

# FOR

# 2<sup>nd</sup> CYCLE OF ACCREDITATION

# SINHGAD TECHNICAL EDUCATION SOCIETY'S SINHGAD INSTITUTE OF TECHNOLOGY

GAT NO. 309/310, OFF MUMBAI -PUNE EXPRESS WAY, KUSGAON (BK) , TAL-MAVAL, DIST-PUNE 410401

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Submitted To

# NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

# BANGALORE

# February 2022

# **1. EXECUTIVE SUMMARY**

# **1.1 INTRODUCTION**

Sinhgad Technical Education Society's (STES's), Sinhgad Institute of Technology (SIT), is a premier institute affiliated to the Savitribai Phule Pune University (SPPU). STES was established in the year 1993, under the dynamic leadership of Prof. M. N. Navale. The objective of the society is to impart quality education in the fields of Engineering, Medical, Dental, Pharmacy, Management, Computer Applications, Architecture, Commerce, Law, Science and School education.

SIT, was established in the year 2004. It is approved by All India Council for Technical Education (AICTE), Directorate of Technical Education (DTE), Maharashtra. The institute is located at Lonavala, a hill station between two metros, Mumbai, and Pune with the quietude form of the ambience for learning. The institute runs five undergraduate and one postgraduate programmes. Undergraduate programmes include; Mechanical Engineering, Electronics & Telecommunication Engineering, Computer Engineering, Information Technology, and Electrical Engineering. Post-graduate programme; Electrical Engineering (Electrical Power Systems).

The faculty works hard to pass on knowledge to students in order to improve their skills. SIT has developed cutting-edge laboratories that are updated in accordance with SPPU syllabus revisions from time to time. The institute is entirely residential, providing students with a pleasant setting and several academic opportunities. It encourages them to improve their research mindset as well as character in order to prepare for a bright future.

SIT fosters a research culture and encourages academic and student innovations. The Student Training Programs (STPs), improve students' skill sets and employability. To bridge the gap between industry and academia, students benefit from industrial trips, technological presentations, participation in various contests and technical events.

SIT was accredited by NBA in 2012. For the first cycle, NAAC assigned the institute a grade of "B++." The institute has improved its operations and outcomes in response to NAAC peer committee recommendations. Furthermore, the institute is willing to assess its educational system and academic performances. It is required by the professional institute to strive for continuous refinements in its process. We collect stakeholders feedback on the teaching-learning and other process. So, the institute is applying for NAAC accreditation for the second cycle in order to receive an improved grade.

## Vision

We are committed to produce not only good engineers but good human beings, also.

## Mission

Holistic development of students and teachers is what we believe in and work for. We strive to achieve this by imbibing a unique value system, transparent work culture, excellent academic and physical environment

conducive to learning, creativity & technology transfer. Our mandate is to generate, preserve and share knowledge for developing a vibrant Society.

# 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

## **Institutional Strength**

- Experienced and qualified faculty and their retention
- Consistently good academic performance
- Rankers in the list of SPPU Pune
- Transparent, conducive and collaborative work environment
- Innovative teaching-learning practices
- Project Based Learning (PBL) approach
- Excellent infrastructural facilities
- State-of-the-art laboratories and infrastructure
- Well-equipped library with adequate books and e-resources
- Active NSS Programme leading to successful extension activities
- Effective implementation of VAPs, and STPs
- Good placement record
- Joint research and Ph.D. programmes with international universities
- Teacher guardian scheme
- Fully residential campus
- Sports complex of international standard
- EDC (Entrepreneurship Development Cell) cell inspires students to become entrepreneurs.
- Focused efforts on holistic student development through Curricular, extra-curricular and extension activities.
- 100 % Placement for all eligible students with attractive packages
- Career Counseling Cell for;

- a. Competitive Exams
- b. Industry Institute Interaction
- c. Entrepreneurship development activities
- d. Foreign Language programs
- e. Higher Education Guidance

#### **Institutional Weakness**

- Consultancy, copyrights and patents needs to be enhanced.
- Less number of funded research projects.
- Interdisciplinary research activities should be strengthened.
- Number of Faculties with Ph.D. qualifications is less in number.
- Quality Publications in Scopus indexed journals are less.
- Internships and Industry projects needs to be targeted for almost all students.

## **Institutional Opportunity**

- Scope for an inter-disciplinary and collaborative research
- To develop Centre of excellence in IoT.
- Networking and strengthening relationship with stakeholders
- Induction of faculty with Ph.D. qualification
- Continuous efforts of Central Placement Cell to create greater opportunities for Higher packages, Internships & Industry projects.

#### **Institutional Challenge**

- Increasing the number of placements with higher perks
- Bridging the gap between academia and industry

- Attracting meritorious students
- Inculcating R&D culture with quality publications among UG students.
- Initiating consultancy services from the MNC industries.

# **1.3 CRITERIA WISE SUMMARY**

## **Curricular Aspects**

Sinhgad Technical Education Society's Sinhgad Institute of Technology, is affiliated to Savitribai Phule Pune University (SPPU). The institute implements the curricula set and provided by the university. The Teaching-Learning process is scheduled according to university guidelines. Institute meticulously plans semester-wise academic calendar in tune with university calendar. It ensures timely preparation of theory, practical, internal exams, midterm submissions, in-sem exams, curricular, extra-curricular activities. In the academic year 2020-21, about 117 faculty members were involved in evaluation work of university examinations, 20 faculties in university question paper setting and 04 faculties had contributed in revision of curriculum of the university.

Course/s distribution to teachers, as per experience and willingness, is carried out well before commencement of the semester, so that faculties can prepare course material and make it available to the students in advance. The periodic assessments of students are undertaken through assignments, unit tests and prelim exams. The institute has well defined continuous internal assessment/evaluation mechanism. It is incorporated in academic calendar and followed strictly. Train the Trainers program for all institutes of Sinhgad Technical Education Society ensure consistency in delivery of contents.

The current university curriculum 21% courses are focused on experiential learning aspect and 10% addresses cross cutting issues with 90% students involved in various project/ field works and internships.

To enhance the technical skills and latest technology knowledge of students, Institute offers honor courses prescribed by university. Students are benefited from experiential learning through Value Addition Programs (VAPs), Industry visits, project work/internships etc. Extra-curricular activities are conducted to inculcate social responsibility aspects. Students Training Program (STP) helps to develop all technical and non-technical skill sets, which enhances employability skills. Various committees like, Career Counselling Cell, Professional Clubs, National Service Scheme, Students Clubs, and Internal Complaints Committee to develop equality work culture on the campus. Regular feedback from stake holders (Students, Alumni, Industry, Parents and faculty) on curriculum, VAPs, Contents, other certificate courses run is taken and utilized to ensure appropriate action towards addressing any gap in the overall development and enrichment of curriculum.

## **Teaching-learning and Evaluation**

The institute has built a reputation for the excellence in the teaching and learning processes. The 80% students are enrolled through government administered process while 20% seats are filled at institute level on merit through transparent process. The Teaching-Learning process is continuously refined according to the feedback of stakeholders. Advanced learners are encouraged to explore their creativity through numerous platforms, while slow learners are given special attention by providing extra coaching sessions. The educational

paradigm combines traditional teaching with student-centered learning practices like Project Based Learning (PBL), Value Addition Programs (VAPs) etc.

Content delivery and evaluation process is meticulously planned prior to commencement of the semester. All the academic, co-curricular and extra-curricular activities are monitored periodically. The Teacher Guardian scheme assists students in learning about new advancements, both academically and personally. The Institute has mentor mentee ratio of 1:17 To maintain a healthy student-teacher ratio (16:1), well-qualified full-time teachers are appointed against sanctioned posts in accordance with AICTE guidelines. The average experience of faculties is 8.71 years with 14 faculties having Ph.D. qualifications. The feedback of stakeholders helps in ongoing reinforcement of the teaching-learning process. The blended teaching-learning methods make the content delivery more effective, enhancing student's learning. The student's online satisfaction survey is taken for overall improvement of teaching learning process in the institute. Special attention is given to address and cater students considering their diversity.

The institute has adopted reforms in assessment and evaluation patterns of SPPU. Students' knowledge and understanding is measured using internal assessment tools like tests, assignments, practical work through a transparent and robust mechanism in place. Assessment and evaluation related grievances are addressed by the teachers-in-charge. The mechanism for mapping of course outcomes in the programme; the students' learning outcomes and performance in tests, in-semester, and end-of-semester exams.

The average passing percentage of the final year students is 93.37 %. The analysis of final year results in university exam is used for refinement and validation of the teaching learning process of the institute. The COVID-19 pandemic threw new outlook of online teaching-learning, ensuring continuity with change in learning experiences.

## **Research, Innovations and Extension**

SIT has established a Research and Development cell (R&D) to promote research, innovation, patenting and consultancy culture among the faculties and students. Under resource mobilization, the institute has received fund of Rupee 16.21 Lakhs from various Government and Non-Government agencies. The institute encourages faculties to attend and organize workshops, conferences on research methodology, IPR and entrepreneurships to update knowledge. Significant growth in Ph.D. scholars and faculty publications indicate institute's commitment towards research. Many faculties published their original research work in reputed journals, national and international conferences like springer, Elsevier, IEEE, ACM, etc. In continuation of the research papers, faculties have written books and chapters in the books.

To encourage, motivate, and foster students to work with innovative ideas and turn them into prototypes, SIT has established an Institutional Innovation Cell. Numerous groups within the department, as well as the NSS team, plan extension activities for social causes throughout the year, resulting in their holistic growth fulfilling the institutes mission. The neighbourhood community praised the extension efforts that were carried out by the students.

The institute has academic collaborations with foreign universities, IT Industries, professional bodies and other organizations for skill enhancement and over all development of student and faculties. The Entrepreneurship Development Cell (EDC) induces business development programs in the institute through a series of professional lectures and seminars. Many students were adopted internships in industries in order to gain experience and develop their projects. Extension activities are carried out through MoUs with prominent

industries.

To inculcate and develop research culture among students, special attention is given while designing modules of student training program. Students are encouraged and guided to refer research papers on latest technology and publish their papers. Best papers are selected by organizing paper publication competitions and awarded. Students are motivated and supported to work on their innovative ideas. The models and prototypes or simulated products developed on their innovative ideas are presented in different competitions and technical events. Such students are getting appropriate weightages during finalization of their term work marks. They are motivated, guided and supported to file patents.

## Infrastructure and Learning Resources

The institute provides adequate, the state-of-the-art physical infrastructure and learning resources for smooth and effective implementation of Teaching-Learning process. The class-rooms(36), laboratories(62), workshops(01), tutorial rooms(09), reading halls (01), seminar halls(02) are furnished with all necessary ICT gadgets for efficient learning. Cultural center, indoor and outdoor sport facilities with international specifications, is parts of the physical infrastructure. The laboratories are furnished with modern equipment, machinery, computer hardware and software required for both academic and administrative purposes. The institute changes its physical and IT infrastructure on a regular basis as per the norms of regulatory bodies.

The central library with digital library section includes ample number of books, references, journals, periodicals, e-resources, and a book bank. A reading hall with capacity around 500 seats is open for students 24 x7. Library is automated with Autolib Library Management software having N6. The Autolib web OPAC module allows users to browse and search library books on the Intranet. Stakeholders can access e-journals from anywhere on the campus at any time because access is IP-based. The facility of library resources sharing is available with the library of SPPU and libraries of other institutes of the STES.

The institute has a network of 597 computers with 100 Mbps Internet connectivity and Wi-Fi facility to fulfill the academic and research needs. The institute also maintains and updates IT Infrastructure to ensure seamless connectivity and proper technical support in teaching learning process. A Corporate Training Centre (CTC) with 3-star residential facilities and having four well-furnished conference halls is used to conduct various corporate training and industry institute interaction related activities.

The institute has in-house maintenance resources and also external agencies are used for IT infrastructure, so as to ensure seamless connectivity and proper support in the teaching learning processes for maintenance. Provision for maintenance is made in the annual budget of the institute. The average percentage of expenditure incurred on maintenance infrastructure excluding salary component during the last five year is 22% the institute has well defined mechanism for maintenance of infrastructure and planning for utilization of resources available with optimizing techniques.

## **Student Support and Progression**

The institute provides students with the best possible education and career opportunities. Scholarships and cost reductions help deserving students to finish their studies. Around 73% of the students are benefited through state/Central government scholarships. The institute supports needy and meritorious students.

The student's skills are enhanced by conducting various activities, meticulously designed VAPs, Corporate Social Responsibilities events, Technical skill enrichment events, and builds the decision making capacity (soft skills, language and communication skills, life skills, and ICT/computing skills). Student's career prospects are groomed by conducting variety of professional activities like training and placement, career counselling, and competitive examination guidance and coaching facilities for GATE/GRE, UPSC/MPSC etc. During the last five year on an average 90% of the students are benefited.

The institute has constituted statutory committees like, Internal Complaints Committee against Sexual Harassment, Anti-Ragging Committee, Discipline Committee, Grievance Redressal Committee, Students' Advisory Committee, SC/ST/OBC Committee, etc. address students' grievances in the manner prescribed by law/guidelines transparently and timely.

The Training & Placement cell provides all kinds of guidance, conducts various aptitude tests, and organizes the recruitment drives for the students. Average 45% students are placed in the multinational and national companies with average package of 10 lakhs per annum. Students are encouraged for higher education in foreign universities and institute of national repute. The students are taking initiatives in appearing for the state/ national/ international examinations, 49 numbers of students are qualified.

The students are given participation and representation on institutional bodies and committees. Apart from this the institute provides several opportunities to display their talents and skills in the field of sports and cultural activities. A national level "Sinhgad Karandak" is organized every year. Students represent the institute in intercollege activities, different open tournaments and bring awards to college. Individual students and teams have grabbed 08 prestigious awards through participation in university, state, national and international level.

The institute has a registered alumni association. The prominent Alumni interact with students and faculties frequently. They suggest the improvements in curricular and extracurricular activities, support to students in internships and contributes in overall development of the institute.

# Governance, Leadership and Management

The Vision and Mission of the institute are designed in harmony with higher education policies of the Nation/State. The institute has constituted different statutory bodies like Governing Body, Local Management Committee / College Development Committee, Academic Monitoring Committee , IQAC, Grievance Redressal Committee, Minority, OBC, SC/ST Committee, etc. On these committees, representation is given to the stake holders as per the guidelines and provisions in the Act. The institute has adopted participative management and ensures decentralization of the governance. The institute prepares its perspective/ strategic plan incorporating the views/ suggestions given by stake holder's representatives on the bodies/committees in line with the state and national educational policies. It enables effective and efficient management of the institute. The delegation of power to the committees constituted both at programme and institute level is done.

The institute has adopted paper less operations by implementing e-governance at different levels including, administration, finance and accounts, student admission and support, examinations, etc. The institute organizes national level annual festival "Sinhgad Karandak". It comprises technical, sports and cultural events. The students, faculties and staff are working in different committees for the smooth conduction of these events. It is the platform for students to work in the team, acquire and showcase their leadership qualities.

The institute gives special attention to recruit qualified faculties and staff. They are encouraged to participate in

different knowledge and skill development programmes. On an average 09 (nine) training and professional development programmes per year have been organized by the institute. The institute motivates and supports faculties to undergo faculty development programs. During the last five years on an average 25.6 % faculties benefited.

The IQAC cell has contributed in different processes/ systems developed and deployed in the institute for enhancement of Teaching-Learning and other processes. It evaluates the attainment of learning outcomes and reviews these processes periodically by taking into account stake holders feedback and set learning outcomes. The IQAC also supports and motivates to participate in quality assurance and validation measures through NIRF, NBA, NAAC etc. The different bodies/committees actively involved in enrichment of the management and governance in the institute.

## **Institutional Values and Best Practices**

Through its Mission, the institute seeks to put its Vision of complete student development into practice. The academic calendar lists a variety of events that are used to put the ingredients necessary for creating competent engineering graduates into practice.

The institute addresses gender and cross-cutting issues through curricular and co-curricular activities, beginning with the new entrants' induction sessions. The ICC hosts a variety of programmes like expert talks, workshops, etc for promotion of gender equity and sensitization. The institute works to create a more inclusive environment with social events, annual social gatherings, and awareness programmes such as "Lokjagar". The affiliating university, SPPU, has inducted credit courses in the curriculum on environmental studies and Democracy, Election and Governance. National Service Scheme (NSS), different clubs/ units etc. are functional in the institute to inculcate values and social responsibilities among students.

The institute has designed and implemented environment-friendly policies. It includes; Tree-plantation, Solid Waste Management, use of Solar Water Heating Systems, Renewable Energy Resources, Water Harvesting, Disabled Friendly and Barrier Free environment. The institute has started many innovative programmes which have helped to create positive impact and improvements in energy conservation, water conservation, green campus etc.

The innovative ideas of corporate garden and birthday garden are implemented on the campus by the institute. It is unique feature of the institute. The campus was awarded as "Most Clean Campus in western region AICTE- Clean Campus Award-2017" on OCT 2, 2017, by AICTE.

The use of ERP software for the academic and administrative purposes has shown our commitment to a green environment. The Career Counselling Cell (CCC) in association with Higher and Technical Education, Maharashtra state conducts different programs on various issues like universal human values, tolerance and harmony, linguistic, and other diversities.

The institute monitors all these activities through well defined mechanism. The inputs obtained through this and the periodic audits conducted are used to refine the processes set in the institute and campus.

The institute has established code of conduct for students and employees. The institute celebrates various national and international commemorative days, events and festivals.



# **2. PROFILE**

# **2.1 BASIC INFORMATION**

Name and Address of the College	
Name	Sinhgad Technical Education Society's Sinhgad Institute of Technology
Address	Gat No. 309/310, off Mumbai -Pune Express way, Kusgaon (Bk) , Tal-Maval, Dist-Pune
City	LONAVALA
State	Maharashtra
Pin	410401
Website	sit.sinhgad.edu

Contacts for Communication							
Designation	Name	Telephone with STD Code	Mobile	Fax	Email		
Principal	Manik Sakharam Gaikwad	02114-673353	9552569864	02114-27830 4	principal_sit@sinh gad.edu		
IQAC / CIQA coordinator	Dilip Damodar Chaudhary	02114-673379	9372810161	-	dchaudhary.sit@si nhgad.edu		

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution					
By Gender	Co-education				
By Shift	Regular				

<b>Recognized Minority institution</b>	
If it is a recognized minroity institution	No

stablishment De	etails					
ate of establishm	ent of the college	2	11-05-2	004		
University to w college)	hich the college	is affili	iated/ or which gov	verns the	e college (	(if it is a constituent
State		Uni	versity name		Docu	ment
Maharashtra		Sav	itribai Phule Pune U	Universit	y <u>View</u>	Document
Under Section 2f of UGC 12B of UGC				View Do	ocument	
	· • •	·	tionary/regulatory (other than UGC)	bodies	like	
Statutory Regulatory Authority	Recognition roval details itution/Depa nt programm	s Inst artme	Day,Month and year(dd-mm- yyyy)	Validi montl	•	Remarks
AICTE	View Docum	<u>nent</u>	02-07-2021	12		Approved By AICTE

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

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

Location and Area of Campus						
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.		
Main campus area	Gat No. 309/310, off Mumbai -Pune Express way, Kusgaon (Bk), Tal-Maval, Dist-Pune	Rural	149	124627		

# **2.2 ACADEMIC INFORMATION**

Details of Pro	Details of Programmes Offered by the College (Give Data for Current Academic year)							
Programme Level	Name of Pr ogramme/C ourse	Duration in Months	Entry Qualificatio n	Medium of Instruction	Sanctioned Strength	No.of Students Admitted		
UG	BE,Mechani cal Engineering	48	HSC or Diploma	English	240	9		
UG	BE,Electrical Engineering	48	HSC or Diploma	English	60	12		
UG	BE,Informati on Technology	48	HSC or Diploma	English	60	56		
UG	BE,Compute r Engineering	48	HSC or Diploma	English	180	180		
UG	BE,Electroni cs And Telec ommunicatio n Engineering	48	HSC or Diploma	English	120	29		
PG	ME,Electrica l Engineering	24	Under Graduation	English	18	1		

Position Details of Faculty & Staff in the College

				Te	aching	g Faculty	y					
	Professor			Asso	Associate Professor			Assis	Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government		1	1	12		1		23				100
Recruited	4	0	0	4	9	3	0	12	70	0	0	70
Yet to Recruit				8				11				30
Sanctioned by the Management/Soci ety or Other Authorized Bodies				0				0	J			14
Recruited	0	0	0	0	0	0	0	0	9	5	0	14
Yet to Recruit			1	0				0		1		0

		Non-Teaching	Staff	
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	7			0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				140
Recruited	93	46	0	139
Yet to Recruit				1

		Technical St	aff	
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				50
Recruited	33	15	0	48
Yet to Recruit				2

# **Qualification Details of the Teaching Staff**

	Permanent Teachers									
Highest Qualificatio n	Professor				Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	4	0	0	4	0	0	5	1	0	14
M.Phil.	0	0	0	0	0	0	0	1	0	1
PG	0	0	0	4	2	0	74	35	0	115
UG	0	0	0	0	0	0	0	0	0	0

	<b>Temporary Teachers</b>									
Highest Qualificatio n	Profe	ssor		Associate Pr		ssociate Professor Assistant Professor		ssor		
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

	Part Time Teachers									
Highest Qualificatio n	tio Professor Associate Professor		rofessor		Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties						
Number of Visiting/Guest Faculty	Male	Female	Others	Total		
engaged with the college?	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	208	27	0	0	235
	Female	63	4	0	0	67
	Others	0	0	0	0	0
PG	Male	0	0	0	0	0
	Female	1	0	0	0	1
	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	43	26	101	73
	Female	17	10	27	20
	Others	0	0	0	0
ST	Male	0	2	8	7
	Female	0	0	2	2
	Others	0	0	0	0
OBC	Male	104	48	203	245
	Female	20	14	48	42
	Others	0	0	0	0
General	Male	140	166	355	458
	Female	23	35	88	113
	Others	0	0	0	0
Others	Male	112	42	106	115
	Female	22	6	42	16
	Others	0	0	0	0
Total		481	349	980	1091

# Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	The National Education Policy 2020 provides for a
	The National Education Policy 2020 provides for a multidisciplinary, values-based approach focusing on holistic education along with life skills, with a particular focus on developing skills to enhance the employability of our students. The National Education Policy 2020 aims to pave the way for transformative reforms in the education and higher education system in the country. In line with this policy institute has taken many initiatives, activities to understand the requisites for its effective implementation. Many awareness programs on NEP are conducted by the institute. The faculties are motivated to participate in different workshops and awareness program organized by the apex bodies; so that it can be implemented in its true perspective. As per announcement of the Department of Human Resources Development Department, institute is taking initiatives to contribute in increasing enrolment to 50 percent by 20135. The institute has started activities / transformations to develop curiosity, creativity, ethics and morality, scientific improvement without rigid barriers of flow. So that it can act as centre of excellence in engineering education.
2. Academic bank of credits (ABC):	Academic Bank of credit is a virtual entry which keep records of all higher education students which provides multiple entries and exit systems under New Education Policy. It is benefitted to the students with mobility of not only moving between the institutes while pursing one degree, also offers the flexibility of leaving and joining the course after a long break.
3. Skill development:	The knowledge and learning of students is measured on the basis of different skill sets acquired by the students as a major stakeholder. The technical skills, communication skills, behavioural aspects, and other skills benchmarks set by the National and International bodies shall be acquired by the students to become globally competent technocrat.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	Recently, India has accepted new education policy 2020. As per that, we have rich heritage of knowledge systems, humble values. The integration of these systems with current technologies will generate competent engineers and good citizen also. We at a Sinhgad Technical Education Society's Sinhgad Institute of Technology are working with this vision.

5. Focus on Outcome based education (OBE):	Being a professional institute, we at Sinhgad Technical Education Society's Sinhgad Institute of Technology implement the Teaching-Learning process imparting quality engineering education. The parametric matrix designed for the evaluation by the institutional bodies or institutions are used for the evaluation of the outcomes of the process implemented in the institute. The institutes, OBE performance is reflected in the employment of the students. The progress done by the students benefited to society, parents filled by the students and faculties.
6. Distance education/online education:	Due to current covid-19 situation Institute is obtaining online education to the students using the Microsoft team platform and other platform where students and faculty trained and made user-friendly. With online education, we reached out to each and every student and we tried to impart a quality education.

# **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	
282	266	284		326	329	
File Description			Docum	nent		
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
6	6	7	9	10

# 2 Students

2.1

# Number of students year-wise during last five years

2020-21	2019-20	2018-19		2017-18	2016-17
2068	2214	2724		3507	3743
File Description				nent	
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
218	217	288	278	322

File Description	Document
Institutional data in prescribed format	View Document

# 2.3

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

2020-21 697	2019-20 870	2018-19 875		2017-18 770	2016-17 911	_
File Description	870	875	Docum		911	
Institutional data in prescribed format		View ]	<u>Document</u>			

# **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
130	153	162		201	169
File Description			Docum	nent	
Institutional data	in prescribed format		View	Document	

# 3.2

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

2020-21	2019-20	2018-19		2017-18	2016-17	
133	133	173		179	189	
File Description			Document			
Institutional data in prescribed format		View	Document			

# **4** Institution

# 4.1

Total number of classrooms and seminar halls

# Response: 36

# 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
384.88	592.15	630.37	819.73	1339.17

4.3

# Number of Computers

Response: 597

# **<u>4. Quality Indicator Framework(QIF)</u>**

# **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:**

Sinhgad Technical Education Society's Sinhgad Institute of Technology, Lonavala follows the curriculum guidelines of Savitribai Phule Pune University (SPPU). To fulfill the vision and mission, the Institute has a strategic plan for effective curriculum implementation.

Institute has formed an Academic Monitoring Committee (AMC) involving the Principal, Head of Departments (HoDs) and representatives of different stakeholders. This committee is in charge of overall academic planning and monitoring and conducting academic audits regularly. The academic audit is the part of the process which ensures the quality of the curriculum delivery and attainment of components of course delivery like Unit tests, Seminars, Projects, Practical, Assignment, Continuous assessments and Student's feedback.

## Curriculum delivery planning and implementation

- Principal calls meeting with all HoDs to discuss and finalize academic calendar in the beginning of the semester. In academic calendar all the institute level activities like VAPs, conferences, unit tests, prelim exams, extracurricular activities are considered. It is made mandatory for all the departments to implement it unanimously.
- According to the University's prescribed syllabus, the HoDs assign the teaching load to faculty members who prepare their course plans according to SPPU and Institute academic calendar.
- Timetables regarding classes, labs and of individual faculties are prepared. Timetables are displayed with approval of HoDs and Principal before start of semester.
- At the commencement of the semester, institute organizes faculty orientation program i.e. "**Train The Trainers**" (TTTs) in collaboration with all sister Engineering institutes under Sinhgad Technical Education Society (STES) to facilitate enrichment of curriculum contents, teaching skills and provide learning opportunities for newly joined staff members. The course planning is done by faculty members, including preparation and updating of the teaching plan, course file, and curriculum gaps based on pre-defined POs and COs.
- The faculty uses various course delivery methods using modern ICT tools.
- University curriculum is enriched with the inclusion of Seminars, Mini projects, Technical report writing, Laboratory and Project work. The emphasis is given to the holistic development and knowledge acquisition of individual students.
- Mid Term Submission of practical journals is carried out in mid of the semester as planed in the academic calendar.
- Institute follows well defined Internal and External evaluation process to monitor students' progress. The departments do detailed result analysis and take corrective actions.
- Students are encouraged to participate in technical symposiums, internships, NPTEL certifications and co-curricular activities of clubs, all of which aim to improve their inherent abilities. Well

equipped laboratories ensure timely and effective curriculum delivery.

- Attendance of students is continuously monitored and ensured that, maximum number of students attend lectures. Teacher Guardian meeting is held to ensure that students do not encounter any difficulties during the learning process and others, if any. Teacher guardian makes phone calls to absent students / parents. The HoDs, Principal of the Institute, visits ongoing classes and interacts with students regularly.
- During Covid19 Pandemic various online tools such as Microsoft Teams, Google meet etc. are used for effective curriculum contents delivery.

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:**

All the curriculum implementation processes are defined for the academic activities as per the academic planning done before the commencement of academic year. The SPPU provides the academic calendar for every semester. It provides the commencement date of the academic session, semester duration, period of examinations like university practical/oral examinations, conduction of internal evaluation and semester end theory examinations, etc. In tune with university; Institute prepares the academic calendar, which gives details of semester in the curriculum implementation. The Principal of the Institute conducts meetings with the various department heads to develop strategies for effective implementation of the curriculum, and accordingly, the academic calendar of the Institute gets prepared.

- As per the planning of academic calendar, the Head of the department conduct the meeting with all faculties for subject distribution. As per choices and expertise of faculty the subjects are allocated well before semester.
- The faculty prepare and validate the teaching materials and delivery contents before the commencement of teaching. Faculty prepares the teaching/practical plan as per the academic calendar, ensuring timely delivery of lectures/practical.
- Class-wise and individual timetables are prepared well in advance. Timetables are displayed outside each class rooms, department notice board, Hod cabin and laboratories, which aids in monitoring conduction class attendance.
- The completion of the syllabus, revision, and internal evaluation is concluded on time as per the academic calendar.
- Over and above activities like expert lectures, workshops/training for students, industrial visits, Value addition programs and Student Training programs are also planned and executed accordingly.
- The performance of students in internal assessment and monthly attendance is timely displayed on department notice boards. Students' attendance, progress, and internal assessment records are shared with students and parents through the Teacher guardian (TG)/mentor.
- During Covid-19 Pandemic, teaching learning activities are conducted as per university guidelines

from time to time. Care has been taken to implement all academic activities through online mode.

- AMC/Principal/HoD monitors all activities in the Institute as per the academic calendar. All activities and department progress of students and faculty members are analyzed in detail.
- Laboratory physical verification and Deadstock checking are performed on an annual basis.
- All academic activities are conducted as per plan. Principal/HoDs ensures the timely conduction and adherence to academic calendar for all academic and other activities.

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

<b>Response:</b> 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	View Document		

bodies/activities provided as a response to the metric	
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: 6

File Description	Document
Minutes of relevant Academic Council/ BOS meetings	View 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: 348

#### 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
85	70	69	66	58

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:** 75.57

# 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
1656	1755	1955	2835	2467

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 SPPU has mentioned various courses such as Environmental Studies, Humanities and Social Sciences, Soft skills, Stress management, Problem-solving, Intellectual Property Rights, Smart manufacturing, Lean management, Human behavior, Energy audit and management, human rights etc., in the curriculum. Some attempt to improve professional skills, while others aim to instill broad skills such as social and human values, environmental awareness, and so on, resulting in students' holistic development.

- Institute incorporates crosscutting issues through the Student Training Programs (STPs) and various activities conducted by professional bodies, Gender equality through Women Empowerment activities, National Social Service (NSS) unit. Several student's clubs such as e-SITizen helps to induce Human Values, Environment and Sustainability in students. The activities like Swachha Bharat Abhiyan, Tree Plantation, Blood Donation Camps, and Self-awareness-Health is Wealth and Rain Marathon-Run for Unity, contributing to Environment and Social Awareness.
- Institute has **National Social Service (NSS)** unit which organizes activities like Lokjagar- through which the role of Today's Youth, Patriotism and how to stop food wastage were demonstrated, Donations to Orphanage and flood-affected inculcate human values and social responsibilities among students.
- Special **NSS camps** are arranged in villages to impart awareness about health, cleanliness, Contribution of Youth in Nation-building, and digital literacy.
- Experts are arranged on cross-cutting issues like human values and gender equality.
- Women Grievance cell, later reconstituted as Internal Complaints Committee and Anti-ragging cell, are lively in the Institute, which take utmost care and provides support to girl students and the female staff members.
- On the occasion of "International Women's Day", one week program was conducted on Women empowerment under the Career Counseling Center (CCC) of the Institute. Expert talks/lectures by Police officers, Renowned Yoga Faculty, gynecologists were arranged.
- Professional ethics are imbibed amongst students by encouraging them to participate in professional activities like seminars, conferences, workshops, etc., through a **state-level technical festival-Techtonic**.
- Institute conducts **Student Training Programs (STPs)** every semester starting from the second year till final year, which helps to foster professional ethics, research attitude amongst students.
- Also, specific Value Addition Programs (VAPs) like Advanced JAVA programming; Machine Learning, etc. are offered to the students to improve their employability skills. Additionally, courses offered by Spoken Tutorial under the IITB section helps in improving the employability

skills of students.

- Student Chapters of several professional bodies such as Institute of Engineers IEI, IEEE, IETE, EESA, ACM and technical club-like "Vodafone", "Microsoft Campus Club", "Business Club" etc. have been established to enhance technical and social awareness among students.
- The Institute has an active **Entrepreneurship Development Cell (EDC)**, which fosters the spirit of entrepreneurship. The activities conducted under this cell enhance employability; inculcate research and social awareness among students.
- Institute conducted activities other than academics, such as Webinars, workshops, conferences, Yoga sessions and different day celebrations. During the Covid-19 pandemic online platforms such as Microsoft Teams, Google meet, Zoom were used to conduct events.

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:** 20.19

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
67	56	58	62	55

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	<u>View Document</u>
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Any additional information	View Document

<b>1.3.3 Percentage of students undertaking project</b> completed academic year	t work/field work/ internships (Data for the latest
Response: 74.42	
1.3.3.1 Number of students undertaking project v	work/field work / internships
Response: 1539	
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

## Response: 52.33

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

2020-21	2019-20	2018-19	2017-18	2016-17
303	259	241	682	771

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

2020-21	2019-20	2018-19	2017-18	2016-17
678	678	876	912	1008

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: 60.58

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

202	0-21	2019-20	2018-19	2017-18	2016-17
110		104	66	257	287

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 students learning levels are tracked during their academic journey in the institute, and special efforts are made to enhance their performances.

- During the admission process, institute collects students' data through information form. This data helps to know their academic and family background, skills learnt in school /Junior college, their hobbies and areas of interest.
- Student's scorecards at 10th, 12th and entrance exam and its analysis help to get the broad idea of evaluating students' learning levels at the initial stage.
- Induction programs of admitted students are conducted in the beginning to interact with Principal, Heads of Departments (HODs) and teachers to understand students' learning level, social background, interest, etc., and communicate the institute's teaching-learning pattern holistic development.
- Institute undertakes to boost the students' moral, technical and other skill sets, leading to their holistic development.
- Institute has a continuous internal evaluation system; students are evaluated by conducting internal exams (unit tests and prelim), quizzes, tutorials, assignments, etc., to affirm their learning levels.
- It makes an initial base for listing the admitted students in advanced and slow learners.
- Institute caters to advanced and slow learners separately to enhance their learning abilities and acquire and excel in different skill sets. The institute has a well-designed mechanism inplace to facilitate them through various activities.

## **Activities for Advanced learners:**

Students are encouraged and motivated to take various activities as

- 1.NPTEL courses in their core and Inter-disciplinary domain
- 2. Attend Seminars/Conferences/ Technical events
- 3. Present, publish research papers in conferences, Journals
- 4. Workshops/Seminars on current trends in technologies
- 5. Industrial visits to understand corporate culture, expectations and current technologies
- 6. Promoted to work on industry-sponsored projects
- 7. Industrial training facility to get connected with industry work culture and requirements
- 8. Skill Enhancement- Student Training Programs (STPs)
- 9. Virtual Labs of IIT Bombay are availed to practice on curricular and advanced technologies
- 10. In house mini-projects are assigned
- 11. Facilitated participation in various Project competitions, Inter-University Research Project Competition-Avishkar sponsored by govt. of Maharashtra.
- 12. Involvement in Departmental student chapters, Technical clubs and organization of various technical and social events
- 13. Peer Group discussions/LCD presentations/ Project Competitions etc

- 14. Motivation and guidance for higher studies/competitive exams etc.
- 15. Honored with awards, achievement certificates and appreciation letters
- 16.Opportunities are provided to lead clubs, chapters, various professional bodies and local management committees and other bodies of the Institutes.

#### Activities for Slow learners:

- 1. Remedial / Make-up/ Extra coaching classes conducted
- 2. Personal attention in teaching-learning and necessary support through Teacher
- 3. Guardian scheme
- 4. Re-test/s, conducted for improvement and confidence building
- 5. Extra practical sessions conducted as per need
- 6. Special guidance and counselling through TG
- 7. Important study materials provided
- 8. Practice of solving university question papers, assignments etc.
- 9. Question banks are provided
- 10. Guidance for Seminar/Project presentation
- 11. Arranged additional mock oral/practical examination
- 12. Unit wise tutorials conducted.

Almost all activities mentioned above were sustained online, even during the Covid-19 period.

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: 15.91		
File Description	Document	
Any additional information	View Document	

## **2.3 Teaching- Learning Process**

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

#### **Response:**

The institute has been practicing student-centric methodologies to impart quality technical education like experiential learning, Participative Learning, Interactive Learning, Project-Based Learning, problemsolving methodologies, etc. Both inside and outside the classroom, to enhance students' learning experience. These methods ensure the active participation of students in creative learning with the development of their problem-solving ability.

The institute facilitates faculties to orient towards Outcome-Based Education (OBE). Faculties use innovative methods in the Teaching & Learning process. They provide platforms to students for independent exploration, self-study, peer learning, Project-based learning and guide them to develop effective 'Learn to Learn' skills

# • Experiential Learning

Students are exposed to have hands-on on various subjects. Emphasis is given on the development of analytical, synthesizing abilities and reflection in learning application-based knowledge. This helps in bridging the conceptual and practical gap of respective subjects of multidisciplinary domains. Experiential learning emphasizes applying knowledge and skills to real-world situations to expand learners' knowledge and improve competency in skills and behaviors.

# • Participative Learning

To make Students more active and social, they are exposed to work in a team or group. We promote a participatory learning culture that encourages students to try new things and learn from their mistakes. Participatory learning allows students to investigate information across discipline and apply it to contexts of collaborative learning that are relevant to them. This is accomplished through various means like Flip classroom, mini-projects, Case studies, Short term tasks, Tutorial's, Study visits, blended learning, and Technical debate.

# Problem Solving Methodologies

Problem solving methodologies are adopted in teaching learning processes. Institute emphasizes project based learning (PBL) as an effective tool for enhancing learning levels of the students. Mini-projects are assigned by the departments to the students and are evaluated by external experts from outside the institute. Different Value Addition Programs (VAPs) are conducted by the departments to support advance technological requirements of the students to build the technical skills and decision making capacity. This helps in enhancing problem solving ability of them. In addition to the curriculum, students are motivated and assigned design based problems. Students are encouraged to develop prototypes, experimental kits and innovative project based on the outcome of problems assigned to them.

# • Interactive Learning

Students participation is ensured by applying different participative learning activities, like brain storming sessions, panel discussions, tutorials, case studies, mid lecture activity and role play during classes. This helps in understanding the concepts & working methodologies effectively. Faculty plays an important role in designing & execution of various participatory activities. The faculty uses chalk and board and audio-visual aids in teaching. Students are also encouraged to interact during the lecture hours by getting the doubts clarified. Faculty uses models charts for interactive teaching-learning.

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:**

Faculty uses the ICT tools to enhance the classroom and laboratory learning process to make learning more exciting.

- Traditional teaching-learning methods are reinforced with ICT resources, and the institute is eager to offer new ways to improve the learning experience.
- Wi-Fi routers and access points are installed to provide easy internet access to faculty and students.
- To enhance the learning experience, faculty members effectively use audio-visual aids to convey concepts to students using resources from the National Programme on Technology Enhanced Learning (NPTEL).
- It is a teaching approach that entails pre-recorded lectures, resource video materials, lecture notes, assignments, and quizzes, all of which are often available online and allow for self-assessment at regular intervals throughout the learning process.
- Through charts and models, students will get better exposure to the subject through visualization.
- Virtual labs and search engines like Google Search, Google Patent are used to encourage collaborative learning.
- Showcase, utilizing industry-standard simulation software, such as Virtual Lab and Android Studio.
- All subject teachers go through a rigorous training program of Train the Trainers, prepare and validate course contents.
- All the departments conduct seminars, workshops and expert lectures on the new developments in the core subjects for effective teaching and learning using ICT tools.
- A sufficient number of e-journals and e-books are available in the digital library.
- At the end of each unit, the students are given a specific assignment that enriches their learning. Faculties have created their own YouTube video so that students can use those videos anytime.
- Every faculty member gives students unit-wise PPTs and assignments, a multiple-choice question bank, a subjective question bank, a lab manual, and an oral question bank. So that students can use the material after the lecture also.
- Students are encouraged to prepare presentations, assignments, and project reports using MS Word, MS Power point, MS Excel, Latex and other ICT tools.
- Use of student training program for every semester to improve communication skills training facility with ICT tools to make the students acquire proficiency in listening, speaking, reading and writing skills.
- Teachers made a swift transition from classroom to online teaching during the lockdown due to the COVID-19 pandemic. Platforms such as Zoom, Google Classroom, and Google meet; Microsoft Teams created virtual classrooms.
- Online modes like Email, Google Groups, and Microsoft Teams are used to collect assignments, conduct tests and practical examinations, and share notes, practice questions, and other e-resources.
- Teachers use social media platforms like WhatsApp and Telegram to connect with the students

individually and collectively beyond the classroom to give students extra information and support.

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

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

Response: 17.38

2.3.3.1 Number of mentors

Response: 119

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:** 101.63

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:** 8

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

2020-21	2019-20	2018-19	2017-18	2016-17
14	11	12	14	13

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: 8.48

## 2.4.3.1 Total experience of full-time teachers

Response: 1102

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:**

- In line with the university academic calendar, the Institute designs schedule for different unit tests, preliminary examinations etc., and reflects it in the institute's academic calendar. It is made available to students at the start of the semester.
- The Institute academic calendar is uploaded on the institute website.
- The detailed timetables of unit tests and prelim examinations are communicated to students one week before the conduction of the exam.
- The standard template for setting question paper is proposed following Bloom's Taxonomy guidelines and examination pattern of SPPU, Pune.
• In addition to test examinations, assignments, quizzes etc. are organized and used for internal assessment purposes.

#### The process of internal assessment is elaborated as under

- As per SPPU pattern, the exam pattern of 30:70 is followed. i.e. 30 marks for the Insem exam and 70 marks for the Endsem exam.
- Every department has an examination coordinator supporting to HOD and a College Examination Officer.
- In consultation with HOD, the department examination coordinator issues the notice to faculty members for setting and submission of question paper/s of their subject/s in the prescribed format with expected examination pattern in stipulated time.
- The received question papers from the faculty are verified and validated by HOD and senior faculty in the department.
- Corrections, if any, in the question paper/s are done from the concerned faculty and submitted to examination sections of the institute.
- For internal examination, the question paper pattern comprises unit wise questions with appropriate weights and difficulty levels.
- Once the test timetable is decided and the question paper is set, the department conducts the actual exam.
- After the exam is over, answer sheets are evaluated by the respective teacher in time and discussed with the students in the class room.
- Grievances, If any, are corrected, and the final mark sheet is prepared and displayed on the notice board of the department
- Depending on the situation, the examination is conducted physically or online according to the directions given by the concern authorities.
- In every semester, two unit tests and one prelim exam is conducted.
- Students are asked to submit the assignments for each course to enhance their understanding of the course.
- The total internal assessment is done based on Attendance, Unit test, Prelim, Assignment, Continuous assessment and mock oral marks.
- As an encouragement, weightages in internal assessment marks are given over and above based on participation in various extracurricular activities. These includes Technical paper presentations, Lab innovations, Value addition programs, Various club activities, Workshop/FDP/Conferences, NPTEL, Industrial training and Sports (University/ State level); also, if students score more than 60% marks in their final semester exam of previous years.
- The inference drawn based on the students' performances is communicated to the concerned teacher for improvement.

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:**

There is complete transparency in the internal assessment. The mechanism designed and adopted is as per the guidelines of internal authority and SPPU.

- At the beginning of the semester, faculty members inform the students about the various components in the assessment process during the semester.
- The academic calendar and internal assessment norms prepared and are communicated to the students.
- The scheduled tests, prelim exams etc., are conducted in proctored manner. Also, students submit written assignments in the stipulated time.
- Evaluation is done by the subject teacher within three days from the date of examination.
- Assessed answer papers are distributed to students for verification, and any discrepancies are immediately addressed. The results of students' internal evaluation tests are displayed on the notice board board of the department
- Attendance of the student is monitored strictly daily. Monthly attendance is displayed on the notice board and communicated to students and parents.
- Mentor mentee / Teacher Guardian Scheme (TG) is also used to solve the queries of students and parents regarding their academic and personal.
- Continuous evaluation of students for every experiment is done based on regularity, performance, viva and punctuality in submitting the record.
- For laboratory courses, viva voce, is used to examine the independent learning, practical approach to real-time applications. The Project Review Committee, in collaboration with the project guides, evaluates the quality of the projects.
- At the end of the semester, internal assessment based on the parameters specified in the above processes is done, and internal assessment marks are allotted.
- If a student cannot appear for an examination due to medical or other legitimate reasons, an examination will be held for that student by the rules, provided that they make an application with all required documentations.
- The internal assessment/term work marks are displayed on the department notice board; students go through it and query, if any, communicate to the concerned coordinator for rectification.
- Due weightage is given to the students who has participated in different curricular and extracurricular activities.
- The final internal assessment marks are displayed and sent to the university.
- Mistakes, if any, are observed in the transfer entries of internal assessment marks on the datasheet of the university. The internal exam officer rectifies such mistake with the help of the concern teacher according to university guidelines.
- After the end semester examinations, the result is declared by the university. Sometimes mistake are observed in the result sheet of the students. Such students apply to the principal to take appropriate steps to solve the query by communicating with the university.
- This is well defined, set and transparent process followed for the internal assessment and grievance thereof.

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:**

- The institute, in tune with its Vision and Mission, accreditation board and affiliated university guidelines, has established a mechanism to define program educational objectives (PEOs), Program Outcomes (POs), Program Specific Outcomes (PSOs) and Course Outcomes (COs).
- The COs are discussed in detail in faculty orientation workshops conducted by the respective Board of Studies (BOS) and conducted by the university as well as institute.
- The Principal and department head, and teachers discuss PEOs, POs and frame PSOs for the programme aligned with the Institute's Vision and Mission statement.
- These are displayed at prominent institutes, HOD cabins, administrative offices, different reports generated by the concerned departments.
- Placed on the Institute website
- Incorporated in the preparation of Teaching Plan and course file
- The study materials of the courses, power point presentations, Lecture notes, department lab notice boards
- Apart from the above places, all the POs, PSOs and Cos are displayed on the e contents
- PEOs, POs, PSOs and COs are also printed on the lab manuals circulated to students
- At the beginning of semester, teachers discuss PEOs, POs, PSOs and COs and their correlation
- Teaching Plan, assignments, tutorials etc., teachers take care of COs in the course and explain to the students.
- During Teaching learning process COs are discussed and mapped with internal evaluation at every stage.
- During the induction program, all course coordinators address newly admitted first-year students and their parents. This address discusses the relevance of the Institute's Vision, Mission, PEOs, POs, PSOs, and COs.

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:**

- Program Outcomes (POs), Program Specific Outcomes (PSOs) and Course Outcomes (COs) play significant role in evaluating the attainment of the course and program outcomes.
- This attainment represents an essential indicator of the effectiveness of the teaching-learning process implemented in the institute.
- The evaluation of COs/POs attainment comprises internal (Direct and Indirect) and External (Feedback of Stakeholders) tools.

#### Internal (Direct and Indirect) Assessment Tool:

- Direct assessment methods include an assessment based on the internal evaluation by the institute and university examinations.
- Internal assessment is based on attendance, unit tests, assignments, continuous assessment of laboratory work, presentations, mock orals etc. The faculty evaluates students continuously and encourages them to improve in performance. Individual, as well as group assignments, are given to students.
- According to the university exam pattern, 30% weightage is to the In-semester examination, and 70% weightage is to the End-semester examination.
- Results declared by the University at the end of each semester are thoroughly analyzed in academic audits of programs.
- Once all COs are computed, a rigorous qualitative analysis is done to attain the COs for that particular course. This detailed report will be shared with to course instructor as a part of continuous improvement.

#### **External Assessment Tool:**

- Institute has a mechanism in place to interact and get feedback from its distinguished stakeholders (Students, Alumni, Parents and Industry)
- At the end of every academic year, students graduate exit survey is conducted, analyzed and used as an attribute to evaluate attainment.
- Distinguished alumni are invited as an expert resource persons to inspire and motivate students by sharing their experiences. They gave valuable feedback as an essential stakeholder is analyzed and used to improve and add any good practices.
- Parents get feedback from their wards regarding the functioning of various activities in the institute and support for the overall development by giving valuable feedback.
- Regular interaction is done with the Industry/employers and feedback is obtained about the performance of our students, which is an indicator of attainment

In a nutshell, COs and POs are evaluated based on Internal and External(direct and indirect) assessment tools. In the direct assessment tools, the internal assessment parameters (Test, Preliminary Examination, Mock, Project, Assignments, Tutorials, Laboratory Experiments, Presentations, Inseam/online Exam, and End-sem Exam) are considered. While for External assessment tools, the parameters considered are Graduate Exit Survey, Industry Exit Survey, Alumni and parent feedback.

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: 93.37

## 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	
697	870	875	770	911	

# 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
718	875	970	863	1002

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

## 2.7 Student Satisfaction Survey

	2.7.1 Online student satisfaction survey regarding teaching learning process	
	Response: 3.61	
File DescriptionDocument		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: 15.31

# 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
0.36	4.8	1.7	0.4	8.05

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
Any additional information	View Document

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

## Response: 1.54

## 3.1.2.1 Number of teachers recognized as research guides

## Response: 2

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

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

## **Response:** 18.42

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

2020-21	2019-20	2018-19	2017-18	2016-17	
1	2	1	1	2	
	·	· · · · · ·			
1 3 2 <b>Numbe</b>	r of departments of	fering academic n	ogrames		
	t of departments of		ogrames		
2020-21	2019-20	2018-19	2017-18	2016-17	
6	6	7	9	10	
7:10 Deceminatio			Deaumant	1	
File Descriptio	Ω		Document		
Supporting document from Funding Agency			View Document		
List of research projects and funding details			View Document		
Any additional information			View Document		
Paste link to funding agency website			ew 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 Institute has constituted different cells, ecosystem to carry out various activities which moderate students and faculties to transfer their innovative ideas into knowledge. The institute supports financially to implement, explore their innovations.

## **Ecosystem for Innovations**

The institution has taken a number of steps to promote research activities and establish an ecosystem for innovation through set systems such as Research and Development Cell, Entrepreneurship Development Cell, Institution Innovation Council (IIC) and Intellectual Property Right cell (IPR).

## Research and Development Cell (R&D Cell)

The R&D Cell is promoted research activities in order to foster research culture in the institute. It encourages staff and students to conduct research in new frontier areas of Engineering, Technology, Science, and Humanities, as well as multidisciplinary fields. This is encouraged by participating in conferences, seminars, workshops, project competitions, research competition and training programs, to improve general research capability. Furthermore, in order to encourage students and faculties for research

and development, the institution helps and guide to get full or partial financial support to all innovative research and development projects undertaken by students and faculties. The guidance of research and review committee for faculty and students help them to approach various funding agencies in this regards.

## **Entrepreneurship Development Cell (EDC)**

EDC helps ambitious engineers to establish their own firm or enterprise through a series of expert lectures and workshops. Distinguished businessmen and aspiring entrepreneurs are frequently invited to motivate students. Through frequent interactions, All the alumni students of the institute who are pursuing the entrepreneurial path also contribute through frequent interactions with the students. Departments have a growing membership in International Professional Clubs such as ACM, IEEE, IETE which encourages students to participate in various activities towards holistic development.

## **Institution's Innovation Council (IIC)**

The Institute has IIC cell for nurturing various activities related to the entrepreneurships, innovation, IPR and start-ups. IIC of SIT was set up to create a vibrant local innovation ecosystem. It deliberately inculcates the culture of Innovation among the students and faculties together by conducting various workshop and seminars related to entrepreneurships, innovation, IPR and start-ups. To get better exposure around the world we signed MOU with other universities, like symbiosis's Symbiosis Centre for Entrepreneurship & Innovation, Technology Business Incubator supported by DST, Govt. of India.

## Intellectual Property Right cell (IPR)

The Institute has special IPR cell to provide assistance and guidance to file IPR. As a result of being exposed to the outside world and studying current advanced topics in those areas, the concerned student's vision broadens. The major objective of IPR cell is to explore recent trends. The outcome of this process includes development of new and innovative ideas. Faculty and students with higher intellectual levels, resulting in improved overall quality, future career options, and the institute's overall growth.

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:** 44

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

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

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

## **3.3 Research Publications and Awards**

3.3.1 Number of Ph.Ds registered per eligible tead	cher during the last five years
Response: 2.33	
3.3.1.1 How many Ph.Ds registered per eligible te	acher within last five years
Response: 7	
3.3.1.2 Number of teachers recognized as guides	during the last five years
Response: 3	
File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
Any additional information	View Document
URL to the research page on HEI website	View Document

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

Response: 0.39

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

31 13 10 5 5	

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: 0.3

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	5	14	4	8
File Descriptio	on		Document	
	on chapters edited volu		Document 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:**

In line with the institute's vision and mission, the institute is very insightful to the impact of various extension activities on its students, employees, as well as on the regional community and on the environment. The institute believes in giving back what it has gained from the communities in which we live, work and play. The institute considers the impact of all extension activities on the local community and hence the various social activities, events and programs. We aimed to chase our goals as, keeping in agreement with the planet and society. Through the NSS program and social activities, students should develop qualities like leadership, administrative work, personality development, social awareness and overall holistic development. Also through events students should get closer to the community and environment and understand nature concerning the environment.

## Social activities include

• Winter Special Camp for Village Development: Every year NSS Special camp is organized by the

team as per SPPU guidelines. Special camp helps to neighborhood community to aware of government schemes and benefits, implementation of renewable energy sources, the importance of cleanliness and health, energy literacy and enhancement, construction of water-rich camps and dams, encouragement to school students by various competition, aware about land consolidation, importance about rules and regulation during the day to day life.

- Blood Donation Camp: On the occasion of STES' foundation day is arranged every year.
- Swachha Bharat Abhiyan: Cleanliness drives arranged near society and campus.
- Lokjagar: the social awareness program where street plays and drama on social issues are done by students.
- Tree Plantation: To provide oxygen, supporting wildlife is done by students.
- Traffic Rule Awareness Rally and Pledge: to aware society of traffic signs and road rules with the help of Lonavala police.
- Voter Awareness Camp: aim to enhancing voter enrolment and awareness for enhancing voting percentage in elections.
- Flood donation drives for Kerala and Sangli Kolhapur affected areas done by a team in the form of cloths foods and daily needy things. A donation to the chief minister's relief fund is done with the help of contributions from the campus community.
- International white cane day: white cane day for the blinds was celebrated to create awareness about the potentials and problems of the visually challenged.
- social cause visit to "sahyadri adivasi vikas pratisthan mandal" manchar, karjat
- "Help through Donation at Orphanage" to Ekta Niradhar Sangh, Kamshet by faculty of computer engineering.
- Orphanage Visit on Gurupoornima by IETE Club sit Lonavala.
- Maha Tree Plantation Drive in collaboration with e-sitizenClub,to support govt of India initiative. These activities impact on neighborhood community in a way that they are aware of the implementation of renewable energy sources, the importance of cleanliness and health, energy literacy and enhancement, construction of water-rich camps and dams, encouragement to school students by various competitions, aware about land consolidation, importance about rules and regulation during the day to day life. Through these activities, student improves their qualities such as time management, project management, costing, marketing skills, event management, and communication skill.

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:** 23

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	
	3	6	7		5	2	
F	File Description			Docun	nent		
-	Number of awards for extension activities in last 5 year		View I	<u>Document</u>			
e-copy of the award letters		View Document					
Any additional information		View I	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: 14

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

2020-21	2019-20	2018-19	2017-18	2016-17
1	4	3	5	1

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

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

#### Response: 0.51

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	
13	15	14	13	14	
File Description	n		Document		
Report of the event		View Document			
Average percentage of students participating in extension activities with Govt or NGO etc		View Document			
• •	ities with Govt or N	GO etc			

## **3.5** Collaboration

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

#### Response: 1023

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
282	188	212	231	110

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

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

**Response:** 16

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

View Document

2020-21	2019-20	2018-19	2017-18	2016-17
3	4	1	4	4
File Description			Document	
e-Copies of the MoUs with institution/ industry/corporate houses			View Document	
Details of functional MoUs with institutions of national, international importance, other universities etc during the last five years			View Document	

Any additional information

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## **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 Institute has developed the state of the art Physical infrastructure with all facets required for effective implementation of teaching-learning process. It assures that students receive a high-quality education. For this well-equipped, adequate teaching learning facilities required for smooth conduction of curriculum and other relative activities are developed. The institute has adequate number of classrooms, Seminar halls, laboratories and other infrastructure equipped with ICT facilities. It includes adequate facilities to fulfill the norms laid down by the AICTE, DTE and SPPU.

- The institute has adequate number (32) of well-furnished, well ventilated, spacious and with proper luminance classrooms equipped with the necessary ICT facilities required for effective delivery of the content.
- Adequate number of tutorial rooms are available in the institute for interactive learning activities, interactive discussions and active learning.
- 0
- The Institute has 62 laboratories equipped with state-of-the-art facilities, few to mention: Spectrum analyzer, Function generator, Boiler test Rig, 4-stroke petrol engine computerized test rig, centrifugal pump test rig, open source and latest proprietary software's etc.
- All of the laboratories are built in accordance with AICTE guidelines.
- Beyond the syllabus, laboratories are also used for technology enhancement learning and training sessions like Value Addition Programs, Workshops and Industry training sessions.
- Charts and models are displayed in the laboratories which aids in better understanding of theory and practical concepts.
- Engineering workshop provides both the area and tools required for the manufacture or repair of manufactured goods. The workshop consists of different facilities like machine shop, fitting, carpentry, welding, black smithy and tin smithy shops, CNC machine.

## **Research Laboratory**

• "Nanomaterial Lab", has been setup at the Department of Mechanical Engineering, for synthesis of nanomaterials through research funding from ASPIRE scheme of Savitribai Phule Pune University.

## **Computing Equipments:**

- The institute has 597 computers, 100 Mbps band width for Internet access and connectivity as per the norms of the regulatory authorities.
- Centralized firewall is used to monitor the usage of Internet by individuals and to protect and provide security.
- The learning Management System, Microsoft Teams, is available as an online teaching and learning platform. It is used extensively during the pandemic by facilities and students.

## Seminar Hall:

• The institute has 2 Seminar halls with 250 seating Capacity equipped fully with necessary ICT facilities. These halls are utilized on regular basis for conducting different activities.

## **Central Library:**

- The central library has an excellent collection of books, references, journals, magazines and e-book bank.
- National & International printed journals are subscribed to update the knowledge of the stakeholders in the respective field.
- Digital Library has adequate number of computers with Internet facility.
- $\circ\,$  The library has reading hall with the seating capacity of more than 500 students which is open for 24 X 7.

## **Corporate Training Center (CTC)**

• The Corporate Training Center, to interface with the corporates, is available for conducting Seminars, corporate meetings, conferences, and workshops.

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:**

Sinhgad Technical Education Society's Sinhgad Institute of Technology has always encouraged and supported the co-curricular and extracurricular activities. It has given priority to sports for overall development of the students. The facilities developed by our institute for Cultural, sports, indoor and outdoor gymnasium etc, are spread across around 40 acres thecampus.

The Sports Academy was started on 06th March 2016 inaugurated by Mr. Pravin - former Indian cricketer. He the mentor of the sports academy and under his guidance we have developed cricket pitches and practice nets 2016. The cricket ground with international cricket ground specification was inaugurated by well-known international cricketer from Sri Lanka, Mr. Sanath Jayasuriya on 06th January2012. Many cricketers have taken benefit of this facility for their pre-IPL practice in 2017 & 2018. The main motive is that our students will develop their skills and get motivated. In 2017, we have conducted a grassroots development program of football for school students.

In recent years Sinhgad Institute's sports teams have achieved the pinnacle of sporting excellence by participating different sports competitions. have organized Inter-college and inter-zonal tournaments under

SPPU from 2016 with the best possibilities. Our college has received the organization award from the district sports committee for Inter-college FootballTournament

## **Cultural Facilities:**

· The Institute hosts an Open air theatre (Amphi Theatre) for conduction of different cultural activities.

• The annual cultural fest of the Institute "Surabhi" is conducted at the Amphi theatre.

 $\cdot$  A separate budget is allocated by the institute for organizing various cultural activities and students are encouraged for participation in events like Surabhi, Sinhgad Karandak etc.

## Sports Facilities:

The institute has sports facility spread across around 40 acres thecampus. Both, Indoor and Outdoor sports facilities are hosted at the campus.

#### **Indoor Facilities**

Institute has separate indoor sports facilities like Badminton, Table tennis, Chess, Carom, etc. These are at the sports complex and students are given access to these facilities for practices sessions as well as annual sports matches.

#### **Outdoor Facilities**

Outdoor facilities like Football, Hockey, Kabaddi, Basketball, Tennis, Volleyball, 800m 11 lane Jogging track, Cricket ground, 10 practice wickets, Skating track, Swimming pool with area 312.5 Sq.M. on

Cricket Ground – A separate and spacious cricket ground with international specifications is spread over an area of 5 acres. A separate practice cricket ground is also available for students and residential staff. All the outdoor sports grounds are covered with proper facilities to enjoy their play during the night also.

#### Gymnasium

A well-equipped gymnasium is also provided at the campus which is freely accessible to students, for encouraging them towards fitness and its importance in daily routine. Track of visiting students is also maintained in a separate register.

#### Yoga

A center for yoga related activities is also hosted by the institute. Various events like "International Yoga Day" celebration, and other related events organized by clubs of college are also conducted at this center.

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*)

<b>Response:</b>	100
------------------	-----

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 36

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: 9.42

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
103.6	91.06	6.39	22.33	14.23

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:**

- Integrated Library Management System is used to manage different functions of library. Institute Library is using commercial software as well as in house software for Automation of Library Services (GEMS).
- Library is automated with Autolib Library Management software having version 1.0 since 2012. Currently we have upgraded the ILMS to an upgraded version i.e. AutoLib NG with WEB-OPAC facility in 2021.
- This software has modules like Acquisition, Cataloguing, Circulation and Serial Control. It is used to create accession register reports, add bulk student records, and update item lending policies and their status. Book issues, returns, and reserves are all available under the circulation module.
- This module can generate a variety of reports, including circulation status summary, item transactions, item inventory status, operator transactions, etc. Similarly, this module generates library barcodes, making time-consuming library work easier and more efficient.
- The Serial Control module keeps track of subscribed issues in the library and keeps track of print journals. This module can also be used to construct a projected arrival timetable for loose issues. Autolib software also provides statistics analysis for Library Management systems, such as weekly transitions, most issued books, least issued books, and reference books, among other things.
- Library books can be browsed / searched on Intranet using Autolib OPAC module.
- As the e-journals access is IP based, the stake holders can take benefit of this facility from anywhere in the campus at any time. Total number of books available in the library is 19923 books with an monthly average of 2648 issued books.
- webOPAC Link : http://172.16.50.50/AutoLibWebOPAC/Login.aspx
- This software is purchased from Akash Infotech, Pune, who provide online and offline support for software problem, proper backup, and maintenance of software services. The software is renewed every year as the AMC policy.
- The Institute library also shares downloaded NPTEL Video Lectures, as well as a digital library collection database, open source literature, and previous year University question papers to all students through the ftp local server of college. The link for viewing the NPTEL Video Lectures is http://122.252.236.67/

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:** C. Any 2 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)	<u>View Document</u>

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

Response: 2.46

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
0.19	0.16	0.79	2.07	9.08

File Description	Document
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the last five years (Data Template)	<u>View Document</u>
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: 18.24

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

Response: 401

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

## **4.3 IT Infrastructure**

## 4.3.1 Institution frequently updates its IT facilities including Wi-Fi

## **Response:**

The institute is well-equipped with a strong IT infrastructure, to cater to the quality education and effective implementation of curriculum. The Central computing facility with 100 Mbps Internet connectivity is available for this purpose. For uninterrupted computing, generator backup of 5KVA is available.

- The Institute has developed centralized maintenance system in order to support the IT infrastructure, campus facilities and equipment.
- The institute maintains and updates its IT Infrastructure to ensure seamless connectivity and proper technical support in teaching learning process.
- Faculty members are provided with the computer and Internet connection at their respective locations.
- All the Computer laboratories and facilities are connected with the Internet and are made available to the faculties and students for their academic needs in their respective departments.

In the field of digital communication and pandemic situation, the internet communication is important in teaching learning process. The Institute has IT facilities like leased line for internet connection and the software is also frequently updated.

- Application Software such as MATLAB, ANSYS, Altair Hyper Works, CATIYA V6, Xilinx 9.1i Multisim, Auto CAD 2009 etc. are available at institute level. Software are updated continuously, such as MATLAB is updated from version 10 to 16, ANSYS is also updated from version 10 to 17 etc. laboratories are continuously updated with latest version of computers such as i3, i5. Institute has well established language lab to enhance communication skills of the student and faculties.
- Advanced Dell, HP Computer systems, Windows server are available for smooth conduction of various activities such as online examinations, workshops, online competitive exams, virtual lab, IIT Bombay remote research center, spoken tutorial etc. Subscription is available for IIT Bombay remote center.
- The Institute is designated Nodal centre for virtual lab (VLNC), under the National Mission on Education through ICT and IIT Mumbai.
- Learning Management System (LMS) For smooth and effective conduction of academics in all respect, the Institute has provided license copy of Microsoft Teams as a common online platform for teaching-learning. It has helped the faculty members and students immensely during the pandemic situation.
- The institute has massive network of 597 computers with 100 Mbps Internet connectivity and Wi-Fi facility to fulfill the academic and research need. Centralized server room is used for network monitoring, management and Internet security.
- The institute has deployed the educational Enterprise Resource Planning (ERP) software, which

manages the entire administration, campus operations, and academic management in an efficient way.

• LAN facility: 3-Layer Switching (Core, Distributed and Access) network is available for the entire campus. Core layer switches in the buildings have been connected with the Optical Fibre Ring Network. This core switching is further extended to Distributed Switching for departments where 100Mbps (Gigabit Switches) are installed.

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: 3.46	
File Description	Document
Upload any additional information	View Document
Student – computer ratio	View Document

4.3.3 Bandwidth of internet connection in the Institution		
Response: A. ?50 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:** 21.32

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
108.24	117.17	131.67	198.09	182.51

File Description	Document
Upload any additional information	View 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 infrastructure of the organization is the foundation of all its activities. We take great pride in the infrastructure we have and strive to preserve it for the use of current and future stakeholders in a responsible and sustainable manner.

The institute adopts standard established systems and procedures for maintaining the physical, academic and support facilities that are mentioned in the maintenance policy document of the institute. There are college level committees that look after the various aspects of the utilization and maintenance of the physical, academic and support facilities.

## Maintenance of Library Facilities:

The library has a reading hall and separate digital library for students to access e-journals, while the subscribed e-journals can also be accessed from any networked computer in the institute. The books and journals are maintained against disfiguring. Book binding is carried out on regular basis for damaged books to avoid further damage. Stock verification is done as a part of regular monitoring and control. Pest control is done on regular basis for maintaining books safe from termites. Library Committee has been constituted for co-ordination in respect of learning resources

- Procurement of new books & renewal of journals and recommendation for additional books
- Updating and maintaining of all library records
- Addressing issues and grievances of users
- Update and upgrade the library contents, periodically as per updates in curriculum

## IT infrastructure:

IT infrastructure maintenance is divided into four broad areas: server, desktop, backup and security. The maintenance operation frequencies are real-time or at the end of semester as needed.

Institute has an adequate number of computers with internet connections and utility software. Lab

Assistants and Technical Assistants maintain computer systems, UPS, Software and Servers. Anti-virus software is purchased and is renewed annually for the smooth working of all the computers in the institute. For repairs beyond the scope of in-house maintenance team, external agencies are hired.

#### **Classrooms, Conference Hall:**

Classrooms and Conference hall are provided with enough seating capacity, sufficient number of fans and tube lights, desks and LCD projectors. Cleanliness of classrooms and Conference hall is maintained on regular basis.

#### Laboratories:

Lab Assistants and Technical Assistants regularly maintain Laboratories. Every department maintains a stock register for the available equipment. Proper inspection and verification of stock take place at the end of every year. Repair and Maintenance of laboratory equipments/instruments are initiated by the respective Laboratory In charge as and when required. The purchase committee handles the repair/maintenance/calibration request appropriately by placing order to the respective equipment experts. History cards of the equipments are maintained, which indicate the maintenance/repair/calibration of the respective equipments. As a precautionary measure laboratory in charge, along with laboratory assistant, ensures proper working of all equipment at the beginning of each semester.

**Sports Complex:** Physical director handles sports complex and the facilities are maintained by the Estate office. The institute has large open grounds for cricket, football, volleyball and basketball and a gymnasium utilized by the students. Sports equipments are periodically inspected and necessary repairs are done as and when required and new gears are purchased accordingly.

#### Maintenance of other support facilities:

- Estate department carries out maintenance of infrastructural facilities.
- Assistant Estate Manager (Civil Engineering and Utility Services) carries out the creation and maintenance of all Civil Engineering assets, Water supply assets, Electric supply assets, Lifts, Solar water heaters, Air Conditioning, Geysers, Inter com systems, Water coolers and Fire Fighting Services in the campus with the help of the supporting staff
- Housekeeping services are regularly executed and monitored by estate department.
- Housekeeping for regular cleanliness of corridors, washrooms, classrooms, laboratories and premises is done by housekeeping staff. Sanitizing of washrooms is done on regular basis. Housekeeping services are regularly executed and monitored by estate department.
- The workshop department carries out minor maintenance of furniture items and metal fixtures.

- The Gardeners maintain greenery of the impressive amphitheatre.
- The sanctioned load by MSEB to the institute is 1433 KVA. In addition, the institute has operational transformers of 1500 KVA and additional 500 KVA capacities as standby. The institute also has one diesel generator of backup capacity 500 KVA. Electrical maintenance department maintains electricity supply and power backup facilities like Generators.
- Electrical Engineer is responsible for efficient functioning of Electric supply, water coolers, solar water heaters, Geysers, Air conditioners, Lifts, Fire fighting and intercom system in the campus.
- Electrical Engineer visits once in a week and note down the electrical complaints in complaint Register maintained by the Institutions, Hostels and in the office of Asst Estate Manager for compliance.
- Aqua guard water purifiers are attached to water coolers. Clean and hygienic drinking water is available in the Institute. Water coolers are maintained and cleaned on regular basis. Overhead water tanks and water coolers are cleaned periodically. Quality of drinking water is checked by measures pH and Hardness. Water treatment plant of softening capacity 3.5 million liters per day is available.
- Emergency exits and fire fighting system are provided to counter situations like fire hazard and natural calamities. Adequate firefighting equipments are available. All fire fighting arrangements are as per norms and functional and operation of fire fighting is known to all people working in the building. The demos regarding its use are given to staff and students for its prompt use.
- Estate office looks to keep the fire fighting equipment functional at all time and any repair/replacement shall be carried out without loss of time.
- Campus surveillance through CCTV is maintained by the technical staff for the security and maintaining purpose.
- Adequate inter-com and outside communication facilities are available.
- Green Campus policy is implemented to maintain Eco friendly campus.
- In Institute campus No Vehicle Day on First Friday of every month is implemented to work towards clean and green campus.
- During Corona virus pandemic Hand Sanitizers were kept near the Biometric Machine and Security personnel at the college gate were given hand sanitizers to offer to all who enter the College.

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: 72.65

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
1399	1751	2153	2540	2434

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)	<u>View Document</u>

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

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)

	1
11     56     70     155     144	

Response: 2.78

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:** C. 2 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: 72.25

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
1350	1628	1800	2807	2856

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:** C. 2 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:** 46

## 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
284	381	371	343	533

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: 6.6

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

Response: 46

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

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

**Response:** 4

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
5	6	4	5	11

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	
83	144	284	279	166	
3	144	284	279	166	

File Description	Document
Upload supporting data for the same	View Document
Number of students qualifying in state/ national/ international level examinations during the last five years (Data Template)	View Document
Any additional information	View Document

## **5.3 Student Participation and Activities**

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

## **Response:** 5

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
0	3	0	2	0

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	<u>View Document</u>
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, cocurricular and extracurricular activities following duly established processes and norms (student council, students representation on various bodies)

## **Response:**

The institute gives appropriate and legitimate representation to the students on various administrative, cocurricular and extracurricular activities. Through these activities students acquire the valuable skills of planning, organizing, executing and problem solving which helps in their comprehensive development. Also different student councils/ bodies are constituted in the institute as per specified norms and provisions in the act. From all disciplines various students' bodies are formed such as IEEE, IETE, IEI, ISHRAE, SAE, ACM, Microsoft Club, SPARK, ICC, Business club, Infosit, e-Citizen, ACES, EESA, MESA, Vodafone, NSS etc.

## Following are the committees and their functions:

## **1** Administrative activities:

Internal Complaints Committee (ICC) addresses student grievances and maintains harmony and discipline

among the students. ICC was previously known as "Women's Grievance Cell (WGC)", this committee helps in development of female students and encourages them, this cell actively conducting various activities. An appropriate representation is given to the students as per norms.

## 2. Co-Curricular activities:

There are active student chapters linked with ISHRAE, SAE, IEEE, IETE, IEI, ACM etc. These committees/ chapters organize various events such as Webinars, Quizzes, Workshops, Conferences, Expert talks etc. The co-curricular activities are organized under different student chapters such as Infosit, e-Citizen, ACES, EESA, MESA etc. Institute organizes the National level technical festival "Techtonic" under the Sinhgad Karandak. In these student committees/ chapters organize Technical and other events. The event is aimed towards student's general growth. Every year, our students compete in these prominent intercollegiate events and win prizes.

## **3. Extracurricular activities :**

Institute organizes, "SURABHI", an annual cultural event for students. The core cultural committee is constituted where students from various departments are selected democratically. Event wise subcommittees of the student coordinators are constituted for smooth conduction of events. Also the maximum number of students gets representation on different committees. It offers a platform to the students to sharpen their skills other than academics. It conducts events like Singing, Dance, Fashion Show, Mr. and Miss SIT etc. The eminent judges from relevant fields are invited to judge the students' performances and to select the best among them. Our students participate in these prestigious intercollegiate competitions every year and bag prizes. Institute has a National standards Sports complex, spread over around 40 acres which is the asset of SIT Lonavala. It includes a separate cricket ground spread over 5 acres, one unique sport complex spread over around 13 acres fitted with high mast. Institute organizes various indoor and outdoor sports like Carom, Chess, Table Tennis, Cricket, Volleyball etc. through student committees headed by the sports coordinators. The students committees are involved in organizing various sports in intercollegiate, interuniversity, state and national level events. The student committees are actively involved in the organization of these events. The extension activities like, social activities in association with NSS are carried out through student bodies/committees. Student committees are involved actively in conducting blood donation camps, swachcha abhiyan, tree plantation, Yoga day etc. The students represent on different committees like Internal Complaint Committee, college development committee, IQAC etc.

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

# **5.3.3** Average number of sports and cultural events/competitions in which students of the Institution participated during last five years (organised by the institution/other institutions)

## Response: 18

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 14 10 22 21 23 Document **File Description** Upload any additional information View Document Report of the event View Document Number of sports and cultural events/competitions View Document in which students of the Institution participated during last five years (organised by the institution/other institutions (Data Template)

## 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 Institute has established an Alumni association which was registered in the academic year 2014-15. In the broad sense it is a platform to support each other for mutual benefit of Institute and alumni members . Few of the objectives of alumni association to mention are :

- To promote and foster beneficial interaction between Alumni and the Institute.
- To encourage the Alumni to take abiding interest in the process and development of the Institute.
- To arrange and support placement activities for the students of the Institute.
- To encourage the current students of the Institute and members of the Association for research & development activities.
- To mentor the students of the Institute for higher education, development of character and becoming good human beings.
- To encourage and guide the students of the Institute on self-employment to become entrepreneurs.
- To guide students of the Institute on various professional avenues available and support them through various activities such as expert advice, seminars, visit etc.
- Promote the Industry-Institute interaction to bridge the gap between industry requirements and education offered and enhance students' employability.
- To help and assist other regional bodies for training programs in entrepreneurship development, with resources available with association.
- To encourage and support students of the Institute in sports, cultural and extra-curricular activities.
- To help and guide students and ex-students of the Institute for anti-drug, and other anti-social activities.

In the beginning, alumni meetings were conducted annually. However the institute has strong bonding with the alumni members and avail their services throughout the year .

Non financial contributions by alumni:

Our esteemed alumni members help the institute in many ways. During the meetings conducted by the institute, they give feedback on the processes designed and implemented in the institute. They significantly contribute in finalization of contents of programmes for enrichment of curriculum. They give meaningful contributions in designing student training programmes, value addition programmes based on their experiences and knowledge in the relevant field. They also support the implementation of such programmes, arrange expert talks and guide students in enhancing their employability skills. Alumni students support in providing internships, getting industry sponsored projects, arranging industrial visits etc. They provide their services as resource persons, experts in different evaluation mechanisms in the institute throughout the year.

Financial contributions by alumni:

The financial contributions done by alumni members are considered in two ways, direct financial and indirect financial contribution. In direct financial contribution alumni financially sponsor technical events, projects of the students, events in Sinhgad Karandak etc. They help in institutional activities like admission awareness, technical activities during the Techtonic at no cost.

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

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

#### **Response:** E. <1 Lakhs

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

## **Criterion 6 - Governance, Leadership and Management**

## 6.1 Institutional Vision and Leadership

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

## **Response:**

The Institute follows a revolutionary vision and mission. They meet societal requirements by providing high-quality education using cutting-edge technology.

## Vision of the Institute

We are committed to produce not only good engineers but good human beings, also

## Mission of the Institute

Holistic development of students and teachers is what we believe in and work for. We strive to achieve this by imbibing a unique value system, transparent work culture, excellent academic and physical environment conducive to learning, creativity & technology transfer. Our mandate is to generate, preserve and share knowledge for developing a vibrant Society.

Vision and Mission of the Institute focuses on the needs of society by providing quality education. The governance comprising Governing Body (GB), Local Management Committee (LMC), and Academic Monitoring Committee (AMC) and Internal Quality Assurance Cell (IQAC), other committees at department level play significant roles in the evolutionary reforms towards positioning the Institute. A full freedom (academic, administrative and financial) is then given to the Principal, HODs and faculty in accordance with STES policy and statutory provisions.

## **Objectives**

- All-round development of students relevant to the industry needs and making them globally competent.
- Empowerment of faculty and staff through continuing education.
- Develop strong Industry-Institute Interaction to offer expertise for projects, training, testing, calibration and consultancy.
- Overall development of students through Student Training Programmes (STPs) and Value Addition Programmes (VAPs).
- Serve as Engineering Knowledge Centre (EKC).

The vision, mission and objectives are displayed in the department at the HODs offices, notice boards, on the website, departmental newsletters, and magazine, technical paper souvenirs and printed on journal files.

The institute implements rigorous academic activities to ensure each of the implied components of the vision & mission is addressed through effective participation of our teachers and stakeholders. Strictly

monitored process of planning and implementation, followed year after year, has shown improvement in student's academic performance of students.

## Following SOP is adopted:

1. Program Educational Objectives (PEOs) are defined by faculties in the program in-line with vision and mission.

- 2. Programme Outcomes (POs) are defined based on above stated PEOs,
- 3. Savitribai Phule Pune University (SPPU) curriculum is enhanced with institute defined

modules.

4. Subject allotment is done on the basis of subject expertise faculties.

## Nature of Governance:

The top management including Governing Body, Academic Monitoring Committee, Local Management Committee, Principal, Head of Department and faculty focus on institutional goals as follows –

- Top management directs the principal focusing on the vision and mission of the institution.
- The principal adheres to top management policies in order to realize the vision with the support of staff.
- The Principal, Vice Principal and Heads of Departments organize several committees to provide "participative and decentralized management" in the institute.

The institution is committed to follow a quality framework with the support of IQAC.

The Perspective plan of the institution suggests improving the quality of teaching learning process, to encourage research among staff and students, to enhance industry institute interactions and development of infrastructure.

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 has a decentralised governance framework with well-defined interlinkages. Working with the decentralised governance system, the Institute allocates adequate and structured authority to the

programs. Various teaching staff committees have been established to oversee various institutional operations. For numerous academic and co-curricular activities, committees are formed.

Institute follows standard practices of Student Training Programs and Technical Event- 'Techtonic' providing a platform to learn and showcasing the skill of decentralization and participative management. Every year, the institute hosts an intercampus and intercollegiate "Sinhgad Karandak ". Seminars, Workshops, Paper & Poster Presentations, Coding, and numerous enticing Chill Zones are among the programmes. The event's brochure is sent to all technical institutions, while all activities are publicised through a help desk with neighbouring institutions. Institute encourages its students to develop a variety of abilities, create multi-faceted personalities, and win a variety of accolades.

The events are meticulously planned and effectively implemented by the student committees under the supervision of faculty. "Student Training Programs (STP)" are divided into five stages and taken from Second Year to Final Year of Engineering. STP-1 covers SWOT analysis, Public Speaking, Presentation Skills, Listening Skills, Behaviour Skill and Group Discussions. STP-2 covers Reading Skills. STP-3 covers the revision on fundamental subjects which are important from the point of view of placements especially in technical rounds. The fundamental purpose of these STP's is to prepare students in all aspects for facing placements. Apart from this, STP-4 covers the student's ability to write reports and scientific papers. Finally, STP-5 is taken up with recent technology and students are given training conducted by industry experts. The suggestions and opinions given by students during the interaction are considered in finalization of STPs.

Institute practises to assign roles and responsibilities to various authorities in consultation with Principal and management. The suggestions made by teachers in meetings with the HoD, IQAC, AMC and department meetings are conveyed to management through the principal. The teaching learning process has been strengthened by involvement of teachers.

The administration ensures that faculty and staff opinions and proposals are incorporated into college development decisions. This method looks into decentralisation and participatory management practices in institutions.

The involvement of teachers in various activities and the interest demonstrated by them while completing specific tasks offers the HoD an idea of the faculty's strength. HoD's are empowered to promote specific faculty to handle dedicated events in the best possible way. This process is not only grooming the leadership of HoDs but also useful to create followers while executing various activities efficiently. Similar approach is also followed by the principal to promote and encourage HoDs, faculty and staff while executing specific activities for the development of the institution.

Faculty members of every program follow all the instructions given by the HoD. Faculties complete all academic responsibility with higher priority and also assists HoD's in department activities such as Teacher Guardian, Class Teacher, and coordinator of specific committees. Many dedicated faculties are also getting opportunities to perform their duties at institute level.
File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

#### 6.2 Strategy Development and Deployment

#### 6.2.1 The institutional Strategic / Perspective plan is effectively deployed

#### **Response:**

Institution has a well-defined Strategic plan aiming to achieve excellence in the aspects of Academic, Research, Faculty, Student and Society. The proposed performance indicator with a set target assesses attainment of each strategy. Strategic Plan and deployment documents are provided on the Institute website.

The Institute has the following perspective plans:

#### 1. Improving the quality of Teaching–Learning Process:

- To upgrade the skills of Staff through STTPs, FDPs, QIP, Workshop, Webinars, NPTEL, Virtual Lab, IBM Skill Build, Udemy etc.
- To upgrade infrastructure with modern ICT tools.
- To develop a Digital Library with all related software for Online and Offline facilities.
- To establish the center of excellence in emerging technologies.

#### 2. Encouragement of Research among staff and students:

- To take efforts to undertake sponsored research projects, Paper Publications, acquiring patents by students and staff.
- To motivate faculty to get the funding under Research Promotion Scheme (RPS).

#### 3. Enhancing Industry-Institution Interaction:

- Providing platform to the students to undertake internship in respective industries
- Providing skill-based training to the students.
- Signing MoUs with organizations/ corporate/ industry to exchange the knowledge and expertise in related programmes of engineering.

#### 4. Engaging extension activities:

- Inculcating a value-added system in students by Value Added Program (VAPs), Student Training Program (STPs), GATE, GRE, TOEFL, Foreign Language Courses, Soft skill Training etc.
- Developing leadership qualities among students through various activities such as Techtonic and other events.

#### 5. Quality Assurance Measures;

- In Sinhgad Institute of Technology, Lonavala, the departments Computer Engineering, Information Technology, Electronics and Telecommunication Engineering and Mechanical Engineering had been accredited by NBA in the year 2013 for two years.
- Sinhgad Institute of Technology, Lonavala, has been accredited by NAAC in the year 2016 with Grade B++.
- Institute has been participating in the NIRF, Atal Ranking.

Successfully Implemented Activities as Per Strategy:

#### Title of Practice: Engaging extension activities

#### **Case Study: Techtonic**

Each year the institute organizes national level event Sinhgad Karandak. The sinhgad karandak is organized in three sections: Technical Fest: Techtonic, Cultural Fest: Neon and sport competitions. The technical festival, an annual show, provides a platform to the students for demonstrating and participating in various curricular and extracurricular activities relating to cutting edge technologies. The events consisted of Seminars, Workshops, Paper & Poster Presentations, Coding and various attractive Chill Zones. The brochure of the events is circulated to all the technical institutions and publicity of all the events is done via a help desk placed at all the nearby institutions, social media and publicity materials. The 27 year long tradition of the institution continues to draw huge participation from all over Maharashtra.

Institute encourages students to cultivate many skills, develop multi-faceted personalities and grab several awards through these myriad activities.

#### **Evidence of Success:**

Following list is testimony to the practice adopted for the skills development through extension activities, among thein the past.

#### **Techtonic Details:**

Year	2019-20	2018-19	
Number of Events organized	47	38	
Number of students Entries	2223	1368	

File Description	Document
Upload any additional information	View 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:**

Institute has successfully established an organizational structure to facilitate the efficient and effective management of the academic processes. Various bodies are constituted as basic units of the organizational structure. The governing body is the highest decision-making body, consisting of members of the management, principal and faculty members. The Local Management Committee includes three members elected amongst the teachers, one member of the non-teaching staff and principal along with other members as per AICTE guidelines.

#### The institutional organization structure is as follows:

Institute has internal organizational structure as:

The governing body, frames various policies, establishes administrative setups, makes recruitments, and frames service rules for the employees. The effective implementations of strategies are leading to effective coordination and smooth functioning of the institute. The tasks taken up by it include academic, infrastructural, administrative and overall developments. The processes in line with the vision of the institute and their implementation procedures are set by the Governing body. The Governing body and LMC have the responsibility to take decisions at the central level regarding financial, academic and administrative policies, defining benchmarks of performance and development of the institute. The Principal, Vice-Principal and HODs strive to implement the plans and achieve the targets set thereof. Training & Placement officer is responsible for training and placement and industry institute interactions. Librarian along with the library committee is responsible for maintaining, procuring and enhancing the learning resources in the library. These learning resources are made available to the students, faculties and other stakeholders as and when required. The reading hall with the capacity of 500 students is made available 24 x 7 during the examination period. From the attendance of the students monitored and student's feedback, the AMC committee gives suggestions and corrective action if any in the teaching learning process.

The elements of the organizational structure at department level are as follows: Each department has committees for its smooth functioning. All departments have constituted departmental committees for effective working within the department. Each department conducts weekly departmental meetings of staff

members to monitor student academic performance and implementation of workplace policies. The principal, heads of departments, and the coordinators of the various committees play an active role in making decisions in academic and administrative processes under their supervision, exhibiting the decentralization of power and building transparent work culture.

#### Service rules, Procedures, Recruitment and Promotional Policies:

As per the norms of the AICTE, university, state government the institute has framed service rules, policies and regulations which have been approved by the GB. In order to make awareness among the staff (both teaching and non-teaching) the service rules and related guidelines are made available on the institute portal. Also, their hard copies are kept in the administrative office.

The institute has well defined promotional policy framed as per the act, norms and guidelines of the statutory bodies. The promotions are done based on the performance of the employee following transparent procedure.

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

#### 6.2.3 Implementation of e-governance in areas of operation

#### 1.Administration

- 2. Finance and Accounts
- **3. Student Admission and Support**
- 4. Examination

#### Response: A. All of the above

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

#### **6.3 Faculty Empowerment Strategies**

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

#### **Response:**

The institute gives highest priority to the welfare of teaching as well as non-teaching staff as follows:

- Group Insurance: The master group insurance scheme (GIS) is available for all employees. Providing death claims of RS. 1.5 Lakh for the employees having AGP 6000 and above, Rs. 1 Lakh for the employees having AGP 1900 to AGP 6000 and Rs. 0.75 Lakh for the employees having AGP below 1900 respectively. Accidental insurance policy (EMBF) is also available with the deduction of Rs.20 for teaching and Rs.10 for non-teaching staff which provides benefits up to Rs.1 Lakh.
- Maternity leave: Under the new Law, The Maternity Benefit (Amendment) Act 2017, passed by the Rajya Sabha in August 2016, maternity leave is raised from the current 12 weeks to 26 weeks. Institute provides 6 Months full paid maternity leaves to women employees.
- Gratuity: This scheme is for retirement benefits or on leaving the job and it is implemented in the institute. An employee receives a gratuity in exchange for their contributions to the institute.
- Rural Health Care Centre: We have Rural Health Training Center (RHTC) Centre in the Campus. Free medical service is provided as and when required.
- Employees' Provident Fund is availed to all eligible as per STES policy and applicable Act.
- Residence for Employee: Staff quarters are provided to all categories of employees, 1 RK, 1BHK, 2BHK, and 3 BHK and Directors Residence. Quarters are equipped with a 24 Hrs. Security Services, CCTV Surveillance, Electricity Backup, Water Supply and WiFi facility. Nominal maintenance charge is charged.
- R & D facility: Institute provides financial assistance towards registration fees of research article publication. Study Leave facility is provided to the staff who is pursuing PhD or research. Other available resources are provided.
- An Internal Complaint Committee is established for both staff and students. Girl's common room is available. Equipped with necessary facilities.
- Transport Facility: Pick up and drop common transport facility is provided to the employees of the Institute coming from Pune and other locations. Institute provides conveyance allowance applicable as per norms to teaching and non-teaching staff.
- Internet and free Wi-Fi facilities are also available on campus for staff.
- Institute provides summer and Winter Vacations for faculty members.
- Miscellaneous: Medicine and Grocery store is available in the institute campus Laundry Services are available in the institute Campus. International level Sports facility for Indoor and Outdoor games is available with no cost. ICICI, SBI, Canara Bank ATMs are available in the institute campus. In and around campus, various food centers have been established which are accessible to all staff.
- Day Care Facility: To empower the women and to protect their rights, Day Care Facility is available at campus. Day Care Facility is open for children between the ages of 3 months to 10 years of teaching and non-teaching staff.

In a nutshell, the Institute strives hard to keep our staff happy, healthy and comfortable.

File Description	Document
Upload any additional information	View Document
Paste link for 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: 17.44

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
2	30	42	45	30

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	<u>View Document</u>

**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: 16.2

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
18	16	15	15	17

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: 49.23

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
86	94	104	45	54

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 institute has meticulously designed a performance appraisal mechanism in place for both teaching and non-teaching staff.

#### **Performance Appraisal System for Faculty:**

The performance appraisal is one of the significant and important parameters in the development of faculty and institute. It is used in the promotions of the faculty members. The institute conducts performance appraisal through self-performance appraisal form. It is designed by taking into account the guidelines, expectations of the apex bodies like AICTE, UGC etc. and thereby the performance index (PI) is finalized. The mechanism of performance appraisal was initially implemented offline, later on switched to online. The institute conducts performance appraisal periodically. The data on faculty's performance so collected is analyzed and evaluated performance is mapped with the set benchmark of the performance by the institute. For evaluation of the performance of the faculty the performance index (PI) and their appropriate weightage are defined.

The mechanism of performance appraisal is aware to the faculty members in the beginning of academic year, in the broader sense the performance index parameters are categorized as; Teaching Learning and Evaluation related activities, Co-curricular, extracurricular and extension activities, Students Attendance, Feedback and Results, Professional Development and Academic Contribution, Research Contribution,

Assessment by higher authorities etc. As institute runs under graduate program on majority, weight is to this performance index parameters are set accordingly. These parameters are evaluated based on the performance of the faculty using standard practices and operations in the institute. The self-appraisal done by the individual faculty is assessed by the head of the concerned department by verifying the valued documentary records and accordingly credits are given. It is further evaluated by the head of the institute. The final evaluation of the performance is communicated to concerned faculty. Based on the performance, the appreciation of the faculty is done or otherwise suggestions are given to improve the performance.

#### **Performance Appraisal System for Staff:**

Non-teaching staff performance appraisal forms are created with roles, responsibilities, and activities to be performed by non-teaching employees in mind. The broad performance index parameters considered for the evaluation are: Attendance during the academic year, Interpersonal relations, Initiative and cooperation, Quality of the work etc. The self-performance filled by the staff is verified, validated and evaluated by the head of the department. The final evaluation is done by the head of the institute based on overall behavior of the staff, integrity with both work and institute and discipline observed by the employee.

The performance appraisal outcome is also utilized for refining and strengthening systems designed and implemented in the institute. Various activities like faculty orientation and development programs, expert talks on IPR, arranging training programs in the necessary areas are organized in the institute. The continuous efforts of the institute in reforming and implementation of the performance appraisal system have resulted in confidence building and competence enhancement of the faculty. It is also reflected in quality publications by the faculties, increased placements of the students.

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

#### 6.4 Financial Management and Resource Mobilization

#### 6.4.1 Institution conducts internal and external financial audits regularly

#### **Response:**

The Sinhgad Technical Education Society has established an internal audit department and finance and accounts department. The SIT being one of the institutes run by STES has finance and accounts, audit mechanisms in place. It appoints auditors for internal and external audits.

#### Internal Financial Audit: -

A senior auditor from the pool of auditors at the audit department of Sinhgad Technical Education Society is appointed as internal auditor to conduct an internal audit of the institute.

The role of internal auditor is not only pointing out mistakes from propriety/regulatory point of view but to

suggest corrective measures so that same mistakes do not recur in future. It includes daily closing cash -statement and other financial transactions. It helps in devising a proper financial system in the institute.

Each financial activity/transaction and the relevant documents are examined/verified by the internal auditor. The internal auditors focus is on monitoring, controlling and refinement of the financial system implemented in the institute. Audit objections raised by the internal auditor during the process are resolved by discussion with heads of all concerned sections in the institute.

#### External Financial Audit: -

The external audit of the institute is conducted by appointing an external agency. K. S. Mali & Co., Chartered Accountant firm is appointed as external auditor.

The scrutiny and verification of various financial statements and audits are conducted by external auditors periodically. An external auditor being an independent firm is in a good position to make an impartial evaluation of the financial statements and systems of internal controls designed by the internal auditor and the Institute. The audit points, opinions and queries raised by the external auditor are valued to management as well as creditors & all others who need an independent appraisal of the financial statements.

#### Mechanism for settling audit objections

#### Internal Audit: -

During the time of checking finance and accounts, the auditor lists queries/query if any on paper.

a) He discusses it with concerned staff and calls for an explanation if any.

b) If the Auditor is not satisfied with the answer or justification then he discusses that query with immediate higher authority of the concerned section like HoD of that particular Department or Sr. Accountant of Institute etc.

c) Auditor makes a list of unsolved queries, suggestions and observations & discusses it with the head of the institute.

d) After overall discussion with the head of the institute, he prepares the final Audit Report and submits it to the management of the STES.

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: 1

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	
0.33	0	0	0.67	0	
File Descriptio	n		Document		
	s / Grants received fi lies, individuals, Phi		View Document	1	
uring the last f	ive years				
uring the last f			View Document		

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

#### **Response:**

The institute has a well formulated financial policy in place that ensures effective and optimal utilization of financial resources for academic, administrative and development of activities at the institute. Ultimately helps in realizing the institute's vision and mission.

The Institute has made the appropriate provisions in its books of account to ensure that available sufficient funds are used efficiently for each academic year.

The variance reports of sanctioned budget and actual expenditure are maintained and reviewed on a regular basis, the institute utilizes funds as per sanctioned budget, as per guidelines from management and head of the institute.

The Institute has defined the standard operation procedure to monitor effective and efficient utilization of sanctioned financial resources for infrastructure development, academic processes and other activities.

Every year, the budget is prepared well in advance after taking into consideration the financial requirement generated by every Department. The finalization of the tentative budget is proposed to the higher authority and is discussed and prepared in the meetings of HoDs. It comprises both recurring and non-recurring expenses.

The Principal puts up the budget in the Local management committee meeting and after discussion and necessary corrections/modifications; Local management committee recommends the budget for approval to the Governing body if any.

The meetings of concern committees are conducted as per guidelines of apex bodies.. The institute has provisions for advance extra funds if needed. The Governing body studies the annual expenditure, scrutinizes the budget and provides feedback for efficient use of financial resources. The Institute has standardized procedures for sanctioning of funds for various activities and also for settlement of advance and passing of bills for payment.

The Management has given complete support to authority and head of the institute for organization of various co-curricular, extracurricular activities like technical events, sponsoring of faculty/staff for various skill development programs, providing financial support for attending conferences, workshops, pursuance of higher education etc. Financial support is also provided for participation of students at various national and international level events like Baja, Go-Kart, Aero-design and different clubs like Robotics.

The Institute has constituted a separate Purchase Committee composed of Principal, HOD and concerned staff. The set purchase procedure is calling quotations, preparing comparative statements, negotiation meetings and finalization of the vendors for effective and efficient use of available financial resources.

The committee ensures that appropriate equipment with the correct specifications are acquired at the best possible price. Every financial year, internal and external financial audits are conducted to ensure that defined protocols are followed and financial resources are utilized appropriately.

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File Description	Document
Upload any additional information	View Document
Paste link for 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 Institute has constituted the internal quality assurance cell (IQAC). It work in line with the vision of the institute and achieve excellence in the performance.

The IQAC has contributed in setting the processes, design and implementation policies of the institute related to academic and administrative setups in the institute. The committee monitors the outcomes of

different processes of the administrative and academic quality periodically and gives guidance to enhance the performances. The IQAC meetings are conducted quarterly to review the outcomes of processes institutionalized in the institute. Some contributions made by the IQAC committee are as follows:

#### 1. Counseling:

- The Teacher Guardian (TG) scheme is a distinct feature of SIT. TG meetings are conducted weekly. The academic and nonacademic issues of the students are addressed in the TG meetings.
- From the feedbacks of academic monitoring committees, performance of the students, inputs from stakeholders, the IQAC has guided to initiate different schemes like STP, VAP's, Internships and other skill improving activities for the students.
- The Career Counseling Center (CCC) is established under the guidance of IQAC. The CCC conducts various activities and programs to motivate and guide students for competitive exams, higher education, Entrepreneurship etc.
- The Feedback system is institutionalized in the institute by the IQAC.
- 2. Alumni Meet:

The IQAC has provided guidance to constitute, register and functioning of alumni associations in the institute. The alumni meet is conducted semester wise. A process is set to collect feedback from the alumni about curriculum, infrastructural facilities of the institute, different enrichment programs, VAP's, STP etc. Based on the outcomes of this feedback, IQAC has suggested a refinement in the operations of the set processes or induction of new processes.

The objectives of the alumni meet are:

- To act as a bridge between professionals for interaction on new developments in different areas of technical education.
- To promote and foster interaction amongst the Alumni, students and the faculty members of the institute.
- To associate the Alumni in the developmental activities of the various departments of the Institute.
- To institute and organize scholarships and funds, internships and placements to help the needy and deserving students' various departments of the Institute.
- To establish prizes and honors for exceptional project work, research papers, or other professional activities by the Department's faculty, alumni, and students, as well as to appropriately acknowledge outstanding social and community contribution performed by them.
- To strengthen the linkages between the faculty and the external world.

The other initiatives taken by the institute on the suggestion of IQAC cell are constitution of research and development cell, center of excellence in foreign languages, IIC, different technical clubs etc. The induction of such systems in the institute as per guidance of IQAC and its periodic monitoring, evaluation by the IQAC has validated all the systems in the institute leading to improvement in quality of education.

File Description	Document
Upload any additional information	View Document
Paste link for 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 institute has constituted an internal quality assurance cell (IQAC) to initialize various processes and activities. The major contribution done by IQAC is in the teaching learning process adopted in the institute. As per the guidance of IQAC the institute has been practicing different teaching learning practices like Experiential Learning, Participative Learning, Problem Solving Methodologies etc. These methods enhance the active participation of students in creative learning and improve their performances. They inculcate the expected skillsets among the students.

In Experiential Learning, emphasis is given on learning through hands on and thereby understanding the concepts. Students are given opportunities to engage in hands-on learning in a variety of areas. In studying application-based information, an emphasis is placed on the development of analytical, synthesizing, and reflective capacities. This aids in the conceptual and practical integration of several transdisciplinary domains' subjects. Experiential learning emphasizes the application of knowledge and skills to real-world circumstances to broaden the learner's knowledge and develop competency in skills and behaviors.

Students are exposed to team or group work in Participative Learning to make them more active and social. Institute encourages students to attempt new things and learn from their errors through a participatory learning culture.

Techniques are used in teaching learning processes in Problem Solving Methodologies. Project-based learning (PBL) is emphasized by the institute as an effective strategy for improving student learning levels. Departments assign mini-projects to students, which are reviewed by specialists from outside the institute. Departments provide a variety of Value Addition Programs (VAPs) to help students meet their advanced technological needs and develop their technical skills and decision-making abilities.

Students' participation in Interactive Learning is ensured by the use of various participatory learning activities such as brainstorming sessions, panel discussions, tutorials, case studies, mid-lecture activity, and role play throughout courses. This aids in the proper comprehension of concepts and working practices.

In order to have efficient and effective content delivery the IQAC has instituted different faculty development programs, Train the Trainers Program etc. The IQAC has recommended use of ICT and student centric methodologies. The IQAC evaluates the outcomes of these processes of teaching learning

periodically. The inference drawn from the analysis of such outcome parameters is used to restructure and refine the teaching learning methods in the institute.

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

### **Criterion 7 - Institutional Values and Best Practices**

#### 7.1 Institutional Values and Social Responsibilities

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

#### **Response:**

STES' Sinhgad Institute of Technology, Lonavala provides safety and secured environment for girl students and ladies faculty members in the institute. For these purposes the institute has constituted various committees like, Internal Complaint Committee, Grievance redressal cell, Counselors etc. These committees put on a variety of initiatives for female students. In addition, the institute has given counseling to female students in a variety of methods. The separate common rooms for girl students are provided for their comfort. The curriculum of SPPU has implemented by the institute, addresses the issues related to gender equity, environmental concerns, governance etc.

#### Safety and Security:

Girl students' safety and security is a major concern. The institute aspires to develop students who are selfsufficient, respectful of cultural variety, conscious of their social and civic duties, and sensitive to gender issues. There is a safe parking place fitted with CCTV closer to the academic blocks for female students. On campus, there is a separate and secure hostel facility for females. The classroom is set up in such a way that female students feel at ease.

Internal Complaint Committee takes care of issues of grievances and welfare of the women. Security guards are placed in the campus and hostels. On the special occasions like college fest, cultural / academic programmes, placement drives etc., special transportation is provided for girl students. All corridors and laboratories are equipped with fire extinguishers. Every year, a large celebration of Women's Day is held, and inspiring women personalities are invited to share their experiences. The institute is providing two vending machines of sanitary napkin with a capacity of 20 pads each for Rs. 5 at suitable locations in the institute buildings and hostels

#### **Counselling:**

Both general and personalized guidance has been concurred to the students. Well-being mindfulness programs for young girl students are organized in hostels and in the institute throughout the academic year. When a complaint or a protest occurs, the students are led to the proper ladies' complaint cell/authorities or explicitly assigned women workforce, one by one. All such matters are kept profoundly classified. The institute takes extreme attention to detail in managing the said matters of advising the young girl student. Through Co-Curricular and extra-Curricular exercises and comprehensive directing of girl-students, the institute strives to ensure the complete character development of female students and female faculty members, resulting in increased fearlessness, positive mental self-portrait, common regard, and so on.

#### Common Room:

The institute has a separate girl's common room. It is well-lit and well-equipped, allowing students who feel ill or need to relax for a short while to do so. Female aides are provided in the aforementioned waiting

areas. Nearby faculty members aids students in receiving medical assistance in the event of a medical emergency. Basic medicines and first-aid equipment are provided to the students.

#### Day Care Center:

A day care center for young children is available along with Children Park having modern amenities. The rural health center is on the campus with a separate pediatric section.

File Description	Document
Link for annual gender sensitization action plan	View 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	<u>View Document</u>

**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
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:**

Institute has implemented various methods to manage degradable and non-degradable waste generated in the institute and campus The. household and residential waste of campus is sent to municipal corporation of Lonavala. The solid, liquid waste from toilets and kitchens are processed at in house sewage treatment plant. Recyclable waste are sold for recycling and waste papers are used for rough printing. E-waste is given to external agency for recycling.

#### A. Solid waste management (Degradable)

Housekeeping section collects garbage on daily basis and delivers it to the municipal garbage collection agency. The garbage van collects the waste material from various locations of the campus on daily basis. The daily waste generated at Mess, canteen, staff-quarters, shops, hostels, institute buildings are collected in this process. The institute has erected a sewage treatment facility with a capacity of 2.31 million litres. To treat roughly 3.5 lakh litres of effluent from the campus, a 3.55 lakh litre FAB reactor is used.

#### **B.** iquid waste management (Degradable)

All waste water lines from toilets; bathrooms etc. are connected to drainage mains after passing through sewage disposal plant. Secondary tube settler of 0.77 lakh litre, Sludge dig ester tank of 1.485 lakh litre, chlorine contact tank of 1.485 lakh litre, pressure sand filter and activated carbon filter of 10 lakh litre each are set up at waste disposal plant. Lonavala has heavy water fall so the institute has a mechanism for collection of the rainwater. This kind of harvesting is used to tap natural resource to recharge the tube wells on the campus. These tube wells supply a major chunk of the water to the campus habitation after being treated in the plant and also for other purposes.

#### C. Biomedical waste management (Non-degradable)

The biomedical waste from institute hospital and hostels is collected at the Rural Health Centre department as per the category of waste. This waste is transported to Pune at Shrimati Kashibai Navale hospital of Sinhgad Technical Education Society. Collectively waste is given to the respective agencies to dispose it off.

#### D. E-waste management (Non-Degradable)

The electronic spare, parts, computer accessories are major concern regarding e-waste. Firstly, such equipment are segregated and possible repair work is preferred. The irreparable spares, machines, equipment undergo the process of possible alternatives before it is collected at store of e-scrap. The e-wastes are disposed of periodically through a professional e-scrap vendor.

#### E. Waste recycling system (Degradable)

Recyclable waste material like plastic, papers, etc. are collected and sold out to scrap vendor from time to time. Use of old one side papers is done to do the rough printing which saves paper

#### F. Hazardous chemicals and radioactive waste management (Non-degradable)

The various practices for disposal of mild and hazardous wastes are carried out for mild and hazardous chemicals. The radioactive waste is not generated in the institute or on the campus.

However, the provision is made to handle the radioactive waste generated, if any.

File Description	Document
Any other relevant information	View 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
Link for any other relevant information	View Document

#### 7.1.5 Green campus initiatives include:

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

**Response:** A. Any 4 or All of the above

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

#### 7.1.7 The Institution has disabled-friendly, barrier free environment

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

**Response:** A. Any 4 or all of the above

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

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

#### **Response:**

Sinhgad Institute of Technology Lonavala carries out various activities for providing **inclusive environment**. Cultural activity such **as Surabhi**, the annual social gathering, in which traditional days are celebrated to inculcate cultural ethics among students. It provides the platform to the students to show their skills other than academics. Special programmes like Lokjagar, Dandiya are conducted every year for maintaining tolerance and harmony toward regional, linguistic and other diversities. The events of regional and national importance, of religious harmony like Shivjayanti, Ramzan, Christmas etc are organised in every year. The institute implements, earn and learn scheme to cater economically weaker and meritorious students higher education at affordable cost. To get connected with culture of rural India, hands-on workshops are conducted on renewable energy and trained them in making solar lamp.

#### 1. Surabhi:

Surabhi, an annual social gathering, is a platform provided to the students to sharpen their skills other than academics. Various events like Singing, Dance, Group Dance, Fashion Show, Stage Play, etc. are conducted with no bar of language. These events are aimed at overall development of the students.

#### 2. Lokjagar:

The main purpose of the Lokjagar event is to inculcate unity in culture, cleanliness, awareness of health and communal socio economic diversities. Lokjagar includes events like drama and plays on such and related issues. To understand regional and socio-economic aspects, NSS camps are conducted annually in the nearby villages. NSS camps are meticulously planned to inculcate these values. The day started with a jogging trek and yoga session. The morning breakfast was done till 8. After the morning task, the second session of the day started which included dividing the volunteers in teams and dividing the task accordingly (Kitchen duty, Lokjagar, Gram Seva, Addressing the villagers). The evening started with a group discussion session continued with Lokjagar performance. The ended with self-cooked dinner.

#### 3. Earn and Learn Scheme :

For **economically weaker** and meritorious students, **Earn and Learn Scheme** is implemented. India lives in her villages and to bridge the gap between rural Bharat and urban India, so earn and learn scheme plays significant role in bridging the gap between socio-economic diversities. It supports higher education of needy and financially hard pressed students.

# 4. Institution organizes national festivals and birth / death anniversaries of the great Indian personalities

Most important in inclusive environment and unity in diversity, we celebrate national festivals such as Independence Day, Republic day, birth and death anniversaries of the great Indian personalities like Savitribai Phule janmashatabdi, Teachers Day, birth anniversary of M Visvesvaraya, Reading Day on the occasion of birthday of Dr. A.P.J. Abdul Kalam etc.

#### 5. Solar Lamp Workshop

In the **socioeconomic** head organized workshop on Solar Technology to inculcate importance of renewable sources of energy and given hands on about how to make solar study lamp. The objective of program was to train the students which helps in spreading awareness among the masses about the use of sustainable resources.

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 institute has carried out activities for inculcating values, rights, duties and responsibilities for being responsible citizens as reflected in the Constitution of India. Few to mention such activities are NSS, faculty involvement in election process, celebration of voter's day, reading of preamble of the constitution, CCC Activities, Tree plantation, Swachh Bharat Abhiyan.

#### **1.Voter Awareness Program:**

Voting is our fundamental **right & responsibility**. On national voters day, staff & students la organize rallies in campus and nearby villages to generate awareness.

Expert talk was organized on election process.

#### 2. Road Safety Week:

The institute involves in the road safety week conducted by the state government concern authorities. This inculcates the culture of following traffic rules among the students. The task is accomplished jointly with local police department

#### **3.Tree Plantation:**

The students and staff participate in Tree Plantation activities organised on different occasions throughout the year. The birthday garden and carporate garden are unique feature of the institute.

#### 4. Blood Donation:

The institute organises blood donation camps frequently. It inculcates responsibility towards society among the students. This practice was continued during the pandemic also

#### 5.Swachh bharat abhiyan (Cleanliness Drive):

Government of India launched the Swachh Bharat Abhiyan scheme to solve the problems of sanitation and waste management in India by ensuring hygiene across the country. This program also helps to inculcate responsibility towards society. The institute organized cleanliness drives in the campus as well as in nearby villages by taking help of our NSS students. It was recognised and appreciated by the local authority.

#### 6. Visit to Orphanage:

An orphanage house is a place where children of various ages who have either no family or have lost their families in natural calamities. The home usually has a care-taker who monitors the children of the orphanage and a few helpers to take care of the residents.

We, as an institute each year collect money, grains, cloths & other things which are required for orphanage. Then few staff members along with students visit to orphanage, they spend a day with those children & give them love with necessary things.

#### 7. NSS camp to village for water conservation :

The only way of saving water is water conservation in the future to solve the problem of water scarcity. In India and in many other countries of the world, there will be a major scarcity of water. By considering this issue NSS of SIT lonavala visited nearby villages, they spent couple of days over there to clean natural water source & build a BANDHARA using bags filled with sand & stone resulting in water conservation.

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

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

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

#### **Response:** A. All of the above

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

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

#### **Response:**

The Sinhgad Institute of Technology, Lonavala was established in 2004. Right from establishment, institute has given importance to celebrate / organize national and international events, days, festivals. It helps in overall development of the students which is in line with the vision of the institute.

1.Republic Day and Independence Day:

Every year institute celebrates Republic Day and Independence Day. On these occasion all staff and students of the institute participate in the celebration. The programs start with Flag Hoisting/Unfurling at the auspicious hands of Chief Guest. It is followed by National Anthem, Patriotic songs, march-pass etc. On such occasion, tree plantation s one of the activities.

2.Engineers' Day :

Every year institute celebrates Engineers Day on the birth anniversary of Mokshagundam Visvesvaraya. Institute organizes various technical events for all students. The staff and students are felicitated pn this occasion for their achievements during the academic year. Best Teacher award is conferred on a nest performing teacher.

3.International Yoga day

The institute celebrates International Yoga Day on 21st June every year. Everyone enthusiastically participated in this activity. The different Yoga ASANAs like Surya Namaskar and Pranayama are performed under the guidance of Yoga Teacher.

4.International Women's Day

International Women's Day is celebrated every year on 8th March. On this occasion, an eminent guest preferably woman who has made significant contribution in this field is invited as a speaker. The institute organizes various events for ladies faculties and staff like cultural programs, funny games etc.

#### **5.** National Service Day

Every year, 24 September is celebrated as National Service Day .NSS was launched in 1969, the aim is to developing the students' personality through community service .On the occasion of NSS Day, NSS Unit of institute organizes many social events for the students and faculties. On the occasion of NSS Day people who have played an important role in social work are invited as Chief Guest. The NSS volunteers perform the street play on the various important issues related to farmers, water crisis, youth empowerment, political scenario, reservation, child-labour, domestic violence, gender equality religious matters, charity, save girl etc.

6. National Voters Day

India is a democratic country, so every major citizen has right to vote. The National Voter's Day is celebrated on 25th January. Prgrammes like Rallies, Expert Talks, Awareness camps are organized on this occasion to promote and motivate students and people to exercise his fundamental right of voting.

#### 7. Celebration of Anniversaries of Eminet Personalities:

The institute celebrates birth and death anniversaries of eminent personalities like Mahatma Gandhi, APJ Abdul Kalam, Mahatma Phule, Viswesverayya etc. Savitibai Phule being first Female teacher who dedicated her whole life for women's rights, education. Institutes organizes her birth and death anniversaries.

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

#### 7.2 Best Practices

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

#### **Response:**

### **1.Best Practice 1: Value Added Programs (VAPs)**

Value Added programs are specially designed programs to get students acquitted with industrial practices, where every branch set up the program in relevant to academics and currently in use in industries.

#### 1. Title of the Practice: Value Added Programs (VAPs)

#### 2. Objectives of the Practice:

- To bridge the gap between Institution and Industry
- To enrich the knowledge of students beyond the curriculum
- To prepare the students for placement
- To inculcate life –long learning among the students for career development and growth
- To facilitate the students to get certificates from renowned industries and other agencies

#### 3. The Comntext

As the institution is affiliated to SPPU, the students have to follow the syllabus prescribed by the University for various courses. The Rapid advancements in Science and Technology have demanded more flexibility in the curriculum and syllabus. However, the institution has limited control over the curriculum-based syllabus, and the University revises the regulations every five years. Further, the industry needs employable graduates. Therefore, Value Added Programmes serve as a major tool to bridge the gap between the university curriculum and the industrial needs. Resource persons/Experts from industry and renowned agencies provide the students with an awareness of state-of-the-art technology and improve their skills. This enhances the knowledge of the students and develops their personalities. The value addition through such programmes /courses provides confidence to the students to face challenging interviews, secure placement, and plan their careers.

#### 4. The Practice:

Value-Added Programs are carried out for all the departments with the courses tuned to the respective industrial exposure. For instance, the value addition programs like hypermesh, Catia V5 are arranged for the mechanical engineering department. For Computer, IT and electronics and telecommunication departments, the VAPs in Python, Java and other state of the art concepts are provided. Students are encouraged to enrol in VAPs through the Training and Placement cell. The students' attendance is ensured, and their evaluation is done through structured tests and assignments given by the expert. It has been observed that the students have shown their keen interest in the VAPs and shown active participation. The practice has also marked enhancement of their knowledge and equipped them with requisite skillsets and opportunities in the placement process. In the end, their performance is evaluated on the predefined criteria and awarded with certification.

Training provided is based on the need of the student. Program is spread over 7 semesters.

Total duration of program is 120+ hours.

#### Program provides training and practice on:

Soft Skills,

Technical Fundamentals,

Research Methodology and publications

Value Added component,

Quantitative Aptitude and Logical Reasoning and

Group Discussion and Interview preparation.

This program is divided into semester wise to all SE, TE and BE students and resources has been created with the help of an expert peoples. The flow of program is given below:

#### SE Semester I (STP 1) : Soft Skills, AMCATest - Pre,

- Goal Setting
- SWOT Analysis,
- Resume Preparation
- Report Writing
- Letter Writing
- Group Discussions
- Listening skill
- Presentation skill
- Public Speaking
- Behavioural Skills

The above modules are conducted by expert faculties from department.

#### SE Semester II (STP 2): 4 Pillars of Communications, AMCAT Test – Post

**Total 8 Sessions** 

Based on 4 Pillars i.e. Listening, Speaking, Reading and Writing, 2 Sessions each. The AMCAT Posts

result of the student is expected to be improved with respect AMCAT@SE Semester 1

In this test, also, students are not expected to opt for option (domain) modules.

This result also sent on email of the student.

TE Semester I Technical Training (STP 3): Technical Training (Based on Frequently Asked Questions in Personal

Interview, GATE, etc., AMCATest – Pre (With Domain Modules)

Total 5 Sessions of 2 Hrs, which covers the FAQs in Interview, Questions based on GATE

Branch Specific Sessions

10 Hrs of QA Training by Corporate Trainers

# TE Semester II Research Component (STP 4): QA-LR Training Employability Tests (Based on QA-LR), AMCAT – Post (With Domain Modules)

Total 3 Sessions of 2 Hrs, which covers Basics of Research, i.e. Literature Review, Gap Analysis, Report Writing

Coupled with Seminar @TE as per SPPU Curricula

#### **BE Semester I: Value Added Programs, GD-PI Training, Employability Tests**

Maximum 4 Value Added Programs (VAPs) are selected per branch.

The HoDs and Senior faculty branch wise decide based on State of Art Technology, recent trends in the field.

Each VAP is 18 Hrs, 6 Hrs per day for 3 days.

The Academic is suspended for 3 days during VAP. The students have to register for one of the VAP.

#### 5. Evidence of Success

Students over 90% enrolled in VAPs and exhibited enthusiastic participation to learn the field-oriented skills. This has immensely helped them in improving the hands-on aspects. Second Year students who participated in VAP developed an interesting mini Project. Students and VAP Trainers solve societal problems and provide feasible solutions for real-life problems using technology platforms such as Core Java.

The students also gained certifications from reputed corporate bodies such as Microsoft and could get attractive pay packages by gaining industry-specific skills. The placement statistics of the institute improved considerably with this practice.

#### 6. Problems Encountered and Resources Required

As this is an activity over and above regular academics, time management was one of the crucial issues where it becomes difficult to make slots available in time table. Retaining the students after college hours was a challenge. The remote location of the college also posed difficulties in retaining the students after college hours for those students who are not hostelites. However, better coordination among the departments was yet another issue, leading to the development of interdisciplinary culture positively. Arranging the resources such as laboratories and modern tools with the requisite technical staff put hiccups in the initial period. With the provision of the required budget, the management encouraged the VAPs, which sustained this practice and led to many success stories of the student placement.

#### 7. Notes:

This kind of value addition program activities in which various course like C, C++, Java, Microsoft certification courses and other department courses help students for designing innovative project and in placement support.

### 2.Best Practice 2: TRAIN THE TRAINER (TTT)

Train The Trainer (TTT) Programs are implemented to enhance the academic and intellectual environment by providing faculty members with the knowledge, idea and skills to enhance the quality of education:

#### 1. Title of the Practice:- TRAIN THE TRAINER (TTT)

TTT program aims at enhancing the academic and intellectual environment in the Institute by providing faculty members with the knowledge, idea and skills to improve the quality of education. The success of an institute curriculum is closely related to its effective curriculum implementation. Teachers have to be personally aware of the institute curriculum and improve and enhance the necessary skills to interpret the concept changes accurately. The need for a training programme for teachers plays an essential role in successful education reform. It also serves as a bridge between prospective and experienced educators to meet the new challenges of guiding students towards higher standards of learning and self-development

#### 2. Objectives of the Practice

The main goal of the TTT is to prepare faculty members to present information effectively, respond to student's questions, and lead activities that reinforce learning. Other goals include ensuring that trainers can: Direct participants to supplementary resources and reference materials.

The TTT programs are designed for training the teachers who deliver classroom-based lessons and presentations. It equips the teachers with the necessary knowledge, skills, competence, and confidence to become effective teachers, which improves the value of the academic programmes in place in the institute.

After completing the course, the teachers:

- Can plan, design, and deliver their course more effectively.
- Know how students learn and how to create a positive learning environment.
- Have the communication skills and competencies of an effective teacher.

#### 3. The Context.

It's more crucial than ever to stay competitive and relevant in your market. However, to be relevant, training and development must be included in the list of factors that contribute to your success. A well-trained and motivated faculty base is critical for the student's overall growth, where the train-the-trainer concept comes into play.

An internal training programme is a great approach to ensure that teachers quickly learn the necessary knowledge and skills to do perform properly..

#### 4. The Practice

The TTT practice is a classic example of peer teaching-learning process. The senior teachers from the sister institutes or from outside play the role of mentors for their colleagues. The training sessions are arranged on the following themes:-

- planning the lectures and retain the attention of the students for an effective delivery of the lecture Sharing the best practices in teaching-learning
- Minute to Minute Lecture plan
- Conducting successful Laboratory sessions
- Encouraging the students to participate in laboratory sessions proactively.
- Encouraging the students to prepare the laboratory report themselves and submit it on the same day, same time slot or at least next week same day.

The TTT is practised at least twice a year and reportedly helped the teacher improve their professional delivery of resource materials lucid and flawless.

#### 5. Evidence of Success

The teaching-learning ambience improved considerably. It helped in enriching the content beyond the syllabus. It also helped in standardising the teaching resources and providing the students with state of the art knowledge resources for reference. The newly joined faculty have used TTT as an orientation/induction avenue to adopt innovative teaching-learning practices. The examination results, in turn, have improved significantly since the teachers through this practice were encouraged to frame the model answers and share the same with their colleagues and the student community. Standard techniques such as Bloom's taxonomy and translating the same in meaningful teaching-learning are another outcome of this practice.

#### 6. Problem encountered and Resources required

Some of the problems encountered are as follows:

- Locating the training materials that can be reused in the form of Open Educational Resources
- In-house knowledge and resources (content creators, video equipment, etc.) required to build training content.
- Access to classroom space for in-person training sessions.
- Commercial aspects of some of the courses that cover some of training needs.
- Run surveys for trainers to evaluate their courses and experts.
- Getting the free schedule of the senior teachers for the training programs

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:**

The Sinhgad Technical Education Society's Sinhgad Institute of Technology, Lonavala, from its inception in 2004, had been looking into inculcating universal human values among the students, faculty and staff along with imparting quality education. Accordingly, it has initiated and designed lot of activities in this perspective. The development of campus as Oxygen Park was one of the prominent objectives aimed in tune with the vision of the institute.

Title of Distinctive Practice: Development of Oxygen Park

**Objectives**: The objectives of the concept of developing Oxygen Park of Sinhgad Institute of Technology, Lonavala are as follows:

- 1. To inculcate the concept of Oxygen Park and its importance in students, staff & faculty
- 2. To identify the locations on the campus as Oxygen Park
- 3. To establish such identified locations as Oxygen Park
- 4. To enhance the green cover on the campus
- 5. To reduce emission of the CFC on the campus

**Context:** Sinhgad Institute of Technology, Lonavala is the premier engineering education centre of learning. It was stablished on 12h Aug 2004 with huge area of 200 acres to fulfil professional education needs of the region. In the era of global warming and climate change the environment is continuously changing & showing swings of the climate. To control all the changes, there is a need to have more & more green spaces. This can be easily developed and manged by an educational institute like SInhgad Institute of Technology, Lonavala.

In order to achieve this goal the institute has a green campus policy in place. As a part of policy implementation the institute conducts green audit by following the principles and norms of the concerned apex bodies. The institute has prepared environment development and management plans following all the guidelines and norms. The activities planned in relevance with different dimensions of the green park development are as follows.

In line with the environment management plan the institute has adopted green policy. It has incorporated guidelines, rules, acts and formats set by Ministry of Environment and Forest, Central Pollution Control Board. Regular green audits are conducted through external agencies and their views and suggestion are incorporated in the action plan.

The Summery of different dimensions of Oxygen Park are highlighted as below:

Tree Plantation:

Carbon

**Solid Waste:** The Solid waste collected in the campus is 33580KG/ month. Its management, disposal and recycling ETC are done as per its nature and grade.

The institute has practice of conducting energy audit. The outcomes of such audit are discussed and implemented. The Institute takes special efforts to go for green technology for the campus.

The use of renewable energy is preferred and accordingly it has been observed that out of the total connected load, 53% load is actively using electricity

Water being major constituent, in developing green campus and thereby sustainable oxygen park.

The institute has conducted different activities to generate awareness among the students and faculty members about scarcity of water, need of water conservation and processes of rain water harvesting, water saving mechanism and ways followed in the institute. The Recycled water is used for Gardening purpose.

The Hazardous Chemicals are disposed off scientifically. Also E-waste are sold to the external agency after following due process defined by the management. The institute has campus situated in hilly area. The hills were barren with 03 trees and other shrubs. Institute had accepted challenge of converting the campus in to lush green and Oxygen Park. For that, a systematics plan was prepared for landscaping and tree plantation. The NSS units, other students, faculty and staff with commitment tried to implement the plan. The tree plantation activities are conducted on the occasions of national festivals, anniversaries of national leaders and other prominent personalities, foundation day of the STES etc. To reduce carbon emission, students & staff are motivated to use electric vehicles. The first Friday of every month is observed as "No Vehicle Day" and use of cycles is promoted on the campus.

Apart from all other activities conducted by the institute to enhance green cover two activities highlighted below:

- 1. **Corporate Garden:** The HR of the corporate plans a sapling of tick tree on the area marked for HR garden whenever he/she visits the campus. The care of this sapling is taken by the institute. The grown tree is tagged with the name of concerned corporate. The gradual growth of the tree is communicated to the HR of the concerned corporate. Till date 358 such trees are part of the corporate garden.
- 2. **Birthday Garden**: The office bearers, faculty and students voluntarily donate and plant tree on their birthday. Separate spaces are earmarked for Birthday Garden. Care of such trees is taken by the institute and the grown tree is tagged with the name of concerned person. Till date 1348 trees are part of Birthday Garden.

The total trees planted and grown through different activities are registered in the registry of village gram panchayat. As per that record the campus has around 7500 well-grown trees on the campus. These practices have inculcated the culture of responsibility and accountability towards the development of ecosystems among the students, staff and faculty.

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



### **5. CONCLUSION**

### Additional Information :

STES's Sinhgad Institute of Technology has an ideal atmosphere for effective teaching learning with lush green surroundings and panoramic views. It is a fully residential campus, situated on a delightful hillrocks of Sahyadri ranges. Institute is duly accredited by NBA, approved by AICTE and affiliated to Savitribai Phule Pune University. Institute has enviable state-of-the-art infrastructure and all the facilities and resources, to label it an ideal place for quality learning.

The International level Sports facility available in the campus provides remarkable platform for students wishing to develop their technical and tactical skills which will improve overall performance and success in their chosen sport. The institute environment is constructed and equipped to support various curriculum and non-curriculum activities. The institution is proud of its staff, students, and alumni who have demonstrated their mettle at the frontiers of knowledge and creativity via research and community service across a wide range of academic and professional activities.

Project-based learning, value-added programmes, experimental and industry-oriented project work, and other initiatives are prioritised by the institute. Effective internal assessment requirements, Midterm submissions, installation of a biometric attendance system for teaching and nonteaching staff, and updating of courses in accordance with the university curriculum are all vital parts of the institute's functioning. Students training Program (STP) is well defined and designed to groom the students right from first to final year student to develop overall technical and Nontechnical skill sets.

Institute ensures effective implementation of academic calendars and adheres to proper planning of all curricular and non-curricular activities. Feedback from the all stakeholders ensure appropriate action towards addressing any gap in student progression.

A Corporate Training Centre with 3-star facilities, is used to conduct various corporate training and industry institute interaction related activities. The institute also maintains and updates IT Infrastructure to ensure seamless connectivity and proper technical support in teaching learning process.

The T&P cell guides and counsels the students for placement activities through various initiatives such as online assessment tests, Students Training Programs (STPs).

Institute provide excellent platform to cater the needs of all students to meet the professional and societal expectations.

### **Concluding Remarks :**

The Sinhgad Technical Education Society's , Sinhgad Institute of Technology is a premium engineering institute imparting quality education affiliated to Savitribai Phule Pune University. Through the dedicated and committed efforts of faculty members, it is leading to well known "Sinhgad Pattern" in engineering education. The institute works for the holistic development of students and faculty. Accordingly, it has been developing and maintaining sustainable systems and processes. The prominent feature of the institute is its vision of sports. Institute expects, academics and sports should go hand-in-hand. The governments both central and state are

promoting sports culture. Inline with these guidelines, the Institute has developed International standard indoor & outdoor sports facilities on its campus. The specialized L3 coaches , sports teachers are made available for students and staff.

Being a 100% residential campus, students are getting sufficient time to acquire other skills. The centre of excellence in foreign languages is established to cater to the needs of students to become globally competent. Many such activities are conducted towards the holistic development of students.

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