

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

Response: 162

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education (Data Template)	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: 55.48

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
43	57	47	58	45

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
75	79	90	127	90

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

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: 178

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
11	40	54	38	35

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:

PES's Modern College of Engineering ensures students' representation and engagement in various administrative, co-curricular and extracurricular activities as per the norms specified by SPPU and AICTE. Students involved in various administrative/statutory committees are as follows:

- Internal Quality Assurance Cell
- Anti-raging Committee
- Internal Complaints Committee Cell
- SC/ST Committee

As per the practice followed by the Institution the student council is reframed every year. The selection process is carried out by inviting applications from the students of the Professional Society Chapters, Cultural, NSS, ISR, M-Pulse, Sports, etc. The council plans and executes technical, managerial, cultural, and social activities on and off-campus. The student council encourages, facilitates, and provides opportunities to develop students' personality and life skills.

For the benefit of students; Professional Society Student Chapters viz. IEEE, CSI, ISLE, IEI, ACM, PMA, etc. are formed. For the smooth functioning of the activities under these chapters; aspirant students have been appointed as office bearers. The various activities executed under these chapters are seminars, webinars, poster-making competitions, quiz competitions, hands-on workshops, project competitions and paper publications. Participation and involvement in these activities help to enhance individual technical capabilities and competencies. Students are rewarded for their contributions to student chapter activities.

Student's representation at Institution Innovation Council inculcates and inspires the students to generate new ideas and innovation ecosystems.

The Institution organizes an annual techno-management event known as M-pulse since 2006, wherein students from various institutes take active participation. Some noteworthy competitions are RoboSoccer, Robo Maze, Smart City Modelling, Pro-Google, Maze Coder, Crack'It, Clash of Coders, Webber etc.

The Institution has 26+ technical, art, social and life management student clubs and the activities are executed by the students and for the students. These activities play a vital role to channelize creativity and their interests.

Students are actively engaged in the publication of the Institutes' magazine 'Karmanya'. Various activities such as Blood Donation Camp, PUC & PAN Card camp, and Art Exhibition are organized by team Karmanya. The Departmental E-newsletters and magazines are edited and published by students.

The annual social gathering 'Spandan' is a popular event among students and is managed by the Cultural Committee. It provides a platform for students to showcase their talent in dance, drama, singing, etc. The annual Prize Distribution ceremony is a much-awaited event in Spandan.

Students have shown excellent performance and won many prizes in prestigious inter-collegiate competitions viz. Purushottam, Firodiya, Vinodattam and Symbiosis Karandak etc.

'M-Sports' is an annual social sports event where students participate in various solitary as well as team sports events. This event includes various games such as Badminton, Volleyball, Kabaddi, Cricket etc. Students also represent the Institution in State, National and International level competitions.

Students are involved in various activities through ISR Cell and NSS unit where they contribute to society. Activities conducted are Tree plantation, Riverside Cleaning, Police Mitra, Awareness towards plastic and E-waste collection. Thus, the involvement and engagement of students play a vital role in providing a platform for the holistic development of the students.

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: 37.4

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
8	51	50	49	29

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 PES's Modern College of Engineering is dedicated to connecting the past and the present. It helps to convert fellowship and bonding of alumni from their academic life into professional opportunities. The alumni association works to develop an emotional connection between the institution and its alumni.

The Institution has a registered Alumni Association (MCOE Alumni Cell), with registration number Maharashtra-1918/20 dated 23 November 2007. More than 3000 alumni are registered with Alumni Association and the number is still increasing.

The alumni have expertise in various technical, non-technical domains; they are working in different private sectors like IT, Communication, Automobile, Manufacturing, Embedded Industries, Pharmaceuticals and Media Management, etc. Some of them are also working in Government Sectors in administrative positions. Many of them have taken higher education from reputed institutions and working at senior positions in renowned companies. Some of them have become successful entrepreneurs and are employing many aspirant candidates. Some of the alumni have completed their doctoral research and are associated with National and International Universities.

The alumni association plans, executes and documents the activities and meetings. It provides support for the development of the institution through collaborative activities.

The alumni association organizes Technical, Professional and Soft skills based activities. It greatly helps for the Training and Placement, Internships, Sponsored Projects Experiential Learning and creating awareness about entrepreneurship.

Alumni contribute in many ways to Technical Talks, Guest Lectures, Webinar, hands-on workshops, as a Reviewer/ Judge for Projects and Competitions. The alumni are also involved in IQAC and Department Advisory Board and provide valuable suggestions. In addition to this, they are involved in Competitive examination preparation and career development programs. Alumni also contribute in Cultural, Social, Sports and Art-based activities by giving valuable suggestions and value additions to team.

The alumni association encourages alumni to provide financial support for organizing various activities. Every year alumni contribute significantly through financial and other support services. Alumni are enthusiastic and eager to contribute in every possible way they can. This positive approach shows their attachment to the institution. Our one of the alumnus visited to Robotics laboratory during Alumni Meet and donated 50,000/- amount to Robotics laboratory activities.

Through this platform, alumni connect with the students and inspire them for technical and professional skill development. The alumni association makes every effort to involvement of alumni in the development of the institution with its motto of "Connect, Inspire and Grow".

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: A. ? 5 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:

- **Vision Statement of the Institution**
- To create a **collaborative academic environment** to foster **professional excellence** and **ethical values**.
- **Mission Statement of the Institution**
- To develop **outstanding professionals** with **high ethical standards** capable of creating and managing **global enterprises**.
- To foster **innovation and research** by providing a stimulating **learning environment**.
- To ensure **equitable development** of students of all ability levels and backgrounds.
- To be **responsive** to changes in technology, socio-economic and environmental conditions.
- To foster and maintain **mutually beneficial partnerships** with **alumni and industry**.

The Vision and Mission statements of the institution incorporates the **perspective of higher education**, which are inclined towards **technical, techno-social, and ethical values** and were framed by considering inputs from **various stakeholders and internal committees**.

The Institution's Vision emphasizes creating an **inclusive collaborative environment** and **cultivating ethical values**. To ensure the realization of the Vision, the Mission statements have created actionable areas with an emphasis on the development of **entrepreneurial skills, the impetus for research and development activities**, creating an environment of inclusiveness for the overall development of students coming from different strata of society.

The Institution is working towards the accomplishment of the mission statements, which are clearly aligned to the vision. For the fulfilment of the stated mission, the leadership ensures the monitoring and **enforcement of the policy statements and strategic action plans** which are formulated based on careful consideration of **all the stakeholders**. The Management and Principal ensure that the Institution moves ahead with all the planning, to become one of the renowned Institutions. New facilities are provided and the existing ones are upgraded in order to cater to the needs of the student population.

The Institution has an efficient **multi-layered governance structure** which is run by “**PROGRESSIVE EDUCATION SOCIETY (PES)**”. PES is one of the leading educational societies in Pune established in the year 1934. The Institution is well represented in the management through the Principal being a Life Member and Business Council member of the P.E. Society. The **Board of Governors (BOG)** being at the **apex** provides directives for the effective implementation of the Institution's academic and administrative activities. The **College Development Committee (CDC)** provides the framework of policies, structures, relationships, systems, and processes for the smooth functioning of the Institution. Governance in all areas is achieved through active participation of teachers in BOG, CDC and **Internal**

Quality Assurance Cell (IQAC). Different committees having involvement of the faculty members are constituted for smooth functioning of various activities; the institution maintains effective coordination with all departments and committees, through **IQAC**.

The **IQAC monitors** the functioning of all the committees relevant to **teaching-learning, student enrichment, and overall development** of the institution to identify areas of improvement and suggest the necessary action plan. These policies result in the overall development of the student imparting quality education through dynamic learning environment. The coordinator of the committees plans different activities and ensures their timely execution; this **reflects effective governance** which is in tune with the Vision and Mission of the Institution.

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 Institution promotes a culture of **participative management** where each unit is given fullest freedom to innovate, make a **perspective development plan** even though it operates through a **structured organization** for **smooth functioning**. **Effective leadership** is visible through designing, planning, implementing, and executing the quality policy of the **Institution to achieve its Vision and Mission**. The Institution has formed **various committees** that are constituted by staff members to manage different institutional activities and to promote **academic leadership**. The Principal with the Heads of the Departments discusses the needs, problems, suggestions for improvement in the educational quality, infrastructure, etc. to propose to the management for further action. **All the members take an active part** in the **management of the institutional affairs**, which is a clear indication of participative management.

The decentralization in working helps to execute the **academic and related activities** of the institution, to organize the students, faculty development programs, and to visualize, formulate perspective plans for the development and growth of the institution.

As a part of the quality initiative the **IQAC, statutory Committees, CDC, and Governing Body (GB)** continuously work on quality improvement. The committees are headed by faculty in-charges and comprise inter-departmental teams along with student representatives. Periodic discussions are held for the planning and development of the College through the various committees.

A case study of Institution practices decentralization and participative Management: **Skill and Personality Development Programme Centre (SPDC)**.

Skill building and/or skill development has been considered as one of the important aspects of employment opportunities in India and abroad. The Institution is associated with Confederation of Indian

Industry (CII) and English Language Teaching Institute of Symbiosis (ELTIS) for '**Finishing School**' an affirmative action by the HRD ministry for the last 14 years. Based on this the institution has applied for **SPDC sponsored by AICTE** under the scheme **AICTE Quality Improvement Scheme (AQIS)** for the year 2019-2020 and received funding for **SPDC** to conduct skill and personality development sessions for SC/ST students.

A committee comprising of representatives from each department is formed to look after the efficient and effective functioning of SPDC. Various roles and responsibilities were assigned to them. The institution has organized many **skill development programs, training and placement orientation sessions, career guidance sessions**, as per recommendations & suggestions from IQAC for many SC/ST students through this centre.

Similar to the mentioned case study, decentralization in working is achieved by **Delegation of Financial Powers to various authorities**. The Institution has a well-defined budgeting process in place. All **Department Heads and In-charges of different activities** send their proposals for **budgetary requirements** to the Principal for which fund allocations are to be made for the forthcoming year. The budget after due scrutiny and approval from the CDC is approved for the Institution. Thereafter the standard purchase procedure is followed for providing the requirements. However, some expenses may need to be authorized over and above this procedure of annual purchases. For this **various authorities have been delegated** specific financial powers.

File Description	Document
Upload any additional information	View Document

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Response:

The Institution works on the **participative and democratic principle of management**. It frames all its plans and policies in consultation with the **Management and various committees**. The management encourages and involves staff members for the overall improvement of the institution through various committees. These committees are assigned different plans/policies for implementation.

The Institution prepares a **Strategic/Perspective plan**, which is reflected in **Vision and Mission statements**, in line with it, each department prepares its Vision and Mission statements. Different quality attributes stated by accrediting agencies, the guidelines from BOG, CDC are considered while preparing and executing the perspective plan. **IQAC plays a vital role** in the implementation of the Perspective Plan which broadly covers

- Academics and Research
- Infrastructure Development

- Collaboration with industries and organizations,
- Extension activities
- Governance and Administration
- Accreditation

As per the perspective plan the Institution continuously tries to enhance collaboration with industries and organizations. This helps to create more opportunities for students' internships, projects, and placements. Currently, more than 80 Memorandum of Understanding (MoU)s are in place.

The “**Establishment of Centre of excellence**” is the successfully implemented activity based on the Perspective/Strategic Plan.

In the year 2020-21 the institution has signed a MoU with EduSkills, to extend the Global Corporate Center of Excellence (CoE) which is exclusive to ISTE member Institutions across India with a vision to promote skilling and upskilling courses for the young generation who are ready to start their career.

EduSkills is a non-profit social enterprise operating across 21 states of India with 800+ Govt. and Private Universities, Engineering & Polytechnic colleges which are offering this program to 125,000 students every year in a strategic partnership with the Central Government and many of the State Technical Education Departments, Skill Development Bodies, Ministry of Skill Development.

Through the partnership/MOU with EduSkills institution has got opportunities to partner with IT leaders like Cisco, Networking Academy, AWS academy, Red Hat, Palo Alto, Blue Prism University, Microchip, Go daddy academy to drive their global academy programs that enable learners with increased access to career and economic opportunities. It provides online courses, interactive tools, and hands-on learning activities to help learners prepare for more opportunities in careers in every type of industry.

Key Benefits to Member Institutions:

- ? The association with EduSkills is primarily focused to fill **the gap between Academia and Industry** by ensuring access to world-class curriculum and training to faculty members and students.
- ? Through this, **collaboration with industry** has been developed to drive its global academy programs.
- ? All courses, learning management systems, and certifications at **Zero /discounted cost** are available.
- ? Students get opportunities to participate in all **National Level competitions & events** organized by corporates.

File Description	Document
strategic Plan and deployment documents on the website	View Document
Paste link for additional information	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:

The Institution has well defined organizational structure for effective functioning.

Institutional Bodies

The PES Modern College of Engineering has an efficient multi-layered governance structure.

· **Governing Body**

At the **apex of organizational structure** is the **Board of Governors**. This body provides insight to the Institution's **academic and administrative activities**. Governing Body members **formulate policies and regulations** regarding finance, administration, and academics for effective management of the institution and plan for future expansion, development.

· **College Development Committee**

College Development Committee is headed by the Chairman of Progressive Education Society and other representatives. This body provides the **framework of policies, structures, relationships, systems, and processes** for the smooth functioning of the Institution.

· **Administrative setup**

The day-to-day administration is seen by the **Principal, Vice-Principal and Professor In-charge (Administration), Administrative Officers and Heads of Departments**. The Principal is **in-charge** of all **academic and administrative** decisions in the institution. Being life member of Business Council she is also the liaising entity between the Management and the Institution. Heads of departments are responsible for smooth functioning of an academic progress of their departments and assisting in planning, implementation of academic programmes such as orientation courses, seminars, in service and other training programmes for academic competence of the faculty members.

· **Committees**

The various committees help in the **smooth governance** of the institution. **Coordinators and members** are nominated from faculty members for **various committees** for administrative, academic, co-curricular and extracurricular activities formed for effective working of the Institution.

· **Recruitment:**

The institution follows the **recruitment procedure** prescribed by the **affiliating university** which is as given below:

- **Approval of roster** for recruitment from the affiliating university
- **Publishing advertisement** in leading newspapers and Institution's Website
- **Conduction of interviews** through the panel constituted by the affiliating university
- **Issuing appointment orders** and **joining** of the newly recruited teachers
- **Service Rules:**

The acts and rules issued time to time by the regulatory bodies like **AICTE, DTE Maharashtra state, SavitribaiPhule Pune University** are adopted as guidelines for **procedures, recruitment, promotional policies, and code of conduct**. All other applicable **State/Central Government rules and Bye-laws of Progressive Education Society** are duly considered.

The Institution frames all its policies in consultation with the **Management and staff** and the **various committees**. The management motivates and involves teaching faculty members and non-teaching staff for the overall development of the institution through various committees. These committees are allocated different plans for execution.

The Institution has clearly defined policies for all administrative and academic processes. These are approved by the parent body. All processes are adhered to and implemented with a high degree of transparency.

The Institution communicates its **policies, mechanisms** to the **various internal and external stakeholders** through **Institution website** www.moderncoe.edu.in, Induction program for students, Institution meetings, communication with parents etc.

A performance appraisal system for teaching faculty members and non-teaching staff is set up, well-integrated with institutional functioning. This leads to the identification of needs of individual training and development as well as the recognition of faculty members whose performance is outstanding.

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

6.3 Faculty Empowerment Strategies**6.3.1 The institution has effective welfare measures for teaching and non-teaching staff****Response:**

The institution has a variety of welfare schemes for teaching faculty members and non-teaching staff and it provides a caring and supportive working environment for them.

Some of the welfare schemes are as follows:

1. **Salary:** Salary as per norms is applicable for teaching faculty members and non-teaching staff
2. **Employee Provident Fund (EPF):** The Employee Provident Fund (EPF) is a scheme that helps staff to create sufficient corpus for a retirement benefits. The Institution contributes towards EPF as per the norms.
3. **Appreciation/Reward for remarkable work/outstanding contribution:** Every year on the occasion of Kanitkar Day and Foundation day of the parent society, the teaching faculty members and non-teaching staff is felicitated for certain achievements. Best teacher award for teaching faculty member and best employee award for non-teaching staff is awarded for noteworthy contribution to the institution.
4. **Promotions to higher posts** based on completion of higher education, outstanding contribution: After completing the higher education and/or award of Ph.D., the faculties are promoted to a higher post on a priority basis as well as increments have been provided to them as per norms.
5. **Support for higher education:** The management takes initiative to motivate the teaching and non-teaching staff for enrolling to Graduate, Postgraduate and Ph.D. programs. The library, laboratory, and infrastructure facilities of the Institution are available to the staff for pursuing such programs.
6. **Financial supports** to the teaching faculty members attending conferences/research work: Teaching faculty members are motivated to attend the Faculty Development Programs (FDP)s, conferences, short term training programs (STTP), and hands on training for which financial support is provided by the institution.

7. **Financial support** for institutional membership: The institution has tied up with many organizations and agencies for the membership for the benefit of staff and students.
8. **Admission to the wards of faculty** on a priority basis: The admission to the wards of teaching and non-teaching staff in the affiliated sister concern of the institution is given on a top priority basis
9. **Concession in the tuition fees** for children of Staff members: Concession in the tuition fees of the ward of the teaching faculty members and non-teaching staff from any institution affiliated with parent society is provided as per norms.
10. **Medical insurance scheme:** The medical insurance policy is taken from the **Star Health Insurance** company for all teaching faculty members and non-teaching staff.
11. **Accidental and death group insurance scheme:** The master accidental and death group insurance policy is taken from the **Oriental Insurance** company for all teaching faculty members and non-teaching staff.
12. **Leaves:** All types of leaves have been sanctioned as and when required by all employees as per university statutes.
13. **Ex gratia payment:** It is an incentive given to class IV staff during Diwali.
14. **Two sets of uniforms:** institution provides two sets of uniforms to Class IV staff every year
15. **Other:** Apart from all this, the institution strives to provide excellent infrastructural amenities with Wi-Fi enabled campus, canteen facility, gymnasium, and so on.

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: 8.99

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
10	23	17	25	22

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: 11.4

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
10	12	14	11	10

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: 64.8

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
143	138	171	156	81

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:

The Institution has a well-defined Performance Based Appraisal System (PBA).

1) Performance Based Appraisal System for Teaching Staff:

The performance appraisal process provides **opportunities for staff development and encourages the professional growth** of each staff member while acknowledging and affirming the efforts, involvement, and achievements of all employees. The institution believes that **performance appraisal of all teaching and non-teaching** is essential to the achievement of its commitment to provide **quality educational experiences for all students**.

The Institution strictly follows all the **essential recruitment and promotional policies** as stipulated by Savitribai Phule Pune University (SPPU), the All India Council for Technical Education (AICTE), and the **Government of Maharashtra**. Each and every faculty member completes the **self-appraisal procedure every year** in the prescribed format.

The Performance Appraisal process will endeavor to improve **communication between the employee and the management** through **HOD/IQAC/Principal** by giving an opportunity to provide feedback to individual employees on their job performance.

Ø **Parameters of Evaluation:** Each employee of the institution is evaluated in a systematic manner on an annual basis. The Head of the Department leads the performance appraisals which are further reviewed by the IQAC and the Principal. This evaluation is based on the following major criteria:

1. Teaching, Learning, and Evaluation Related Activities:-

- a. Lectures, seminars, tutorials, and Practical Conducted
- b. Use of participatory and innovative teaching-learning methodologies, etc.

2. Examination duties assigned and performed

- a. Invigilation, flying squad, any examination related duties
- b. Evaluation of answer scripts

c. Question paper setting

3. Co-curricular, Extracurricular and professional development related activities

a. Co-curricular activities

b. Community work activities

4. Research, Publications and academic contributions

a. Publications–Papers in journals, conference proceedings, etc. books, articles/chapters published in books.

b. Faculty development Programs attended/organized

Ø **Process of Performance Appraisal:** A self-appraisal is the first step in the appraisal process. Faculty members are asked to fill out and submit duly signed appraisal forms. It is to be noted that performance appraisal is used to provide a positive and developmental assessment of individuals.

The Head of the Department (**HOD**) **reviews each faculty performance evaluation form** and then submits the performance evaluation summary with **recommendations to the IQAC In-charge**. Based on recommendations by HODs, IQAC in charge submits the final recommendations through the **Principal for approval to CDC**. Upon approval from CDC, faculties are awarded with annual increment in salary and/or promotion to higher cadre, incentive /Prize money, appreciation letters.

2) Evaluation System for Non-Teaching Staff:

Evaluation System for non-teaching staff is monitored on the parameters like work assigned and completed by staff, performance, discipline, dedication, reliability and length of the service, etc. The **Head of Department** assesses the performance and the **Principal reviews the remarks**. After the evaluation, the concerned staff is directed for further improvements if required. Based on the reviews, the report is submitted to the CDC for further necessary action.

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 Institution has a **well-defined procedure to monitor effective and efficient utilization of available financial resources** for the development of infrastructure and all academic, extra-curricular, co-curricular activities. **The budget** is prepared **every year after compiling requirements** regarding recurring and non-

recurring expenditures.

- All the **major financial transactions** are **monitored** by the College Development Committee (CDC) which comprises of the Institution authorities and the Members of the Society. The budget is discussed in the CDC of the Institution. These **solutions of the CDC regarding approval** for the budget are forwarded to the Managing Committee and Governing Council of the Society for final approval of the budget to be spent during the academic year under various heads.
- The institution has constituted a **separate purchase committee**. The purchase procedure such as calling quotations, technical bids, preparing comparative statements, negotiation meetings are followed for effective and efficient use of available financial resources.
- The account of each financial year of the Institution is audited by **Internal and statutory audits**. Internal and statutory auditors are appointed by the **parent society**. Thus, the utilization of financial resources is monitored at the **two-tier level**.
- **Internal Audit:** The internal audit is a **continuous process**. Qualified Internal Auditors and their team from external resources have been appointed by the parent society for verification of all payments, receipts & all types of vouchers of the transactions cash books that are carried out in each financial year on an accrual basis system. It is conducted in **two sessions**, first in the month of **September or October** for the period of 1st April to 30th September and **second** in the month of **April or May** for the period of 1st October to 31st March of each financial year.
- **Statutory Audit:** Statutory financial audit is conducted for the finalization of the account is completed after thorough process in the month of **June/July as per the standard norms of financial audit and Government regulations**. The auditor also **verifies and certifies** the entire **Income, Expenditure, and Capital Expenditure of the Institution every year**. A team of Qualified Auditors from external resources has been appointed to do a thorough check and verification of all vouchers of the transactions that are carried out in each financial year. Discrepancies identified, if any, by the audit team are immediately corrected / rectified and thereafter precautionary steps are taken to avoid recurrence of such errors in the future.
- The **audited statements** are prepared in June/July duly signed by the **Principal, and Accountant**. This audited report is submitted to the **competent authority** by the **Accountant**. The audited **financial statements are uploaded on the institution's website**.
- The institution receives grants from government organizations such as the All India Council for Technical Education (AICTE), affiliating university Savitribai Phule Pune University (SPPU) for the conduction of FDP, STTP, up-gradation of infrastructure, etc. The detailed financial audit of the utilization of grants received is carried out as per the norms.

File Description	Document
Upload any additional information	View Document
Paste link for 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:** 0

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	0	0	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](#)

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

- Adequacy of budget and effective utilization**

As we are a **self-financed Institution**; the major source of funding is raised through **students' fees**. The Institution prepares **annual budget** in order to manage the financial resources effectively. The deficit, if any is managed through the support of the Parent Society. The Institution also has an **adequate corpus** in form of fixed deposits to tide over administrative and salary requirements of more than six months. The institution has a well-formulated financial policy that ensures effective and optimal utilization of finances for academic, administrative, and development purposes. The available financial resources are allocated in order to ensure that expenditures are aligned with the **Institution's Vision, Mission, and long-term goals**.

All the Heads of Departments and other in-charges submit their **budgetary requirement** for **various categories of expenditure** under '**recurring**' and '**non-recurring**' heads before the commencement of every academic year. The budgetary heads include **procurement** of new equipment, maintenance/servicing of existing equipment, consumables required, books required for the library for each department based on the syllabus revisions, research and development, seminars, and other co-curricular and extracurricular activities. The development and maintenance requirements of the central facilities are also prepared and **approval** is taken for the same in the **College Development Committee (CDC)** meetings. The CDC also reviews the expenditure incurred in the previous financial year through the **budgeted provisions**. It ensures that the budget allocated at the beginning of the financial year is adequate for managing the expenditure during that year.

The utilization of the budget is carried out as per the identified priorities. The focus of expenditure in the Institution is on **increasing the quality of academic inputs** that positively contribute to the **development of the students, staff, and the Institution**. In certain special considerations, the purchases can go beyond

the allocated funds which are later ratified by the Governing Body.

It can be noted that the budget allocated during each **financial year is effectively utilized** and the Institution is self-sustaining to a large extent. In case of any **shortfall in finances** required for developmental activities, the management provides the extended support.

- **Utilization of funds from Government agencies, affiliating University**

Funds availed from the Central Government agencies such as AICTE, affiliating University Savitribai Phule Pune University (SPPU) are used for faculty developmental activities, the development of the infrastructure. The utilization of the funds is as per the identified priorities, norms laid down by the competent agencies.

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:

The IQAC plays an important role in the implementation of quality assurance strategies and processes related to-

- Academics and other student-centric activities
- Research and development
- Extension and outreach activities
- Administrative and other support services.

With the focus to create, maintain and/or enhance the quality in every aspect related to Institution's functioning in the above-mentioned domains, the IQAC has set up the strategic plans and processes. Same are shared with stakeholders and are made available on Institute's website. IQAC has been engaged actively in -

- Collaboration with other organizations/ industries, and funding agencies
- Training to teaching and non-teaching staff for quality enhancement.
- Preparation of Self-Study/Assessment Reports of various accrediting bodies (or Institution Ranking) such as NAAC, NIRF, NBA, ARIIA, and CII etc.
- Introduction of new programs/courses and augmenting required facilities.
- Preparation and submission of Annual Quality Assurance Report (AQAR) etc.

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

Practice I: Skill development programs for faculty and students.

Objectives:

- 1.To improve the professional/employability skills of students.
- 2.To enhance the teaching-learning skills of teachers.

IQAC Initiatives:

1. Every Department is encouraged and motivated to organize in-house technical hands-on workshops and expert talks for students in collaboration with industries working in various realms.
2. Institution has tie-up with training institutes like GTT, Rubicon, Fuel, Barclay etc for soft skill training.
3. For Audit courses, German and Japanese language training sessions were organized and the institution has developed a 'Language Laboratory' for the same.
4. Institution has developed a Centre of Excellence in association with EduSkills and ISTE.
5. Institution has conducted certification course on 'Skill and Personality Development for SC/ST students' sponsored and approved by AICTE.
6. Faculty is encouraged to attend different Faculty Development Programs, seminars, workshops, Quality improvement programs, and orientation workshops about teaching methodologies after curriculum revision.

Practice II: Techno Social Collaboration

Objectives:

- 1.To collaborate with different professional societies and Industries for technical/professional development of students.
- 2.To collaborate with different social activity clubs/organizations and participate in national initiatives to support the community.

IQAC Initiatives:

1. IQAC has encouraged every department to establish association with different Professional societies like IEEE, ASME, ACM, CSI, ARAI, WIE, ISLE, ISTE, IET, IETE, IEI, SAE, PMA and S4DS.
2. In addition, the institution has around 28 technical and non-technical clubs engaged in techno-social activities. This also includes 4 different Rotaract Clubs in association with Rotary Clubs
3. Institution's NSS unit is actively involved in different community development activities.
4. The Institution is actively participating in two flagship events of MHRD, Government of India (GOI): Unnat Bharat Abhiyan (UBA) 2.0 and Institution Innovation Council (IIC) and is also recognized as Swachhta Action Plan Institution by Mahatma Gandhi National Council of Rural Education Department of Higher Education, Ministry of Education GOI.
5. Entrepreneurship development cell of the Institution works in collaboration with **BHAU** Institute (Institute of Innovation, Entrepreneurship and Leadership at Govt. COE Pune).
6. The Institution has around 90+ MOUs with different technical Industries and Social Organization.

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:

The IQAC plays a vital role in ensuring implementation of effective teaching-learning processes, conducting student centric activities and recording the learning outcomes as per the systematic processes defined. The IQAC ensures that for every program offered, Vision and Mission Statements are defined in line with the Institution's Vision and Mission, and also ensures that the Program Outcomes (POs), Program Specific Outcomes (PSOs) and Program Educational Objectives (PEOs) are defined. All the academic, co-curricular and extra-curricular activities are organized considering the POs and PSOs. The attainment of Course Outcomes (COs), POs and PSOs are recorded through systematically designed Outcome Based Education (OBE) Policy document by IQAC taking into consideration the AICTE Examination Reforms Policy document. IQAC has also initiated "Internal and External Academic Audit" process which is to encourage the programs to evaluate their quality processes and standards based on predetermined benchmarks. The academic audit also focuses on activities required to produce, assure, and regularly improve the quality of the whole system in place including curricular and co-curricular activities. In this audit process, the activities related to infrastructure and support services that are important/contribute to academics are taken into consideration. Following two examples will illustrate IQAC's initiatives and systematic procedures set for effective implementation of teaching-learning reforms and to ensure and record the incremental growth in various activities.

Example 1: Implementation of Outcome Based Education (OBE)

- Considering the Graduate attributes (GAs) which articulates the generic abilities to be looked for in a graduate of any undergraduate degree program, the POs are defined. These POs reflects the skills, knowledge and abilities of graduates regardless of the field of study.
- Course Outcomes (COs) are defined for each and every course from each semester of study for each program.
- Considering that the Courses are the building blocks of a program, teaching strategies, learning activities, assessment and resources are designed and organized to help students achieve the learning outcomes at the course level.
- The correlation between the Courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) is established.
- Considering the achievement of the intended POs as the primary goal to ensure the effectiveness of the program, focus is kept of accurate and reliable assessments.
- "Design down" process is employed which moves from POs to Course Outcomes (COs) and outcomes for individual learning experiences. Thus it is ensured that the outcomes at each successive level is aligned with, and contribute to, the program outcomes.

- As per the AICTE's examination reform policy documents, the Institutional policy also comprises the competencies and associated performance indicators for each of the PO.
- For CO attainment, appropriate and sufficient assessment tools are identified for Theory, Practical, Term work, Oral, Project and seminar work.
- The attainment levels for COs are set considering average performance levels in the university examination (previous years) or any higher value set as target for the assessment years.
- Attainment level is measured in terms of student performance in internal assessments with respect to the Course Outcomes of a course in addition to the performance in the University examination.
- For POs and PSOs, the attainment levels are calculated by direct (student performance) and indirect (activities and surveys) methods. Direct methods are based on CO attainments, while indirect methods include all co-curricular, extracurricular activities, Employers' feedback, Alumni feedback etc.
- For a batch of students (First year to Final year of graduation), the CO, PO and PSO attainments are recorded and the analysis is used for further improvements in academic, co-curricular and extra-curricular activities.

Example 2: Annual Internal and External Academic Audit

An academic audit practice is initiated at the Institute to review the processes used by programs to enhance the quality of their teaching & learning processes. The IQAC has set up systematic process for the same with following objectives:

1. To Ensure timely, efficient and progressive performance of academic processes
 2. To monitor and improve the quality of evaluation procedures and its credibility to support the system.
 3. To Develop and set up quality benchmarks/parameters for various academic activities of the institution
 4. To define effectiveness of teaching – learning process to optimize and integrate modern methods of teaching and learning.
 5. To ensure that the institute is benefitted by Outcome Based Education approach.
 6. To facilitate the creation of a learner-centric environment through co-curricular and extra-curricular activities as well.
 7. To incorporate feedback mechanism from students, parents and other stakeholders on quality-related institutional processes
- The Department Internal Academic audit is conducted twice a year as per the systematic procedure set up by the IQAC.
 - It involves all the departmental faculty members as Activity Incharge/s, Data Verification Committee (DVC), Program Assessment Committee (PAC) and Head of the Department (HOD). Academic coordinators of the program and activity coordinators prepare applicable 'planning to execution' reports which are verified by the DVC. PAC reviews the same as per the systematic procedure defined by the IQAC for ensuring the quality and adequacy.
 - Once the internal academic audit reports for both the semesters are ready, the departments plans for the external academic audit.
 - The external Auditor is appointed from other university; usually a senior faculty member with

experience of working for accrediting body or a certified auditor is invited for the same. This audit is conducted once in a year at the end of Semester II of the academic year.

- Remarks and suggestions by the auditor for every program are submitted to IQAC. The IQAC taken into consideration the same and action plan is initiated for further quality improvements.
- The IQAC submits the final academic audit report to the College Development Committee (CDC) at the end of every academic year.

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: A. All of the above

File Description	Document
Upload details of Quality assurance initiatives of the institution	View Document
Upload any additional information	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:

The Institution ensures equal concern for girls and boys in all curricular and co-curricular activities to promote gender equity. The Institution has organized various activities like sessions on creating a safe and positive workplace, gender equity awareness, stress management for working women etc. through various clubs and cells.

- Gender Sensitization in curricular and co-curricular activities:

Institution promotes equal participation of male and female students in various clubs, chapters, associations, activities, Student Council, Project groups, and competitions.

? Awareness Programs to promote Gender Equity

Various awareness sessions and seminars are regularly organized by the Institution such as self-defense training workshop for Girls, A street play on Women Security 'Aata Baas' , A seminar on 'Creating a Safe and a Positive Workplace' etc . Senior police officers and cyber security experts are invited for conducting sessions on self-defense, cyber security awareness etc.

- Research Promotion Scheme for Women:

The Innovation cell of the Institution has initiated project funding scheme "Tantradnyaa" for girl students in Technology. It provides an opportunity for girls in their project ideas.

At the beginning of every year, during the induction program the students are made aware about various committees such as Grievance Redressal Committee, Internal Complaints Cell, Anti-ragging Committees etc to communicate any of the issues they may face.

- Internal Complaints Cell

An Internal Complaints Cell is constituted in the Institution to ensure a safe working environment. Sexual harassment of employees or students at the Institution is strictly prohibited. As per the Vishakha guidelines promulgated by the Supreme Court of India, various activities and awareness sessions are organized in the Institution to ensure safety of the women.

- Grievance Redressal Committee:

All the grievances are addressed by the Grievance Redressal Committee

Following facilities are provided specially for women on campus:

A. Safety and security

The Institution is committed to provide a safe and secure environment to all.

? **CCTV**

24 hours working CCTV Surveillance system is available on the campus.

? **Security Guards**

Overall security of the campus is ensured by security agencies, duly appointed by the Institution. The Institution has professionally trained security personnel placed in the campus to make secure entry. Entry to the campus is ensured by verifying I-cards at the security check.

- **Damini Pathak**

The Institution has a collaboration with Pune City Police's 'Damini Pathak', to provide necessary support to the girl students, whenever necessary.

B. Counseling

- **Mentor-Mentee System**

To address academic, professional and personal issues of students, each department has a Mentor-Mentee system.

? **Counseling Session**

The Institution has an MOU with professional counselors. A counseling room is available at the Institution for the same. Sessions on self-awareness, rational thinking, beliefs, stress management, coping with failures etc. are conducted regularly.

C. Common Rooms

Institution has separate well equipped common rooms for girls and boys.

? **Ladies restroom**

Ladies restrooms are provided to lady staff for their leisure and comfort.

? **Sick Room**

Sick room is available with facilities like BP machine, weighing machine, pulse oximeter, temperature sensor, first aid box etc.

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: A. 4 or All 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 is a major issue faced by modern society. To support the National mission on “Clean and Green Environment” the Institution has taken various initiatives like solid waste management, Plastic ban, Recycling of used water, Paper recycling, E-waste management and so on. Through these initiatives, the Institution tries to support the global cause of environment protection. The Institution has effectively adopted a policy of reduce, recycle and reuse to resolve the problem of waste management. The Institution is committed to make the campus plastic free.

Solid waste management:

The Institution has established sustainable waste management, which minimizes waste production. Institution gives due consideration to effective disposal of degradable and non-degradable waste. The Institution has a practice to separate wet waste and dry waste to process it further as per its utility. Biogas and Vermiculture units are installed and are fully functional. Vermicompost unit is installed at the campus for disposal of biodegradable wastes generated through vegetable wastes from the canteen. Biogas plant has the capacity of 35 kilograms and the generated gas is used in the canteen.

Liquid waste management:

A 20000 liter Sewage Treatment Plant (STP) is available at the campus, for recycling of used water from toilets. STP treats the water by removing the impurities and contaminants from it. The output in the form of recycled water is used in the gardens for watering the plants. The sludge from the recycling is also used as manure for the garden.

e-Waste Management:

A minimal e-waste generation is ensured by optimal and periodic maintenance of computers and other electronic peripherals. The Institution has regular practice to safely dispose-off non-working computer spare parts and other non-working electronic equipment through the recognized vendors.

Paper Recycle and Reuse:

The standard procedure has been set up for used paper (old journals, files, newspapers etc.) management. Paper wastes generated in the campus are collected by an external agency for recycling. As per the green protocol the college optimizes the usage of paper by maintaining e-copies for documentation purposes. Single side used papers are utilized for printing and documentation work.

Swachhta Action Plan Institution:

The Institution is committed to make campus plastic free and is recognized as 'Swachhta Action Plan Institution' under Mahatma Gandhi National Council of Rural Education (MGNCRE), Govt. of India.

A program on 'Plastic waste Management' was arranged wherein the staff & students collected and donated to an organization which converts it into biofuel. On similar lines Awareness sessions on waste management such as Seminar on 'Plastic or Planet ', Wall magazine Competition on theme 'Say "No" to plastic' etc. were also arranged.

Hazardous Waste Management :

In the Chemistry laboratory, hazardous chemicals are not used and non-hazardous chemicals used are diluted before disposal.

File Description	Document
Link for Relevant documents like agreements/MoUs with Government and other approved agencies	View Document
Link for Geotagged photographs of the facilities	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: A. Any 4 or all 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: B. 3 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

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 Institution takes various initiatives for promoting tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities. The Institution believes in equality of all cultures and traditions as is evident from the fact that students belonging to different caste, religion, regions are studying without any discrimination.

Different festivals are celebrated with zeal and enthusiasm. The students along with faculty members actively help Warkaris- Devotees of God Vitthal, during Palkhi celebration. They also help Traffic Police to manage the transit during 'Ganapati Visarjan Procession'. Marathi Bhasha Diwas is celebrated to promote the importance of regional language. With great fervor the birth anniversaries and memorials of great regional and national personalities like Chatrapati Shivaji Maharaj, Rajmata Jijabai, Bharatratna Dr. Bhimrao Ambedkar, Swatantrya Veer Sawarkar, Krantijyoti Savitribai Phule and Our society Founder Late Shankarrao Kanitkar are celebrated. To honor their contribution towards the nation and the society, various motivational seminars, lectures and talks are organized.

Annual cultural festival, 'Spandan' comprising various folk dances, songs and dramas based on social issues is organized. To promote regional and cultural diversities 'Traditional day' is celebrated as a part of 'Spandan'. Institutional annual magazine 'Karmanya' includes articles from different languages to promote linguistic diversity. Students from diverse backgrounds have bagged prizes in state level drama competitions such as Firodiya, Purushottam and Vinodattam Karandak etc. To ensure religious harmony there are holy books available in the central library. The central library facilitates the Book Bank Scheme to cater to the economically weaker students. Social Welfare Book Bank Scheme provides books specifically for SC/ST students. There are various committees under the Skill and Personality Development Committee (SPDC) which organizes special sessions on skill development, English conversation etc. for SC/ST students.

For the promotion of unity in diversity, the National Service Scheme (NSS) Cell of the Institution organizes many programs. The programs aim at strengthening the unity and integrity of India. The objective is to sensitize stakeholders about the importance of communal harmony, national integration and fraternity. Every year NSS Cell conducts 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 students.

There is a Grievance Redressal cell in the Institution which deals with grievances without considering anyone's racial or cultural background.

Being centrally situated in the heart of the city, the Institution facilitates opportunities for various pool campus placement drives. The institution provides infrastructure for Skill Certification Scheme under the 'Pradhan Mantri Kaushal Vikas Yojana (PMKVY)', where students attended the program related to skill development and entrepreneurship such as Solar PV Installer, Plumber General, Waste Water Treatment Plant Technician.

The Institution has a code of ethics for students, teachers and other employees which have to be followed by each one of them irrespective of their cultural, regional, linguistic, communal socioeconomic and other diversities.

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

The Institution gives due consideration to inculcate values, rights, duties and responsibilities as per the constitution of India. This is very well reflected in Vision and Mission statements of the Institution. Curriculum includes courses like 'Introduction to Constitution', 'Introduction to Human rights and duties' and 'Human Behavior' as prescribed in the SPPU syllabus which lays the foundation for students to become responsible citizens.

The Institution organizes following activities to achieve the above goals:

- Constitution Pledge by students and staff on Constitution day to protect the sovereignty of the constitution.
- The Institution celebrates Independence day and Republic day which are recognized as national pride and honor in the memory of the freedom fighters and contribution of the republic to the nation.
- Expert lectures and webinars to guide the students about professional ethics and moral values, which inculcates human dignity.
- The Student Grievance Redressal Committee is constituted in the Institution to address the grievances of the students.
- Right against exploitation is the fundamental right of every Indian citizen. An Internal Complaints Cell ensures a safe working environment in the Institution. Sexual harassment of employees or students at the Institution is strictly prohibited.
- To nurture social and civic responsibility and to extend national integration with social harmony, NSS cell organizes various activities, which includes rural development, tree plantation programs, sessions on National integrity etc. Specifically during the pandemic situation, students volunteered for On-site Rapid Antigen Testing of Covid-19.
- Students are encouraged to follow the fundamental rights and duties by conducting activities under the Institutional Social Responsibility (ISR) cell, students' forums and clubs. Activities such as Voter ID card awareness, 'Swachh Bharat Abhiyan', philanthropy activities like clothes donation, sessions on traffic management, activities under Unnat Bharat Abhiyan, to address socio economic challenges in rural areas and to propose technical solutions.

- In the era of digitization, to protect and safeguard Digital rights which are closely linked to freedom of expression and privacy. The IT Awareness Program provides assistance for awareness about information technologies and skills. Under NSS cell and IEEE Student chapter in association with Quickheal Foundation to create awareness of technology to improve the socio-economic status of women and school students in rural areas. Students disseminated basic information about computers, internet banking, browsing, online form filling and awareness about prevention of online frauds.
- Everyone has a Right to a Standard of Living, necessary for the well-being of himself and his family. To address this, students have carried out projects under I2I competition for betterment of rural areas. Students are awarded in the project categories under skill development, Entrepreneurship and 3H sector (Health, Humanity, Hunger). During the pandemic faculty members participated in MHRD mega online challenge 'SAMADHAN' to provide innovative solutions against the spread of Covid-19 and secured 200th position out of 2500+ entries.
- The staff members contributed to Chief Minister relief fund, Maharashtra during COVID-19 pandemic, to the families of Martyrs of Pulwama attack and 'Maharashtra Flood Relief fund'. Staff and students regularly visit old age homes, paraplegic centers and orphanages to donate essentials.

File Description	Document
Link for any other relevant information	View 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: B. 3 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
Any other relevant information	View Document

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

Response:

Under Prerna(???????) club, the Institution celebrates all national festivals with great enthusiasm to inculcate a sense of patriotism in the students. The resource persons from various fields are invited on the occasion of Independence Day and Republic Day to share their experience and to motivate young minds to contribute in building the nation. The students, staff and alumni participate during this celebration with great patriotic fervor.

The Institution commemorates the anniversaries of great Indian personalities namely Chatrapati Shivaji Maharaj, Rajmata Jijabai, Netaji Subhash Chandra Bose, Shahid Bhagat Singh, Bharatratna Dr. Babasaheb Ambedkar, Swatantryaveer Sawarkar, and Late Shankarrao Kanitkar. On such occasions renowned speakers are invited who share the teachings of these eminent personalities through their speeches. Dr. A.P.J. Abdul Kalam's birth anniversary is celebrated as National Innovation day. On the occasion of the birth anniversary of Mahatma Gandhi, students and staff run a cleanliness drive to promote 'Swachh Bharat Abhiyan'. Students participated in a river cleanliness drive organized by NSS Cell.

A session was organized by the NSS cell of the Institution to commemorate the birth anniversary of Swami Vivekananda on 12th January to propagate the philosophy and the ideals of Swami Vivekananda for which he lived and worked. NSS Cell organizes "NSS Day" on 24th September to develop a sense of social and civic responsibility in the students towards society and the nation.

On the occasion of Teachers' day on 5th September, the students of various departments express their love and gratitude for their teachers and salute Dr. Sarvepalli Radhakrishnan, a renowned teacher and second president of india.

The Institution celebrates National Engineer's day on 15th September to recognise and honor the achievements of the great engineer Sir Mokshagundam Visvesvaraya. National Science Day is celebrated on 28th February, to commemorate the discovery of the Raman Effect by Sir C. V. Raman a renowned Indian physicist. Some of the departments publish their e-newsletters on the occasion of National Engineers's Day and National Science day.

National Library Day is celebrated by the Institution on the occasion of the birth anniversary of the great visionary and father of Library Science Mr. S. R. Ranganathan on 12th August every year.

Various national festivals such as Ganesh Utsav, Akshay tritiya, Gudi padwa, Ayudh Pooja on the occasion of Khande Navami, Diwali etc. are celebrated by the students and staff with great enthusiasm.

Marathi Bhasha Din is celebrated every year on February 27. Marathi Literature books exhibition and poster displays are arranged in the central library on the occasion.

Women's day is celebrated on International Women's day i.e. 8th March to show respect towards women in all the efforts taken by them to manage their personal and professional life and for their contributions.

The International Yoga day is celebrated in the Institution on 21st June to bring awareness about health benefits of yoga among the students and the faculties.

The departments in the Institution organize various talks, seminars on national events and commemorative days.

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
Link for any other relevant information	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:

BEST PRACTICE 1: Innovation and Creativity

1. Title of the Practice:

Innovation and Creativity

2. Objectives of the Practice:

- To encourage continuous learning and creativity through innovation among faculty members and students.
- To promote implementation of innovative ideas through various platforms such as

Entrepreneurship Development Cell, Institution Innovation Council and Unnat Bharat Abhiyan etc.

- **To facilitate translating the creative works into Intellectual Property (IP).**
- **To recognize and reward creative ideas through various clubs and art circle.**

3. The Context:

- **Institution's mission is to foster innovation and research by providing a stimulating learning environment and to be responsive to changes in technology, socio economic and environmental conditions. For this the Institution has Innovation cell, Intellectual Property Right (IPR) cell, Entrepreneurship Development (ED) cell and Institution Innovation Council (IIC). The Institution has defined policies and procedures for promoting research activities among students and faculty members.**
- **The Institution encourages students to showcase their technical and non-technical creative skills through various activities organized by different clubs such as Robotics Club, Pegasus Club, PixInsight Club, Wall Magazine Club and art circle.**

4. The Practice:

Innovation Cell: This cell in collaboration with Industry and external agencies / in-house funding schemes, encourages students and faculty members to undertake innovative / research-based / development/ need-based projects in multidisciplinary fields and for publication of research papers.

Intellectual Property Rights (IPR) Cell: IPR cell provides guidelines and funding for copyrights and filing patents.

Institution Innovation Council (IIC): IIC has been established to create a dynamic innovation ecosystem. It organizes periodic workshops/ seminars/ interactions with entrepreneurs, investors and professionals and creates a mentor pool for students and faculty members.

Entrepreneurship Development (ED) Cell Activities:

- **Pro-Start:** Pro-Start aims to promote and upraise ideas of budding engineers towards their start-ups.
- **Vicharghan:** Entrepreneurs and experts in different domains are invited to share their knowledge to imbibe creative thinking among students.
- **Unnat Bharat Abhiyaan (UBA):** The Institution has been selected as a Participating Institution (PI) under UBA 2.0. Under this scheme, five villages in Pune are adopted. Based on the surveys, the issues /needs were identified and appropriate solutions were proposed.
- **Ignited Innovators of India (I2I):** Students participate actively in social entrepreneurship

development activity in collaboration with the incubation center at College of Engineering Pune.

- **Smart India Hackathon (SIH):** Students participate and have won prizes in Smart India Hackathon.

The Institution also promotes innovation and creativity through clubs and Art Circle:

Technical Clubs: The Institution has various technical clubs such as Robotics (e-Yantra), Foxcodes Campus Club, Pegasus, Aero, FOSS, Code Cooks, App, Graphix, Astronomy Club, etc. The student members of these clubs design, fabricate and build robots, vehicles, socio-economic projects using their innovative and creative skills.

Non-Technical Clubs: The objective of non-technical clubs is to promote analytical and creative skills through extra-curricular activities. The PixInsight Club, Wall Magazine Club and Book Geek Club plan and organize competitions such as group discussions, debates, quiz, Art, photography, short stories, riddles, inspiring quotes, etc. to achieve the same.

Social Clubs: The institution has social clubs such as Rotaract, Seeds of Hope, Prerana, Dayitwa etc. The activities such as poster making, visit to old age homes, orphanages, street play, wall painting helps the students to come up with their creative ideas.

M-Pulse: A Techno-Management Event M-Pulse is organized every year where students showcase their Technical/Non-technical creativity.

5. Evidence of success:

- Principal Dr. Mrs. K. R. Joshi has been awarded with “Best Innovative Teacher Award” by SPPU.
- IIC under MHRD, Govt. of India has received 4-Star Rating for 2018-19 & 2019-20.
- The Institution has received CII Gold rank for consecutive three years.
- Institution has been awarded with ARIIA, MHRD, Govt. of India, Ranking between 26th to 50th among private / self-finance Institutions engaged in Higher Education in the year 2019-20.
- Center of excellence and Innovation Labs at the different departments.
- The Institution has 39 copyrights and 27 patents filed by students / faculty members.
- First prize for Best Project in 9th CSI-inApp National Student Project Awards 2020.
- First prize of 1,00,000/- in hardware category and 50,000/- in software category at National level event SIH-2020.

- **Class 'A' Award with cash prize in e-Yantra TBT-2016, by IIT Bombay.**
- **First Prize in ESCLADE, IIT Guwahati, 2016.**
- **Won 2nd position in Hari Vinayak Karandak 2017-18**
- **Won best Male and Female actor award in Purushottam Karandak 2017-18**
- **Won India's Gold Medal in International Groove Fest 2018, Dubai (Dance Competition)**
- **Won 3rd position in the year 2019 and five individual prizes for the year 2019 and three individual prizes in the year 2020 in Firodiya Karandak.**

6. Problems Encountered and Resources Required

Problems encountered

- **Team building, maintaining team spirit, changing nature of competitions, time management, advanced tools and technology, specific faculty/student competencies**

Resources Required

- **Dedicated work place, finance, advance tools and technology, faculty expertise and research literature**
- **Collaboration with industries, government agencies and renowned research Institutions**

BEST PRACTICE 2: Institution's Publications

1. Title of the Practice:

Institution's Publications

2. Objectives of the Practice:

- **To provide a platform to publish technical and non-technical literature by staff members and students.**
- **To disseminate Vision, Mission, POs, PSOs, PEOs, the important activities and initiatives of the Institution/individual programs to the stakeholders.**
- **To provide a medium to showcase students' ideas, art work, writing skills and literary skills**
- **To provide collective information about courses through E-curriculum booklet**

3. The context:

To promote research and innovation, the Institution has taken a number of initiatives and one of them is publication of magazines and peer reviewed research journals. In every academic year, various curricular and extracurricular activities, seminars and workshops are conducted in various departments of the Institution. There are many noteworthy achievements/ activities of students and staff members at Institution level as well as at university/state/National level. To disseminate this information to all the stakeholders, magazine and program level newsletters are published.

4. The Practice:

The editor faculty members form a students' committee for the magazine and newsletters at the commencement of the semester. The objectives, theme and layout of the forthcoming issue of the publications are discussed with the committee and are finalized. Theme based articles are invited and are published after scrutiny.

There are following publications released every year at Institution/Department level:

Research Journals 'Dnyanmaya' and 'Chaitanya':

The Progressive Education society publishes a tri-annual research journal 'Dnyanmaya', meaning 'full of knowledge'. At the Institution level, a research journal named 'Chaitanya' is published annually. These journals provide a platform for students and faculty members to publish their research work.

Institution Magazine 'Karmanya':

The main objective of the magazine is to encourage & motivate students for creative and innovative technical, nontechnical articles and writings with special emphasis to provide a platform for multilingual literary work. Karmanya is published annually and e-copies are made available to all stakeholders.

Departmental Magazine:

To disseminate the information related to various activities and initiatives taken by the department for all the stakeholders, an annual e-Magazine is published every year. Theme based technical articles; interviews with the best outgoing student and entrepreneur are also an integral part of the magazine.

The magazines published by departments are The Electronics Herald, Yugandhar, Darpan, Technominatus etc.

Departmental E-Newsletter:

The Newsletters are published biannually by the departments. It gives information about the activities conducted in the semester, brief introduction of renowned authors, articles on state of art technical inventions and students' achievements.

The e-newsletters published by the departments are E-Buzz, The Current Post, Cognizance, The Royal Mechanical, Tech News, Nivedana, The Computer Express, etc.

Project Annual:

Project Annual containing one-page information of all final year projects is published by the departments.

E-Curriculum Booklet:

A Curriculum booklet is prepared for each course and is given to the students at the commencement of the semester. It contains information regarding course structure, syllabus, teaching plan, text books and reference books, course objectives, course outcomes, questions for theory and tutorials mapped with respective COs, multiple choice questions (MCQs), reference web links/ research paper/ reference books other than those prescribed in the syllabus. It acts as a ready reference for the academic activities and assessment tools to be followed for the respective courses.

5. Evidence of success:

- Students get in-house platform to showcase their project/research work
- The publications help to gather the institutional information at one place and dissemination of the same to the stakeholders.
- Testimonials and success stories of passed out students inspire the budding engineers to follow their footsteps.
- Students showcase their talents and skills by expressing their thoughts and ideas in the e-newsletters and magazines.
- Project Annual helps students as a reference to get the idea of final year projects carried out in the department, based on which they can decide their own problem statement.
- Curriculum booklets help students to get a concise course material.

6. Problems Encountered and Resources Required

Problems encountered

- Shortlisting of articles received from large number of students is usually time consuming and challenging

Resources Required

- Review committee for selecting quality articles

- Team to ensure aesthetic look of the documents
- Software tools to process and publish the documents online

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:

To provide techno-social support to community:

The Institution strives hard to provide technical solutions for the day-to-day problems of the rural community. It is evident from the Mission of the Institution which focuses on being responsive to changes in technology, socio-economic and environmental conditions. The Institution is committed to inculcate ethical standards and make students aware of their social responsibilities. The spirit of teamwork, discipline, social responsibility towards community development and nation building is inculcated through ISR, NSS cell, ED cell, UBA team, and various technical and social clubs.

- Develop Village Develop India

The Program aims to assist the rural community for their sustainable development to ameliorate their health, nutrition, and sanitation. The activities were undertaken in collaboration with 'Ignited Innovators of India' (I2I) initiatives such as Cleaning village, Reuse of plastic by making plastic bricks, Making of paper bags to aware people about no use of plastic, training sessions on computer and digital literacy to the school students, assistance for opening bank accounts of school students and financial awareness, career guidance program, and medical checkup .

- Unnat Bharat Abhiyaan (UBA)

As a part of the Unnat Bharat Abhiyan (UBA), which is a flagship programme of the Ministry of Human Resource Development, Government of India(GoI), the Institution has adopted five villages in Pune district. The Institute has been selected as a 'Participating Institution (PI)' under UBA 2.0 in AY 2018-19. The UBA team at the Institution actively participates in village surveys to identify their problems and to make rural life better through sustainable and innovative solutions. UBA

Team proposed a Village Development Plan based on the issues addressed in household surveys to MHRD, GoI towards enhancing agricultural productivity, eco-friendly sustainable technology, creating employment opportunities, and empowerment of social fencing.

- **IT Awareness Program**

This Program provides assistance for awareness about Information technologies and skills to improve socio-economic status of women and school students. Participants were provided with basic information about computers, use of internet banking, internet browsing, online form filling, and awareness about internet frauds.

The 'Technology Dissemination Contest for Students' (TDCS) is a National Level Competition organized by IEEE, to promote the quest for advancing technology for humanity. A group of students visited many schools in rural and urban areas to disseminate information about emerging technologies and modern educational tools using innovative ideas. Student Ms. Sakshi Bhat is awarded a third position in TDCS-17, held in December 2017.

- **Pandemic Specific Initiatives**

During the pandemic, the Institution organized various expert sessions about Covid-19 awareness. The NSS and ISR Cell took initiative to spread awareness about precautionary measures related to Covid-19. NSS volunteers had participated in On-site Rapid Antigen Testing activity in collaboration with PMC, Pune. Students have participated in a quiz on 'Covid-19 pandemic' conducted by NSS Cell to bring cognizance about the disease. Various projects were executed by students and faculty members such as 'Making of masks', 'Automatic body temperature Announcement System' and 'Low Cost Sanitizer Dispenser' etc. to control the spread of Covid-19 disease. Students also undertook projects like Artificial Intelligence based automatic face mask detection and Covid data analytics. Another initiative was to gather and provide information of plasma donors to help the Covid-19 patients.

- **Safer Roads... Safer India...**

To create awareness about road safety; workshops, seminars, street plays and outreach activities were organized by the Institution. Traffic forum organized 'Traffic parliament' in participation with school students to discuss traffic issues and to find solutions to it. Student members of NSS cell have taken an 'on-road campaign' to make people aware of traffic rules and road safety. The Institution also offers an audit course on 'Road Safety management' prescribed in SPPU syllabus.

- **Helping Hands for Orphanage**

"Helping Hands for Orphanage" is a philanthropy program of the Institution managed by student members of various clubs intent to promote the well-being of orphanage children and to spread happiness in their life. Students have donated clothes, toys and groceries to orphanage homes. The students and faculty members had fun games with the kids in the orphanage during their visit.

Students have visited following Orphanage centers:

- ‘Shreevatsa’ – A special child care center run by SOFOSH
- ‘Maher Vatsalyadham’, Wagholi, Gramin Pune
- Punarutthan Samarasta Gurukulam
- Gyandeep and Matruchhaya Orphanage
- Home for Children with a Special Need at SOFOSH, Pimple Gurav, Pune
- Social Talk Program

The objective of the “Social-Talk” program is to stimulate personal and professional growth through discussions about attitudes, feelings, and experiences. Expert lecture, group discussion, audio-visual materials, films, specific articles and journals were used in these activities. Expert Lectures on social awareness were conducted for the students and faculty members on topics such as personality development, women health, female feticide, environment consciousness etc. Students have discussed many intrinsic social issues.

- Wisdom Tree Lecture Series

The Institution organizes a lecture series called ‘Wisdom Tree Lecture Series’ which helps to establish clear and realistic goals for students in professional life. Activities such as Webinar on ‘Knowledge-skills-attitude: the rungs in the ladder of Success’, ‘Telephone and electronic etiquette’ and ‘Crafting brand you –personal branding’ are conducted in this lecture series.

- Vicharghan: Lecture Series on Social and Life Skill Management

In the Vicharghan lecture series, speakers and experts spoke about various issues in different walks of life like economics, finance, taxation, demonetization, team work, information technology etc. Eminent speakers delivered lectures on titles like ‘Shivaji: A good engineer and manager’, ‘Science and Spiritualism’, ‘Science and Philosophy’, ‘Vaat Tudavatana (Finding your own way) and ‘Present Economic Change and you’ etc.

- Each One ... Plant One !

“Each One... Plant One!” is a tree plantation awareness program initiated by students and faculty members of the Institution. The students of ISR Cell, NSS Cell, Rotaract club and other clubs went to different places in Pune for tree plantation like Hanuman Tekdi, Vetar Tekdi, Pashan Hill, Pune Municipal Corporation Campus and SOFOSH Orphanage Home Campus etc. NSS Cell has distributed neem saplings to students for Tree Plantation awareness.

File Description	Document
Link for any other relevant information	View Document
Link for appropriate web in the Institutional website	View Document

NAAC

5. CONCLUSION

Additional Information :

Progressive Education Society's Modern College of Engineering has been successful in providing necessary platform for the students to exhibit their skills and talent in every aspect ranging from education, extracurricular activities, team building and all-round development.

The Institution believes in and follows the Outcome Based Education. With the outstanding academic results consistently for many years, the students have achieved top ranks in affiliating University Ranking List.

Keeping in pace with the cutting edge technology, the Institution has started offering three new UG programs – Electronics and Computer Engineering, Artificial Intelligence and Data Science, Artificial Intelligent and Machine learning since year 2021. For the same, infrastructure and other facilities are augmented in last two years.

Combined efforts of Institution's Entrepreneurship Development Cell and Institutions Innovation Council (IIC) have resulted in securing position in ARIIA (Atal Ranking of Institution on Innovation Achievements) in very first year i.e. in year 2020. In next consecutive year, the Institution has been awarded in Best Promising Institute Category.

With the systematic plan to implement National Education Policy (NEP 2020), the Institution is also taking all possible efforts towards autonomy.

Concluding Remarks :

- The Institution has a centrally located well-developed campus of 10.47 acres of land in metro city Pune, easily accessible to both the students and staff with all the facilities.
- The Institution has an efficient multi-layered governance structure.
- The Institution being affiliated to Savitribai Phule Pune University (SPPU), systematically follows the recommended Choice Based Credit System (CBCS) for all UG and PG programmes.
- The curriculum is ably supplemented with different certificate courses, training programmes and creative engagements. Audit Courses, various co-curricular and extra-curricular activities are conducted considering the crosscutting issues relevant to Professional Ethics, Human Values, Environment and Sustainability.
- The Institution focuses on implementation of student-centric teaching-learning methodologies and follows the well-defined Outcome Based Education (OBE) system based on AICTE's Examination reform policy.
- Experiential learning, Participative learning and problem solving are implemented to enrich the learning experiences of the students. For an effective teaching-learning, the ICT enabled tools are created and used effectively by the faculty members for curriculum delivery.
- Feedbacks obtained from stakeholders are analyzed and corrective measures are taken based on suggestions (if any).

- The Institution's Training and Placement cell organizes soft skills and Professional skills development sessions. Students have been placed through campus placement drives in core and software multinational companies.
- Guest sessions for competitive examination preparation, Orientation about higher studies and career guidance/ counseling are organized at each department.
- Activities of Professional Student Chapters, Student Associations and Technical/ non-technical Clubs are focused towards all-round development of students.
- Many students have received several awards and trophies in inter-collegiate sports and cultural fests.
- The Institution has different publications of its own like Magazine, Departmental Magazine and Newsletters which are edited, reviewed and published by the students.
- The Institution has a registered Alumni association. The Alumni contribute actively in many institutional activities.
- The Institutional values and best practices followed at the Institution are reflected in its Vision and Mission statements. Institutional activities are focused to reach the community, make the students aware about their responsibilities towards the community development in all possible ways.
- In conclusion, the Institution is taking all necessary measures with the aim to develop not just top quality engineers and managers but also well developed responsible citizen.