# SELF STUDY REPORT

## FOR

## 2nd CYCLE OF ACCREDITATION

## SINHGAD ACADEMY OF ENGINEERING

SR.NO.40/4A, NEAR PMC OCTROI POST, KONDHWA-SASWAD BYPASS ROAD,
KONDHWA (BK)
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http://saoe.sinhgad.edu

Submitted To

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

**July 2022**

# 1. EXECUTIVE SUMMARY

## 1.1 INTRODUCTION

Sinhgad Academy of Engineering is one of the renowned Technical Institution of Sinhgad Technical Education Society(STES) for imparting the quality education and committed to produce proficient engineers.

Sinhgad Technical Education Society (STES) was established in the year 1993 under the dynamic leadership of Prof. M. N. Navale. The sole objective of the STES is to cater all sections of society on need-based quality education in the field of Engineering, Medical, Dental, Pharmacy, Management, Computer Applications, Architecture, Commerce, Law, Science and School education.

Sinhgad Academy of Engineering (SAE)was established in the year 2005. The Institute is recognized by All India Council for Technical Education (AICTE) New Delhi and Directorate of Technical Education (DTE) Government of Maharashtra. A premier-league self-financed, Private and coeducation Institution among the affiliates of Savitribai Phule Pune University (SPPU), is located at Kondhwa, Pune. In the current academic year 2020-2021, the college had 2497 students pursuing undergraduate and postgraduate programmes. The Institute offers five undergraduate programs, one postgraduate and one PhD Program. Undergraduate courses include Mechanical Engineering, Electronics & Telecommunication Engineering, Computer Engineering, Information Technology, and Civil Engineering. Post-graduate course include Electronics & Telecommunication Engineering (VLSI & Embedded Systems) and PhD in Electronics and Telecommunication.

The Institute's philosophy is to develop a research culture in its departments and support innovative ideas from its faculty members and students. Its extensive student training program helps students develop their employability and enhance their skills. The Institution prepares students into self-reliant, independent thinking, globally relevant, skilled and socially useful citizens of the nation embedded with values to contribute in their own mite to the society by bridging the gap between academia and industry. Student involvement is seen in the key functioning at the college in extension activities, community services and progress of academic environment.

The Institute's participation in the National Assessment of Accreditation Council (NAAC) and National Institutional Ranking Framework (NIRF) is a step towards attaining excellence. It will also help in developing the Institute's academic and managerial capabilities.

**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**

- Management is dynamic, supportive and participative.
- A lush green campus spread across 10 acres away from the city, with a tranquil and pleasant environment and a non-polluting atmosphere.
- Safe and secure campus with round the clock security and vigilance.
- Staff quarters and student hostel facility linked with Urban health care centre
- College Canteen and Mess with hygienic food at reasonable price
- Spacious playground and sports facilities for indoor and outdoor games.
- Well established environmental betterment infrastructure.
- Practice of Green energy policy
- Recycling of solid and liquid waste disposal.
- Well equipped Auditorium and Seminar Hall.
- Excellent Teaching Learning Process.
- Qualified, Experienced, skilled and dedicated Faculty.
- ICT enabled Classrooms and well-equipped laboratories for qualitative teaching.
- Active Entrepreneurship Development Cell, Technology Business Incubation Cell and Industry Institute Interaction cell.
- Research centre with dedicated research lab.
- Planned Activities like FDP/STTP, workshop and guest lectures etc.
- Active training and placement cell to promote placements.
- Ecosystem for promoting innovation and research amongst students.
- Bridging the gap between the Industry and Institute through Internship Cell.
- Inculcation of Students social awareness and outreach activities through departmental student associations and NSS unit.
- Facilitating higher education for the students through Sinhgad Overseas Cell (SOC).

**Institutional Weakness**

- Faculty with PhD qualification.
- Tie up with R&D Labs and research centre with IITs and Top academic institutions.
- Sponsored Projects by Industry .
- Funded Projects
- Consultancy work

**Institutional Opportunity**

- Collaboration with Reputed Institutes.
- Fostering the research and development to support industry around Pune.
- Enhancing the entrepreneurship activity to join with Make in India and start up activity.

- Enhancing number of patents and commercialization.
- Development of Applied Lab in support with Industry

**Institutional Challenge**

- Not able to meet the competency-based education due to rigidity of curriculum
- Need of certification courses for academic flexibility.
- Intellectual property generation.
- Technology Commercialization.

# 1.3 CRITERIA WISE SUMMARY

**Curricular Aspects**

Being an affiliated Institute, the Institute implements the curriculum designed by Savitribai Phule Pune University. Our faculties have been contributing in the design of curriculum in the role of BOS member, Subject Chairman and Members. Significant numbers of our faculties have also contributed as subject chairman, paper setters & evaluators at the University level assessment. In last five years, 78.9 % of faculties have contributed in these activities.

For the effective delivery of the courses, an Institute academic calendar is prepared. Faculty prepares course material before the course delivery through effective pedagogy. IQAC monitors adherence to the academic calendar & effective delivery of the curriculum and takes corrective measures.

The Institute offers academic flexibility by implementing the choice based credit system as well as the electives offered in the curriculum. All the programs are now credit based. Electives are available in third & fourth year. The University has initiated Honors courses wef 2020-21. In addition, the Institute has offered, a total 15 value added courses during last five years, having more than 30 contact hours encompassing soft skills, technical foundations, research & specific technologies. The average percentage of students enrolled for value added courses in last five years is 89.25 %.

The Institute has strived for Curriculum Enrichment for holistic development of students. The Institute has been providing courses for sensitizing students to cross-cutting issues such as gender, environment, human values and professional ethics apart from the courses offered in the University curriculum.

The curriculum is balanced for both theoretical and experiential learning aspects. In the project work, 100% students are involved and also majority of students undergo through Project based learning, field work and internships.

The feedback about curriculum is collected from all stakeholders viz. students, faculties, alumni & employers, in terms of its relevance in catering to their needs. These feedbacks are analyzed for taking corrective actions at the institute level for additional inputs, as well as communicated to University for future syllabus revisions.

**Teaching-learning and Evaluation**

The Institute admission process is based on the 'No Capitation' policy since it strictly follows to the rules and regulations established by the government and SPPU. Student admission at the Institute is centralized and directed by the DTE, Mumbai. The Institute follows the DTE criteria for reservations to the backward classes, J & K and management quotas.

Academic calendar is meticulously planned and prepared in advance. Head of the Institute ensures the proper implementation of the same and is communicated to the students and parents in advance. Faculties are committed to providing the best possible education. They are highly qualified and have a variety of teaching experiences. They are also able to plan and complete their courses in line with academic calendar.

Teaching learning at the Institute is a blend of traditional and modern teaching methods. Institute provides all the support and resources needed for implementing ICT and non-ICT pedagogical methods. Faculties use ICT tools like Microsoft Teams, ZOOM, Google Classrooms, VLAB etc. for teaching. Institute assesses student performance by multiple factors such as unit test, tutorial and mentoring.

Students are encouraged to participate in technical fairs and festivals and to do internships to increase their employability. Real time, interdisciplinary and sponsored projects are encouraged. Institute organizes expert lectures, seminars and workshops to enhance the learning. Institute organizes industrial visits for all the departments. Value added courses to bridge the gap in curriculum are prominently adopted by the Institute. Association with various organizations augments teaching learning .The institute has made special provision for exhaustive soft skills training and exclusive counseling to help slow and advanced learners plan their career and placements.

The evaluation system of the Institute is robust and transparent to ensure that its students are getting the most out of their studies. It also uses a combination of tests, assignments and project presentations to evaluate their performance. Institute has tried to streamline the various programs towards 'Outcome based education'. Course outcomes, POs, PSOs are conveyed to the students. The attainment level of the students is assessed through direct method (internal examination and assessment) and indirect method (exit survey).


**Research, Innovations and Extension**

The Institute has conducive policy towards encouraging research culture among staff and students. The staff members have harnessed this opportunity which has resulted in substantial increase in number of PhDs and pursuant. The students are encouraged to do research based final year project. The grants for research are received from SPPU and ISRO and other sources consistently. The Institute has provided research & development facilities for staff doing research in mechanical engineering and electronic & telecommunication engineering. There is also substantial increase in research paper publication in recognized national and international journal and conferences. The seminars/workshops are conducted to generate awareness of Intellectual property rights and its benefits.

The students are encouraged to participate in the National and International extra-curricular events like BAHA, SUPRA, HACKATHON, Robotics and other. The Institute has created an ecosystem for students to exploit the scope for innovation, creation and transfer of knowledge. The facilities and funds are provided to various participating teams. The teams of SAE motors club and Cypher cell has won awards in national events consistently over the years.

NSS was established with objective of sensitizing the students about various social issues and its contribution

towards the community. NSS Team has been functioning with an optimism of establishing a sense of social responsibility amongst the students and inculcating values of self-discipline and selfless dedication towards community development by organizing and promoting various activities. The college organizes and promotes various activities such as Swachh Bharat initiatives, blood donation camps, workshops, rallies and road show with themes like cleanliness, green environment, traffic rule awareness, empowerment of girls, awareness of oral health and free health camps for the rural population. These social activities are carried round the year for the holistic and sustained development of neighborhood community

The Industry - Institute Interaction Cell expends continual effort to build cooperative and collaborative functional relationship between Institute and industries through MOU. This benefits the student's community of all branches of engineering in the form of internship programs in reputed organizations. The exposure to recent Industrial trends & practices are reaped through industrial visits and expert's lectures.

**Infrastructure and Learning Resources**

The Institute has the necessary state of art infrastructure, learning resources and facilities as per the AICTE norms to meet various requirements of teaching-learning process and to meet the objective of excellent education. These resources are used for conducting curricular, co-curricular and extracurricular activities. Spacious, well-ventilated classrooms equipped with modern ICT tools, tutorial rooms and well-equipped laboratories with the state of art facility for students to perform their practical and projects is provided. A modern, air-conditioned seminar hall with audio visual equipment and power backup for conducting workshops, conferences, seminars, and various college functions is available. Conference room for conducting group discussions and workshops is provided. Institute has a well-furnished central library with reading room, digital library and with many textbooks, reference books, journals and e journals. All the departments are well equipped with computers, peripherals, Internet service, LAN and browsing facility to access worldwide information and to enhance their academic excellence. The college has Wi-Fi connectivity and high speed (10/100Mbps) broad band Internet facility. Well-furnished separate hostels for boys and girls are provided.

The Institute has other amenities and facilities like well-maintained lawn, playground for outdoor games, gymnasium for indoor games, canteens, mess, bank, ATM, and general stores. Uninterrupted electricity supply is ensured in the campus with the help of 320 KVA generator. The Institute has provided safe drinking water facility through installation of aqua guards at various places in the campus and in the hostels.

The Institute has effective mechanism for all kind of maintenance and upkeep of the infrastructure, campus facilities and equipment. The Institute's housekeeping staff looks after day-to-day cleanliness, hygiene, and maintenance of the premises. Security staff maintains security and safety in the campus. Electrician for repair and maintenance of electrical works is available at the Institute. Laboratory equipment, electronic maintenance, computers, and other gadgets are repaired and maintained internally as well as by placing annual contract to relevant agencies when required. The Campus Supervisor looks after the repair and maintenance of civil works of the institute.

**Student Support and Progression**

Sinhgad Academy of Engineering shows utmost concern for the overall student development and progression

as they are major stakeholders. The Institution extends support to make students' stay in the campus fruitful, to enrich their learning experience in campus and to pave the pathway to achieve their goals and motivations.

During their Induction program, students are given two weeks of training to prepare them for their stay of four years in the Institute. This program includes various modules such as awareness on University regulations, campus rules and regulations, best practices. Students are made aware of Anti- Ragging, Grievance Redressal, Internal Complaint Committee and other related cells present in the Institution.

Many support services are extended to the students. These services include guidance on Government scholarships, soft skills, life skills, yoga and ICT programs such as guest lectures, workshops and value added programs on recent trends. The Institute conducts the Student Training Program (STP) to enhance the quality of the students by empowering them with skills those are required globally at par.

There are student representatives in various committees like the Internal Quality Assurance Cell, Anti-Ragging Committee, and Internal Complaints Committee which contribute in fulfilling administrative responsibilities. They are additionally given the opportunity to become members of departmental students' associations such as CESA, ACES, ITSA, ETSA, MESA and FESA.

The Training and Placement cell coordinates and conducts various orientation programs, career guidance, training programs and placements. For overseas education SOC cell offers training for getting admission into higher education programs.

The Institution conducts various extracurricular and co-curricular activities as part of various national day celebrations and techno cultural fests. The students take leading role not only in participation but also in organizing these events. The student associations of the Institute also play a significant role in the multiple activities that are conducted within the department.

The alumni play a vital role in motivating students and providing them with the necessary knowledge to succeed in their future careers. Alumni conduct various guest lectures, workshops and VAPs. Many entrepreneurs have signed MOUs with the Institute, facilitating internships and sponsorship of the final year projects.

**Governance, Leadership and Management**

The vision and mission statement of the institute were framed by considering needs of overall society of urban and rural panorama, socio-economic, needs of industry to adequate technical knowledge and skills. The top management including Board of Trustees, Governing Council (GC), College Development Committee (CDC), Academic Advisory Board (AAB), Principal, Vice-Principal, Heads of Department, all faculties focus on institutional goals.

Principal and Vice-Principal provides an effective leadership and administration for effective planning and smoothly implementation of academics, curricular and extra co-curricular activities with decentralized administration.Institutional strategic/ perspective plan for next coming ten years is prepared by Institute Quality Assurance Cell (IQAC) by taking suggestions from the stake holders through their feedback and Institution level policies, this perspective plan is presented in AAB,CDC and GC. After detailed deliberations, it has been approved from higher authorities of society trustees.IQAC ensures that for effective implantation of the strategic/ perspective plan by smooth functioning of conduction of academic activities in each academic year.

Institute procures the various softwares for the implementation of e-Governance in areas of operations of administration, finance and accounts, student's admission and support and examination.

The institution has provides the effective measures for the benefits of teaching and non-teaching staff for up gradation of the recent technological changes and skill on regular basis through the industrial trainings, refresher courses, programmes, seminars, workshops, etc.

Institute provides the medical facility through society's Medical College, Provident Fund, Gratuity scheme, tuition fees,EMI for wards of the staff and residential facility. The institute promotes faculties for higher studies, long term courses and short term courses by providing financial aids for refreshers courses, conferences, workshops and seminars, etc.

The institute designs a cadre wise systematic performance appraisal system for Principal, Head of Department, Faculties and non-teaching staff.

The institute do the internal audit by deputing experienced auditors as a regular employee of society. The internal audit is done twice in a year and it resolves the discrepancies occurs in accounts and hires a Chartered Accountants for final statutory audit once in a year.

## Institutional Values and Best Practices

For nurturing the conducive atmosphere to fulfill vision and mission statements, the Institute works on various programs, activities and drives.

The working day in the Institute starts with National Anthem. The Institute promotes socio-economic empowerment of women to develop them to their full potential. Institute facilitates medical services in the form of health care centre established in the vicinity of the Institute.

The environmental consciousness is nurtured in the students' and staffs' mind by arranging various programs by NSS and student associations such as tree plantation drive, Nirmal Wari Abhiyan, tree sapling distribution; traffic rule awareness, street play, orphanage visits etc. For promoting environmental consciousness the Institute has fixed green policy, plastic ban policy in the entire campus. The Institute undergoes Environmental, Green and Energy Audits yearly. Institute has well established waste disposal and recycling systems in the form of standard operating procedures or in the form of functional treatment plants. Green energy policy is adopted by practicing energy saving measures like using LED bulbs, sensor based operating bulbs, using solar geyser and using photo voltaic cells for generating electricity.

The Institute has formed various cells and committees such as Student development cell, Student Associations, robotics club, sports club for 360 degree growth of the students. Under these cells various events such as Teacher's day, Engineer's day, various competitions, guest lectures, sports events etc. are organized. The Institute has adopted many best practices for students' progress in terms of technical and professional skills, Mental and physical health, life skills through Internship Cell, Students' social nurturing and outreach activities, Training and placement Cell, Student Training Program, Teacher Guardian Mentorship etc.

For inculcating the disciplined work culture, precise sense of duties and responsibilities and exercising administrative practices the code of conduct is drafted and put in practice by all. Thus all these practices mentioned under criterion VII which are been implemented in the Institute are to inculcate and nurture the

value based functioning of the Institute on all its facet so as to meet with the fulfillment of the vision statement.

# 2. PROFILE

## 2.1 BASIC INFORMATION

| Name and Address of the College | |
| --- | --- |
| Name | SINHGAD ACADEMY OF ENGINEERING |
| Address | Sr.No.40/4A, Near PMC Octroi Post, Kondhwa-Saswad Bypass Road, Kondhwa (Bk) |
| City | Pune |
| State | Maharashtra |
| Pin | 411048 |
| Website | http://saoe.sinhgad.edu |

| Contacts for Communication | | | | | |
| --- | --- | --- | --- | --- | --- |
| **Designation** | **Name** | **Telephone with STD Code** | **Mobile** | **Fax** | **Email** |
| Principal | Kishor P. Patil | 020-67571115 | 9545754563 | 020-6757111 6 | saeprincipal@sinh gad.edu |
| IQAC / CIQA coordinator | D. W. Gawatre | 020-67571118 | 9075969911 | 020-6757111 6 | dwgawatre.sae@si nhgad.edu |

| Status of the Institution | |
| --- | --- |
| Institution Status | Private and Self Financing |

| Type of Institution | |
| --- | --- |
| By Gender | Co-education |
| By Shift | Regular |

| Recognized Minority institution | |
| --- | --- |
| If it is a recognized minroity institution | No |

| Establishment Details | |
| --- | --- |
| Date of establishment of the college | 23-11-2005 |

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

| State | University name | Document |
|---|---|---|
| Maharashtra | Savitribai Phule Pune University | [View Document](#) |

**Details of UGC recognition**

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

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

| Statutory Regulatory Authority | Recognition/Approval details Institution/Department programme | Day,Month and year(dd-mm-yyyy) | Validity in months | Remarks |
|---|---|---|---|---|
| AICTE | [View Document](#) | 02-07-2021 | 12 | As per the Extension of Approval for the Academic Year |

**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 | Sr.No.40/4A, Near PMC Octroi Post, Kondhwa-Saswad Bypass Road, Kondhwa (Bk) | Urban | 10 | 10801.01 |

## 2.2 ACADEMIC INFORMATION

| Details of Programmes Offered by the College (Give Data for Current Academic year) | | | | | | |
|---|---|---|---|---|---|---|
| Programme Level | Name of Programme/Course | Duration in Months | Entry Qualification | Medium of Instruction | Sanctioned Strength | No.of Students Admitted |
| UG | BE,Civil Engineering | 48 | HSC or Diploma | English | 120 | 114 |
| UG | BE,Computer Engineering | 48 | HSC or Diploma | English | 180 | 180 |
| UG | BE,Information Technology | 48 | HSC or Diploma | English | 60 | 60 |
| UG | BE,Electronics And Telecommunication Engineering | 48 | HSC or Diploma | English | 90 | 90 |
| UG | BE,Mechanical Engineering | 48 | HSC or Diploma | English | 150 | 17 |
| PG | ME,Electronics And Telecommunication Engineering | 24 | BE or BTECH | English | 18 | 0 |
| Doctoral (Ph.D) | PhD or DPhil,Electronics And Telecommunication Engineering | 36 | ME or MTECH | English | 1 | 1 |

## Position Details of Faculty & Staff in the College

| | Teaching Faculty | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Professor** | | | | **Associate Professor** | | | | **Assistant Professor** | | | |
| | Male | Female | Others | Total | Male | Female | Others | Total | Male | Female | Others | Total |
| Sanctioned by the UGC /University State Government | | | | 16 | | | | 29 | | | | 99 |
| Recruited | 1 | 3 | 0 | 4 | 1 | 0 | 0 | 1 | 43 | 28 | 0 | 71 |
| Yet to Recruit | | | | 12 | | | | 28 | | | | 28 |
| Sanctioned by the Management/Society or Other Authorized Bodies | | | | 0 | | | | 4 | | | | 54 |
| Recruited | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 17 | 37 | 0 | 54 |
| Yet to Recruit | | | | 0 | | | | 0 | | | | 0 |

| | Non-Teaching Staff | | | |
|---|---|---|---|---|
| | **Male** | **Female** | **Others** | **Total** |
| Sanctioned by the UGC /University State Government | | | | 0 |
| Recruited | 0 | 0 | 0 | 0 |
| Yet to Recruit | | | | 0 |
| Sanctioned by the Management/Society or Other Authorized Bodies | | | | 64 |
| Recruited | 47 | 17 | 0 | 64 |
| Yet to Recruit | | | | 0 |

| Technical Staff | | | | |
|---|---|---|---|---|
| | **Male** | **Female** | **Others** | **Total** |
| Sanctioned by the UGC /University State Government | | | | 0 |
| Recruited | 0 | 0 | 0 | 0 |
| Yet to Recruit | | | | 0 |
| Sanctioned by the Management/Society or Other Authorized Bodies | | | | 27 |
| Recruited | 23 | 4 | 0 | 27 |
| Yet to Recruit | | | | 0 |

**Qualification Details of the Teaching Staff**

| Permanent Teachers | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Highest Qualification** | **Professor** | | | **Associate Professor** | | | **Assistant Professor** | | | |
| | Male | Female | Others | Male | Female | Others | Male | Female | Others | Total |
| D.sc/D.Litt/ LLD/DM/M CH | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ph.D. | 1 | 3 | 0 | 1 | 0 | 0 | 8 | 1 | 0 | 14 |
| M.Phil. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PG | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 27 | 0 | 62 |
| UG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Temporary Teachers | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Highest Qualificatio n** | **Professor** | | | **Associate 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. | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 4 |
| M.Phil. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PG | 0 | 0 | 0 | 1 | 0 | 0 | 17 | 36 | 0 | 54 |
| UG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Part Time Teachers | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Highest Qualificatio n** | **Professor** | | | **Associate 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. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| M.Phil. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Details of Visting/Guest Faculties | | | | |
|---|---|---|---|---|
| **Number of Visiting/Guest Faculty engaged with the college?** | **Male** | **Female** | **Others** | **Total** |
| | 1 | 0 | 0 | 1 |

**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 | 1647 | 55 | 0 | 0 | 1702 |
| | Female | 572 | 8 | 0 | 0 | 580 |
| | Others | 0 | 0 | 0 | 0 | 0 |
| PG | Male | 0 | 0 | 0 | 0 | 0 |
| | Female | 0 | 0 | 0 | 0 | 0 |
| | Others | 0 | 0 | 0 | 0 | 0 |
| Doctoral (Ph.D) | Male | 1 | 0 | 0 | 0 | 1 |
| | Female | 5 | 0 | 0 | 0 | 5 |
| | Others | 0 | 0 | 0 | 0 | 0 |

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

| Category | | Year 1 | Year 2 | Year 3 | Year 4 |
|---|---|---|---|---|---|
| SC | Male | 23 | 19 | 13 | 61 |
| | Female | 8 | 7 | 4 | 16 |
| | Others | 0 | 0 | 0 | 0 |
| ST | Male | 0 | 1 | 0 | 6 |
| | Female | 0 | 0 | 0 | 1 |
| | Others | 0 | 0 | 0 | 0 |
| OBC | Male | 55 | 44 | 61 | 126 |
| | Female | 19 | 16 | 12 | 34 |
| | Others | 0 | 0 | 0 | 0 |
| General | Male | 131 | 109 | 98 | 332 |
| | Female | 56 | 41 | 34 | 99 |
| | Others | 0 | 0 | 0 | 0 |
| Others | Male | 30 | 30 | 26 | 65 |
| | Female | 4 | 9 | 6 | 13 |
| | Others | 0 | 0 | 0 | 0 |
| Total | | 326 | 276 | 254 | 753 |

## Institutional preparedness for NEP

| 1. Multidisciplinary/interdisciplinary: | Sinhgad Academy of Engineering is an affiliated college to Savitribai Phule Pune University(SPPU) which Isa state university, it has to follow a road map or guidelines prepared and provided by the State Government. Being an affiliated Institute, our course structure and the content for pedagogical transaction is designed by the parent university as per the UGC guidelines. The vision of National Education Policy is to provide quality education on global standards with diversity for all curriculum and pedagogy with technological innovations in teaching-learning process. There are two entries for undergraduate programs after HSC pass and after Diploma pass. Regardless of conventional engineering, All India |
|---|---|

|  | Council for Technical Education (AICTE) has decided to allow the learners to acquire Honours/Minors with respect to certain exotic and state-of-the-art Engineering domains. With this facility students can acquire Honours/Minors by earning certain number of credits. SPPU has taken this opportunity and decided to allow the learners in the affiliated colleges to avail these facilities which will be a separate degree with a certificate. The institution currently relies on the affiliated university to provide an innovative and flexible curriculum. NEP 2020 has been given priority by SPPU, which also provides community participation services including the National Service Scheme (NSS). Institution promotes Interdisciplinary projects and research for PG and PhD students. while we will get more clarity in coming months on how the multidisciplinary and interdisciplinary approach to education being proposed in the policy shape up, we welcome the change and ready to implement in our college. |
|---|---|
| 2. Academic bank of credits (ABC): | The Institution has not registered with ABC which is on the lines of National Academic Depository (NAD).The University is the only one who can register for multiple entry and exits. Efforts are being made to create a seamless research partnership with institutions of higher learning. Provisions for an Academic Bank of Credit were proposed in the original NEP to allow students to enter and exit their academic programmes at numerous points. This is a novel way to earn and save money using national programmes like SWAYAM, NPTEL, and V-Lab. In this provision, it will also be taken into account for credit transfer and accumulation. By these students will able to earn credits and get the program completed. The Institution shall abide by the curriculum and structure prepared by the affiliating University in this regard. |
| 3. Skill development: | Universities and other higher education institutions are designing their curriculum in line with the increased demand for skilled workforce in both the public and commercial sectors. Educationists have been adding a lot of skill-oriented courses to the curriculum in recent years. In order to implement the Make in India plan, it is imperative to produce a young generation with degrees in their chosen fields and additional skill training that would enable them |

| | |
|---|---|
| | to launch their own businesses after graduating from college. In this way, a college graduate will shift from being a job seeker to being a job provider. Our institution adopted the same mission and in spirit followed the parent university's programme. In addition to the standard skill curriculum from the parent university, our college signed MOUs with various Industries across all branches in a variety of work culture-related areas. Our Institution has an ED cell ,III cell ,Baja Supra, Robotics, Cypher Cell that has been used to develop student potential by providing guest lectures and organizing workshops. As was previously mentioned, SAE is an affiliated college and does not develop or carry out its own programme. It must adhere to the planned curriculum offered by the SPPU. |
| 4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course): | Indian Knowledge system will include knowledge from ancient India to modern India and clear sense of India's future aspiration with regard to education, health and environment. Teaching of Indian Knowledge System into the curriculum has been initiated by the affiliating University but not by the Institution as Medium of instruction is English in teaching. Indian arts and culture are being encouraged by conducting different festivals and organizing traditional days. To link Indian art- and culture into teaching learning process which will be strengthened. The linkages between education and culture will be carried out through various online platforms such as SWAYAM, DIKSHA and will be extended to provide teachers & students with a structured, user-friendly, rich set of assistive tools for monitoring progress of learner. |
| 5. Focus on Outcome based education (OBE): | The affiliating university has designed a good strategy for converting its curriculum to OBE, and the institution is fully implementing it. By having clearly defined Program Educational Objectives, Program Specific Outcomes, and Course Outcomes for the programmes and courses, the institution has built some excellent practices regarding OBE. Additionally, the OBE model is used to evaluate every student. The objectives set out in the NEP on OBE are. Competency, standard, benchmarks, and attainment of targets. In addition to this, the OBE incorporates three elements, Theory of education, A systematic structure of education, and a specific approach to instructional practice. SAE is prepared to |

| | fulfil the objectives and achieve the target as per the structural curriculum provided by the affiliating university SPPU. |
|---|---|
| 6. Distance education/online education: | Distance education has not been initiated for the engineering courses offered by the affiliating university and as such the Institute has no such provision. The college has all the necessary infrastructure and necessary tools to offer online education and this was extremely useful during the Covid-19 pandemic. The Institute was highly successful in offering online classes through a myriad of online platforms such as Zoom, Google meet, Microsoft teams. |

# 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 |
|---------|---------|---------|---------|---------|
| 291 | 277 | 323 | 362 | 355 |
| File Description | | | Document | |
| Institutional data prescribed format | | | [View Document](#) | |

### 1.2

**Number of programs offered year-wise for last five years**

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---------|---------|---------|---------|---------|
| 7 | 7 | 10 | 12 | 12 |

## 2 Students

### 2.1

**Number of students year-wise during last five years**

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---------|---------|---------|---------|---------|
| 2497 | 2438 | 2698 | 3392 | 3600 |
| File Description | | | Document | |
| Institutional data in prescribed format | | | [View Document](#) | |

### 2.2

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

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---------|---------|---------|---------|---------|
| 330 | 330 | 390 | 390 | 390 |

| File Description | Document |
|---|---|
| Institutional data in prescribed format | View Document |

**2.3**

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

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---|---|---|---|---|
| 867 | 828 | 864 | 853 | 1002 |

| File Description | Document |
|---|---|
| Institutional data in prescribed format | View Document |

# 3 Teachers

**3.1**

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

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---|---|---|---|---|
| 134 | 143 | 159 | 188 | 179 |

| File Description | Document |
|---|---|
| Institutional data in prescribed format | View Document |

**3.2**

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

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---|---|---|---|---|
| 144 | 134 | 138 | 168 | 166 |

| File Description | Document |
|---|---|
| Institutional data in prescribed format | View Document |

# 4 Institution

**4.1**

**Total number of classrooms and seminar halls**

**Response: 35**

**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 |
|---------|---------|---------|---------|---------|
| 243.97  | 402.86  | 366.29  | 599.17  | 1269.48 |

**4.3**

**Number of Computers**

**Response: 571**

# 4. Quality Indicator Framework(QIF)

## Criterion 1 - Curricular Aspects

### 1.1 Curricular Planning and Implementation

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

**Response:**

The Institution ensures effective curriculum delivery through a well-planned and documented process.

**The planning stage** begins with an academic calendar. The University provides academic calendar at the start of every academic year detailing the commencement and conclusion of semesters, schedule of various examinations.Based on this, Institute academic calendar is prepared in meetings of the principal with HODs**.** The academic calendar mentions Commencement & conclusion of teaching, schedule for various internal examinations.All departments prepare their class and individual faculties time tables, this ensures effective resource utilization. The time tables are circulated to students & faculties.The courses are distributed among faculties before the start of a semester taking into consideration their choices and experience while allocating courses. This ensures that a course is delivered by competent faculty.Then the Faculties prepare course file which includes syllabus , CO-PO mapping, teaching plan , notes, PPT, question bank, Lab manual etc, before commencement of semester & is verified by the HOD.

Faculties attend Faculty orientation / development programs, which are organized by SPPU for new subjects introduced during syllabus revision. In addition, the Sinhgad group organizes Train the trainers (TTT) programs for sharing of expertise among faculty who are teaching same course in different Sinhgad Institutes.

Faculties are also involved at various bodies of the University such as subject chairman, paper setter and evaluator. These roles give additional insights which can help them to improve their curriculum delivery.

After this planning & preparation, the next stage is **curriculum delivery**.

For the effective delivery, the teaching plan is a very important tool. This teaching plan is prepared in prescribed format that includes planned dates, topic to be delivered, actual date of delivery & topic delivered. The teaching plan is regularly updated by course teachers. The sessions are conducted as per timetable. In case of non availability of a faculty, alternate faculty conducts that session. The performance of students in practical sessions is recorded in prescribed continuous assessment sheet.

**During the delivery**, monitoring is done using teaching plan records, Teacher guardian (TG) meetings & students' feedback.HODs monitor the implementation of the academics through regular follow-up of the teaching plans. This is also discussed in meetings of Principal with HODs periodically.Feedback is taken from students about faculties related to quality of curriculum delivery. Faculty whose feedback is less in some parameters is counseled by HOD. TG meetings can get informal feedback about individual student issues & collective concerns. These can also help to improve delivery.

The Institute runs a unique student training program (STP) for enriching the curriculum prescribed by

SPPU. It contains soft skills, technical & research foundation, current technologies adopted in industry.

**After the delivery** throughout a semester, a cognizance is taken to improve delivery in subsequent years. 1) Feedback about curriculum is taken from stakeholder's viz. students, faculties, alumni & employers. 2) Result analysis and CO attainments are analyzed and corrective measures in curriculum planning & delivery are suggested and implemented in subsequent academic years.

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

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

**Response:**

The affiliating University provides academic calendar at the start of every academic year detailing the commencement and conclusion of semester, schedule of various examinations like theory, online, practical & oral examinations. Then the Principal and Vice Principal of the college, conduct meetings with all heads of departments to develop strategies for effective implementation of the curriculum and accordingly academic calendar of institute is prepared. It mentions commencement and conclusion of teaching, schedule for various internal examinations ( unit tests , prelim exam, practical, oral & project reviews ) and the dates of declaration of results.

Based on Institute's academic calendar, all the departments prepare departmental academic calendar. This departmental academic calendar is circulated to all departmental faculty & students.The departmental academic calendar is used by faculty to prepare Teaching plan, which helps the faculty to complete the requisite syllabus before the internal tests & final exams.

Departments have standard procedure of monitoring activities that ensures adherence to the academic calendar including for the conduct of CIE.

1) Faculty meetings with the HODs are held on a regular basis in the departments to monitor the adherence to academic calendar .The HOD regularly monitors the execution of curriculum delivery through the records of teaching plans.

2) If there is any deviation in curriculum delivery as per calendar due to some unforeseen reasons, the concern faculty rectifies the deviation by conducting extra sessions.

3) The continuous assessment of Practical / Term work is done by the faculty on regular basis. In continuous assessment sheet, the marks are assigned to each practical, based on attendance, understanding of students and quality of journal. The cumulative mark scored by students at the end of semester serves as a criterion for assigning term work marks at university examination. These practices oblige students to complete the term work as per the calendar.

4) The adherence to calendar is not effective if students are not regular in attending the curriculum delivery & internal exams. So Attendance of students is observed on daily basis. Those students who are having attendance less than 75% in a month, such students are counseled & parents are informed through the system of teacher guardian.

5) As per the academic calendar, unit tests & prelim exams are conducted and the report of the same along with the attendance is communicated to students. Reports are also analyzed.

6) Students' feedback is taken in a semester regarding quality of teaching by faculty, and the report is communicated to the faculty through HOD for continual improvement.

7) Apart from this, the remedial classes for the backlog students are conducted along with slow learners for which a separate calendar is prepared by concerned faculty.

8) Advanced learners are encouraged to participate in various co curricular activities.

9) All students are informed & guided about various online courses such as IIT spoken tutorial , Infosys springboard etc. which they can attend after academic contact hours.

| File Description | Document |
|---|---|
| Upload Additional information | [View Document](#) |
| Link for Additional information | [View Document](#) |

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

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

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

| File Description | Document |
|---|---|
| Institutional data in prescribed format | [View Document](#) |
| Details of participation of teachers in various bodies/activities provided as a response to the metric | [View Document](#) |
| Any additional information | [View Document](#) |
| Link for Additional information | [View Document](#) |

## 1.2 Academic Flexibility

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

**Response:** 100

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

Response: 7

| 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:** 15

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 |
|---|---|---|---|---|
| 3 | 3 | 3 | 3 | 3 |

| 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:** 89.25

**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 |
|---------|---------|---------|---------|---------|
| 2228    | 2490    | 2601    | 2736    | 2801    |

| 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 vision statement of the Sinhgad Institutes is :

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

Thus the Institute strives for all attempts to develop overall growth of the students , so that they can have not only promising careers but fulfilling personal life and contribute positively to the society as a responsible citizen.The affiliating University has already blended various cross cutting issues into the curriculum for the  holistic development of the students.The University has added cross cutting issues both in **credit courses & in audit courses**.

For example : Some of the **credit** courses are: Humanities & social sciences, Basic civil & environmental engineering, Code of Conduct, Soft Skills  etc.

 Some of the **audit** courses are: environmental studies I & II , green construction & design ,social awareness & governance , professional ethics & etiquettes,  e-waste management & pollution control, road safety, the science of happiness, stress relief: Yoga & meditation, value education , environmental studies , water management , sustainable energy system etc.

In total , there  are eight Professional ethics courses, one Gender equality course, five Human Values courses, seven Environment and Sustainability courses in the curriculum prescribed by the University.

Many of the B.E. final year projects and T.E. seminar topics are undertaken by students from Environmental Engineering domain for making them environmental conscious.In addition to this , the Institute arranges both co-curricular & extracurricular  workshops, field visits ,seminars to give additional inputs to the students about cross cutting issues.

Our Institute in the realm of NSS conducts various activities to inculcate bond of patriotism, national integration and communal harmony among the students. The NSS team had conducted plethora of events : tree plantation camps, eye donation awareness , traffic awareness camps, health awareness , visit to orphanages , visit to Hospitals, sanitation awareness, street cleaning, competition on Mahatma Gandhi's life & teachings , safe driving , Indian constitution , Yoga day , tobacco de-addiction, flood relief drive, organ donation awareness, fort conservation awareness & Rashtriya ekta divas etc.

The 'Swachhata Hi Seva' a mission under "Swachh Bharat", a waste management and cleanliness drive was organized in September, 2018 to spread awareness about cleanliness, proper management of garbage. 'Blood Donation Camps' were organized in association with 'Sassoon General Hospital, Pune & SKN general hospital to raise awareness that individuals can save lives and improve the health of other. A seminar on 'Constitution of India and responsible citizens' was organized on 28th February, 2019. A competition was held on 'Gandhi-life and work, inspiring the students from Mahatma Gandhi's life of sacrifice & ideology.

The women empowerment club of the Institute had conducted events for women such as common fitness myths and diet, Menstrual hygiene, International Women's Day celebration, Girls Health Checkup & Self-Defense and safety awareness.Thus, the Institution has been successful to integrate crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum.

| 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:** 6.59

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 |
|---|---|---|---|---|
| 16 | 22 | 26 | 18 | 23 |

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

**1.3.3 Percentage of  students undertaking project  work/field work/ internships (Data for the latest completed academic year**

**Response:** 54.23

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

Response: 1354

| File Description | Document |
|---|---|
| List of programmes and number of students undertaking project work/field work/ /internships | [View Document](#) |
| Any additional information | [View Document](#) |

## 1.4 Feedback System

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

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

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

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

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

**2. Feedback collected, analysed and action has been taken**
**3. Feedback collected and analysed**
**4. Feedback collected**
**5. Feedback not collected**

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

| File Description | Document |
|---|---|
| Upload any additional information | [View Document](#) |
| URL for feedback report | [View Document](#) |

# Criterion 2 - Teaching-learning and Evaluation

## 2.1 Student Enrollment and Profile

**2.1.1 Average Enrolment percentage (Average of last five years)**

**Response:** 57.58

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

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---------|---------|---------|---------|---------|
| 324 | 278 | 254 | 754 | 743 |

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 | 680 | 870 | 877 | 884 |

| 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:** 51.5

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

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---------|---------|---------|---------|---------|
| 139 | 126 | 119 | 312 | 260 |

| File Description | Document |
|------------------|----------|
| Average percentage of seats filled against seats reserved | [View Document](#) |
| Any additional information | [View Document](#) |

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## 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 are tracked during their academic journey in the Institute and special efforts are made to enhance the performance of slow learners. Students with good academic background and skills are guided to higher levels of achievement and encouraged towards challenging goals.

To identify the students as advanced learners or slow learners, available data on merit marks is shared with the team of Teacher Guardian Faculty Members. The Teacher Guardian, in regular meetings with all faculties of respective classes, carry out discussions based on analysis of records available about student's learning levels, abilities, characteristics, skills, attitudes, examination results (internal and external), SWOT analysis and their current day-to-day interactions/experiences. Based on this evaluation, special activities are undertaken as per need.

This data analysis is referred by Teacher Guardians of all classes and passed on subsequently to the Mentors for next term till the students complete their graduation. For higher classes, individual departments carry out activities for advanced and slow learners.

**Identification of Advanced Learners:**

Advanced learners have been identified based on their Academic records, consistency and versatile performance in other co-curricular activities.

**Strategies for Advanced Learners**

- Students are encouraged to get the university ranks by special guidance.
- They are encouraged to complete NPTEL/Advanced courses.
- Encouraged to do projects under the clubs like Robotics, Baja, Supra etc.
- Motivation and guidance provided for higher studies.
- Students are enthused to get industry sponsored/research projects.
- Students are motivated to do in house projects and participate in Project competitions.
- Institute focus on grooming overall personality to get placements, Internships by organizing the personality development workshops and campus placements.
- The advanced learners are inspired to take part in activities like debate, quiz, essay writing, presenting a paper in the seminars and conference. Their ability to be creative is enhanced through their writing in wall magazine, college magazine, and numerous departmental programs.
- The students take active part in organising various extra and co-curricular, inter/intra departmental, inter/intra college events, which helps them in developing their organising and management skills.
- Faculty members enlist students to work on research projects.

All of these activities encourage new ways of thinking while teaching students how to plan, carry out, analyse, and publish research work.

**Identification of Slow Learners:**

Slow learners have been identified based on their poor academic records, lack of consistency and lack of cognizance.

**Strategies for Slow learners:**

- Special and remedial classes are organized to improve the performances, to clarify the doubts and to the re-explanation on the topic.
- Solved question papers are discussed in the remedial classes, extra lectures and slow learners are encouraged to solve the model papers.
- Personal Attention is given while teaching theory as well as practical.
- Re-test is taken for improvement.
- During counseling, special hints and study techniques are discussed.
- Assignments and solving university question papers.

The Institute has made special provision for exhaustive soft skills training and exclusive counseling to help slow and advanced learners to plan their career and placements. We communicate with parents continuously and intimate them a track record of their ward.

| File Description | Document |
|---|---|
| Upload any additional information | [View Document](#) |

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

**Response:** 19:1

| 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:**

Faculties have been gradually increasing the focus over the last few years to a student-centric learning process, in place of the conventional teaching-learning process by using ICT tools in classroom lectures. The focus is also on transfer of knowledge through active participation and involvement of students in teaching and learning process. The faculty provides a platform for students to explore independently, learn through self-study and through peers, and guiding them to develop effective professional skills.

The following teaching and learning methodologies are used to motivate students to learn, retain and apply

the knowledge through better understanding which helps students in developing a positive attitude towards subjects taught.

**1) Active learning:**

The faculty adopts active learning by involving students in the learning process more directly through the following activities:

- Brain storming, quizzes, debates, group discussions, role play, games, model making, mini projects, presentations, case studies, and simulations on technical content.
- Animated PPTs for some topics.
- Live learning experiences.
- Open-ended problems which require critical/creative and lateral thinking for promising students.
- Brief demonstrations.

**2) Collaborative Learning:**

This is implemented by forming student teams working jointly to solve a problem, complete a task/project, participating in seminars, debates or designing a product.

Students are encouraged to team up with the students of higher and lower classes to execute different tasks like celebration of Teachers day, Engineers day, Environmental day and other cultural and sports activities by organizing various events through different clubs like NSS, ETSA, MESA, CESA, ITSA, etc.

**3) Problem-based Learning:**

- In projects/competitions, participating students are assigned different tasks, assignments, portfolios, and activities in which students engage in challenging problems and collaboratively work toward their solutions by using inter-disciplinary knowledge, e.g. Design of Resonance racing vehicles (BAJA, SUPRA, Go-kart) Design and implementation of Software/Apps, Design and building of Robots/Drones, etc.
- A variety of assignments are given on a regular basis to test student's understanding of the subject. As a result of the periodic class tests and quizzes, the student's competitive spirit is maintained.

**4) Experiential learning:**

There is an emphasis on field-based experiential learning like internships, Industrial visits and service learning, as well as classroom-based experiential learning like role plays, games and case studies. Students are encouraged to participate for paper publishing conferences in and outside college in order to get exposed with realistic and industry challenges

**5) Project-based learning:**

After completion of some topics from the syllabus, students work on application of theory learned through projects/model building/simulation in the form of design and fabrication of some systems. It helps to bridge the gap between theoretical concepts and their practical applications.

| File Description | Document |
|---|---|
| Upload any additional information | [View Document](#) |

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

**Response:**

To a tech-savvy and agile age, the conventional chalk-and-talk technique of teaching and learning has become stale. Hence, it is a need of the hour to bring innovations to the teaching-learning process to make it more effective for the students. Teachers are realizing these changes in the cognition process of students and are using various tools and techniques in the teaching-learning process to deliver the content/knowledge so that students actively participate in it and grasp the ideas quickly.

Teachers attend various faculty development programs for domain knowledge and new skills in educational technology/pedagogy which make their teaching more innovative.

The following are the various ICT tools and techniques used by faculty to make teaching more innovative and student friendly.

1. ICT based teaching-learning through Google classroom, MS Teams, Moodle, etc.
2. Virtual labs and search engines like Google Search, Google Scholar are used to encourage collaborative learning.
3. Some faculty members have created online digital repositories for lectures on the platforms like YouTube.
4. Digital social learning platforms (WhatsApp, Telegram, Linkdin etc)
5. Exposure to industry: Interaction of faculty with industry during the internship and Sponsored projects of students
6. Proactive teaching methods (group discussions, role play, games in class like mime, treasure hunting, mimicry, etc.)
7. Project-based teaching-learning

The teaching-learning process is made more novel/attractive to students as it triggers their interest, innovative instincts and inspires them to find a creative solution to complex problems. The subject knowledge leads them to use the learning for new concepts and applications, and thereby create an environment of problem solving, new design and critical in-depth thinking. The raw ideas generated by students may initially appear primitive. These ideas are bloomed, matured, collected, and experimented on appropriate platforms, so they can be refined into more fruitful end products and feasible applications. Keeping this in mind, the Institute has provided different opportunities.

**1) Projects:**

Students are encouraged to carry out research-oriented projects, sponsored projects.

**2) Industry-Institute Interaction:**

The Institute has signed MOUs with various reputed industries. Faculty and students interact with these

industries during Industrial visits, Field work, sponsored project work, internship and training programs.

**3) New product design:**

Students are motivated to develop ideas and convert it into product through various cells like Supra, BAJA, Entrepreneur Cell, TBI Cell, and Robocon.

**4) Competitions:**

Institute organizes technical events every year like conference, project competition, poster competition, Tech-Sudoku, Techtonic etc.

**5) Talks:**

Institute arranges motivational talks, expert lectures, seminars and webinars to develop multiple skills.

**6) Membership of Professional Bodies:**

Students are encouraged to take membership of professional bodies like IETE, IEEE, ISTE, CSI etc.

**7) Innovative pedagogy techniques:**

Faculty promotes participative learning through innovative pedagogy techniques such as group discussions, group activities, quizzes, role-play, fun game, learning through art, sports etc. during teaching learning process and through department association activities.

| File Description | Document |
|---|---|
| Upload any additional information | [View Document](#) |
| Provide link for webpage describing the ICT enabled tools for effective teaching-learning process | [View Document](#) |

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

**Response:** 19:1

2.3.3.1 Number of mentors

Response: 133

| 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:** 106.95

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

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

**Response:** 10.19

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 |
|---|---|---|---|---|
| 23 | 17 | 14 | 12 | 12 |

| 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:** 9.05

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

Response: 1213

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

## 2.5 Evaluation Process and Reforms

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

**Response:**

The Institute follows SPPU's guidelines for the internal assessment of the theory and laboratory. In addition to that, the Institute has carefully designed and implemented a parallel mechanism to ensure the preparedness of the students. Complete transparency is maintained in all forms of internal evaluations. Three internal examinations, namely Unit Test-1, Unit Test-2 and Prelim in each semester, are planned in the academic calendar and executed as per the schedule. After assessment, answer sheets are distributed and discussed with students for their benefit and to maintain transparency in the evaluation. A retest is planned for students having unsatisfactory performance by giving them sufficient time for preparation. Examination results are displayed on notice boards. Overall performance, attendance, and result of the student are communicated to parents by mentor faculty. These reforms for internal assessment are implemented in the subsequent academic year. It is observed that this bi-semester internal evaluation improves the overall performance of students. By applying these practices, regular study habits are inculcated in students.

**Term work (TW) assessment**

Every subject teacher discuss the various evaluation criteria and assessment parameters with his or her students at the beginning of each term. The performance of each student is recorded in a continuous assessment sheet (CAS). The results of the evaluation are used to determine the student's final university result. The continuous assessment helps students participate in the program and keep track of their progress. It also provides the teacher with the opportunity to discuss the various aspects of the course. During practical sessions, the teacher encourages and engages advanced learners. Through the continuous assessment, the teacher is also able to identify and help slow learners improve their performance. Their progress is displayed on the notice boards at the end of the semester.

Aside from the class tests, the Institute also provides various evaluation tools that are designed to help students improve their performance. These include assignments, internal oral/ practical examination, online tests, case studies, and open book tests. Depending on the choice of the tool, various other evaluation activities such as group discussions and presentations can also be used during the semester.

**Project Work Assessment**

During the semester, students are given the opportunity to review the progress of their project work and keep track of their evaluation sheets. These reviews allow them to remain focused and confident as they work on their projects. In addition, they are also encouraged to participate in project exhibitions and competitions.

**Internal and External Assessment for PG students**:

The assessment of PG students is rigorous. It consists of continuous assessment (CA) and internal examinations. The CA towards 50% marks is a continuous activity and at least two written tests are conducted for a full course of 4/5 credits. The teacher selects evaluation methods, such as: Written Test, Term Paper, Journal/Lecture/Library notes, Seminar, Presentation, Assignments, Open Book Test, Research Project and Paper Publication.

| File Description | Document |
|---|---|
| Any additional information | [View Document](#) |

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

**Response:**

Acknowledging that students are the main stakeholders in every educational institution, a mechanism has been devised by SPPU and the Institute to bring in complete transparency in the evaluation and to provide a platform for redressal of their grievances pertaining to examinations and internal evaluation.

The Institute has adopted a fair and transparent process for the evaluation of students prescribed by the affiliating university. The evaluation process comprises mainly two components: formative assessment and summative assessment. There is a well-defined mechanism for grievance redressal related to the formative assessment by the Institute and for grievances relating to the summative assessment by SPPU.

To address all examination and evaluation related problems, the Institute has appointed a college examination officer (CEO) as per the directives of SPPU. An aggrieved student makes an application to the CEO and he addresses it as per the stipulated norms of SPPU. The CEO categorizes it either as a grievance related to formative or summative/external assessment.

In the case of formative assessment related grievances, the college examination officer forwards them to the respective department. Whenever a grievance is reported regarding the internal evaluation, the concerned HoD, along with the concerned subject teacher, shows the carefully maintained CAS record to the aggrieved student and tries to resolve the grievance. The enquiries regarding the internal unit tests/mock practical examination or project progress evaluation are addressed by the individual subject teachers.

**Redressal of Grievance for External Assessment:**

**Online examinations:**

During an on-line examination, if any student finds an ambiguity in a question, eg. given options are not correct, data given in the question is insufficient, or options are repeated, students may report it as an invalid question.

The Committee at the university takes cognizance and validates the grievance.

**Theory examination**

To deal with the grievances relating to the summative assessment, SPPU invites online applications for the photocopy of the assessed answer-books. Students apply for photocopies of answer sheets. After receiving photocopies, if a student is not satisfied with its assessment, he/she may apply either for rechecking or revaluation. The application is forwarded to SPPU for corrective action. In the case of revaluation, the university reappoints an examiner and the answer sheet is reevaluated. The result is communicated to the Institute and to the student. In case of criticality, the CEO provides the necessary assistance to the aggrieved student.

For grievance redressal, a similar mechanism defined by SPPU is practiced at the Institute level.

| File Description | Document |
|---|---|
| Any additional information | [View Document](#) |

## 2.6 Student Performance and Learning Outcomes

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

**Response:**

Program outcomes (PO), program specific outcomes (PSO) and course outcomes (CO) of the all the programs and courses are stated and communicated to the students through Institute website and displayed at prominent notice board of the Institute. The process of CO framing for all courses in all programs is discussed below:

For every course three to six intended learning outcomes are stated as Course Outcomes (COs). Unit wise course contents from the syllabus forms the basis for framing CO statements. CO statements address appropriate Blooms Taxonomy (BT) levels by considering proper abilities and skills to be acquired by the students. The COs are mapped with POs and PSOs having correlation levels of either 1- Slight (Low), 2- Moderate (Medium) and 3- Substantial (High). The process of mapping of COs with POs and PSOs give CO-PO and CO-PSO matrices respectively.

**Mechanism of Communication of Program Outcomes (POs):**

Program Outcomes (POs) are communicated to the students, teachers, staff and other stakeholders through the following ways:

1. Displayed on the notice board of the departments.

2. Published through Institute website: http://saoe.sinhgad.edu/

3. Published regularly in Institute brochure, departmental news-letter and collage magazine.

4. Printed on laboratory manuals, project log book, Attendance sheet.

5. Presented during various value added courses, workshops, seminars, induction programs.

6. Conveyed during teaching learning process, TG meetings.

7. Shared to students during first lecture of new semester.

**Mechanism of Communication of Course Outcomes (COs):**

Course Outcomes (COs) are communicated to the students through the following ways:

1. COs are published through Institute website- http://saoe.sinhgad.edu/

2. COs are communicated and discussed with the students during teaching learning process at the beginning of the semester and also during the progress of the semester.

3. COs are made available for the ready reference of the students through Course Material, hand-outs, lab manuals.

4. COs are displayed on Students and Staff Notice Board

5. COs are shared with all students on Microsoft Teams

| 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:**

The PSOs, POs, and COs are designed using a **top-down** approach. The PSOs are in tune with the expectations of professional bodies and society. The program outcomes are carefully fixed by studying the graduate attributes and blending them appropriately to suit the program being offered. To meet these program outcomes, the curriculum was designed by SPPU. While designing the curriculum, feedback from stack holders is incorporated. Each course has specific measurable course outcomes. Each course has 6 units and, in general, each unit relates to a specific course outcome. Each course outcome is mapped with the Program outcomes, and program specific objectives. While calculating the attainment level, **a bottom-to-top** approach is used. For each course, the attainment level of all course outcomes is computed based on student

performance in internal and external examinations. Similarly, the feedback at the end of the course is used to assess the course outcome indirectly. Thus, CO attainment is a combined result of direct and indirect assessment. This in turn helps in arriving at the PO assessment as each CO is mapped with certain POs and PSOs. Besides this, the exit survey is taken from students for indirect assessment of the PO's. The alumni and employer surveys are taken for indirect assessment of the PSOs.

**CO attainment:**

Direct Attainment of CO = 80% of CO attainment in the internal assessment + 20 % of CO attainment in the external examination.

COs are mapped with PO and PSO

Each subject teacher prepare CO-PO and CO-PSO matrix

**PO attainment:**

The direct attainment of PO and PSO is obtained by taking into consideration the contribution of each course as shown in Program attainment.

Direct Attainment of PO = Average of attainments of all CO contributing to the specific PO.

Overall attainment of PO = 70% attainment through the direct method + 30% of PO attainment through an indirect method.

Overall attainment of PO = 70% POdir + 30% POindir

**PSO attainment:**

Direct Attainment of PSO = Average of attainments of all CO contributing to the specific PSO.

Overall attainment of PSO = 70% attainment through the direct method + 30% of PSO attainment through an indirect method.

Overall attainment of PO = 70% PSOdir + 30% PSOindir

| File Description | Document |
|---|---|
| Upload any additional information | [View Document](#) |

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**2.6.3 Average pass percentage of Students during last five years**

**Response:** 93.98

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 |
|---|---|---|---|---|
| 813 | 779 | 726 | 689 | 828 |

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 |
|---|---|---|---|---|
| 833 | 792 | 791 | 775 | 888 |

| 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:** 3.47

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

# Criterion 3 - Research, Innovations and Extension

## 3.1 Resource Mobilization for Research

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

**Response:** 24.04

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 | 1.30 | 0 | 0 | 22.74 |

| File Description | Document |
|------------------|----------|
| List of endowments / projects with details of grants | [View Document](#) |
| e-copies of the grant award letters for sponsored research projects / endowments | [View Document](#) |

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

**Response:** 2.99

3.1.2.1 **Number of teachers recognized as research guides**

Response: 04

| 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:** 20

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

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---------|---------|---------|---------|---------|
| 0 | 1 | 0 | 0 | 4 |

3.1.3.2 **Number of departments offering academic programes**

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

| File Description | Document |
|------------------|----------|
| Supporting document from Funding Agency | [View Document](View Document) |
| List of research projects and funding details | [View Document](View Document) |
| Paste link to funding agency website | [View Document](View Document) |

## 3.2 Innovation Ecosystem

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

**Response:**

The Institute has created an eco system for innovation and transfer of knowledge by promoting and encouraging student's creativity through Club/Cell participation in below mentioned National and International events.

**SAOE motorsport club**

The SAOE motorsport club was founded in March 2007. SAOE Motorsport has TEAMFORZA RACING (BAJA vehicle), Team Vamos Autocross (Supra Vehicle), Team Nexus Racing (Go-Kart), Team Arihant (Quad Vehicle), Team Evolution Racing (*TER*), ZEUS 1.0, (E-Kart vehicle) in their club.SAOE Motorsport Club holds over 110 National awards. The Supra Team has participated in International event "SAE JAPAN" held in 2016. The recent pinnacle of success was achieved by winning championship of QUAD TORC and E-KART FKDC in 2019.

**Creating the ecosystem**

Interviews are conducted to recruit students by senior members of the team, alumni, and staff coordinator. The college provides partial financial aid, fabrication facilities along with staff support. The teams get support of finance, machining facilities, testing, and material through sponsorship from leading companies.

**Scope for innovation, creation and transfer of knowledge**

The knowledge of CAD, analysis, testing and development, manufacturability, serviceability, system integration of a vehicle as a whole is a challenge met by our students. The competition mandates innovation to be done in the vehicle every year. This encourages the team to do research in various parts of the vehicle and designing mechanical components enabling them to compete with the OEMs and publish research papers based on the innovative work.

**Team ASTROS**

The growth of robotics in industry and desire of the students in the world of robotics, automation and popularity of the robotics competition led to the formation of 'TEAM ASTROS' in the year 2007.

**Selection and recruitment in team**

The recruitment process begins with introductory sessions and online quiz. A workshop is conducted where interested students participate and learn about basics of coding. Students are given mini project kits to make a functional robot. The interested students can apply for the interview process where the team leaders recruit them based on their skills.

**College and staff support (Staff):** The College provides adequate infrastructure and is well supported by staff members.

**Transfer of knowledge**

Workshops are conducted for students to give hands on experience of Electronics and Coding by alumni & senior students. It also helps the students to get knowledge of building bots from scratch.

**Cypher cell**

It was started in 2018-2019 with students from IT, Computer, E&TC and Mechanical departments. In this cell students brainstorm various ideas, learn various technologies and build prototypes as solution for the task they undertake.They have participated in various Hackathon competitions organized by industry, institutes and Government and won many accolades.

The team was joint winner at National level in Smart India Hackathon 2020-Hardware edition organized by Government of India with prize money of Rs.1,00,000. The team was the winner in Megathon 2019 National event with prize worth Rs. 10,000 organized by e-Zest Solutions. In the same year they won the first prize of Rs. 40,000 in Code Break 1.0 event organized by MIT ADT University, Pune.

| 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:** 15

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 |
|---------|---------|---------|---------|---------|
| 3 | 5 | 3 | 3 | 1 |

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

## 3.3 Research Publications and Awards

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

**Response:** 1.75

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

Response: 07

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

Response: 04

| 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:** 1.06

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

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---------|---------|---------|---------|---------|
| 61 | 25 | 30 | 21 | 34 |

| 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:** 0.32

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 |
|---------|---------|---------|---------|---------|
| 03 | 12 | 12 | 11 | 13 |

| File Description | Document |
|------------------|----------|
| List books and chapters edited volumes/ books published | [View Document](#) |
| Any additional information | [View Document](#) |

## 3.4 Extension Activities

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

**Response:**

The National Service Scheme (NSS) was established in our Institute in 2014 with a vision of development of social and civic responsibility in the volunteers through community service and development in distress areas. The objective of this activity is to sensitize students about various social issues and their contribution towards the community. NSS unit aims with an optimism of inculcating values of self-discipline and selfless dedication towards community development. The motto of NSS is "Not me but you", it underlines that the welfare of an individual ultimately depend on the welfare of society as a whole. This expresses the

essence of democratic living and upholds the need for selfless service and appreciation of other individual's point of view and also to show consideration for fellow human beings. The college organizes and promotes various activities round the year for the holistic and sustained development of neighbourhood community such as:-

1. Organizing seven days winter camp in rural area, Swachh Bharat initiatives, blood donation camps etc.

2. Various awareness programs such as workshops, rallies and road show with themes like cleanliness, green environment, traffic rule awareness, empowerment of girls and women to create consciousness so that they too can contribute to economic and social well-being of the community etc. are organized.

3. Awareness of Oral Health (Terminate Tobacco use and Cancer)

4. Organizing camps in which the volunteers visit a rural area and perform activities like building bandharas, tree plantation on open spaces and inviting doctors for health check-ups.

**Impact & Sensitization:**

Exposure to extension and outreach activities sensitizes the students towards social issues and social remedies like drop in underground water, orphans, gender equality. The activities conducted lead to imbibing the values of social responsibility such as:

1. Creating awareness among the volunteers about the problems in rural and urban areas.
2. To bridge the gap between the Institute and village camps are organised which involves number of fruitful and worthwhile activities.
3. Awareness of cleanliness in all span of life and common places
4. Fostering of social values and environmental related issues.
5. NSS inculcates a feeling of voluntary work among the students and teachers through community interaction.

**Learning outcomes of the activity:**

1. Develop skill and aptitude for problem solving by knowing societal issues and problems.
2. Understanding the community and building relationship with village to carry forward humanitarian work in future.
3. Identifying the needs of the community in which they work and involving the local people in their task.
4. The skills developed include social skills communication skills, management skills, leadership skills, analytic skills, perceptual skills etc.
5. Development of competence in volunteers which is required for living in group and sharing of responsibilities.

The fundamental principle of NSS is that the programs are organised by the students themselves. The students and teachers both through their combined participation in community service, get a sense of involvement in the tasks of nation building.

| 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:** 4

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 |
|---|---|---|---|---|
| 2 | 1 | 1 | 0 | 0 |

| File Description | Document |
|---|---|
| Number of awards for extension activities in last 5 year | [View Document](#) |
| e-copy of the award letters | [View Document](#) |

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

**Response:** 56

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

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---|---|---|---|---|
| 15 | 12 | 11 | 14 | 4 |

| File Description | Document |
|---|---|
| Reports of the event organized | [View Document](#) |
| Number of extension and outreach Programmes conducted with industry, community etc for the last five years | [View Document](#) |

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

**Response:** 30.63

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 |
|---------|---------|---------|---------|---------|
| 1126 | 914 | 829 | 1051 | 318 |

| File Description | Document |
|------------------|----------|
| Report of the event | [View Document](#) |
| Average percentage of students participating in extension activities with Govt or NGO etc | [View Document](#) |

## 3.5 Collaboration

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

**Response:** 670

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 |
|---------|---------|---------|---------|---------|
| 82 | 166 | 124 | 194 | 104 |

| File Description | Document |
|------------------|----------|
| e-copies of related Document | [View Document](#) |
| Details of Collaborative activities with institutions/industries for research, Faculty exchange, Student exchange/ internship | [View Document](#) |

**3.5.2 Number of functional MoUs with institutions, other universities, industries, corporate houses**

**etc. during the last five years**

**Response:** 43

3.5.2.1 **Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years**

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---------|---------|---------|---------|---------|
| 14      | 8       | 3       | 7       | 11      |

| 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](#) |

# 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 creates and enhances infrastructure as per the norms laid by the AICTE, DTE and Savitribai Phule Pune University (SPPU) and ensures that required facilities for effective teaching-learning process, co-curricular and extra-curricular activities are made available. The Institute believes that for effective teaching learning process good infrastructure facilities are required. Creation and enhancement of infrastructural facilities for improving the teaching-learning. process, and extending maximum possible educational facilities to its growing strength of learners is the primary objective of the Institution.

The physical infrastructure consists of 34 classrooms,08 tutorial rooms,47 laboratories, 01 Seminar Hall. In addition, the Institute has supporting Academic and Administrative rooms, Central Computing Laboratory and Library. The Institute has spacious, well furnished, ventilated, and illuminated classrooms equipped with blackboard, computer, LCD projectors, Wi-Fi, Internet and LAN facilities to make teaching-learning process effective. The Institute has a modern, air-conditioned seminar hall with audio visual equipment. All the departments have well- furnished separate cabins for the faculty members with a conducive atmosphere for regular interaction with the students who come for guidance and discussions. The Central Workshop is equipped with different facilities for mechanical based practicals like machine, fitting, carpentry, welding, black smithy, and tin smithy shops. Workshop facility is made available for the extended hours to manufacture the vehicles for different competitions such as Baja, Supra, academic, and innovative projects. The Institute is equipped with spacious, well-furnished drawing halls with drawing tables for students. Separate rooms are provided to IQAC, NSS and College Examination officer. The Institute also has Girls Common room, Boys Common room.

The Institute has a well-furnished library with reading room and digital library. The library has a compilation of many textbooks, reference books, journals, e-journals. The reading room in the library is made available for extended hours.

To promote teaching learning the Institute has a language laboratory equipped with multimedia systems.

Laboratories are equipped with state of art equipments/machinery like Antenna Analyzer, Spectrum Analyzer, Synthesized Signal Generator, Optical Time Domain Reflectometer, Universal Testing Machine, Compression Testing machine electrically operated single gauge, Pelton Wheel turbine test, Hydraulic Trainer, Analog Torsion Testing Machine etc. The charts and models are displayed in the laboratories for better understanding of theory and practical concepts. Laboratories are regularly maintained and updated.

The Institute has good infrastructure for computing purpose and internet acces having a good network of total 588 computers with 100 Mbps bandwidth of Tata Tele  services and 10Mbps of ACPL. The system and required application software are  available in respective departments. Sufficient  number of printers, scanners are available in the departments. The Institute has three servers for smooth  functioning and one generator of 320 KVA for uninterrupted power generation.

Training and Placement cell (T and P) has adequate infrastructure for training and  placement activities.

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

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

**Response:**

The college has appointed a Physical Director who caters to the diverse needs of students in sports. The college provides adequate space for sports, games, cultural and NSS activities and provides guidance to students for the University and State level teams. For the all-round development of the students, the Institute encourages the students to participate in various sports/ tournaments at the university and state level, cultural activities, NSS etc.

The Institute has following cultural facilities, outdoor and indoor sports facilities.

- Auditorium equipped with LCD projector, computer system and sound system. The Auditorium is used for conducting cultural activities, Alumni meet etc.
- Playgrounds for playing outdoor games like Cricket, Football, Kho-Kho, Volleyball, Basketball, Kabaddi etc.

- Space and necessary equipment for indoor games like Table tennis, Chess, Carrom, Gymnasium and Yoga.
- A room for NSS to keep the necessary material required for NSS camps.

**Cultural Activities:** To bring out the hidden talents of the students and for getting adequate exposure in interpersonal skills, team spirit, time management and delegating, the students are encouraged to participate and arrange various cultural activities. Every year an annual event Sinhgad Karandak and Techtonic (technical event) is conducted where the students participate actively and enthusiastically in various competitions like singing, dancing, fashion show etc. and technical events respectively to promote innovative ideas, share and apply their technical knowledge. Besides these, the students are also encouraged to participate and have won several prizes in state level cultural events like Purshottam Karandak, Firodiya Karandak. Besides these events the students celebrate Teachers day, Engineers day, Navratri and many other festivals.

**Sports:** To nurture the talents of students in different fields and for their all-round development, many sports activities are conducted to shape their personality, health and fitness. The Institute provides facilities for both indoor and outdoor games to the students.

**NSS:** The College has a NSS unit. The unit is started with an objective to cultivate an attitude of social service in the minds of students and to make them responsible citizens. Various socially relevant activities

are being carried out by NSS students like tree plantation, Swachh Ata Abhiyan Camps, Social Awareness Camps, Blood Donation Camps, Medical Check-up Camps.

**Yoga:** Yoga activities are conducted to maintain good health, possess mental and emotional stability, and integrate moral values and to attain a higher level of consciousness. Every year the Institute celebrates 21st June, as the International Yoga Day.

**Communication Skills:** The institute conducts Student Training programs to help students to improve their communication skills, public speaking and practice of group discussions and interview. It also provides training on soft skills like goal setting (Personal and Career), personality and stress management, behavioural skills, listening, reading(technical/ non technical), writing resume, letter, report etc. through Student Training Program (STP) 1 and 2.

| File Description | Document |
|---|---|
| Upload any additional information | [View Document](#) |
| Paste link for additional information | [View Document](#) |

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

**Response:** 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 35

| 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:** 0.18

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 |
|---|---|---|---|---|
| 00 | 00 | 00 | 00 | 11.38707 |

| File Description | Document |
|---|---|
| Upload Details of budget allocation, excluding salary during the last five years (Data Template) | [View Document](#) |

## 4.2 Library as a Learning Resource

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

**Response:**

Institutional library is using commercial software as well as open-source software for automation of library services. Library is partially automated with Easylib software having version 006. Library collection can be browsed/ searched on intranet using Easylib OPAC module. Easylib helps for catalogue books, articles, report, serial publication that contains information vital to Institute.

This software has module like acquisition, cataloguing, circulation, and serial control. Module is utilized for generating accession register report, adding bulk student's record, updating item lending policy and its status. Circulation module has books issue, return and reserve option. Various reports such as Loan Borrower, Item Inventory status, Circulation status summary, Item transaction and Operator wise transaction can be generated in this module. Similarly, library barcode is also generated through this module making library work simpler, effective and time saving. Serial control module maintains the record of print journals and track of subscribe issue in the library. Easylib software also provides statistical analysis required for library management system such as weekly transactions. Library web OPAC is provided to students and faculty for renewal of books and searching library materials. Digital library collection, rare books, open-source books, college news are made available for students through open-source software Calibre. This link is available through LAN. The library has subscribed to e-journals and scientific databases from DELNET. Institutional repository which contains handwritten notes, lab manual, study notes, study materials, questions bank, syllabus, college magazine is available online

Institute library has downloaded various rare books from Rare books society of India (RBSI).The collection is stored in Calibre digital library software. Students and faculty can access these rare books through LAN as reference material for enrichment of their knowledge. The rare books are having large variety of titles such as inspiring stories, history, yoga, philosophy, survey, astronomical, geographical, botanical, economics, literature, religious, treaties, criminal, culture, war etc.

Library is also having good collection of reference books which are published by renowned publisher such as Elsevier, John Wiley, Springer, CRC Press, Blackwell, Cambridge, Britannica, Illustrated science Ltd. Wordsworth Cengage Learning, society of automotive engineers, McGraw hill, Kluwer Academic Etc.

The library has an advisory committee which comprises of Chairman, Professor in charge, Secretary and the members of all departments. The duties of the committee include formulation of policies and strategies for the development of the library services and facilities.

Library notices are displayed on notice board. List of new arrivals is sent to staff and students through e-

mail and also displayed on notice board.

Library has a separate reference section with rich collection of international editions of reference books, hand books, dictionaries and encyclopedias etc.Library is having institutional membership of the British Council Library, Automotive Research Association of India Library and DELNET.Users can take the benefit of library services of these libraries.Subscribed e-journals can be downloaded from digital library and on intranet.Printing facility is provided to take printouts of online journal articles and reference material.

| File Description | Document |
|---|---|
| Upload any additional information | [View Document](#) |

**4.2.2 The institution has subscription for the following  e-resources**

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

**Response:** B. Any 3 of the above

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

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

**Response:** 4.24

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 |
|---|---|---|---|---|
| 0.94 | 0.13 | 0.11 | 10.80 | 9.23 |

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

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**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:** 4.94

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

Response: 130

| 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:**

Institution has adequate IT infrastructure which is updated and upgraded continuously as per thecurriculum requirements and changing technology. TheInstitutehasadequatenumberofcomputerswithinternetconnectionsandrequiredsoftware The department computer laboratories andcentral computing facilities are connected through proper networking and internet access. The computingfacilities are utilized for academic, training, value added courses, research, and allied usage as per time-table,specialrequirementsandbeyondworkinghoursaswell. The college has switched to high availability network. The information and network security are ensured through the SonicWall NSA4600 firewall. Total 1000 users can be logged in simultaneously.

A leased line connectivity of 100 Mbps from Tata Tele services and 10 Mbps from ACPL is procured. The total bandwidth of 110 Mbps is made available to the faculty and students throughout the year.

The Institute is Wi-fi enabled with high-speed internet connectivity. The Wi-fi access points are connected to the access points to switches in a LAN.

The Institute has a structured LAN facility architecture comprising of core, distribution, and access. All end users are connected through 10/100 base port. The Institute network is secured with firewall and

associated security policies. ICT facilities are available in all the departments. All the classrooms, laboratories and library of the institute are provided with internet and intranet facility. Computer, LCD projector and internet are available in all classrooms. CCTV cameras are installed in classrooms and strategic places. The College has 03 servers for smooth conduction of various activities such as online examination, webinars, online workshops, virtual labs, admin office. All the servers are provided with power backup for uninterrupted service.

Desktop computers are provided in all departments. All desktop computers are connected to internet. Laser printers are provided in all departments. Curriculum based software are regularly updated based on the need for every semester. All the latest software is regularly updated to keep in pace with development.

The Institution has a Language lab to enhance the communication skills of students. The Institute has licensed Microsoft Teams software for conduction of online classes and meetings.

Necessary system and application software are available in all respective laboratories. Software's are classified as proprietary software and open-source software. The proprietary system software is purchased at the society level and further distributed to different Institutes. Application software are purchased for individual departments as per their curriculum and requirement. To reduce the dependency on propriety software and tools, open-source software, tools, and applications are recommended for supporting teaching learning process.

The college library is automated with EasyLib and KOHA software with cloud server facility. Library has the subscription of e-books and e-journals via INFLIBNET and DELNET.

| File Description | Document |
|---|---|
| Upload any additional information | [View Document](#) |
| Paste link for additional information | [View Document](#) |

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

**Response:** 4:1

| File Description | Document |
|---|---|
| Upload any additional information | [View Document](#) |
| Student – computer ratio | [View Document](#) |

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**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:** 9.56

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 |
|---|---|---|---|---|
| 14.67 | 39.28 | 28.12 | 92.06 | 114.00 |

| 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 Institute has standardized and established systems and procedures for maintaining the physical, academic and support facilities of the institute. Various aspects of the maintenance and utilization are taken care by concerned sections. It is ensured that the facilities are created, maintained, and updated to facilitate effective teaching-learning process for overall development of the students. Provisions in the annual budget are made for maintenance of the physical, academic and support facilities of the institute.

The Institute has appointed a team of personnel of all kinds of maintenance staff on the payroll of the college which is duly supervised by the Registrar/ Administrative Officer.

**Maintenance of Physical and Support Facilities:**

**Institute Infrastructure:**

Need analysis for adequacy of physical infrastructure is conducted at the beginning of the semester based on the statutory requirements of AICTE/DTE and SPPU. New infrastructure project is undertaken only if existing infrastructure falls short to meet additional requirements.

**Civil Infrastructure:**

General Civil maintenance and upkeep of civil infrastructure is looked after by the Campus Supervisor. The maintenance of buildings , internal roads, water supply, rain water drainage, sewage, environmental betterment facilities, lawns and gardens , playgrounds, compound walls and security provisions, periodical painting , water proofing is carried out as when required.

**Electrical Maintenance:**

The Institute has appointed an electrician for repair and maintenance of electrical works. The maintenance of generator is regularly done by AMC. Electrical maintenance is done with the help of electricians appointed by the Institute

**Water supply:**

Constant water supply is provided in the institute and campus. The campus in charge takes care of storage and distribution of water. The Water Softner plant is installed, and water is distributed through coolers as well as taps.

**Garden and landscape:**

The maintenance of the garden is taken care by the Campus Supervisor. The college has appointed inhouse staff to carry out the daily work of cleaning and maintaining the garden. They are entrusted for maintenance of lawns, shrubs, trees, and plants.

**Housekeeping:**

The Institute has appointed housekeeping staff  for day to day cleanliness of corridors, classrooms, laboratories, washrooms, hostels, and maintenance of premises. Pest control and sanitization of the entire building is done regularly by external agency. Maintenance of firefighting system, CCTV, Air conditioners, water tanks, water coolers, Water Softner plant, generator, garden etc. is done. The security personnel appointed on payroll takes care of campus security.

**Maintenance of Academic Facilities:**

**Lab Equipment and Machineries:**

Repair and maintenance of laboratory equipment, instruments, kits and machinery are initiated by the respective Laboratory In-charge and Technical Assistant (TA) as and when required. The routine maintenance is carried out by TA and registers of the same are maintained. In case of major repair, requisition for maintenance is sent to  the HOD by lab Incharge and the maintenance is carried out  by respective external agencies. Laboratory In charge and TA ensures proper working of all equipment and

machineries. The laboratories are utilized as per the timetable for demonstration and conduction of practicals. Lab facilities are also made available to students and staff for research and allied work as per the request.

**Computer and Peripherals:**

The routine repair, maintenance and updating of computers and peripheral, installation of software's and maintenance and upgradation of hardware are taken care by the technical assistants. The LAN is administered and maintained by the system administrator. The system and application software are upgraded from time to time. Renewed Anti-virus software is purchased for identified computers. The working of UPS is inspected periodically by experts of internal team. CCTV surveillance system installation, maintenance and upgradation is done as and when required.

In case of new or upgradation of academic facilities like internet, computers, projectors, UPS etc., according to the lab requirements as prescribed by the university. The head of the department identifies the requirements and submits it to the principal for approval. After getting approval, quotes will be collected from 3 vendors for the new purchase or upgradation of existing infrastructure. Comparative statement of the price quotes will be submitted to the principal and management for approval to proceed with the purchase. Regular maintenance will be done by the vendor during the warranty period and in-house technical team will do the maintenance after the warranty period. In case of some complex issues and faults, experts or external service person will be called to attend the issue after getting approval from the principal.

**Classrooms**:

Housekeeping of classrooms and surrounding area, laboratories and important utilities are taken care by inhouse staff appointed on the payroll. The regular maintenance of ICT tools is looked after by the technical assistants. Repair work of classrooms and laboratory furniture is done internally.

**Library**:

 The up keeping of the books and periodicals is done by library assistants. The book binding and other related work is outsourced. The library timings are 9:00am to 5:30pm on working days while reading room is kept open for extended hours and even holidays on students' request.

**Website:**

A team of faculty members is appointed for updating the information on regular basis.

**Canteen and Mess:**

A faculty Incharge is appointed to look after the cleanliness, hygiene of the canteen and also ensures that the quality of water and food is maintained.

**Hostel:**

The Institute has girls and boys hostel. A warden has been appointed on the payroll of the college for the boys and girls hostel.

**Other facilities**

- UPS of 110 KVA is installed in an air-conditioned separate room from a dust free environment to ensure constant power supply.
- Generator (320 KVA) is installed in an organized environment for power backup. The generator set installation room is facilitated with BC and ABC fire extinguisher.
- Transformer – 500KVA, 22KV/433V is installed in the Institute.
- Voltage stabilizers are installed to control the voltage fluctuations.

- Annual maintenance contracts are executed for the maintenance of UPS and generators

| 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:** 67.32

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 |
|---------|---------|---------|---------|---------|
| 1829 | 1923 | 1926 | 1873 | 2084 |

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

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

**Response:** 0.03

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

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

| File Description | Document |
|---|---|
| Number of students benefited by scholarships and freeships institution / non- government agencies in last 5 years (Date Template) | [View Document](#) |

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

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

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

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

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

**Response:** 30.94

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 |
|---|---|---|---|---|
| 965 | 1378 | 332 | 653 | 1007 |

| 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**

       23-11-2022 04:22:19

**including sexual harassment and ragging cases**

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

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

| File Description | Document |
| --- | --- |
| Upload any additional information | [View Document](#) |
| Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee | [View Document](#) |
| Details of student grievances including sexual harassment and ragging cases | [View Document](#) |

## 5.2 Student Progression

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

**Response:** 19.45

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 |
| --- | --- | --- | --- | --- |
| 217 | 180 | 170 | 135 | 150 |

| File Description | Document |
| --- | --- |
| Upload any additional information | [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:** 16.03

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

Response: 139

| File Description | Document |
|---|---|
| Upload supporting data for student/alumni | [View Document](#) |
| Details of student progression to higher education (Data Template) | [View Document](#) |

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

**Response:** 69.3

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 |
|---|---|---|---|---|
| 11 | 17 | 25 | 8 | 12 |

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 |
|---|---|---|---|---|
| 25 | 25 | 31 | 13 | 13 |

| File Description | Document |
|---|---|
| Upload supporting data for the same | [View Document](#) |
| Number of students qualifying in state/ national/ international level examinations during the last five years (Data Template) | [View Document](#) |

## 5.3 Student Participation and Activities

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

**Response:** 40

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 |
|---------|---------|---------|---------|---------|
| 1 | 3 | 11 | 8 | 17 |

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

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

**Response:**

**Administrative Responsibilities**

At Sinhgad Academy of Engineering, Students' Council is formed as per the directives of affiliating University. The members of the Student Council are nominated by the departmental students' association. They are responsible for organizing various activities and events, which are aimed at improving the overall development of the students.

For each department at the college, there is a departmental students' association. Students are chosen for various roles in the students association by the staff coordinator of their relevant department. Members of the students' organisation participate actively in activities such as Teacher's Day, Engineer's Day, FE Induction, farewell to final year students, and technical competitions hosted in the department and college.

The student associations coordinate with the students and assist the department in promoting co-curricular and extra-curricular activities. Furthermore, they play an important role in mobilizing students for extracurricular events organized at the college level. They play an important role in organizing events. They coordinate with the teachers and give directions to the students regarding opportunities for displaying their skill sets and talents at intra/inter college and University events.

Besides that, there are student representatives in various committees like the Internal Quality Assurance Cell (IQAC), Anti-Ragging Committee, Students' and Internal Complaints Committee against Sexual

Harassment which contribute in fulfilling administrative responsibilities.

Students are also given the responsibility of training and placement (T&P) coordination where they act as a link between students and training and placement cell. Each class has a Boy and Girl class representative appointed for monitoring the class and communicates messages. Students also coordinate various activities under National Service Scheme (NSS) and Earn and Learn Scheme.

**Participation in co-curricular and extracurricular activities:**

Students are actively involved in various activities of the college and win prizes every year in various inter-college/university competitions. The students avail opportunities and showcase their talents in music, dance, fashion, singing and dramatics in Sinhgad Karandak which is an annual cultural event of Sinhgad Technical Education Society (STES). Students participate in sports like cricket, tennis, chess, kabbadi and football, running (100m), basket ball, volley ball, relay, lawn tennis, table tennis in Sinhgad Sports Karandak organized every year.

Students also participate in various technical events like group discussions, presentations, workshops, seminars and project competitions held by the Institute under Techtonic which is , technical symposium organized by the Institute and the departmental student associations. They carry out promotions for the event, invite resource persons, connect with other organizations and bring sponsorship for the events.

Every year, students are engaged in programs like cleanliness drives, health check-up drives, blood donation camps, soft skill enhancement workshops, tree plantation drives and social awareness campaigns through National Service Scheme.

Students have actively formed cells like the Cypher Cell, Robotics Club, Sinhgad Academy of Engineering Motorsport Club and have participated in National and International competitions winning several awards.

| File Description | 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:** 14.8

5.3.3.1 **Number of sports and cultural events/competitions in which students of the Institution participated year-wise during last five years**

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---------|---------|---------|---------|---------|
| 0 | 17 | 23 | 22 | 12 |

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

## 5.4 Alumni Engagement

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

**Response:**

The 'Alumni Association SAE Kondhwa (Bk.), Pune' registered in the year 2010 with Registration No. MH/1551/2010/ Pune dated 29/07/2010 looks after the interface of alumni with the Institute.

The alumni committee constitutes of the Principal, college level staff coordinator, faculty coordinator and two alumni from each department. This association works on the well formulated vision, mission and objectives.

**Vision:** Meet old friends, make new friends and discover new opportunities.

**Mission:** SAE Alumni Association provides and supports alumni programs and services, facilitates communication with alumni and seeks to strengthen alumni bonds of fellowship, professional association, leadership and the service of humanity.

The Institute is committed to strengthen its ties with its former students. The alumni association offers extensive support to students and the Institution in ways that multiply the opportunities and enhance the skill-sets of students through guest lectures, seminars, workshops, memorandums of understanding (MOUs) and recruitment activities for the students of the Institute. Their expertise is shared with the Institute free of cost.

Alumni meet is conducted every year which provides a platform for the interaction amongst the alumni. Every department organises a department level alumni gathering. These events witness enthusiastic participation of alumni students. Department level alumni meet allows for better opportunities for the current batch students to interact and learn from their alumni.

Alumni speakers share their knowledge on important development themes such soft-skills development,

job advancement, stress and anxiety management, and a variety of other pertinent subjects. Alumni students actively let current students know about any job openings in the company where they are employed. Entrepreneurial alumni have signed MOU with the Institute. Along with MOUs, they also host workshops, Faculty development programs (FDPs), webinars, facilitating internships and sponsor some of the final year projects.

FDP on 'Advanced Trends and Practices in IT' organised by Information Technology department was majorly conducted by our alumni as resource persons. Value added program on 'MS Excel for Civil Engineering' in Civil Department and 'Python Programming and Application' in IT department was conducted by our alumni. Alumni shared their experience and knowledge through Guest lecturers like 'C++ and Technical Interview Preparation' , 'OOP and Job Guidance' , 'Project Approach and Technical Awareness' etc.

Students have actively formed cells like the Cypher Cell, Robotics Club, SAE Motorsport Club and have participated in National and International competitions winning several awards with the support of alumni. Alumni help students in each and every step of design; they are always available for the students whenever and wherever required in different forms like knowledge, experience and much more. They contribute in terms of sponsorship, providing new equipment, material and other things, which are required.

| File Description | 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

# 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:**

*"Education is light. Education is the way to a larger purpose. The ambition to build India into an educational leader in the world. We walk on, with faith, with commitment and with grace.''*

**-** Prof. M. N. Navale, Founder President, STES

The Institute has been established by Hon. Prof. M.N. Navale in 2005 as a technical educational hub to meet the requirements of the society. The Vision and Mission statements which follow the national as well as international technical educational policy as stated below.

**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 and technology transfer. Our mandate is to generate, preserve and share knowledge for developing a vibrant society."*

The vision and mission statement defines the institute's distinctive features in addressing the interests of the stakeholders involved. In adherence to the above vision and mission, and the norms of AICTE and UGC, college management constituted a Governing Body. All the members of the Governing Body participate actively, and with their extensive experience, and leadership skills contribute for growth and development of the institution.

Successful engineering students in future will need strong analytical skills, practical ingenuity, creativity, good communication skills, business and management knowledge, leadership, high ethical standards, professionalism, dynamism, agility, flexibility, and the pursuit of lifelong learning.

Sinhgad Academy of Engineering has taken a significant step in becoming a leading institute for engineering education by implementing various initiatives aimed at creating both good engineers and good human beings. These include establishing a conducive work environment, developing a unique value system, and delivering high-quality technical education.

The institute has a decentralized approach to quality management where all the faculty and staff are responsible and accountable for quality assurance and enhancement. The various quality standards are monitored by IQAC which also comprises of different stakeholders of the institute.

The Principal frames the rules and regulations under the guidance of the Governing body of the Institution i.e. academic planning, faculty requirement, academic calendar, feedback on the academic system and analysis of results, and promotion of research activities etc Thus, the Principal ensures the right logistical and academic atmosphere in the institution to assist the learners to become professionally deft, globally

competitive.

In the linear structure, Heads of the Department are next in the hierarchy. The HOD is responsible for upgrading and maintaining necessary infrastructure at department level. In consultation with faculty members, he prepares a timetable and decides allotment of workload. HOD monitors content delivery, effective teaching and learning process, mentor system, up-gradation, ensuring maintenance of equipment's. The senior professors, with assistance of faculty members, act as conveners of the non-statutory committees and assist the Principal on routine administration and academic processes. Teachers play a proactive role in the academic and administrative activities of the institution.

| File Description | Document |
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| Upload any additional information | [View Document](#) |

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

**Response:**

The Institute promotes governance through the participative management of authorities at various levels. The duties, responsibilities and authorities are well known at every level of the employees, which are exercised by them during a decent and conducive manner and therefore the work harmony is maintained at the a every level in academic, financial and administrative works.

1. The Principal of the institution within the role of educational controller exercises his monitoring through HODs of all departments. It's done by conduction of normal periodical meetings of all the HODs right from planning of forthcoming semester, framing of academic calendar, internal/ external exams, midterm/ end term submission of term work, industrial visits / guest lectures /seminars/workshops to be organized, planning regarding conduction of annual/term events like gathering, alumni meet, parent meet, technical events like Techtonic, Sinhgad Karandak etc. HODs are liberal to express their opinions and innovative concepts within the meetings regarding the design details and methodologies to be adopted, which are appreciated and due consideration is given by the Principal on each such suggestion and therefore the decisions are taken through participative discussions.
2. Every HOD conducts the meeting of teaching staff members of his department where in the choice regarding distribution of the subjects to be taught in the forthcoming semester is taken giving due consideration to teaching/ field experience, qualification/ specialization, achievements within the sort of results /feedback from the scholars and parents regarding the teaching of that teacher etc. Similarly, the portfolios of varied works associated with academics viz. departmental academic monitor, lab-incharge for each lab, domain heads of a cluster of comparable subjects/using same laboratories, appointment of class teachers to each division and teacher guardian to every batch of that division, coordinators for various events and activities at the institutional level. The HOD also interacts with Non-teaching staff for assigning of laboratory duties to ensure smooth conduction of practical.
3. The lab-incharge, in their turn, affect the share of their responsibilities by conducting meeting of subject teachers and technical lab assistants for fine level of planning, execution, monitoring of the

inventory/test material/resources and teaching learning process within the labs and classrooms, industrial visits, guest lectures, seminars, workshops of their domain subjects. Here, also, the due consideration and weightage is given to opinion, experience, qualification etc. of every participant in decision making process. Finally, each subject teacher and laboratory demonstrator conducts teaching learning sessions with due consideration and reference to difficulty/ doubts raised by the scholars within the running sessions or any time afterwards to resolve it to the satisfaction of the scholars. Also, any issues raised by parents of scholars about academics, fees, exam schedules, or their wards' performance in academic /extra-curricular activities are answered with full initiative, enthusiasm, and interest by each teacher guardian, subject teacher, HOD,Vice Principal and Principal until that parent is satisfied, considering him a principal stake holder of the Institute. The participatory management philosophy is carefully practiced in the every level of the Institute so as to preserve work harmony and high productivity.

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| 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:**

A strategic technology plan or perspective plan serves as a roadmap for the digital transformation of an Institution's operations. It helps align new technology project implementation and changes with the future vision of the institution and its objectives.

The institute's strategic development plan (SDP) is designed to provide a framework for the organization's various operations and goals. The institution has a Perspective/Strategic Plan in place to help it develop in a systematic, well-thought-out, and phased manner. Institute's management and human resources help in implementing the program in successful
manner.

The management of the institute has two main committees viz. Governing Body (GB) and Local Managing Committee (LMC) whose aim is to decide the vision and objectives of the institute based on which directions to LMC and the head of the institute are defined. The policy statements and action plans of the perspective plan/strategic plan for the fulfillment of the stated mission are described in terms of short-term and long-term goals for a span of ten years. The growth plan in terms of research and development and industry Institute interaction is proposed.

The heads of various departments conduct weekly meetings with the staff to review the activities of the previous week and plan for the next week. The institute has various schemes and cells, working towards students' improvement and benefit, where direct feedback is taken from the students about academic and non-academic activities and is discussed in HOD meetings in order to have effective implementation of the

policies and to monitor and evaluate the same. For the same various committees have been formulated.

Internship cell has been established with an aim to facilitate a maximum number of students to achieve maximum opportunities for Internships in various industries. The internship cell works in coordination with the Training & Placement cell. The cell has been driven by S.T.E.S. central committee. Head of this committee who looks after all the activities going under the internship cell.

Sinhgad Technical Education Society Coordinator along with all Institute and Department coordinators works for exploring various opportunities for Internships offered by various industries.

With the help of the Training and Placement department, maximum opportunities for Internships are explored by the recruiter companies. Sinhgad Technical Education Society Coordinator with all Institute as well as department coordinators, always work to search for useful Internship for students by communicating with concerned persons from various companies.

The institute has a TG scheme, where direct feedback is taken from the students about academic and non-academic activities are discussed in HOD meetings in order to have effective implementation of the policies and to monitor and evaluate the same, various committees have been formulated.

| File Description | Document |
|---|---|
| Upload any additional information | [View Document](#) |
| strategic Plan and deployment documents on the website | [View Document](#) |

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

**Response:**

The Institute has a set of well-established rules, policies and regulations within the frame work of AICTE, State Govt. and the affiliating university, which are approved by the Governing Council of the Institute. The rules and regulations of the institute were first published in July 1993 and are revised time to time. The following documents are published and are made available in the institute, library and in all departments to create awareness among the employees and students.

The Governing Body of the College is the supreme administrative body. It is constituted as per the norms fixed by AICTE, New Delhi, DTE, Govt. of Maharashtra and Savitribai Phule Pune University, Pune. The Governing Body is ambitious and converts aspirations into outcomes with a rigorous framework of governance. The Governing Body approves the strategic Vision and Mission of the Institution, long term business plans and annual budgets in accordance to meet the interests of the stakeholders. The Body ensures the establishment and monitoring systems of control and accountability including financial & operational controls and risk assessment; clear procedure for handling internal grievances. Governing Body monitors the institutions performance against the plans approved; and also benchmarks it against other institutions. The Governing Body ensures the achievement of the Vision and Mission of the institutions;

future academic plans and research activities to be promoted by providing direction of implementation and overall monitoring of the activities. Governing Body approves the budgetary allocation towards infrastructure, staff and R & D. The Chairperson is responsible for leading the governing body and its effectiveness. It ensures that the institution is well connected with the stakeholders. The Chairperson also supports the head of the institution in execution of the programs. Frequency of meeting of the Governing Body is minimum once in a year or whenever needed.

The institute's culture is characterized by the concept of Family Kind Work. It aims at making the institute a place where everyone feels valued and loved. The concept of Process Owners has proven to be a key component of the institute's success. This is because it allows the authorities and the faculty to carry out their activities in a more efficient and effective manner. The working methodology of the institute is also student-centric.

Involvement of each and everyone in the decision-making at their respective levels is ensured through decentralization and delegation of powers. Hence, there are various institutional committees consisting of faculty and staff members. Transparency associated therein also forms an important feature of the work culture. This is done through an institutional rule book and code of conduct document which are easily accessible to anyone as the copies are available in the library, with the HODs and the Principal.

The institute functions with perfect decentralized administrative establishment and has complete transparency in the decision-making process.

| File Description | Document |
| --- | --- |
| Upload any additional information | [View Document](#) |
| Link to Organogram of the Institution webpage | [View Document](#) |

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

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

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

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

## 6.3 Faculty Empowerment Strategies

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

**Response:**

The Institute has effective welfare schemes for the benefit of its teaching and non-teaching staff. Institute understands that faculty is the backbone of the educational system. Therefore, the society, as well as the institute, gives more emphasis on the up-gradation of recent technological knowledge and skill sets on the regular basis among the faculty through the industry-institute interaction cell. For this purpose, to organize the industrial training programs, short-term programs, long-term programs, refresher courses, seminars, workshops, etc in the institute or to depute the staff in the other institute for attending such types of programs.

**The institute has a sponsorship fee reimbursement scheme for STTP / Workshop/Training/Professional Membership:**

Institute encourages faculty and staff members for acquiring the latest skills by supporting them to attend various programs/ conferences/STTPs. The policy for reimbursement of fees paid for such STTPs/Workshops is in place.

**Training for Faculty and Technical Supporting Staff:**

The Institute facilitates various training programs for teaching staff members such as Train-The-Trainers and up-gradation knowledge of recently developed software like Networking, AutoCAD, 3D Printing, Data Base, Python, etc.

**Policy for Higher Studies:**

The Institute recognizes the need for a continuous qualification up-gradation.

Institute motivates and supports faculty members for acquiring higher degrees from renowned and accredited institutes or Universities. Institute gives the sponsorship and sanctions the study leave for higher studies.

**Research Promotion Scheme:**

The Institute supports faculty and those who are applying to various funding agencies such as Savitribai Phule Pune University, All India Council For Technical Education, or other Government/ Non-Government agencies.

**Leave:**

As per the norms of the Government, Institute implements the various leave structure consisting of casual leave, medical leave, earned leave, maternity leave, and compensatory leave.

**Employees Provident Fund:**

As per the norms of the Government, Institute implemented the Employees Provident Fund Scheme for eligible teaching and non-teaching staff.

**Emergency Medical Benefits Fund:**

Institute implements the Emergency Medical Benefits Fund scheme for all teaching and non-teaching staff.

**Staff quarter facility:**

The Institute provides staff quarters to the teaching and non-teaching staff members on the college campus and society's other campus.

**Gratuity:**

As per the norms of the Government, the institute implements a gratuity scheme for eligible employees.

**Health Awareness Programs:**

The Institute organizes/arranges health awareness programs like health check-up camps, sessions by medical professionals, Nutritionist etc. Yoga sessions are arranged on the campus.

**OTHERS:**

Institute encourages employees for getting membership in various bodies of central, state, and international levels, and other non-Government professional bodies.

| File Description | Document |
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| 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:** 21.05

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 |
|---|---|---|---|---|
| 3 | 12 | 60 | 45 | 59 |

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

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

**Response:** 6.6

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

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---|---|---|---|---|
| 6 | 10 | 8 | 4 | 5 |

| 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:** 39.69

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 |
|---|---|---|---|---|
| 56 | 96 | 74 | 63 | 17 |

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

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

**Response:**

The institution has a performance-based appraisal system for the assessment of teaching and non-teaching staff. The appraisal report is based on the annual performance of the employees on the basis of their academic, research, and other extra- curricular activities. The performance of the faculty is evaluated based on professional contribution to academics, research publications, books published, patents obtained, etc. contribution to short-term training courses, performing invigilation duties, and contribution to administrative bodies.

The table below shows parameters that are considered in the performance appraisal system of faculty to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal. Comments and suggestions to faculty and staff are communicated for improving their performance.

*Parameters of Performance Appraisal System of the Faculty*

**PART A – To be filled by Individual Faculty**

- Qualifications acquired during the reporting period
- FDP/ Continuing Education Programs/ Industrial Training etc. attended
- Participation in Seminar/ Workshop / Conference
- Seminar / Workshops / Conferences / Courses conducted as Coordinator
- Consultancy Work / or Externally Funded Research Projects
- Research Publications
- Books Published
- Membership in Professional Bodies
- Industrial Liaison
- Patents Obtained
- Result Performance of Subject
- Weakness in Teaching through Students' Feedback
- Guest Lectures were given to outsiders as an Expert
- Participation in
- Departmental Activities
- Institutional Activities
- Co-curricular Activities
- Community service and promotion of Entrepreneurship and job creation
- Constraints/ Problems if any faced

**PART B – To be filled by HOD**

- Quality of Job
- General Intelligence
- Integrity and Character
- Reliability / Dependability
- Punctuality
- Fitness to continue in the present situation
- Relation with Colleagues / Students and their Parents
- Brief about Punishments / Rewards
- Control over class and discipline
- Students Feedback
- Proficiency in the subject of Specialization
- Initiative to do work
- Organizing ability
- Involvement in conducting and arranging communication skills/personality development / VAPs
- Efforts are taken to overcome weaknesses in Teaching
- Leave Without Pay Availed during the period of Assessment
- Overall Assessment
- Recommendations, if any

**PART C (To be filled by Principal)**

Remarks of Principal

**PART D**

Final Review by the Accepting Authority.

The above set performance appraisal report is filled by employees in a given prescribed proforma which includes all the above set related to points and sub-points. Filled in the prescribed format is revised by HOD to assess the attitudinal/behavioral/professional aspects of the faculty concerned. A few strategies are observed in appraising nonteaching staff's performance this includes the technical contribution of individuals such as subject knowledge, awareness, productivity, quality, innovation willingness to learn, diligence, etc. besides they also assess the behavioral aspects like group behavior, acceptability, punctuality, etc.

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## 6.4 Financial Management and Resource Mobilization

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

**Response:**

The institute has a budgetary control system to monitor the effective and efficient use of financial resources. The financial unit is headed by the Management committee followed by the head of the Institute, the Principal. At the beginning of the academic year, the annual budgets are prepared, reviewed, and approved by the Management Committee. The finance committee has fixed the limits of total recurring and non-recurring expenditures based on the income and resources of the institution. Institute regularly follows Internal and external audit systems.

The institute audit has been done in two ways, the first audit is done by the internal auditors twice a year and the final statutory audit is done by an authorized Chartered Accountant (C. A.).

For doing the internal audit, the STE Society has deputed expert auditors. The committee of internal auditors visited various institutes and checks the documents or audits various heads related to the account section. These heads are the total number of students in the institute, year-wise total fees to be receivable from the students, total fees received from the students, total balance fees or fee dues receivable from the students, scholarship or fees receivable from Government agencies i.e. Social Welfare Department, D T E, Mumbai, the total number of teaching and non-teaching staff available on institute roll and verify their yearly increments on pay sheets as well as other details, invoices of purchased items of consumable and non-consumable such as stationery, equipment, tools, materials, etc.

They scrupulously check all records of the institute, if any errors/ doubts in the documents or invoices, they immediately rectify the necessary corrections.

After completion of the internal audit, they prepare the compliance report and submit it to the Hon'ble Founder President, Sinhgad Technical Education Society. Then after signing of compliance report from the Hon'ble Founder President, the same will be sent to the concerned Head of the institute or Principal for resolving the errors or corrections.

As per the norms of Central and State Government policies, in every financial year Institute do the statutory external audit from C. A. M/S Mali K.S.& Company. In accordance with the applicable standards on Auditing as prescribed by the Institutes of Charted Accountants of India prepare the balance sheet.

During the preparation of the Balance Sheet and audited statements of Income & Expenditure Accounts, scrutinize the all-accountable heads of account section. These are Funds and Liabilities, Property and assets, Expenditure in respect of properties, rates, taxes, insurance, and cesses. Repairs and maintenance, salaries, depreciation, and income in the form of student's fee receivable, interest receivable, sale of items, fixed assets, investments, retirement benefits, provisions, affiliation and recognition fees, etc.

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

**Response:** 22.07

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 | 5.98 | 8.09 | 0 | 8.0 |

| File Description | Document |
|------------------|----------|
| Details of Funds / Grants received from of the non-government bodies, individuals, Philanthropers during the last five years | [View Document](#) |
| Any additional information | [View Document](#) |

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

**Response:**

The institution always monitors the effective and efficient use of available financial resources for the infrastructure development to support teaching learning process. Sinhgad Academy of Engineering is a self-financed private institution, tuition fee is the main source of income. Along with tuition fee, research grants from various Government and Non Government agencies, consultancy projects and funding from alumni will be an add on resources for mobilization of funds.

The effective and efficient monitoring of use of available financial resources of institute is mechanized in following way:

- The annual requirements of non-recurring and recurring expenditure are prepared by the HODs inconsultationwithsenior faculty and laboratory in-charges. The details are given to Principal in prescribed format for each financial year.
- The departmental budget is discussed with the Principal and gets finalized to put into the institutional budget.
- Comprehensive institute budget proposal is prepared and presented by the Principal to CDC for recommendation and approval from GB.
- Principal and HODs can utilize the budgeted amount through proper procedure (comparative statements & analysis of vendors) with specific approval of President/ Vice-President.
- Principal can take decision of emergency purchase within the approved budget.
- Regular procedure of quotations, comparative, analysis, delivery, payment after commissioning is carried out for effective and efficient use of available budget.
- Any additional requirement for emergency expenditure can be discussed by HODs with the

- Principal and requested to President /Vice-President for approval.
  - Principal and HODs conducts periodic reviews with account section of institute to make sure that the funds are utilized effectively.
  - Review by CDC and GB is carried out half yearly.

These funds are utilized for all recurring and non–recurring expenditure. The institution has a well-defined mechanism to monitor effective utilization of available financial resources for the development of the infrastructure to augment academic needs. Institute adheres to utilization of budget approved for academic expenses and administrative expenses by management. After final approval of budget the purchasing process is initiated by purchase committee which includes all head of departments and account officer, accordingly the quotations called and purchase orders are placed after final negotiations. All transactions have transparency through bills and vouchers. The bill payments are passed after verification of items. Respective faculty member ensures that whether suitable equipment/machinery with correct specification is purchased. The entire process of the procurement of the material is monitored by purchase committee and Principal. Financial audit is conducted by chartered accountant for every financial year to verify the compliance

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## 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:**

IQAC committee is core committee at institute level, it looks overall activities such as college infrastructural development, improvement in academics by using modern methods and tools, improving result of SPPU examination, to increase the campus placement in reputed industries, etc.

Sinhgad Academy of Engineering has the licensed copy of **Microsoft Teams: Office 365 A1 for students and Office 365 A1 for faculty** with zero cost under Educational Institutes membership. **MS Teams** is a collaboration tool built for hybrid work so that the team stay informed, organized, and connected online—all in one place. MS Teams can help Teachers and Students to come together no matter where you are: Chat - Message someone or a group to talk about work, projects, or just for fun. On top of that, MS Teams is able to connect with Microsoft Office 365 and many other critical tools. Teachers can schedule the classes and upload the subject material. Also, all sessions can be recorded for the students to see again. To manage the members of the MS Teams and to resolve the issues, SAE have College level staff Coordinator and all Department level staff Coordinator team. During the pandemic situation, MS Teams was widely used by all staff and students of SAE.

Spoken Tutorial is a multi-award-winning educational content portal. Here one can learn various Free and

Open-Source Software all by oneself. It's self-paced, multi-lingual courses ensure that anybody with a computer and a desire for learning, can learn from any place, at any time and in a language of their choice. It's (Free and Open-Source Software) – FOSS, funded by the National Mission on Education through Information and Communication Technology (ICT), launched by the Ministry of Human Resources and Development (MHRD), Government of India. These courses are simple and easy to follow even for a beginner but they also meet the growing needs of the learner. engaging digital content ensures that learning happens at all levels - Basic, Intermediate and Advanced. content mandates side-by-side practice thereby ensuring that learners are actively learning. Currently Spoken Tutorial project offers software training on vast list of software, applications and programming languages.

Many of the software taught, are used in various disciplines of Engineering, pure Sciences and several other Under-Grad and Post-Grad studies. End-of-Course online tests and certificates are available for those who wish to test their expertise in a particular software. These certificates give an edge to students during placement by increasing their employability potential. Students with this knowledge will have an edge in the job market. They can also become entrepreneurs and use Open-Source Software in their businesses, and save money all working together to Bridge the Digital Divide in our nation.

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**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 college has a functional IQAC setup as per norms that include Teacher Representatives, Members from Management, representatives of Administrative Staff, one nominee each from Local Society, Students, Alumni, Employers, Industry, and Parents. IQAC has constituted a feedback system that seeks feedback regularly from all stakeholders. After establishing the IQAC in the college, started working towards quality education and inculcating quality culture among the students and staff. The IQAC has also contributed towards institutionalizing the quality assurance strategies and developed various processes as follows:

1. Promote industrial involvement in academic practices by organizing industrial training, industrial visits, workshops, and guest lecturers from industry experts, MOUs, etc.
2. Implementation of Outcome-based learning education in each program.
3. Introduces the aptitude classes and soft skill classes for students to enhance personality and employability.
4. Participation in college in NIRF, ARIIA, NBA, AISHE, and various other quality audits recognized

by the state, national and international agencies.
5. Establishment of Institute Innovation Council (IIC) under MHRD.
6. Establishing Research and Development cell to promote Research and Development activities.
7. Conducting quality programs i.e., seminars, webinars, guest lectures, conferences, etc.
8. Establishment of various processes to take feedback/surveys from various stakeholders.
9. To implement and enhance the use of ICT tools to strengthen the teaching-learning process.
10. Establishment of the Mentor-mentee process and its effective implementation.
11. To submit the Annual Quality Assurance Report (AQAR) annually to the NAAC.
12. To institutionalize the best efforts to make the campus ragging-free and develop the discipline in the students along with the establishment of grievance redressal cell.

Two examples on teaching-learning Processes and the Use of ICT Tools are described in the following paragraph.

1. **Teaching Learning Environment**:

IQAC works on improving the teaching-learning process and supports adopting Outcome-Based Education (OBE) in all programs of college gradually. The Program outcomes are adapted from NBA, program-specific outcomes, and course outcomes prepared by each program considering Bloom's taxonomy in collaboration with faculty, industry experts, and other stakeholders. A result-oriented, performance-based model is adopted at Sinhgad Academy of Engineering that emphasizes accountability based on student learning. The POs, PSOs, and COs attainment is measured for every session, for low attained courses, proper action is planned and efforts are made to improve the attainments if required beyond curriculum content and activities planned and implemented, this helps in improving the employability of students and also rewarded with the NBA accreditation. The IQAC improves the teaching-learning process through standard academic practices, these academic practices include:

- Preparation and adherence of Academic Calendar
- Preparation of standard format of roll number, Attendance Sheets, and formation of sections/groups for Laboratory/Teacher Guardian group.
- Choice of Electives (Open/Departmental/Science based)
- Course allocation Load chart and Timetable preparation
- Mentor-Mentee distribution
- Course Delivery (Online / Offline class)
- Preparation of Course file
- Conduction of Seminar, Projects, Industrial Training
- Monitoring of class delivery
- Attendance Monitoring of students
- Preparing Defaulter List
- Syllabus coverage
- Setting up the question paper
- Conduction of internal examinations
- Evaluation of answer scripts
- Slow and advanced learners
- Industrial Visits & Guest Lectures.
- Automation of Admission Processes - Provision for online fee payment
- Automation of Examination Processes
- Curriculum Development Workshops in many subjects

1. **Use of ICT Tools:**

ICT enables self-paced learning through various tools such as assignments, computers, etc as a result of this the teaching-learning enterprise has become more productive and meaningful. ICT helps facilitate the transaction between producers and users by keeping the students updated and enhancing teachers' capacity and ability to foster a live contact between the teacher and the student through e-mail, chalk sessions, e-learning, web-based learning including internet, intranet, extranet, CD-ROM, TV audio-video tape.

During the pandemic year, the institute has witnessed a significant transformation in terms of teaching and learning methodologies, making it imperative for the institution to keep up the pace and prepare students adequately. The V-Lab was utilized to provide remote access to simulation-based labs in various disciplines of Science and Engineering. Since all experiment results are recorded, maintaining communication between teachers and students becomes more efficient.

Due to the Covid-19 pandemic lectures and practicals were conducted online through the Zoom platform. The feedback was taken through Google form and shared with the students. The student's feedback highlighted limitations of the Zoom platforms such as sharing videos, recording of lectures, sharing of notes, and downloading of attendance, and the lecture session used to timeout after every 45 minutes. The same review was given by faculty conducting the online teaching-learning process. The management on the recommendation of IQAC subscribed Microsoft Team platform for online teaching was used. The MS-Team platform had many features which satisfied all the shortcomings experienced by students and staff. Students are motivated to register and get certificates for online courses through Coursera, NPTEL, and IIT spoken tutorials. Institute is a part of the local chapter for Swayam and NPTEL. Faculties are using Different ICT tools for teaching the classes both in online and offline mode. Some of the examples include Google classroom, MS-Teams, YouTubeand V-lab.

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| Upload any additional information | [View Document](#) |

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**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:** C. 2 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:**

Sinhgad Academy of Engineering promotes the socio-economic empowerment of women through cross-cutting policies and programs, mainstreaming gender concerns, creating awareness about their rights and facilitating institutional and legislative support for enabling them to realize human rights and to develop them to their full potential. The Institute runs on its academic programs in co-aided pattern since its inception.

**Curricular and Co-curricular Activities:** In the institute girl students are equally participating in the various cultural, sports, social activities. Participation of the girl students is considerable various departments such as Techctonic, NSS, Rotract club. For the campus placements also eligible girl candidates are encouraged for the interviews and various competitive exams. For promoting higher education in the students Sinhgad Overseas Cell is also established which is also headed by one of the ladies faculty in the institute. The Institute's cultural coordinator, sports coordinator is also a ladies faculty.

**Teaching and Non-Teaching staff Recruitment** : For Teaching and Non Teaching staff the Institute follows gender equity policy for recruitment, scale of salary, and promotion. Various posts such as Head of the department for First year Engineering, Librarian are borne by the ladies faculty.

**Woman Empowerment and Sensitization:** The Institute has a well established "Women Empowerment Cell". It organizes various programs such as Self Awareness, Diet for Girls, Self Defense, Rangoli Competition, Street Play, Debate, Poster Competition, Health Checkup, guest lecture on Women Empowerment Drive etc. Every year International Women's Day is celebrated in the institute.

**Safety and Security:** Entire campus of the hostel, common passages are under CCTV surveillance. The medical facilities are available round the clock for the emergency along with the ambulance service. Full time rector and ladies warden is available for the girls' hostel. For the gender wise safety of the feminine staff and students in the college premises the institute has constituted anti-sexual harassment committee. It has framed the constitution of the cell with standard operating procedure and works accordingly keeping special vigilance in the susceptible areas of likely incidences. Special Anti- ragging committee is established which will help to maintain secured atmosphere providing safety against inhuman torture of the students. Students, both girls and boys, have to follow the hostel rules for incoming and outgoing. Girls and boys separate common rooms are provided along with the medical kits, general common medicines, water cooler, bed for emergency medical rest, thermometer, first aid box, news papers and magazines etc.

**Any other relevant information/other initiatives by institutes:** Special health check up for the girls students and ladies staff of teaching and non teaching is organized time to time by various clubs of the Institute where haemoglobin, blood sugar, calcium tests are carried out. Besides these, the institute also arranges blood donation camps and dental checkups. These activities are regularly conducted for the students, faculty members, and administrative staff members. Medical facilities provided by STES in the campus takes care of physical as well as mental health of the student by counseling them as and when

required.

| 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 | [View Document](#) |

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

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

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

| File Description | Document |
|---|---|
| Geotagged Photographs | [View Document](#) |
| Any other relevant information | [View Document](#) |

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

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

**Response:**

# Management of Degradable and Non-Degradable Waste

1. **Solid Waste Management**

The solid waste in the dry form is segregated as Non biodegradable and   Biodegradable solid wastes. Recyclable, Reusable, non biodegradable and non-recyclable/reusable and Biodegradable waste are the

five categories of solid waste which are generated in the Institute's Campus. Out of which recyclable solid waste in the form of journal paper scarp and plastic waste if any is collected, segregated and sent to paper, pulp and plastic industries for recycling. The reusable solids in the form of metal straps and clips of the file covers are send for reusing. The rest of the solid wastes are sent to municipal dumping yard through ghantagadi facility provided by Pune Municipal Corporation(PMC). The biodegradable solid waste generated in the campus is disposed of in vermiculture units and in compost pits.

Composting unit runs on biodegradable waste from college dorms, mess halls, canteen, vegetation garbage, garden/lawn trimmings etc.

**Measures taken for Reduction of solid waste generation**

1. Limited usage of papers for printout.
2. Promotion of use of biodegradable/reusable plates, glasses and spoons etc in canteen and Cafeteria.
3. Institute prefers to offer sapling instead of bouquets to the guest visiting the institution.
4. Students are convinced to use both sides of journal papers for writing and to reuse the same file covers.

**2.Waste Water Management**

Recycling of waste water of sewage generated in college and hostel building toilets are done through sewage treatment Plant STP. The institute is having Sewage Treatment Plant (STP) of capacity 1.5 lakh liters/day. All the trees, lawns, flower beds, botanical garden of medicinal plants in the campus is maintained through it. Treated effluent is used for gardening purpose.

**3. Biomedical waste disposal :** Sanitary Napkin incinerator is installed at centrally located ladies toilet in the Institute premises.

**4. E- Waste Management**

The hazardous content of E-Waste materials pose a threat to human health and environment. Hence in our institute, discarded electronic and computer accessories are collected and disposed off to a licensed vendor named M/S Harshal Zagade Enterprises Pvt. Ltd. on periodical basis. The MOU is done with the vendor for taking care of the E-Waste generated in the campus for its proper disposal as specified by MPCB (Maharashtra Pollution Control Board).

**5. Waste Recycling System**

The institute has a water softener and sewage treatment plant. Sewage treatment plant is setup for recycling and reuse of waste water. The biodegradable solid waste generated in the campus is collected periodically and it is fed to the composting plant. The compost done in these drums is used as a fertilizer for the gardening purpose in the campus.

**6. Hazardous chemicals and Radioactive Waste:** The liquid chemical effluent of Chemistry Laboratory

of First Year Engineering and Environmental Engineering Laboratory are collected separately in glass flask and at the end of the day it is processed by chemical titration method to neutralize the pH value of the effluent and then allowed to dispose of through basin. Radioactive waste is not applicable.

| 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](#) |
| 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](#) |
| 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](#) |
| 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:** B. 3 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](#) |
| Link for any other relevant information | [View Document](#) |

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

**Response:**

The Institute has conducted several programs for providing an inclusive environment. It has taken various

initiatives for tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic, and other diversities in the interest of national integrity.

*Tolerance and harmony towards cultural and communal diversities*

Republic day, Independence day, Yoga Day, Marathi Bhasha Diwas, Teachers day, Gurupournima, Engineers'day, Makarasankranti, Navaratri, Khandenawami, Diwali etc. are celebrated in the campus. These events help to sensitize and nurture cultural and communal harmony to converge diversities to national integrity. National holidays declared by government relevant to all communities/ religions are observed in the Institute.

The Institute also organizes various cosmopolitan cultural programs to celebrate the cultural diversity of India through Sinhgad Karandak. Students from various regional and cultural backgrounds participate in such programs and present their regional or cultural folk songs, dances, plays, street plays, fashion shows and music.

Inter university sports for indoor and outdoor games are conducted on a very large scale under the banner of Sinhgad Sports Karnadak.

*Tolerance and harmony towards regional, linguistic diversities:*

The Institute is providing good environment for the students from all parts of the nation. The hostel facilities are available for all. Institute policies support all inclusiveness.

For the promotion of unity in diversity, National Service Scheme has took the initiative to conduct various camps under which they are addressing various issues like village cleanliness, construction of bandharas, social awareness plays etc. Special program like Collective Oath Celebration for De-addiction of Tobacco is organized in the village. Nirmalvari is also initiated by NSS at Saswad village.

NSS has conducted activities like Marathi Bhasha sanvardhan pandharavada.

To deliberate on the linguistic, Library Department of Institute organizes Marathi Bhasha Diwas on February 27th of every year. The library also maintains handsome collection of books and novels published in various languages for general reading. The important academic events like FE Induction Program, Convocation Ceremony etc. are conducted in Marathi along with English for ease of understanding the crook of the events and thereby maintaining linguistic harmony. By supporting language diversity we are strengthening people's cultural heritage and therefore their identity.

The Institute magazine published every year, namely Mosaic accommodates sections in three different languages wise English, Hindi and Marathi.

*Tolerance and harmony towards socio economic diversities:*

The Institute follows the admission process as per the reservations for the seats allotted and declared by the government for all casts/tribes/minority religions/economic classes/divyang/state domicile and for all genders. Also the diversity on economic status of the students is accommodated by offering various scholarships and free ships. The Institute gives time relaxation in the payment of academic fees for the needy students with rural poor economic backgrounds.

The Earn and Learn Scheme is effectively implemented for Economically Backward class students in which apart from University contribution, institute is also contributing for the students.

The institute organizes visits to orphanages, old-age homes, organizes blood donation camps, cloth donation drive, flood relief camp, organ donation drives in the campus thereby supporting socioeconomic tolerance and harmony.

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

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

**Response:**

**Activities for constitutional obligations: values and rights**

Working day starts with the National Anthem centrally in the Institute. Students are asked to attend academics immediately after the anthem. Every year Institute celebrates Republic Day, Maharashtra Day and Independence Day. The celebration is attended by Students, teaching and non-teaching Staff, Invitees, guests and any attendees. Many programs are arranged for human values and ethics such as, Stress management, Art of Living sessions etc. To imbibe the values Institute has organized a guest lecture on 'Non Violence' under NSS. Short film documentary program on "Indian constitution and its liable people" is arranged by the NSS attended by all departmental students and faculties.

Voter card rally is conducted to create awareness right to vote, and it is our constitutional responsibility of wise citizen of India. Students are made aware about the code of ethics, human values, rights, duties and responsibilities as a citizen of India during induction as well as other programs throughout year. Students are made aware about the code of ethics, human values, rights, duties and responsibilities as a citizen of India during induction as well as other programs throughout year.

**Activities for Duties and responsibilities of citizens:**

The tree plantation initiative is being taken by the NSS and many of the students' associations in the institute. Moreover, students are encouraged for active participation in the plantation.

The students are encouraged to participate in the activities of spreading the awareness among citizens on social issues like road safety and traffic rule awareness program which are conducted by NSS.

Every year institute organizes blood donation camp in association with SKN Hospital and/or Rotary Club. The students are sensitized on the importance of the activity and are encouraged to participate in blood donation activity. All the faculties also participate in the event. NSS has also organized the program for the gender sensitization named Sex determination prohibition act. All these programs are conducted for

creating awareness amongst students as well as faculties.

The student associations of various departments took the initiative for the purpose of imbibing human values and ethics among the students. They have visited Orphanages and work there voluntarily, donate cloths, books to them. NSS has organized the 'Eye Donation Pledge Event', which contributes the necessity of eye donation in the student and the faculties. As well organ donation awareness seminar is conducted. For creating awareness against corruption 'Vigilance Awareness Week' is celebrated in the institute.

Students are sensitized on the preservation the ecosystem and environment. Students are also sensitized to adapt green practices. The plastic ban policy is implemented in the Institute campus rigorously.

**Responsibilities and Ethics in Research**
Postgraduate students have the Research methodology subject as a part of curriculum with the objective to acquaint with the ethics in research in connection with their contribution to society. All the project of last year students have to check their project reports for the plagiarism. The department of Information Technology has conducted the workshop on 'Intellectual Property Rights' for all the faculties.

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

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

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

**Response:** C. 2 of the above

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

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

**Response:**

The Institute in the process of inculcating the spirit of nationalism and patriotism in the young generation of students celebrates the commemorative days, events and festivals.

**Independence day:** The Institute celebrates Independence Day every year, wherein Campus Director, Principal, staff, NSS volunteers and our students participate in flag hosting and they deliver speeches and thoughts about the patriotic sacrifices made by our freedom fighters.

**Republic day:** Institute celebrates Republic Day every year. All the faculties and students attend the unfurling of the National Flag by honorable chief guest of the event, and they owe with honor the contribution of Bhartratna Dr. B. R. Ambedkar's work of drafting the Constitution of India.

**Yoga Day :** The 'Yoga Day' is celebrated in the campus by students and staff on 21st June of every year.

**Teacher's Day:** This day is celebrated on occasion of birth anniversary of Dr. Sarvpalli Radhakrishnan, which is celebrated centrally as well as at departmental level, to show the honor and respect towards the teachers. The students' associations of all the departments of the Institute celebrate Teachers' Day.

**The Engineers Day:** This day is celebrated on the occasion of birth anniversary of Late Shri. Mokshagundam Vishveshwarayya to express gratitude towards the great engineer.

**Gurupournima Diwas**: Gurupournima is celebrated on full moon day in the month of Ashadha of Hindu Calendar. On this day various functions, games and speeches are arranged by the students in their respective departments to owe their honor to the teachers. The teachers are felicitated by students with deep sense of gratitude.

**Gandhi Jayanti** : Students and staff members recollect the contribution made by the Father of Nation Late Shri Mahatma Gandhi. The Institute celebrates the day of national importance annually with full involvement of teaching and non-teaching staff and the students of all departments with full zeal and zest. Many departments arrange students' programs such as National Integrity Pledge, Nirmal Vari Abhiyan, visit to orphanage etc. on this occasion.

**Festivals:** The Institute celebrates various festivals of Makarsankranti every year on which the Sun transits into Makar Rashi. The festival of Shiv Jayanti is celebrated every year on 19th February, which is the birth anniversary of Late Shri Chhatrapati Shivaji Maharaj. The festival of Navratri is celebrated for nine days starting from Ashwin Shuddha Pratipada till Ashwin Shuddha Navmi as a co memories of torrential war between goddess Bhavani Mata and demon Mhaisasur, in which finally goddess won the war on the last day by killing the demon. Khandenavami i.e. the ninth day of Ashwin month of hindu calendar, the day on which demon Mhaisasur was killed is celebrated to express religious gratitude to goddess Bhavani Mata. Also on the same day, 'Yantarpoojan' in all the departments is carried out with all rituals and offerings to the machineries as per our mythic culture.

Many other events were conducted under NSS like Street Plays focusing on Social Causes, blood donation etc. Many departments' students associations' organizes Fresher Party and Sendoff function for final year

students etc.

| 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:**

**Best practice 1:**

1. **Title of the Practice: Internship Cell**

It has been established with an aim to facilitate maximum number of students to achieve higher opportunities of Internships in various industries. Internship cell works in coordination with Training & Placement cell.

1. **Objectives of the Practice**:

Internships are short-term, supervised experiences that are focused on specific tasks and projects. It is important that the program is well-defined and understood so that the participants are able to benefit from the opportunities offered.

Following are the objectives of the practice.

- Exploring opportunities of on job training through various platforms.
- Preparing students for the industries.
- Creating enthusiastic and well trained community of engineers through proper interfacing of industry -institute.
- To stimulate students' interest in practical applications of their technical theoretical knowledge through fieldwork in the industry.
- To develop their professional and representational skill through internships.

1. **The Context**

The internship is process of professional on job training of the students simultaneous while their main course of education is in progress. It renders a professional learning experience through meaningful

fieldwork related to student's domain of study or career interest. With the intension of catering on job training to the students in the area of his/her interest and passion of study, the Internship Cell is established in the year 2014-2015 in the Institute. The cell has delineated its standard operating procedure (SOP) for channelizing and monitoring internship programs undertaken by the students for its desired output, which consists of generation of interest, inculcating the techniques and technologies being used in practice and technically updated versions of those practices. The latest developments and the current technological updates are essentially required to be brought on the platform of designed curriculum for the students by the university, but it takes considerable period for getting it done, leading to vast deviation or gap in the things being taught in Institute and the practices prevailing in the field. So this gap can be very well diluted by designing precisely the internship programs taking in to consideration the latest technological developments and break through which are yet to be molded in the university syllabus.

1. **The Practice**

The Internship Cell activities are monitored by the corporate level coordinator at Sinhgad Technical Education Society's office. The STES coordinator along with the institute and the department coordinators work for exploring various opportunities of internships offered by various industries.

Varity of opportunities given by the industries are communicated to all students through department coordinators and teacher guardians. For the same, various awareness programs are arranged and the importance of the internship is communicated in the students. Through guest lectures and programs students are encouraged to go for the internships. The coordinators help and guide students for the application process of internship by providing Institute's letter with a signature of departmental coordinator & head of department for one-month Internship. For more than one-month Internship, signature of institute coordinator & principal is essential along with the signature of departmental coordinator & head of department.

The track record of each and every student who is applying for the internship is maintained timely with the departmental coordinators. Students' experience and feedbacks are continuously monitored during their internship period. The Institute has memorandum of understanding (MOU) with Internshala which is the biggest platform of internship in India and it is also AICTE Internship partner. It is providing internships to students at free of cost and facilitating maximum opportunities to students for their career building and thereby nation building.

The working procedure of Internshala is as follows:

- Registration of all students on Internshala portal by uploading student's details prepared by Institute coordinator.
- Communicating login ID and password to every student through email.
- Communicating opportunities of internships of various industries to students through the Institute coordinator.
- Application process by students to relevant industries by submitting proper resume.
- Communicating to student as well to coordinator regarding selection for internship.

Some of the students who are having their own family business or having their family friends engaged in the business or having contacts through relatives, friends and seniors who are keeping the same business wherein his/her area of interest matches for internship. Such students undertake their internships at those respective places for the stipulated period and schedule as decided by the department. The request

application of such students are forwarded though proper channel to HOD along with the consent letter of the organization for imparting internship training to that student. The permission is granted after reasonable enquiry and communication with the concerned organization.

1. **Evidence of Success**

Through the Internship drive, third year students are encouraged to search for the topic of internship in the domain of their interest and to find out the industries to work in as an intern with those topics. More than 200 students have got the internship in reputed industries and government sectors in the current academic year. It is observed that the students who had under gone the internship training are benefitted with enhancement of their field knowledge ,communication skills, management skills as well as confidence levels. Several companies have also offered job with good packages to the students who have worked as an intern in their company.

The internship programs bridge the gap between the Institutes and industries, the field exposure that students get is helping them to improve their academic performance, their personality development as well as their professional career.

It is observed that most of students who had undergone internship have got the experience in the areas of their work interest and which helped them getting the placement opportunities. The students also realized their strengths, weaknesses, opportunities and challenges SWOC analysis inherent with them which helped them to tackled the field challenges.

The students also realised the areas of potential business in the domain of his/her field of internship. It helped them to come out as an entrepreneur and to start their career.

It is observed that the during internship program many students realized the areas of technological limitations in that field and obliviously the potential areas for the research and higher education required in the field.

It sensitised them to identify topic of their final year project and to opt for research based higher education in their field of interest.

Thus, the process of internship inculcated in student the habit of technical assessment of the field practice and the need of research and higher studies hidden in the field.

1. **Problems Encountered and Resources Required**

Ideally speaking internship programme is to be conducted in 4-6 weeks period which is available between fifth and sixth semesters and which is mostly utilised for vacation purpose. Unfortunately, students get ruled by the natural instinct to opt for vacation rather than internship programme.

Therefore the most common problem encountered in implementation of internship practice is to convince students and parents to opt for internship program of students as against availing winter vacation.

**7.2.1**

**Best practice 2:**

**1. Title of the Practice: Students' social nurturing and outreach activities**

These are the activities to help and encourage the suppressed class of the common disparities on the economic, regional, linguistic, communal or gender grounds. The Institute takes care of promoting and encouraging the students for interfacing with such community sectors by conducting outreach activities.

**2. Objectives of the Practice:**

To sensitize the students on social values and ethics.

To create awareness regarding the social issues of weaker section of society.

To provide interface between the students and society for the social work and interaction by conducting various activities.

To promote various social activities round the year for the holistic and sustainable development of rural area and socially affected community.

To inculcate the students to have concern for the weak, poor and marginalized sectors of society and respect what they have and to share own surplus resources with them.

**3.The Context**

It is observed that engineering graduates are well competent in technical problem solving but considerably lag behind in the social interface to understand prominent social issues and to tackle to resolve them. It is also the fact that the services of engineers are more for social domains than any other profession, as they apply technology to improve standard of living of society with optimized consumption of resources. For bridging this gap various platforms are made available by the Institute as extracurricular activities for social interfacing of students with community viz. Women Empowerment Cell, Departmental Student's Associations, National Service Scheme (NSS) and Student Development Cell. It helps to sort out the social issues in the pockets of identified community outreach and to allocate them the available resources to execute them efficiently as per schedule to resolve the issue to the extent possible.

4. **The Practice**

The Institute organizes and promotes various activities of students' social nurturing and outreach, round the year for holistic and sustainable developments of the students' community and the community in the neighbourhood. The institute makes available the following platforms for this purpose

**Women Empowerment Cell:**

On this platform the activities having social bearing as on the issues of gender sensitivity/equity, women empowerment are dealt with as mentioned below Webinar on "Women Common Fitness Myth " and "Diet Must Haves", women's day celebration, girls' health check-ups, self defence and safety awareness etc. In these programs and activities the focus is concentrated on making aware the girl students and ladies staff members regarding their constitutional rights for gender equity, legal provisions for removing the gender disparities form the society and providing institutional support to the women sector.

**Departmental Students' Associations**

In the Institute all departments are having their own departmental students' associations for providing students the platform for co-curricular and extracurricular activities of social backgrounds. The programs and activities run by the students associations of each department of the Institute comprises of the following categories of programs

- Social addressing for awareness of mass at a time
- Awareness regarding health and hygiene
- The cleanliness drive
- The programs promoting green earth and sustainable environment.
- Celebrations of socio-cultural nature like celebrations of days and festivals
- The programs promoting the nationalism and patriotism amongst the students and in the societal outreach
- Helping and providing relief to the human beings entangled in any kind of disaster or grief etc.

Ample variety of programs and activities are conducted by the students associations of each department which results in nurturing the feeling of unity, better planning and execution of group tasks, the sense of duties and responsibilities as a human kind and learned citizen.

**National Service Scheme (NSS):**

The Institute organizes and promotes various activities for the integrated and self-progressing development of community outreach such as:-

1. Organizing seven days winter camp in rural area, Swachh Bharat initiatives, blood donation camps etc.

2. Various awareness programs are organised such as workshops, rallies and road shows with themes like cleanliness, green environment, traffic rule awareness, empowerment of girls and women to create consciousness so that they can also contribute to economic and social well-being of the community etc.

3. Awareness of Oral Health (Aim to avoid Tobacco and Cancer).

4. Organizing camps in rural area and perform activities such as building Weirs (Bandharas) on rivers and tree plantation on open spaces.

5. Inviting doctors for free health checkups and blood donations camps for rural population.

**Students Development Cell:**

The platform of student development cell working under Board of Students' Development (BSD), a prominent portfolio of SPPU provides all sorts of guidance, assistance and support to the students' activities of social awareness and outreach. The activities in each year are planned and proposed to BSD of SPPU by the Institute, its approval and schedule is decided by BSD in the meeting with the institute coordinators and is conveyed to the respective institutes for implementation. The requisite funds are also sanctioned and distributed by the board of SPPU to the respective institutes for conduction of the approved activities.

There are ample number of activities, programs and drives conducted on this platform vide earn and learn scheme, Swacha Bharat Abhiyan, Marathi Bhasha Gourav Din, the direct broadcasting of the speech delivered by Honourable Prime Minister Shri. Narendra Modi for guiding the students, workshop on Entrepreneurship Development that is "Convert Idea to Business", health check-up for girl students under Nirbhay Kanya Abhiyan, seminar on training for self defence and safety awareness for girl students, tree plantation program and Marathi Bhasha Sanvardhan Pandharavada etc.

## 5. Evidence of Success:

- The main aim of social outreach activities gets fulfilled as the interest of the students in these programs is seen ever increasing from the enhanced number of activities and participating students.
- The civic sense of students seen percolated deep down to their passion from the single instance of flooding of basement floor and the library due to overnight rain, the students reacted with extempore overwhelming response to evacuate the library and basement laboratories within shortest possible time and exhibiting their noble deed without even a single word of instruction from the office bearers of the Institute.
- Awards won by the students while working over this platform are also the evidences of their imbibing passion of social work and community outreach, as seen from the following awards won by them,

1. Maximum blood donation award for the blood donation camp arranged by SKN medical college.
2. Participant in Guinness book of world record for tree sapling distribution
3. Secured 2nd rank in the event "Agrofest of Technothon" 2020, National level Socio-Technofest organized by PVPIT Bavdhan
4. AICTE Chatra Vishwakarma Award for "How to enhance the income of village?" at Delhi.
5. Maximum blood donation award for the blood donation camp arranged by Sasoon Hospital Blood Bank.
6. The student secured first rank in Jadhavar Science Fair 2020 in collaboration with Board of Social Welfare of SPPU.
7. Awards won by students in poster competitions on sociotechnical issues. The girl student Ms. Akanksha Katkar achieved Hat-trick performance by winning three awards in consecution.

## 6. Problems Encountered and Resources Required

For the activities under students' social awareness and outreach the continuous period for minimum required involvement of the students is hardly possible because of hectic academic schedule of engineering students.

| 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 Institute is having the vision, "We are committed to produce not only good engineers but good human beings also". For achieving the goal stated in vision, the Institutes has planned, designed and implemented various programs of co-curricular and extra- curricular nature and 'Students Training Program (STP)' is one such prominent program comprising of five modules for various professional skill developments required for successful practitioner engineer. The program is unique of its kind run for full span of five semesters as co-curricular activity and covering major professionally required skills. The separate slots in the time table are reserved for the STP. This program is unique and versatile because of the following attributes of it.

- It is single co-curricular program implemented over a period of five semesters in consecutions.
- It is designed to benefit the student to boost-up for any career path chosen by him/ her after graduation viz. seeking job, opting higher studies, appearing competitive exams, going for research and development etc.
- It covers all the students of all the programs of graduation without any exception i.e. it is useful for all the students of the Institute to the same extent of its applicability.
- The human resources utilized in the program are the best available with the Institute and the best hired from the industries.

The aim of this practice is to enhance quality of engineering students by empowering them with skills that are globally at par.

**Main Objectives of STP:**

- To enhance the employability opportunity in industry.
- To promote students for self employability.
- Prepare students for higher education in India as well as abroad.
- Prepare for various types of competitive examinations.
- To bridge the gap between the curriculum and current practices on field.

It has been observed that students are technically well competent however lag behind in communication and professional skills. To imbibe the good practices related to self development, enhancing and nurturing the professional skills, STP is planned. The feedbacks are taken from stake holders viz. students, parents and the various industries associated with training and placement activities. The shortfalls observed from the feedbacks are discussed, analyzed and put to critical review for making good the overall modules of

STP to benefit the students for excellence in their professional preparedness.

Thus, STP helps to bridge the gaps between industry, research and academics. STP is facilitated to each and every student starting form first semester of second year to first semester of final year, one in each semester.

**STP- I** is the first module wherein students are trained with the soft skills which include Goal Setting, Strengths -Weaknesses -Opportunities and Threats Analysis, Resume Writing, Report Writing, Letter/Application Writing, Group Discussion, Listening Skills, Presentation Skills, Public Speaking and Behavioral Skills. The students are taught for all the bits prescribed in STP-I and the contents of bits taught and practiced are based on four skills viz. Quantitative Aptitude, Logical Reasoning, Group Discussion and Personal Interview.

**STP-II** is the second module wherein students are facilitated with listening, reading, writing and speaking skills. In this module, group of four students is prepared and small presentations are assigned to them as a task and they are motivated to deliver it in front of their class.

STP-I and II syllabus is common for all programs.

**STP-III** is the third module wherein training aims at refreshing of technical fundamentals. The students are provided with the training for improving basic domain knowledge and concepts of all core subjects of the respective branches, which is the staunch requirement for preparation of the competitive examinations.

**STP-IV** is the forth module wherein the students are trained for identifying the necessity of research, literature survey and technical report writing. This module of STP proves to be helpful in B.E. project topic selection and research orientation of the students. This helps to write technical papers, also.

**STP-V** is the fifth module which focuses on training the students on the most prominent current technologies in their core area of graduation. One or two technologies/trends in high demand are finalized by the respective departments of the Institute. The best available professional expertise in the selected areas is deputed for imparting thirty hours intensive training called as Value Added Program (VAP) for each one of the subjects.

**Evidence of Success:**

- It is observed that the student batches having completed their STP trainings are benefitted by having higher percentage employment ratio.
- Due to STP trainings cognigible percentage rise is observed in the number of internships offered by companies.
- The number of company sponsored projects are also increased in some of the programs due to STP training.
- STP training has also improved the number of students opting for higher education and appearing for competitive examinations.
- With the communication skill development the students' response is improved for the technical paper writing in the technical magazine and presentation in various national and international conferences.

Thus, the practice of STP explained as above has proven to be the successful practice in technical

education to such an extent that it can be called as the unique identity of SAE. In a nut shell, the vision of our Institute is supported to a large extent by adopting the practice of STP as its helps the student to become proficient and versatile engineers equipped with various skill sets required in good engineers

The Institute's performance in a single distinct practice as portrayed above is also keeping parallel pace throughout its run precisely with the attributes of mission statement. As for the holistic development of student is observed in the STP program in nut shell i.e. over its all five modules the student comes out as an all rounder product ready to switch over at ease for any one career alternative. Thus, clubbing this unique identified practice with other prevailing quality parameters of the Institute viz. adoption of value system, transparent work culture and excellent conducive environment in the students and teachers community thereby helping the society for vibrant positive growth.

| File Description | Document |
|---|---|
| Link for appropriate web in the Institutional website | [View Document](#) |

# 5. CONCLUSION

## Additional Information :

Sinhgad Acdemy of Engineering is committed to the empowerment of staff and students with value-based education. The Institute has put in the best practices over the years to develop into an acclaimed center of learning. Many of our faculty members have been bestowed Teaching awards, Highly cited research papers, Patents and other Technical and social laurel.

The pandemic coronavirus COVID-19 was moving like a wave. Since its emergence state was racing to slow the spread of virus by testing and treating patients. In this aspect Sinhgad Academy of Engineering hostels were selected for quarantining people detected with symptoms of COVID-19 virus. So in this pervasive situation, Institute has also in a state of preparedness to provide its facilities. This emphasis the moral role of the Institute for the entire society.

## Concluding Remarks :

The institute is guided by the words of our founder President Prof. M. N. Navale, *"Education is light,Education is the way to a larger purpose. The ambition to build India into an educational leader in the world. We walk on, with faith, with commitment and with grace.*''. The Institution is evolving and embracing the best practices to ensure that the capacities of inquiry, creativity, entrepreneurial and moral attitude are built in the students to become not only good engineers but good human beings in accordance with the vision of the Institute. A steady progress towards realizing the vision of the Institute through the planned mission is evident in the profile of the college.

# 6.ANNEXURE

## 1.Metrics Level Deviations

| Metric ID | Sub Questions and Answers before and after DVV Verification |
|---|---|
| 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.**<br><br>    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.** |

Answer before DVV Verification:

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---|---|---|---|---|
| 1 | 4 | 13 | 11 | 17 |

Answer After DVV Verification :

| 2020-21 | 2019-20 | 2018-19 | 2017-18 | 2016-17 |
|---|---|---|---|---|
| 1 | 3 | 11 | 8 | 17 |

## 2.Extended Profile Deviations

| **Extended Profile Deviations** |
|---|
| No Deviations |