



# **SELF STUDY REPORT**

**FOR**

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

**ZEAL EDUCATION SOCIETY'S ZEAL COLLEGE OF  
ENGINEERING AND RESEARCH**

S. NO. 39, DHAYARI NARHE ROAD, NARHE

411041

<https://zcoer.in>

Submitted To

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

**February 2023**

# 1. EXECUTIVE SUMMARY

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## 1.1 INTRODUCTION

Zeal Education Society (ZES) was established in the year 1996 under the able and dynamic leadership of Shri. S.M. Katkar an eminent industrialist committed to the noble cause of education. Zeal education society is committed to culture of redefining excellence and provides quality education in the field of engineering, Polytechnic, Management and basic and higher school education. The institute has 02 campuses in Pune and 01 campus in Sangali, Maharashtra, India. Over 10,000 students are currently enrolled with the Society in its various courses and provides education from Pre-primary to PhD courses. Being an industry-oriented Technical Institute, it is continuously expanding its scope to introduce new and upcoming courses to ensure the best possible future for its students.

All the institutes are recognized by the concerned statutory authorities and they meticulously fulfil the norms and standards laid down by these statutory authorities.

Zeal College of Engineering and Research (ZCOER) is private, unaided self-financing institution established in the year 2007. The institute offers eight undergraduate engineering programmes of four year duration namely Artificial Intelligence and Data Science, Civil Engineering, Computer Engineering, Electronics & Telecommunication Engineering, Electrical Engineering, Information Technology, Mechanical Engineering and Robotics and Automation. The Institute also offers 05 PG courses in Computer Engineering (Data Science), Electrical Engineering (Power System), Electronics & Telecommunication (VLSI and Embedded System), Mechanical Engineering (ME Design and CADEM) and the it also offers a post-graduate program leading to MBA degree Master of Business Administration. The institute is also granted as PhD research center in Electronics & Telecommunication and Mechanical Engineering under Savitribai Phule Pune University, Pune (SPPU) since 2013.

It has a total under-graduate and post-graduate intake of 900 and 120 students respectively. All the courses are approved by All India Council for Technical Education (AICTE) and affiliated to Savitribai Phule Pune University, Pune.

### **Vision**

To impart value added technological education through pursuit of academic excellence, research and entrepreneurial attitude.

### **Mission**

1. To achieve academic excellence through innovative teaching and learning processes.
2. To imbibe the research culture for addressing industry and social needs.

3. To provide conducive environment for building the entrepreneurial skills.
4. To produce competent and socially responsible professionals with core human values.

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

### **Institutional Strength**

- Excellent teaching learning process incorporating outcome based education.
- An ISO 21001:2018 certification.
- Experienced, skilled and dedicated faculty.
- State of the Art infrastructural facilities.
- Customized ERP system for e-governance.
- Efficient training and placement cell.
- Digital library facility with access to national and international e-journals and e-books.
- Support to faculty for pursuing higher studies.
- Co-curricular and extracurricular activities for holistic development of students.
- Availability of excellence centers in all the departments.
- Recognized research center affiliated to Savitribai Phule Pune University, Pune.
- Professional Society Chapters in the departments.

### **Institutional Weakness**

- Admitted students are of low merit in some of the departments.
- Less number of industry sponsored projects and consultancy works.
- Less number of patents.
- Less number of faculty members in higher cadre.
- Being only 10 years old, the alumni could not make an impact on society.

### **Institutional Opportunity**

- Establish the brand of institute in the society at large as a first choice of stakeholders.
- Faculty motivation for qualification improvement through the research centers and institute of repute.
- Foster research and development activities at large.
- Promotion for Interdisciplinary research.
- Inculcation of social responsibilities.
- Co-teaching from the industry through training and placement cell.
- Achieve the NIRF ranking

### **Institutional Challenge**

- Attract meritorious students.
- Attract and retain faculty of higher cadre.
- Improvement in campus placement for all programs

- Enhance research through patents and publications in standard journals
- Motivate students for higher studies
- Enhance employability skills of students in rapidly changing technology as per industry 4.0.

## 1.3 CRITERIA WISE SUMMARY

### Curricular Aspects

Zeal College of Engineering and Research, Pune is the prominent institute in the Pune region affiliated to Savitribai Phule Pune University (SPPU) and follows the curriculum designed by respective Board of Studies in consultation with various stakeholders. The Curriculum is based on Choice Based Credit System and Course Education Objectives (CEOs) and Course Outcomes (COs) are prepared by the respective Board of Studies and faculty for effective delivery of respective course. The elective subjects are introduced in the third and final year curriculum and students decide the electives as per their choice. The institute ensures effective curriculum planning and delivery by following the academic process manual. Before the commencement of each semester, the institute prepares the academic calendar aligned with the SPPU academic calendar. For effective curriculum delivery, the institute follows various pedagogical initiatives such as ICT based learning, Collaborative/Cooperative/Experiential teaching-learning, NPTEL, SWAYAM and Others E-Sources, Assignments based problem solving, Virtual Laboratory etc. The institute has well equipped central and digital library for online access to international/national journals, e-books and faculty notes. Students are encouraged to enroll and complete different online/offline certificate/add-on courses. The institute offers several 'value addition' programs for students in their academics apart from the programs of SPPU. Several cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability are embedded into the Curriculum. The initiatives are taken by the institute to enrich the curriculum by incorporating content beyond syllabus, project work/internship, project-based learning and Hands on training. The department conducts industrial visits, site visits, technical events and student training programs and also take efforts for student sponsored projects. Every department has their department clubs and associations through which seminars, paper presentation, group discussion, technical quiz and debate completions are conducted. The student feedback is taken in every semester in all courses and corrective measures are taken by the faculty based on the feedback. The institute has a mechanism to obtain feedback on curriculum from other stakeholders like final year students (Exit survey), alumni, parents and industry.

### Teaching-learning and Evaluation

Zeal College of Engineering and Research, Pune is affiliated to Savitribai Phule Pune University (SPPU) and is governed by Maharashtra State Government and AICTE rules. The students are admitted to the institute through the Centralized Admission Program of the Directorate of Technical Education, Mumbai which ensures the diversity of student admissions to the institute. The institute has a policy of recruiting qualified and experienced faculty as per AICTE and SPPU norms which helped in improving teaching-learning process and maintain a good retention ratio. The faculty members framed the Course objectives and outcomes for the allotted subjects by following the Blooms taxonomy. Guardian Faculty Member is assigned for twenty students batch to monitor their academic progress and personal issues. The performance of students is evaluated by conducting Regular unit tests, mock online examinations, prelim tests, mock oral/practical examinations. The institute has well-established procedures to assess the learning levels of the students and to organize special programs for slow and advanced learners. Remedial classes are conducted for slow learners and extra classes are organized for lateral entry students to improve their performance at the university level. The institute

encourages and adopts various experiential learning, participative learning, and problem-solving methodologies by employing student-centric methods such as Industrial Visits, Industry Internships, Project Based Learning (PBL), Participation in Hackathons, SAE (Society of Automotive Engineers) Competitions etc. The institute uses innovative, interactive and ICT-enabled teaching-learning processes to improve the teaching-learning. The institute has adequate number of well-qualified, dedicated and experienced faculty members. For the professional development of faculty members, the institute provides financial assistance to the faculty for attending FDP, workshops and conferences.

### **Research, Innovations and Extension**

The institute has a number of cells, including the Research and Development Cell, Startup and Innovation Cell, Industry Institute Interaction Cell, and Zeal Intellectual Property Cell, to foster a research culture and innovation among students and faculty. The institute has established IPR cell to organize various programs for faculties and students on IPR, research methodology, technical events, etc. The institute has signed MoUs with reputed industries and institutes to provide industrial exposure and technical guidance to the students. The institute is a member of various professional bodies such as ISHARE, ASHARE, CSI, ISTE, IET and formed a student chapter under these professional bodies under which various technical programs are organized. For the holistic development of students and to sensitize the students towards social issues, the institute undertakes many extension activities in collaboration with various Government, Non-Government Organizations, Academic Institutions etc. Students are encouraged to participate in various technical events and competitions like BAJA, Go-Kart, AVISHKAR, project & poster competitions, and paper presentations to showcase their technical skills and innovative research ideas. Students are encouraged to undertake industrial-sponsored projects to bridge the industry institute gap. The institute undertakes various extension activities like Blood Donation Camps which is held in connection with nearby blood banks on holidays and commemoration days. A tree planting and conservation camp are held in surrounding protected forests every year on the occasion of "World Forest Day." The program of eco-friendly Ganesh Visarjan is conducted by students to make them aware about the effects of PoP and thermocol on the ecosystem, as well as river contamination. The institute is having NSS chapter, numerous activity was conducted under this chapter. NSS residential camp in a rural area is organized every year. Students engage in a variety of activities during this time, including water conservation, road maintenance, clean-village campaigns, street dramas, awareness campaigns, energy conservation, etc. All of these activities teach students about social obligations, rural Indian life and its problem

### **Infrastructure and Learning Resources**

Institute has adequate infrastructure and physical facilities as per AICTE norms. The institute has classrooms, seminar halls and auditorium well equipped with projector and display screen to cater the need of academics and other activities at the institute. All the ICT enabled classrooms, well equipped laboratories are sufficiently ventilated and naturally faded. Institute has established Excellence centers with advanced equipment's and industry-ready experiential working platforms. Institute has enriched Library and Training and Placement (T & P) cell to provide adequate infrastructure for trainings and placement. Institute have well equipped dance and music studio, sports ground and indoor games facilities to cater co-curricular & extracurricular activities are provided by the Institute Ramps and lifts are provided for differently-abled students. Institute has "Central Library" spread over 930 square meter floor area, including stack room and reading room. The Central Library uses "AutoLib" as Integrated Library Management System with Web-OPAC module since 2012. Library has more than 32000 printed books and around 11000 Springer publication e-books for daily transaction for all the users. High bandwidth internet facility is available with dedicated computers for the digital library. Institute has

adequate IT infrastructure which is updated and upgraded continuously as per the curriculum requirements and technology updates. A leased line connectivity of 500 Mbps from TTML with Dual Path from Tata is procured and made available. The maintenance of computer, Internet Wi-Fi networking, and installation of software and maintenance and up gradation of hardware is conducted by in house expert team. The Institute has separate centralized cells for maintenance and upkeep of the infrastructure, campus facilities and equipment. Housekeeping agency maintains cleanliness and hygiene. Adequate budget is allocated for maintenance and upkeep.

### **Student Support and Progression**

Institute provides support to the students in academic and personal matters through Guardian faculty members. Students from the economically weaker background are guided and assisted to get scholarships from various government and private organizations. Institute conducts various skill development programs for the students to enhance soft skills, communication skills, and advanced computing skills. For overall student development, the institute encourages the students to participate in co-curricular and extra-curricular activities by providing the required support. Training and placement cell and departments provide pre-placement guidance and guidance for competitive examinations to the students for placement activities and to motivate the students for higher studies. Students are made aware of various opportunities after graduation. Various training sessions are conducted for career guidance and entrepreneurship development. The cell coordinates the internship and training activities. Institute has constituted committees like Women grievances cell and Anti-ragging cell for the timely redressal of sexual harassment and ragging cases. The institute motivate students to participate in sports and cultural activities organized by the institution and other institutions at various levels. Institute has a strong Alumni Association through which alumni of the institute are actively contribute in students' development activities. NSS unit of the institute organizes a number of programs at villages where regular activities are conducted to create awareness and development of villages.

### **Governance, Leadership and Management**

Institute employs good Governance, leadership, and management practices. Governance refers to the systems, processes, and structures that guide and direct institutes. The governing body of an institute consists of a board of trustees, director, other societal members and Principal. They are responsible for ensuring that the institute is operating effectively. The institution is governed in a participatory manner, with all stakeholders actively involved in its administration. The governing body delegates authority to the next level employees for execution.

In the institute, there are many functionaries like department heads, coordinators and conveners of various committees and cell representatives. They have significant role to play in decision making and developing institutional policies and putting them into action.

Institute establish the many associated committees for smooth functioning like IQAC, AMC, ICC, GRC, purchase committee and others committees with well-defined objectives. Teachers have a vital role in carrying out the institute's vision and mission, short term and long-term goals implementations. They participate actively in the decision-making process as an outcome. Heads of departments have an administrative and academic freedom for operation. Teachers are also members and conveners of the many committees established for the institute's day-to-day operations. The institute has implemented the e-governance along with ISO standardization in areas of operation of Academics, Administration, Student Admission, examination and

other supportive operations.

The institution has effective welfare measures and Performance Appraisal System for teaching and non-teaching staff. The institution has effective welfare measures for Driver's accidental policy, Fees redemption up to 20% for wards of staff, Paid study leaves and Covid-19 insurance cover for staff. Institute has strategies planning for mobilization and optimal utilization of resources and funds from various sources, including government and non-government organizations. Financial audits are done every financial year, which help to ensure that the institution's financial resources are being used effectively and efficiently.

Institute has an Internal Quality Assurance Cell (IQAC) which is contributing significantly for institutionalizing the quality assurance strategies and processes. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities.

### **Institutional Values and Best Practices**

The institute values and best practices refer to the standards and principles that guide working staff of the institute and upliftment in the professional & ethical behavior of student's community. These values and practices are essential for ensuring the safety, ethics, outcome of the course delivered and quality of teaching learning process. The institute conducted the various programmes like Gender Equity and celebration of days of National/International commemoration.

The various curricular and co-curricular activities are conducted throughout the year in institute. It is regarding gender equity program, Women's Day celebration, National Festivals, Enterprising activities. The purpose the activity is in bringing students and teachers with diverse background on single platform for creating inclusive environment. These activities help in developing tolerance harmony towards culture, region and linguistics and also communal social economics and other diversities.

Institutional effort is always in providing an inclusive environment. The institute often conducts quality audits of the environment and energy use. The Institute develops guidelines that are consistent with its key principles. Both students and staff have a code of conduct, and everyone is expected to abide by its guidelines. The institute promotes student participation in NCC, NSS, and sports events to improve ties and relations across the country.

Institute undertakes and operates many good things for conducive academic environment for teaching learning & extracurricular activity. Out of that two best practices are Institute adds 'Creation of e-content for use in successful teaching and learning' as well as student training programmes for enhanced employment and the life skill enhancement.

## 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the College	
Name	ZEAL EDUCATION SOCIETY'S ZEAL COLLEGE OF ENGINEERING AND RESEARCH
Address	S. No. 39, Dhayari Narhe road, Narhe
City	PUNE
State	Maharashtra
Pin	411041
Website	<a href="https://zcoer.in">https://zcoer.in</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	A. M. Kate	020-67206106	9822014351	-	principal.zcoer@zealeducation.com
IQAC / CIQA coordinator	P. P. Walvekar	020-67206115	8975760046	-	iqac.zcoer@zealeducation.com

Status of the Institution	
Institution Status	Private

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	



State	University name	Document
Maharashtra	Savitribai Phule Pune University	<a href="#">View Document</a>

Details of UGC recognition		
Under Section	Date	View Document
2f of UGC	27-03-2018	<a href="#">View Document</a>
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	<a href="#">View Document</a>	20-07-2022	12	NIL

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	S. No. 39, Dhayari Narhe road, Narhe	Semi-urban	5	24868.58

## 2.2 ACADEMIC INFORMATION

<b>Details of Programmes Offered by the College (Give Data for Current Academic year)</b>						
<b>Programme Level</b>	<b>Name of Programme/Course</b>	<b>Duration in Months</b>	<b>Entry Qualification</b>	<b>Medium of Instruction</b>	<b>Sanctioned Strength</b>	<b>No.of Students Admitted</b>
UG	BE,Engineering And Technology	48	Class XII and MHTCET or JEE or Diploma	English	120	106
UG	BE,Engineering And Technology	48	Class XII and MHTCET or JEE or Diploma	English	60	60
UG	BE,Engineering And Technology	48	Class XII and MHTCET or JEE or Diploma	English	60	27
UG	BE,Engineering And Technology	48	Class XII and MHTCET or JEE or Diploma	English	180	180
UG	BE,Engineering And Technology	48	Class XII and MHTCET or JEE or Diploma	English	120	120
UG	BE,Engineering And Technology	48	Class XII and MHTCET or JEE or Diploma	English	60	60
UG	BE,Engineering And Technology	48	Class XII and MHTCET or JEE or Diploma	English	120	120
UG	BE,Engineering And Technology	48	Class XII and MHTCET or	English	180	105

			JEE or Diploma			
PG	ME,Engineering And Technology	24	BE or BTech and GATE	English	24	1
PG	ME,Engineering And Technology	24	BE or BTech and GATE	English	24	0
PG	MBA,Engineering And Technology	24	Any Graduate and CAT or CMAT or MAH MBA CET	English	60	60
PG	ME,Engineering And Technology	24	BE or BTech and GATE	English	24	6
PG	ME,Engineering And Technology	24	BE or BTech and GATE	English	24	0
PG	ME,Engineering And Technology	24	BE or BTech and GATE	English	24	2
Doctoral (Ph.D)	PhD or DPhil,Engineering And Technology	36	ME or MTech and PET or GATE	English	19	8
Doctoral (Ph.D)	PhD or DPhil,Engineering And Technology	36	ME or MTech and PET or GATE	English	6	2

### Position Details of Faculty & Staff in the College

<b>Teaching Faculty</b>												
	<b>Professor</b>				<b>Associate Professor</b>				<b>Assistant Professor</b>			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	22				35				136			
Recruited	7	0	0	7	6	1	0	7	73	53	0	126
Yet to Recruit	15				28				10			
Sanctioned by the Management/Society or Other Authorized Bodies	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			

<b>Non-Teaching Staff</b>						
	<b>Male</b>		<b>Female</b>		<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government						75
Recruited	49		26		0	75
Yet to Recruit						0
Sanctioned by the Management/Society or Other Authorized Bodies						0
Recruited	0		0		0	0
Yet to Recruit						0

<b>Technical Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				40
Recruited	31	9	0	40
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	0	0	0	0
Yet to Recruit				0

**Qualification Details of the Teaching Staff**

<b>Permanent Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	7	0	0	5	1	0	4	2	0	19
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	1	0	0	69	51	0	121
UG	0	0	0	0	0	0	0	0	0	0

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

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

<b>Details of Visting/Guest Faculties</b>					
<b>Number of Visiting/Guest Faculty engaged with the college?</b>	<b>Male</b>		<b>Female</b>		<b>Total</b>
	1		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	2683	63	0	0	2746
	Female	1049	17	0	0	1066
	Others	0	0	0	0	0
PG	Male	95	7	0	0	102
	Female	70	1	0	0	71
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	27	0	0	0	27
	Female	13	0	0	0	13
	Others	0	0	0	0	0

<b>Provide the Following Details of Students admitted to the College During the last four Academic Years</b>					
<b>Category</b>		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>
SC	Male	84	162	49	70
	Female	55	64	23	35
	Others	0	0	0	0
ST	Male	6	6	0	3
	Female	4	1	0	0
	Others	0	0	0	0
OBC	Male	121	194	123	144
	Female	67	62	44	53
	Others	0	0	0	0
General	Male	361	452	314	396
	Female	142	162	114	149
	Others	0	0	0	0
Others	Male	89	120	68	72
	Female	36	32	20	40
	Others	0	0	0	0
Total		965	1255	755	962

### **Institutional preparedness for NEP**

1. Multidisciplinary/interdisciplinary:	<p>The Institute follows a vision "To impart value added technological education through pursuit of academic excellence, research and entrepreneurial attitude". Thus, Institute inculcate various programs through university curriculum, delivering content beyond syllabus, interactive sessions and virtual talks. Being an affiliated organization with Savitribai Phule Pune University, (SPPU) Pune; Institute offers various programs for undergraduate and Post graduate students consisting blends of science, technology, engineering, Mathematics, human values, societal responsibilities, ethics and life skills. There are total eight UG programs which can be broadly categorized as Core Engineering cluster includes Civil</p>
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Engineering, Mechanical Engineering, Electrical Engineering; IT cluster includes electronics and telecommunication Engineering, Computer Engineering and Information Technology, and; Multidisciplinary cluster includes Robotics and Automation and Artificial Intelligence and Data Science. Thus institute offers programs imbuing all technologically advanced domains. Since 2015; SPPU implemented choice based credit system and hence in the institute too. Each UG programme is of 4 years duration. The minimum total no. of credits requirement for each programme is 190. These 190 credits are distributed as 130 credits for Mandatory Subjects, 12 credits for Elective Subjects, 39v for Lab Courses, 1 credit for seminar and 8 credits for project work. In the structure, the credits are distributed over 8 semesters. The open elective included, gives the student a wide choice of subjects from other programmes. The student can opt for one audit course in a semester during first to eighth semester. The method of conduct of course could be based on lectures, site visits, small projects, online sources etc. and can be devised. Advanced courses are offered in case of Performing Arts, Foreign Language and Yoga for students to continue learning these and enhance these skills. To make students aware about environmental issues, the subject – Environmental Studies has been introduced in the first semester for all programs. Further, one audit course in each program has been planned in forthcoming semester. Being a university affiliated institute there is no any liberty to implement multidisciplinary flexible curriculum that enables multiple entry and exits at the end of 1st, 2nd, 3rd and 4th years of undergraduate education. To engage in more multidisciplinary research endeavors to find solutions to society's most pressing issues and challenges institute has seasoned ecosystem. To inculcate research culture among students, various sessions addressing research methodology, problem identification, patenting and intellectual property, etc. are planned through “Zeal Intellectual Property Facilitation Center – ZIPFC”. Various facilities are provided for teachers and students to attend seminars, conferences, workshops, etc. In view of NEP 2020 implementation in accordance to promote Multidisciplinary / interdisciplinary approach, the institute has plans by maintaining SPPU rules and

	regulations. Development of ZealTECH – an incubation center to promote multidisciplinary research is one the steps in this regard.
2. Academic bank of credits (ABC):	Institute is affiliated with Savitribai Phule Pune University, (SPPU) Pune. Academic Bank of Credits - ABC has been initiated by academic year 2021-22. The necessary actions are followed as per timely directives given by SPPU.
3. Skill development:	Being an affiliated organization with Savitribai Phule Pune University, (SPPU) Pune; Institute offers various programs for undergraduate and Post graduate students consisting credit and audit courses. Audit courses are specifically designed to incorporate the content which include the development of humanistic, ethical, Constitutional, and universal human values of truth (satya), righteous conduct (dharma), peace (shanti), love (prem), nonviolence (ahimsa), scientific temper, citizenship values, and life-skills etc. One Audit course per semester can be offered by student apart from program enrolled.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	NA
5. Focus on Outcome based education (OBE):	Institute is well aware about need of outcome based education system. Various practices are followed to implement the same. The Course Outcomes (COs) are defined for each course using Bloom Taxonomy Levels. Savitribai Phule Pune University - Board of Studies of respective programs have framed COs of courses while revisions and finalizing the syllabus. These COs are retained if domain coordinator and course instructor are convinced/agreed; otherwise reframed by referring the syllabus. One CO for each unit is stated. Considering, typical syllabus structure of SPPU, six COs per course are drafted by course coordinator with domain in-charge concern. Once Cos for all courses – all units are framed, they are dissipated to students through course notes, website, etc. All COs are mapped with relevant Program Outcomes (POs) as per graduate attributes defined by Washington Accord. This Mapping is done in three levels of relevance as; (a) Slight (Low) : 1; (b) Moderate (Medium) : 2; (c) Substantial (High) : 3. The Direct and Indirect assessment tools are used for determining the CO-PO attainment. The weightage

	<p>for direct and indirect assessment tools for the respective academic years are set. Direct Assessment Tools are again sub-classified as internal and external assessment tools. The Weightage for internal and external assessment tools are set for the respective academic year. Various internal assessment tools like assignments, unit tests, class tests, prelims, quizzes, oral/ viva, seminar review, project review, and lab performance are used. The external assessment tools are examination heads conducted by Savitribai Phule Pune University like in-semester, end-semester examination, term work, practical/ oral etc. Indirect assessment tools like course exit survey, graduate exit survey, alumni survey, employer survey, co-curricular and extra-curricular activities etc. are used. Statistical data obtained from these tools is tabulated and using suitable formulation the computation is done for attainment of CO with PO and PSO. In this way attainment of Course Outcomes and Program Outcomes are evaluated.</p>
6. Distance education/online education:	NA

### Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	Yes
2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?	Yes. It was constituted from the Academic Year 2021-22.
3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.	A program on "Systematic Voter Education and Electoral Participation (SVEEP)" was conducted on 28.08.2021 by "Electoral Literacy Club", Zeal College of Engineering and Research (ZCOER), Pune in collaboration with Students Welfare Cell to create awareness about the voter registration and the effective participations of youths in democracy with the esteemed invited speaker Shri. Ajit Jagannath Khandare, Deputy Director & Under Secretary, Archaeology Department, Government of Maharashtra.
4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research	NSS students in collaboration with Tahasil Office, Haweli. Initiated voter registration activity. For this

<p>projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.</p>	<p>concern first drive was organized on 25th of November 2022. Our Principal sir , NSS PO , Nayab Tahasildar was present for the activity which was held in college auditorium were 400 students was present. Nayab Tahasildar madam guided all students about importance of voter I'D, voting process, linkage of vote id and Aadhar card. Also she guided about online process for the same. Later registration process help desk stall was arranged in college on 27th of November 2022 were our volunteers guided visited students about all the process. They also showed live demo of process I presence of Nayab Tahasildar Madam. About 200 registration was registered on that day. Our college planned a world record of human portrait of 3700+ students on 26th of January 2023, so by focusing large crowd of students the same activity of voter id registration was again executed on the same day. Nayab Tahasildar Madam guided all the students about voter id registration process and we all took voter registration oath to motivate all these student crowd. Further, student performed a street play in accordance with this subject. Following output generated due to this all activity, 1. Students got information about all election process. 2. They got importance of voter I'd and they registered for voter I'd registration. 3. They also got knowledge about linking of 16A and 16B ( Aadhar card and voter I'd )</p>
<p>5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.</p>	<p>Electoral Literacy Club (ELC) monitors regularly the eligible students above 18 years for enrollment as voters.</p>

## Extended Profile

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### 1 Students

#### 1.1

Number of students year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
3693	3655	2787	3106	3045

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 2 Teachers

#### 2.1

Number of teaching staff / full time teachers during the last five years (Without repeat count):

Response: 376

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

#### 2.2

Number of teaching staff / full time teachers year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
125	180	173	194	194

### 3 Institution

#### 3.1

Expenditure excluding salary component year wise during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
1142.84	927.11	1412.79	1307.02	1238.03



## 4. Quality Indicator Framework(QIF)

### Criterion 1 - Curricular Aspects

#### 1.1 Curricular Planning and Implementation

##### 1.1.1 The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

##### Response:

As the institute is affiliated to Savtribai Phule Pune University, the curriculum provided by the University has been followed. The faculty members take active participation in the process of curriculum planning by respective Board of Studies (BoS).

The institute ensures effective curriculum planning and delivery by following the academic process manual. This academic process manual is made available to all through website, google drive and circulated through Email.

Before the commencement of each semester, the institute has prepared the academic calendar aligned with the SPPU academic calendar by considering various events and activities to be carried out. The individual department is then prepared department academic calendar aligned with SPPU and Institute academic calendar. The academic load is distributed as per subject choices given by the faculty members and accordingly timetable is prepared by the timetable coordinator. The timetables are made available to the students through notice board, websites etc.

After finalizing the subject, the course faculty has to prepare course file as per prescribed format. The academic coordinator and Head of Department verify the course file and monitor the content delivery as per the teaching plan.

Various pedagogical initiatives to achieve the outcomes of teaching are:

- **ICT based learning:** Use of LCD projectors, Webcam and provision for interactive teaching learning.
- **Collaborative/Cooperative/Experiential teaching-learning:** Students share knowledge or discuss topics in small group or in peer mode. Project Based Learning (PBL) is carried out for all the students. Further industrial visits, internships and final year projects are arranged in collaboration with industries and institutes of repute.
- **NPTEL, SWAYAM and Others E-Sources:** The faculty members are using E-sources such as NPTEL, SWAYAM, Coursera courses for effective teaching. The same also provided to the students in order to develop self-learning and life-long learning skills.
- **Assignments based problem solving:** Assignments are given to students and they solved by themselves. Assignments are based on COs which helps to achieve Program Outcomes.
- **Virtual Laboratory/ video based demonstration:** Demonstration of system or parts of a real life system using modern tools such as animated / video demonstration.

As per academic calendar, the class tests, assignments, reviews of projects and seminars, industrial visits, guest/expert sessions, alumni interactions are conducted. For absent and failed students retest is conducted

after the class test.

The reports of class tests, assignments etc taken as a part of internal evaluation. The continuous assessment based on regularity and lab performance is maintained for each lab course. The term work evaluation is prepared considering attendance, class test, assignments etc.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 1.2 Academic Flexibility

### 1.2.1 Number of Add on /Certificate/Value added programs offered during the last five years

Response: 53

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 1.2.2 Percentage of students enrolled in Certificate/ Add-on/Value added programs as against the total number of students during the last five years

Response: 51.68

#### 1.2.2.1 Number of students enrolled in subject related Certificate/ Add-on/Value added programs year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
2257	1664	2616	884	995

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 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:**

Being the affiliated institute, the institute implements the curriculum prescribed by Savitribai Phule Pune University (SPPU), Pune. The curriculum is revised periodically considering all the cross-cutting issues relevant to professional ethics, gender, human values, environment, and sustainability.

### **The curriculum has incorporated environment and sustainability issues in few courses are as follows:**

**Building technology and architectural planning:** The students learn to develop a building plan using optimum space and following building byelaws laid by authorities. They get aware about green building practice, rain water harvesting, etc. Thus, students are sensitized with reference to social responsibilities and professional values.

**Environmental Engineering:** This course highlights the aspects related to air pollution, noise pollution, water and waste water treatment systems. Thus, students get aware for environmental issues.

**Geotechnical Engineering:** This course highlights the causes and remedial measures of landslide. It also enables the students to understand the root cause of subsurface water body contamination and various methods to control the same.

**Energy Audit and Management:** This course highlights maximum use of renewable energy sources. Importance of energy conservation and management. Green, environmental and Energy auditing.

**Material Science:** This course increases awareness among students about environment and green technology, nanotechnology, battery and solar materials and create attitude towards sustainable lifestyle.

### **The curriculum has incorporated Human Values issues in few courses are as follows:**

**Industrial and Technology Management:** This course highlights management principles how to create human values such as honesty, discipline, sincerity. To create the awareness among students to follow the professional ethics, avoid the plagiarism of Patent, IPR, copyright.

**Information and Cyber Security:** This course highlights the concept related to digital vulnerability and students should learn to protect data from malicious users or intruder.

**Road Safety Management:** This course highlights need for strict enforcement of law to ensure greater safety on roads and an environment-friendly road transport.

### **The curriculum has incorporated Professional Ethics issues in few courses are as follows:**

**Total Quality Management and Management Information System:** To create awareness amongst students to follow professional ethics in the field of Engineering and Technology.

Audit courses are included in syllabus which make student learnt about behavioral skills and professional etiquettes, workplace manners, etc.

AICTE newly introduce the subject Environmental Studies in all disciplines to discuss about environmental pollution, science and technology associated with monitoring and control, Ethical practices for engineers.

Gender equality issues as part of the curriculum is covered in co-curricular activities. The girls and boys participate equally in various curricular, co-curricular and extracurricular activities such as Project group, seminars, paper presentation, group discussion, technical quiz, debate, departmental students' associations and club activities, annual sports – Rananangan, Annual Cultural Festival - Udan, etc.

Induction programs are arranged as part of curriculum on cross cutting issues. Guest lectures are arranged on human rights and health related issues.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

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

**Response:** 86.33

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

Response: 3188

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**1.4 Feedback System**

**1.4.1 Institution obtains feedback on the academic performance and ambience of the institution from various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website (Yes or No)**

**Response:** Yes

File Description	Document
Upload supporting document	<a href="#">View Document</a>

## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1 Enrolment percentage

**Response:** 68.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
971	1258	766	962	1084

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

2021-22	2020-21	2019-20	2018-19	2017-18
1308	1537	1433	1530	1584

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

#### 2.1.2 Percentage of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (Exclusive of supernumerary seats)

**Response:** 65.64

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

2021-22	2020-21	2019-20	2018-19	2017-18
466	647	341	420	514

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

2021-22	2020-21	2019-20	2018-19	2017-18
654	768	716	765	735

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 2.2 Student Teacher Ratio

### 2.2.1 Student – Full time Teacher Ratio (Data for the latest completed academic year)

**Response:** 29.54

## 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 using ICT tools

**Response:**

The institute encourages and adopts various experiential learning, participative learning and problem-solving methodologies by employing student centric methods as follows.

#### 1. Industrial Visits:

Industrial visits are organized to strengthen industry-institute connect and facilitate experiential learning. Every department organizes Industrial visit as per university curriculum to introduce industrial know-hows.

#### 2. Industry Internships:

Summer internship programs are recommended for final and pre-final year students. All students from third year class join for internship program. After successfully completion of internship program students used to prepare detailed report and delivers a presentation in front of expert panel.

#### 3. Project Based Learning (PBL):

Final year projects, mini projects and Project Based Learning are the important components in the curriculum to do active experimentation and learn by doing the things.

#### 4 NSS field work:

NSS unit of the institute support experiential learning through social and environmental issues by

undertaking various field activities such as tree plantation drives, health is wealth campaign, road safety awareness drive and blood donation camps.

**5. Projects and Seminar:**

Efforts are taken to connect students of third year class with industries to get exposure with practical knowledge. Student internship program is run for mid semester vacation. Final year students are motivated to work on their projects having industry support, social impact, innovative ideas, etc.

**6. Participation in Hackathons, SAE (Society of Automotive Engineers) Competitions** The institute has taken keen interest in participation for Smart India Hackathon, Rotary water Olympiad.

**7. Club activities:** Experiential and participative learning is facilitated by interdepartmental Club activities through clubs like Indian Geotechnical Society, ISTE, etc. The institute has an active SAE India Collegiate club through which students participate in various competitions. These activities develop their problem solving, design and manufacturing skills.

**8. Visits to Exhibition** Students participate and visit various exhibitions like Constro, Autocluster India, etc. regularly to get the exposure to new trends in technologies and products.

**9. Innovative pedagogy techniques:**

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

**10. Hands-on sessions** are arranged in each semester so that students get practical experience of applying various concepts learned in theory.

11. The students are motivated to use MOOC courses, NPTEL sessions, UDEMY and Coursera Certificate program.

12. In COVID pandemic, during online teaching virtual labs from institute of repute were used. E-content and video lectures developed by faculty members are made available on institute ERP and website for easy access. A special portal “zealacademy” is developed for the same.

13. To upskill the English language proficiency in students from rural background, a special training of soft skills and language is provided through “Spoken English” forum by IIT Bombay.

14. Considering need of aptitude trainings to get students recruited in prominent industries, a special training - “AMCAT” is provided.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 2.4 Teacher Profile and Quality

### 2.4.1 Percentage of full-time teachers against sanctioned posts during the last five years

Response: 85.15

#### 2.4.1.1 Number of Sanctioned posts / required positions for teaching staff/ full time teachers year wise during the last five years:

2021-22	2020-21	2019-20	2018-19	2017-18
241	194	194	194	194

#### File Description

#### Document

Upload supporting document

[View Document](#)

### 2.4.2 Percentage of full time teachers with NET/SET/SLET/ 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: 12.47

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

2021-22	2020-21	2019-20	2018-19	2017-18
23	26	21	20	18

#### File Description

#### Document

Upload supporting document

[View Document](#)

Institutional data in the prescribed format

[View Document](#)

## 2.5 Evaluation Process and Reforms

### 2.5.1 Mechanism of internal/ external assessment is transparent and the grievance redressal system is time- bound and efficient

Response:

The Institute is affiliated to Savitribai Phule Pune University, External assessment is done at university

level. So far internal assessment is concern; it is set practice by each department in accordance with institution policy. The frequency and mode of internal assessments are defined at the start of the academics so that students can plan the studies accordingly and the faculty members can do assessment on regular basis.

Continuous internal assessment of the students is carried out by assigning appropriate weight-age to understanding of experiments, presentation in file/journal, regularity in the laboratories, etc.

This assessment is transparent and is carried out in the presence of the students in the laboratories. Internal assessment of students' final year project work is also carried out throughout the academic year in the form of step-by-step presentations and performance parameters of the project. These presentations and hence the project work are assessed by a panel of faculty members including the project guide. The performance of each student is communicated through grades /marks and the entire activity is recorded in the project dairy.

Mini projects are included in several departments' programmes. The students are given these assignments in groups. Each member of the group works on the tasks in the appropriate manner. It is a full-term project carried out over the semester. Every student receives ongoing evaluations from their assigned guide. At the end of the term, the exhibition and demos are also organized. The students are assessed by a referee of panel.

In project-based learning (PBL), a problem is identified, probable and potential solutions are considered, and then the creative ideas are presented through presentation, demonstrations, hard copy, soft copy or videos.

In the internal assessment procedure, assignments and tutorials are given to the students. In order to maintain consistency throughout the semester, the students get problem statements based on the course material on a regular basis. Students were able to develop solid technological foundations and principles. This supports students' ongoing alertness and updating. The relevant department administers class tests. Regularly, the multiple choice based question's answer or answers of question paper are evaluated in either hard or soft mode.

Assessment Mechanism to deal with internal examination related grievances is transparent, time bound and efficient in Term work, class test assignment & project work.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 2.6 Student Performance and Learning Outcomes

**2.6.1 Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website and attainment of POs and COs are evaluated**

**Response:**

The Course Outcomes (COs) are defined for each course using Bloom Taxonomy Levels. Savitribai Phule Pune University - Board of Studies of respective programs have framed COs of courses during finalization of the syllabus. These COs are used if domain coordinator and course instructor are convinced/agreed; otherwise those are reframed by referring the syllabus.

Once COs for all courses are finalized, they are dissipated to students through course notes, website, etc.

All COs are mapped with relevant Program Outcomes (POs) as per graduate attributes. This Mapping is done in three levels of relevance as; (a) Slight (Low) : 1; (b) Moderate (Medium) : 2; (c) Substantial (High) : 3.

The Direct and Indirect assessment tools are used for determining the CO-PO attainment. The weightage for direct and indirect assessment tools for the respective academic years are set. Direct Assessment Tools are again sub-classified as internal and external assessment tools. The Weightage for internal and external assessment tools are set for the respective academic year.

Various internal assessment tools like assignments, unit tests, class tests, prelims, quizzes, oral/ viva, seminar review, project review, and lab performance are used.

The external assessment tools are examination heads conducted by Savitribai Phule Pune University like in-semester, end-semester examination, term work, practical/ oral etc.

Indirect assessment tools like course exit survey, graduate exit survey, alumni survey, employer survey, co-curricular and extra-curricular activities etc. are used.

Statistical data from these assessment tools is tabulated and attainment of CO with PO and PSO is obtained. In this way graduated attributes are achieved.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 2.6.2 Pass percentage of Students during last five years

**Response:** 92.81

### 2.6.2.1 Number of final year students who passed the university examination year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
763	1012	885	844	639



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

2021-22	2020-21	2019-20	2018-19	2017-18
831	1024	898	971	740

<b>File Description</b>	<b>Document</b>
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**2.7 Student Satisfaction Survey****2.7.1 Online student satisfaction survey regarding teaching learning process****Response:** 3.79

<b>File Description</b>	<b>Document</b>
Upload database of all students on roll	<a href="#">View Document</a>

## 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 in the institution during the last five years (INR in Lakhs)**

**Response:** 25.59

**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)**

2021-22	2020-21	2019-20	2018-19	2017-18
1	0	14.39	3	7.2

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 3.2 Innovation Ecosystem

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

**Response:**

To inculcate research culture and innovation amongst students and faculties, institute has various cells like Research and development Cell, Startup and innovation cell, Industry Institute Interaction Cell and Zeal Intellectual Property Cell. These cells regularly conduct various activities like motivating faculty members and students to work on research problems, drafting research proposals and guiding them to apply for research grants, arranging sessions on patent filing, arranging visits to institutes of repute like DRDO, CWPRS, COEP, etc.; motivating faculties for higher studies, taking efforts for consultancy works, etc.; to explore faculties and students from UG and PG.

Innovative ideas are invited by students through open discussions as a part of their seminar work or project work. The expert team along with domain coordinator finalize the topic after idea presentation and literature review. The potential projects are advised to get support from industries or alumni or various agencies.

Students are encouraged to participate in various state and national level competitions like hackathon, National Skill Competition, SAE Baja, Rotary Water Olympiad, Avishkar Competition, GO- Cart etc. Institute offers funding to students and faculty coordinator for traveling, registration and accommodation.

Faculty members seeking higher studies are encouraged by offering study leaves for their course work. The research scholars are free to use institute resources for required experimentation and resources from the library.

Institute has established many excellence centers like automobile in association with TATA Strive, PCB Development, RedHat, Remote Sensing and GIS, etc. to promote research culture and participative learning.

At the Zeal Intellectual Property Facilitation Center – ZIPFC; we assist students to bring their innovative ideas to fulfilment and subsequently, transform them into tangible products. Assistance is provided faculties and students to convert their research into patents. Various sessions are conducted to make aware and motivate the students for patent filing and registration process.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

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

**Response:** 60

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

2021-22	2020-21	2019-20	2018-19	2017-18
38	8	5	4	5

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**3.3 Research Publications and Awards**

**3.3.1 Number of research papers published per teacher in the Journals notified on UGC care list during the last five years**

**Response:** 0.49

**3.3.1.1 Number of research papers in the Journals notified on UGC CARE list year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
57	50	60	18	1

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**3.3.2 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:** 0.24

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

2021-22	2020-21	2019-20	2018-19	2017-18
13	15	09	45	10

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**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:**

For sensitizing students to social issues, for their holistic development, institute conducts activities through “National Service Scheme” in association with various NGOs.

Blood Donation Camps:

On the occasion of commemorative days blood donation camp is organized once in a year in association

with nearby blood banks. Around 200 students and employees actively participate in this camp. Such camp sensitizes student regarding most valuable lifesaving importance of blood and its donation.

Tree plantation and conservation:

Every year on the occasion of “World Forest Day” tree plantation and their conservation camp is organized in nearby reserved forest areas. Recently, tree conservation activity is carried out on the occasion of Savitribai Phule birth anniversary celebration on 03.01.2021. The activity sensitized students to the conservation of the earth by saving trees.

Mask manufacturing and distribution activity is carried out from 01.06.2020 to 30.06.2020. The conduction of this activity sensitized students to the outbreak of COVID-19 thereby producing a social responsibility among them.

A visit to Varoti village is done for reviewing the work conducted in an NSS camp in AY 2019-20. The review work sensitized students to social work satisfaction.

Ecofriendly Ganesh Visarjan: To make aware society about ecofriendly Ganesh Visarjan a special camp was organized to collect donation of Ganesh Idol made by PoP. These idols were disposed by chemical treatment. Students were sensitized regarding river pollution and impact of PoP as well thermocol on environment.

On the occasion of teachers day, students delivered session on “Fun and Learn” to Orphans children. They conducted few simple experiments of science and elaborated different concepts from Science in day-to day life.

Many times, students participate in traffic regulation at the time of major events like Ganapati Festival, Shvjayanti, Ashadhi Ekadashi etc. in city in coordination with traffic police and police Mitra.

Every year a residential NSS camp in rural areas is planned. In this duration students conducts various activities like water conservation, road repairing works, clean village campaign, street plays, awareness programs, Energy conservation, etc. All these activities make students sensible about social responsibilities and life of rural India and their issues.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

**3.4.2 Awards and recognitions received for extension activities from government / government recognised bodies**

**Response:**

**Institute has been awarded as “Best Engineering College on Western Maharashtra” in the year 2018**

by Mahindra - EduAward.

Further in the year 2021, Institute achieved Gold Ranking in CII Survey for significant contribution in industry - academia association.

On January 25th, 2020 institute put its name in “World Book of Records - UK” on attempting the largest human map forming the national flag and architects of Swarajya.

In September 2022, the Institute successfully faced ISO audit and received recognition by ISO 21001: 2020.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

**3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organised in collaboration with industry, community and NGOs) during the last five years**

**Response:** 44

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

2021-22	2020-21	2019-20	2018-19	2017-18
8	3	7	15	11

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 3.5 Collaboration

**3.5.1 Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.**

**Response:** 39

<b>File Description</b>	<b>Document</b>
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## Criterion 4 - Infrastructure and Learning Resources

### 4.1 Physical Facilities

#### 4.1.1 Availability of adequate infrastructure and physical facilities viz., classrooms, laboratories, ICT facilities, cultural activities, gymnasium, yoga centre etc. in the institution

**Response:**

Institute has adequate infrastructure and physical facilities as per AICTE norms. There are total 52 classroom well equipped with projector and display screen. All classrooms are sufficiently ventilated and naturally faded. In each classroom there are adequate number of dual desks, green board and platform with speech board.

Each department have laboratories as per AICTE norms. Few additional laboratories have been developed beyond curriculum to inculcate research culture. Excellence centers have been established with advanced equipments and industry ready experiential working platforms.

Laboratories have been provided with adequate seating arrangements as per batch size, safe working platforms, instruction boards, green boards, white boards, etc. Fire extinguishers and first aid kits are kept ready wherever necessary.

Institute has enriched library with OPAC software. All the transactions in library are conducted through this software. There are 2111 e-journals subscriptions which are made available through institute website to all the students. Course notes and various video lectures are made available on separate portal.

Teachers uses PowerPoint presentations wherever required for better visualizations. Use of NPTEL sessions, videos are usual practices. In case of practical sessions, various platforms like digital laboratories, virtual laboratories of IITs and IISC are used. Use of google forms for session feedbacks, quizzes is usually adopted.

Institute have various open source and paid software license as per university curriculum and industry requirements; which are being used to train the students.

Institute bears well equipped dance and music studio which is made available freely for interested students beyond instruction hours. A spacious gymnasium with well equipments and trainer is available for students. For all students various sessions on yoga, stress management are planned frequently. Various indoor games like chess, carrom, table tennis, Archery, etc. are provided to students with coaching. Institute has large sports ground spread enough on 13952 Sq.foot areas. Annual sports function is organized by name "RANANGAN", where various outdoor and indoor sports competitions are conducted. More than 500 students used to participate in this event.

Every year a cultural fest is organized as "UDAAN". This festival includes cultural activities like singing, dancing, skits, etc.



File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

#### 4.1.2 Percentage of expenditure, excluding salary for infrastructure augmentation during last five years (INR in Lakhs)

**Response:** 15.31

##### 4.1.2.1 Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
7.70	39.58	268.48	222.87	384.44

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 4.2 Library as a Learning Resource

#### 4.2.1 Library is automated using Integrated Library Management System (ILMS), subscription to e-resources, amount spent on purchase of books, journals and per day usage of library

**Response:**

Institute has “Central Library” spread over 930 square meter floor area, including stack room and reading room. The stock room consist various sections like, Circulation Counter, book processing section, Reference section, PG section, Digital library, Journals, Newspapers, etc. The reading room is well ventilated and adequate natural and artificial lighting, with a seating capacity of around 250 students of institute. More than 200 lacks of rupees have been invested for infrastructure, resources, subscriptions, etc. to enrich the central library.

The Central Library uses “AutoLib” as Integrated Library Management System with Web-OPAC module since 2012. various functions of the Library like Book Accession, transactions consisting Issue and Return with Barcode system of all reading resources, users entry record in digital form, SMS facility after issuing and return of books, etc. are conducted by this Library management system.

Every year Central Library purchases DELNET and J-Gate, JST e-journal subscription. Through these e-resources, students can access various e-journals indexed in Web of science, Scopus and UGC care list.

The Library has subscribed more than 100 Journals in printed form for all programs of engineering and MBA as per AICTE norms. More than 32000 printed books and around 11000 Springer publication e-books are available for daily transaction for all the users. Large no. of transactions is daily taken place for reference books, printed materials and reading room. Currently 2111 Scopus indexed e-journals are accessible to students through online portal. Web-OPAC system, digital library and stacking area counts around 350 users per day.

A waiting free and Divyanjan friendly book transaction system is maintained in library through “Book return Cart” and barcoding.

The annual maintenance is conducted through authorized agency of “AutoLib”.

A separate library webpage is made available through institute website to provide on / off campus access to faculties and students. This Web-OPAC system provides facility to check availability of book, set demand, booking, etc.

Frequent feedback is collected through various platforms by stakeholders to improve all these facilities.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

### 4.3 IT Infrastructure

#### 4.3.1 Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection

**Response:**

Institute has adequate IT infrastructure which is updated and upgraded continuously as per the curriculum requirements and technology updates.

Various locations such as reading halls, hostels, and department corridors, Canteen, seminar Hall are provided with Wi-Fi zones.

Institute has around 1220 computers in various locations for students. All these terminals are connected through LAN with internet facilities. ICT facilities are available in all the departments. Necessary system and application software are available in all respective laboratories. Computer Systems has been updated from generic machine to core i7 and computing machine also increase from 500 to 1220 since 5 years.

A leased line connectivity of 500 Mbps from TTML with Dual Path from Tata is procured and which has been updated from 155 Mbps to 500 Mbps in last five years.

The maintenance of computer, Internet Wi-Fi networking, and installation of software and maintenance

and up gradation of hardware is conducted by in house expert team.

Institute plans the specific need and forecast the improvements in IT infrastructure, specific maintenance and ensures IT services to the users.

**1.Network Security:**

The college campus have completely switched, high availability network. Network is secured by firewall integrated in router. Additionally, Sophos is available with access control. Total 1500 users can be logged in simultaneously.

**2.Software Asset Management:**

We categorize the software assets as open-source software assets and proprietary software assets. The proprietary system software is purchased at Institute level and further distributed to different units. Application software are purchased for individual departments as per their curriculum and research requirement.

**3.Open-Source Resources:**

To reduce the dependence on propriety software and tools, we strongly promote open-source software, tools and applications for supporting computers assisted learning, teaching, design. Currently institute supports various version of Linux operating system. Some of the open source software tools used are JDK, Star UML, Eclipse, G++, gcc, SSH, My-SQL server and client, Scilab, Octave etc.

Most of the administrative activities pertaining to faculty, staff and student are handled through the ERP.

The use of printers and printed materials is discouraged.

The power reduction is managed by replacing the older and power intensive technology / devices with less power consumption devices like replacement of CRT monitors with LED monitors.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

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

**Response:** 3.03

**4.3.2.1 Number of computers available for students usage during the latest completed academic year:**

**Response:** 1220

File Description	Document
Upload supporting document	<a href="#">View Document</a>

#### 4.4 Maintenance of Campus Infrastructure

**4.4.1 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:** 43.35

**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)**

2021-22	2020-21	2019-20	2018-19	2017-18
553.63	309.37	624.41	583.99	541.48

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## Criterion 5 - Student Support and Progression

### 5.1 Student Support

#### 5.1.1 Percentage of students benefited by scholarships and freeships provided by the Government and Non-Government agencies during last five years

**Response:** 78.91

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

2021-22	2020-21	2019-20	2018-19	2017-18
2728	3144	2424	2541	2015

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

#### 5.1.2 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
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

#### 5.1.3 Percentage of students benefitted by guidance for competitive examinations and career counseling offered by the Institution during the last five years

**Response:** 41.12

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

2021-22	2020-21	2019-20	2018-19	2017-18
2215	1824	1059	656	943

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

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

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

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

File Description	Document
Upload supporting document	<a href="#">View Document</a>

## 5.2 Student Progression

#### 5.2.1 Percentage of placement of outgoing students and students progressing to higher education during the last five years

**Response:** 41.58

##### 5.2.1.1 Number of outgoing students placed and / or progressed to higher education year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
372	414	405	331	334

##### 5.2.1.2 Number of outgoing students year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
831	1024	898	971	740

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**5.2.2 Percentage of students qualifying in state/national/ international level examinations during the last five years (eg: JAM/CLAT/GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)**

**Response:** 33.06

**5.2.2.1 Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ Judicial Services/Public Prosecution services/All India Bar Exams/State government examinations) year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
27	18	28	16	30

**5.2.2.2 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**

2021-22	2020-21	2019-20	2018-19	2017-18
100	80	70	60	50

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 5.3 Student Participation and Activities

**5.3.1 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) during the last five years**

**Response:** 45

**5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at**

*national/international level (award for a team event should be counted as one) year wise during the last five years*

2021-22	2020-21	2019-20	2018-19	2017-18
16	0	11	12	6

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

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

**Response:** 17.8

#### 5.3.2.1 Number of sports and cultural programs in which students of the Institution participated year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
26	3	24	14	22

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 5.4 Alumni Engagement

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

**Response:**

The Institute has been instrumental in changing students' careers into those of worldwide technocrats, entrepreneurs, researchers, directors, and managers. The institute started an alumni association on 22.12.2016 through Certificate No.40516 and record book of charity commissioner F-48883/Pune in order to foster a connection with alma maters, enhance job opportunities, and create a networking platform to share and influence the success stories of alumni. By the end of the academic year 2022, the alumni association had expanded to 3000 plus members. The alumni organization has forged a close connection



between former students and present ones. Student representatives and Faculty Coordinators from each department make up the working committee of the Alumni Association. Currently, the alumni association does not financially support the growth of the institute, but it does support a number of other services through training and placement, student projects and internships, higher education, expert and guest lectures, industrial visits and participation in various student clubs and social activities.

### 1. Objectives of the Alumni Association

- To ensure the successful operation of the annual alumni meeting
- Update the alumni association's different records.
- To create and distribute the annual memory book.
- To inspire alumni to launch their own business/start up with the aid of an incubators

### 2. Major Activities of Alumni Association

- Programs for Personal Development
- Placement Assistance & Industry Institute Interaction
- Project support to final year students
- Arranging Alumni expert talk to students on latest happening & upcoming in the industry
- Inviting alumni to judges for technical & other competitions
- Alumni participation for career counseling to the students
- Annual alumni meet

### 3. Responsibilities of the Alumni Association

- To Plan & arrange annual alumni meet.
- To update the Alumni as an Entrepreneur records.
- To update the records of illustrious, well-known, or star alumni.
- To establish the departmental alumni student cell, which will work under the direction of the departmental alumni coordinator, to organize various events and activities, such as guest lectures, seminars, workshops, refereeing or judging competitions, etc.
- To encourage former students to speak inspirationally during the first-year induction programme.
- To develop and maintain the year-by-year alumni database.

The Alumni Meet for the academic year 2021–22 was held by every department through Online Mode, in order to preserve the cordial relationships between all parties involved. During the gathering, departmental-level interactive sessions were organized between the alumni, the current classes of students, and faculty members to develop creative ideas for grooming the current students, explore job opportunities in various sectors, and then have a discussion about current trends in technology and industry, among other things. Alumni talked about their time spent at the Institute & success stories. Few Alumni's were honored in each department for their remarkable accomplishments.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>



## Criterion 6 - Governance, Leadership and Management

### 6.1 Institutional Vision and Leadership

**6.1.1 The governance and leadership is in accordance with vision and mission of the institution and it is visible in various institutional practices such as decentralization and participation in the institutional governance**

**Response:**

The institution is governed in a participatory manner, with all stakeholders actively involved in its administration. The governing body delegates authority to the next level employees for execution. It is shared by the secretary, director and principal, who then share it with the other levels. In the institute, there are many functionaries like department heads, coordinators and conveners of various committees and cell representatives. They have significant role to play in decision making bodies and developing institutional policies and putting them into action.

The governing body and the principal collaborate on developing and implementing an institutional quality policy. The institute's various administrative and academic committees are efficiently regulated through the establishment of required entities such as the IQAC, AMC, ICC, GRC, purchase committee and others with well-defined duties and principles in line with the institute's vision and long term goals.

Teachers have a vital role in carrying out the institute's vision and mission statements, short term and long-term goals. They participate actively in the decision-making process as an outcome. Heads of departments have an administrative and academic freedom when it comes to operating their disciplinary units. Teachers are also members and conveners of the many committees established for the institute's day-to-day operations. The Academic monitoring committee, examination committee, admission committee, library committee, research and development are some of the examples of these committees. Teachers can make a substantial contribution to the institution's participative ethos through their personal and independent participation on these bodies. Admission standards, grade cut-offs, internal exam formats, library procedures, various teaching-learning innovations and other academic priorities are all determined by them.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

### 6.2 Strategy Development and Deployment

**6.2.1 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, deployment of institutional Strategic/ perspective/development plan etc**

**Response:**

Zeal College of Engineering and Research, under umbrella of Zeal Education Society operates all academic

and administrative activities through well-structured organogram. Institute is affiliated to Savitribai Phule Pune University, Pune and abide to follow rules laid by statutory bodies like Directorate of Technical Education, Maharashtra State and AICTE, Delhi. For smooth conduction, monitoring and periodic reviews; various committees and cells are formed.

To percolate vision and mission of Zeal Education Society, the general body consisting Secretary –ZES; Representative Members of all stakeholders and principal exists. The major role of this body is to organize the teaching learning process in the college and to determine the requirements of the college for smooth operations. College Development Committee (CDC) is the body, works below General Body and held accountable for the daily activities of the organization. CDC provides budget and works for various other matters relating to the internal management of the college.

Director– Admission, academics and Administration monitors all the activities and provides support to all stakeholders wherever necessary.

The principal, who will report to Director – Admission, academics and Administration; for all kind of support, suggestions and feedback regarding institute activities. Internal Quality Assurance Cell (IQAC); is another cell to initiate, plan and supervise various activities which are necessary to increase the quality of the education imparted in an institution or college. The institutional perspective plan is in line with the institution's vision and goal, which serve as ongoing motivation for bettering academic quality policies and procedures.

For smooth execution of all planned activities various positions have been formed like Institute Academic Coordinator, Institute Research and Development Coordinator, Institute Student Welfare Coordinator, Administrative Office Superintendent, Training and Placement Officer, Controller of Examination, Librarian and Network Administrator.

Content development coordinator, all heads of the departments and academic monitoring committee coordinator will work with the help of academic coordinator, domain coordinator, class teachers, Guardian faculty members and subject teachers.

Controller of examination and office superintendent will monitor all the activities of examination section, establishment, student welfare, transportation, Student scholarships, purchase and stocks, audits, gymnasium, etc.

Training and placement officer will work for student's trainings, internship programs and placements with the team of department coordinators, trainers, and coordinators of industry – institute interaction cell, alumni association, National and international relation cell, etc.

Institute student welfare Coordinator will be responsible to provide all facilities to student with the help of student cells / clubs / associations' coordinator, NSS coordinator, Cultural and sports coordinator, etc.

Various bodies and committees that make up the institution's organogram lay out a strategic plan of events and activities that will support growth and development in key areas at the start of the academic year, and at the end of the year. A review of the implementation and outcomes of the perspective plans is conducted.

Teaching-learning is one such wide area in which the institutional perspective and strategic plan has been successfully implemented. This was accomplished by implementing an action plan for the following

initiatives:

1. The department heads recommends and conducts unique add-on/ certificate courses.
2. Student exchange programs in collaboration with foreign universities.
3. MoUs signed with industrial sectors for training, development and placement.
4. Introduction of new UG programs in Artificial Intelligence and Data Science, Robotics and Automation.

Emphasis on using the ICT tools for effective teaching and learning.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

### 6.2.2 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
Upload supporting document	<a href="#">View Document</a>

## 6.3 Faculty Empowerment Strategies

### 6.3.1 The institution has effective welfare measures and Performance Appraisal System for teaching and non-teaching staff

**Response:**

The institution has effective welfare measures for teaching and nonteaching staff as given below.

1. Driver's accidental policy
2. Fees redemption up to 20% for wards of staff
3. Paid study leaves
4. Covid-19 insurance cover for staff

### 5. Maternity Leave

Every year, the college requires faculty members to submit a self evaluation form. This gives insight into one's own appraisal of the teaching success and impact on the students. It focuses on how the teacher responds to various events that affect the students' learning process. It also reveals the teacher's involvement in both academic and administrative tasks. A teacher might use this form to show off his or her ongoing professional development (paper presentations, publications, seminars and conferences attended, research grants and so on).

Department heads compile data for teacher evaluation of teaching learning activities, which is then provided to the principal in the form of departmental audit reports.

Teachers who are informed about their performance at each level can use the performance appraisal to advance their career. Teachers are encouraged to upgrade themselves if there is room for improvement on their part. This is necessary for later promotions in accordance with the rules. The entire procedure is carried out in complete secrecy. The appropriate teacher is notified, and suggestions are given. The punctuality, sincerity, documentation skill, professionalism etc. are the criteria in performance appraisal system for teaching and non-teaching staff.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
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### 6.3.2 Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

**Response:** 5.89

#### 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

2021-22	2020-21	2019-20	2018-19	2017-18
04	00	07	26	14

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 6.3.3 Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), professional development /administrative training programs during the last five

years

**Response:** 58.94

**6.3.3.1 Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP), professional development /administrative training programs during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
162	120	169	152	211

**6.3.3.2 Number of non-teaching staff year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
103	103	103	103	103

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 6.4 Financial Management and Resource Mobilization

**6.4.1 Institution has strategies for mobilization and optimal utilization of resources and funds from various sources (government/ nongovernment organizations) and it conducts financial audits regularly (internal and external)**

**Response:**

The strategies are summerised as follows; Mobilization Policy and Procedure:

1. Before the financial year begins, Principal and Heads of Departments prepare the college budget.
2. The institutional budget includes recurring expenses such assalary, electricity and internet charges, stationary and other
3. maintenance costs.
4. It includes planned expenses such as lab equipment purchases,furniture, and other development Expenses.

5. The budget is scrutinized and approved by the top management and Governing Council. 6. After final approval of budget the purchasing process is initiated by purchase committee which includes all heads of departments and account officer, accordingly the quotations called and purchase orders are placed after final negotiations.

7. Accounts department and Purchase department monitor whether expenses are exceeding budget provision.

8. Statutory auditors are also appointed who certify the financial statements in every financial year.

9. The grants received by the college are also audited by certified auditors.

#### Utilization of Funds

1. A finance committee has been constituted to monitor the optimum utilization of funds for various recurring and non-recurring expenses.

2. The purchase committee seeks quotations from vendors for the purchase of equipment, computers, books, etc.

3. The quotations are scrutinized by the finance and purchase committee before a final decision is made based on parameters like pricing, quality, terms of service, etc.

4. The Principal, finance and purchase committees along with the accounts department ensure that the expenditure lies within the allotted budget.

5. The intervention of the management is sought in case the expenditure exceeds the budget.

6. All transactions have transparency through bills and vouchers.

7. The bill payments are passed after verification of items.

8. Respective faculty member ensures that whether suitable equipment/machinery with correct specification is purchased.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 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. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental**



**improvement in various activities****Response:**

IQAC has taken initiatives in finalizing formats and procedures for academic and administrative activities as a quality initiative. In turn, institute has started completing one of the bench marks in terms of the certification of "Educational Organization Management System" complying with the requirements of ISO 21001:2018.

IQAC has taken initiative in receiving the modifications in curriculum of BE from stakeholders and communicating it to respective Board of Studies of all programs well in advance before framing of revised curriculum of BE (2019 pattern).

Once the academics has started in offline mode, IQAC has taken initiative in planning of sports and cultural activities in April 2022. More than 1500 students have participated in these activities.

IQAC has also planned to form a dedicated team for enhancing industry interaction and thereby providing ample opportunities of training, internship, sponsored projects, industrial visits, expert interactions and placements to students.

<b>File Description</b>	<b>Document</b>
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

**6.5.2 Quality assurance initiatives of the institution include:**

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

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

<b>File Description</b>	<b>Document</b>
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 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 and Institutional initiatives to celebrate / organize national and international commemorative days, events and festivals during the last five years

##### Response:

Various curricular and co-curricular activities regarding gender equity and sensitization are conducted throughout the year in institute.

Women's Day is celebrated on 8th March offline or through virtual platform. Various online talks are arranged focusing empowerment of Women.

Specific Facilities for Women on Campus –

1. Spacious, clean and pleasant Girls Common Room.
2. Women Grievance Committee
3. Internal Complaint Committee
4. Anti-ragging cell in campus

1. Display of Policy on “SEXUAL HARASSMENT OF WOMEN AT WORKPLACE” in campus in every department.

Institution celebrates/ organizes national and international commemorative days, events and festivals. National festivals play an important role in planting seed of Nationalism and Patriotism among people of India. Our institution celebrates these events with great enthusiasm to commemorate the ideology of nationalism and to pay tribute to our great National Leaders. The Faculty, Staff and Students of the institution all come together under one umbrella to celebrate these occasions and spread the message of Unity, Peace, Love and Happiness throughout.

Republic Day- The institution celebrates Republic day on 26th January every year, commemorating the adoption of Indian constitution and spreading the message that India is the largest democratic country in the world. Since 2017, institute is celebrating this day by preparing largest human map forming images of National flag and National Heroes.

Independence Day is celebrated every year on 15th of August, parades and flag hoisting is organized and is celebrated by blood donation camps, rally, etc. The institution encourages students to remember our national leaders and their sacrifices.

Gandhi Jayanti is celebrated every year on 2nd October to understand the ideology of our great leader Mahatma Gandhi wherein pledge is taken by students and staff. In today's times we inspire students of our institution to follow the Gandhian ideologies of truth and nonviolence and inspire them to contribute towards the peace and prosperity of the Nation.

Sadbhavana Diwas celebrated on 20th August every year to commemorate the birth Anniversary of Sardar

Vallabh Bhai Patel.

International Yoga day is celebrated on 21st June every year. The yoga Instructor organizes the yoga camp and a speech is conducted to make everyone aware on how Yoga embodies unity of mind and body; thought and action; restraint and fulfillment.

Voters Day is celebrated on 25th January wherein the students are given awareness on their duties and rights as a loyal citizen.

Several departments are also actively involved in organizing events like World Environment Day, Earth Day, etc. involving students, and staffs.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

**7.1.2 The Institution has facilities and initiatives for**

- 1. Alternate sources of energy and energy conservation measures**
- 2. Management of the various types of degradable and nondegradable waste**
- 3. Water conservation**
- 4. Green campus initiatives**
- 5. Disabled-friendly, barrier free environment**

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

File Description	Document
Upload supporting document	<a href="#">View Document</a>

**7.1.3 Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following**

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

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

File Description	Document
Upload supporting document	<a href="#">View Document</a>

**7.1.4 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic diversity and Sensitization of students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)**

**Response:**

- Various initiatives in the form of celebration of National and international days, National Festivals, NSS activities, etc. are adopted by bringing students and teachers with diverse background on single platform for creating inclusive environment. These activities help in developing tolerance and harmony towards culture, region and linguistics and also communal social economics and other diversities..
- Functions like, welcome ceremony for freshly admitted students with induction program and farewells for outgoing batch is a regular practice. Days like traditional day, Marathi Bhasha Din, Shivajayanti, etc. are celebrated annually.
- Considering entry level curriculum of engineering student one foreign language training was planned and around 300 students were trained for Japanese Language. This helped to get acquainted with Japanese literature and culture.
- Due to COVID-19 outbreak in the AY 2020-21 these events were celebrated by following all restrictions laid by local governing authorities.
- A distribution of grocery and essentials to all non-teaching employees was one of the initiative taken place in this pandemic.
- The institution sensitizes the students and the employees to the constitutional obligations about values, rights, duties and responsibilities and constantly works upon to nurture them as better citizens of the country through various curricular and extracurricular activities.
- The college establishes policies that reflect core values. Code of conduct is prepared for students and staff and everyone should obey the conduct rules. The institution encourages participation of students in Sports and Games, NCC and NSS at National level to strengthen nation wide bond and relation.
- The institution takes many initiatives like conducting awareness campaigns, organizing orientation & training program, seminars and workshops to sensitize the future leaders to inherit human value scoping with the constitutional obligations.
- Ethical Values, rights, duties and responsibilities of citizens are some of the topics that are enlisted in Elocution/ Debates activities. Every year institute organizes blood donation camp in association with District Civil or District General Hospital and/or Rotary Club. The students are sensitized on the importance of the activity and are encouraged to participate in saving the life of citizens of India.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

**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: Development of E-content for effective teaching and learning practice**

**1. Title of the Practice:** Development of E-content for effective teaching and learning practice

**2. Objectives of the Practice:** The objectives of this activity can be listed as;

- To develop infrastructural facility for e-content development.
- To develop e-content for various subjects of different engineering programs
- To offer personalized and flexible learning options
- To improve the quality and effectiveness of education.
- To make the developed e-content on institute website & public platform available

In the COVID-19 pandemic, when it was found most difficult to maintain students in mainstream of teaching learning process; the e-content access made this affordable and available 24X7. More than 500 plus video of engineering subjects have been developed. All these videos are recorded in specially designed and developed recording rooms with all necessary hardware and software support along with department recording facility. Institute has developed two specialize state of art recording studios for e-content development whose developing cost is around 80 lacks. All these videos are uploaded in institute ERP as well as in public domain so that not only our students but the students from other institute can access these resources for learning. The e-content development is continued even after resuming offline teaching learning.

**3. The Context:** When all the students were get academically affected due to COVID 19 pandemics and facing difficulties to get acquainted with routine lecture or practical sessions. The e-content had played a critical role in enhancing the quality and effectiveness of education. It can provide access to a wide range of educational materials, support personalized and flexible learning, and help to overcome some of the traditional barriers to education.

**4. The Practice:** To develop the quality content in digital format, the activities were streamlined that is careful planning, design, and implementation of e-content to ensure that it is effective, relevant, and meets the needs of students. Recording studio with all necessary hardware and software facilities has been developed by integration of technology with teacher training by expert.

**5. Evidence of Success:** As per planning around 500 plus videos of various courses were developed. Faculty members have developed theses videos around 35 subjects aligned to various courses are made available for students with no cost. Total 50 plus faculties were involved in this activity. The recorded video sessions were made available through ERP, Whatsapp, YouTube channel and The Zeal Academy portal.

**6. Problems Encountered and Resources Required:** The challenges in e- content development were; to make teachers comfortable with such nonconventional approach of teaching and additional skill set development for effective delivery. The subject teachers were provided with sufficient time to compile quality study material to share in video lectures. The teachers were motivated to get necessary trainings for delivering. Some of the challenges occurred during the development of e- content as technical challenges,

cost of developing e-content is expensive. Accessibility of E-content particularly where there is no internet & insufficient bandwidth is available for remotely located students.

## Best Practice 2: Student training program for the placement & life skill Enhancement

**1. Title of the Practice:** Student training program.

**2. Objectives of the Practice:** The objectives of this activity listed as

- To provide training opportunities in technical, computing and life skills.
- To identify the training programs with respect to industry requirements and curricular gaps.
- To enhance the employability opportunity
- To prepare students for entrepreneurship

**3. The Context:**

The training and placement section of the Institute has identified the industry requirements. The problem was critically analyzed with the help of industry advisors, parents and alumni. Accordingly; it was decided to provide the training which will include technical skills, computing skills and soft skills.

**4. The Practice**

The training programs were effectively implemented through the Life skill training, Japanese language training & Python Training Program from Second year onward. The duration of Life Skills Training is 48 hours / Semester that are spread over 5 semesters.

Module Number	Class
Module 1 - Personal and career goal setting	SE ( Second Year Engg) SEM I & II
Module 2 - SWOT analysis	
Module 3 - Behavioral skills	
Module 4 - Personal Branding	
Module 5 - Profile Management	TE ( Third Year Engg)
Module 6 - Public speaking	SEM I & II
Module 7 - Presentation skills	
Module 8 – Resume writing / Interview Skills	BE ( Final year Engg)
Module 9 – Group Discussion	
Module 10 – Personal Interview	
Module 11 – Art of Negotiation	SEM I
Module 12 – Corporate Culture	

Japanese Language Training Program is conducted for Third and Final year Engineering Students. The Program Duration was of 120 Hours which was divided for 2 hours per day. Python Training Program is conducted for Third year Engineering Students particularly to all Students of CS, E&TC, IT & Electrical. This training Program aims for refreshing technical fundamentals and improves basic domain knowledge and concepts of Python Language. The Training Program was conducted for 184 hrs. Besides this T&P section conducts Value Added Program/Workshop by Industrial Experts in terms of seminars ,guest and expert lectures and Special Industry Placement oriented Trainings for company specific activities, aptitude

tests, mock technical interviews, personal interviews preparations.

### Evidence of Success

The program has helped the students in motivating and preparing for better employment during campus placement. The outcome of this increases the placement of students count & overall professional behavior.

### Problems Encountered and Resources Required

The problem encountered for starting this program was the motivation and convincing the students to undergo training during Covid pandemic and program conduction in scheduled duration. The required resources are computer laboratories which are available at T& P section & departments. There was little difficulty to adjust the life skill training schedule in regular time table. During Covid Pandemic it was difficult for some of the students to attend, access and active participation in this training program because of bandwidth and hardware problem at their native place However Institute provided recorded video to them so as to cope up the problem.

File Description	Document
Any other relevant information	<a href="#">View Document</a>
Best practices as hosted on the Institutional website	<a href="#">View Document</a>

## 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:

#### 1. All-inclusive Campus and Policies for Overall Development of Students:

The Institute is affiliated to Savitribai Phule Pune University. It is recognized as one of the renowned institutions, not only in Maharashtra but also in India. The students from Maharashtra are taking the admission in the various disciplines of Institute. Some of the students from outside Maharashtra are also admitted. All-inclusive campus and favorable policies for overall development of students is the peculiarity of the college. All day-to-day facilities required for the students and faculty members are available in the campus and the details are as follows:

#### 2. Academic Infrastructure

The Institute offers all the tools necessary to conduct lectures and practicals in a variety of labs and classrooms. Modern labs and classrooms with ICT capabilities make teaching and learning more useful for

the students. The institute values sustaining friendly relationships between faculty and students. Any disagreements or problems are swiftly investigated and fixed. In addition to the overall academic infrastructure, the All Inclusive Campus provides a pleasant and engaging learning environment for the students. The students benefit from this by performing better in their chosen career route, such as campus placement, entrepreneurship, and competitive exams and higher studies

### **3. Hostel Facility**

The Institute is having the girls' hostel with capacity of 200. Hostels have full security guards with 24×7 availability and CCTV vigilance for safety of girl students. Institutes also tie up with private hostel nearby college for boys. Faculty members are taking frequent rounds in the hostels to insure comfortable and safety stays

### **4. Excellence centre.**

Each department is having one Excellence centre Center which is a state-of-the-art facility where students, faculty, and researchers explore and develop new technologies, as well as improve existing ones. It typically features cutting-edge equipment and software for design, simulation, and testing, as well as collaboration spaces for teamwork and brainstorming. These centers are designed to foster an environment of innovation and experimentation. Through this excellence centre student area interfacing with medium scale industries in terms of collaborative works.

### **5. Culture centre**

Institute is having state of art Dance studio, recording studio, music room and studio for performance the art, drama& etc. These studios used to showcase and practice the variety of cultural events, such as performances in dance, music, arts, drawing, stage sets. These are open to students, staff, and musicians & singers. The center serves as a resource for students to learn about cultural traditions, history and art.

### **6. Sport centre**

The institute is having lush green ground for various sport activities to be carried for students. The institutes also have open badminton and state of art basketball ground. There is archery court and shooting court to learn and showcase the skill for ability to heating pin point target. Institute appointed separate coaches for sport activity both indoor as well as outdoor activity

### **7. Central Library**

The institute has a unique Central Library with facility of borrowing books from other domain area. The Library is open 24×7 during examination and 10 hrs every day. It has a seating capacity of 500 students at a time. Library facility particularly for Notes, Question bank & other learning resources is also made available to other institute students. As part of library, Institute is having study centre for preparation of competitive examinations like UPSC, MPSC and others.

### **8. Mess and Cafeteria**

The Campus is having common mess & cafeteria area which includes 5-6 canteens that cater the eating need of students in variety of food like Maharashtrian ,Chinese ,south Indian, Punjabis & etc.



## 9. Other Ancillary Facilities

The institute has all other ancillary facilities available in the campus such as Stationery Store, Photocopy Centre, Wi-Fi, Campus Clinic, Gymnasium etc.

## 10. Special Efforts for Student Mentoring

The institute has a Teacher Guardian Scheme at place, wherein a group of approximately 20 students is monitored by one faculty member. The Teacher Guardian acts as students' mentor and looks into their academic and personal difficulties if any.

## 11. Strong Training and Placement Cell

The institute has a well-established training and placement cell headed by Dean, Training and Placement Officer and Departmental faculty coordinators. Several MNCs and reputed companies visit the campus for recruitment. Thus companies having good repute at national and international level are made available by the training and placement cell to the students for their internship and employability.

## 12. MoUs with Industries

All the departments of the institute have strong liaison with industries in the form of Memorandum of Understanding. Through these MoU, students get a chance for good industry based training and to work in industry projects through internships and final year projects.

## 13. Co-Curricular and Extra-Curricular Activities

Institute encourages students to participate in co-curricular and extracurricular activities, including as technical competitions held by universities, institutes like the IITs and NITs. The institute offers its students a wide variety of groups for leadership and skill development. The institute encourages its students to take part in extracurricular activities such as drama, debate, music, oratory, and theatric reading competitions held by a variety of organizations. Students are encouraged to gain technical skills through various club of institute, such as developing an electric vehicle or a bat mobile. The students have won awards in all of the aforementioned competitions for many years, elevating it to the status of one of the most prestigious institutions both locally and nationally.

The Institute is represented at the National and International levels through various competitions like BAHA, Supra, Electric Vehicles, and Robotics contests. A vibrant Art Circle of the Institute actively encourages students to take part in a variety of regional level competitions, such as Purushottam Karandak and Firodiya Karandak. They are given chance to work on social concerns for the betterment of society through National Service Scheme and others. The student's general growth is aided by participation in such activities, which also prepare them for employment, higher education and problem solver.

File Description	Document
Any other relevant information	<a href="#">View Document</a>
Appropriate web in the Institutional website	<a href="#">View Document</a>



## 5. CONCLUSION

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### **Additional Information :**

The institute has installed 120 KW solar power grid net metering system. This contributes the green energy initiative and saving the running cost of electricity.

The institute has gymnasium for boys and girls with all equipped facilities. The music, dance, photography studios are established in the institute with modular facilities for promoting the students in extra curricular activities.

The institute has dedicated and experienced coaches for football, volleyball, cricket, basketball and kabaddi.

There is availability of institute bus facility for all corners of Pune city.

The students are provided with RFID based I cards which can be also used in the library for book transactions and movement in library.

### **Concluding Remarks :**

The institute's aim and objectives are clearly defined and it is in line with vision & mission of the institute which was prepared by taking consideration of all stakeholders. Being an affiliated institute of SPPU, It carefully adheres to and implements the academic calendar, curriculum, and examination reforms. Many faculty members are paper setters and evaluators of University examinations. The institute features an efficient feedback mechanism for changing and enhancing the teaching-learning process. The Institute keeps a constant eye on technical education excellence. Activities carried out during these years that led to good academic outcomes for students in the examination and other recognitions indicate the institute's methodical and well-planned efforts in this regard. The number of placements is increased by providing systematic and progressive training to students in all programmes.

The institute's vibrant art circle fosters participation and success in a variety of extracurricular competitions. By encouraging & actively encouraging students to participate in a variety of sports, the institute's effective sport center is playing a major role in the development of their minds & bodies. As a result, students have brought the institute numerous honors & accolades. For a successful teaching-learning process, the faculty uses student-centric methodologies and ICT-enabled technologies. The institute has well established research and consultancy policy. Good numbers of research papers are published during the last five years. Several extension activities are planned and executed. All the departments and T&P section have functional MoU's with industry to enhance the industry-institute interaction in teaching-learning process & co-curricular training to the students. Institute has a transparent mechanism for timely redressal of student grievances.

The institute has a registered Alumni Association, which organizes alumni meet. The institute has sufficient cutting-edge facilities and educational resources. The necessary budgetary allocations are made to maintain and improve the current Infrastructure. To ensure that administrative and academic operations run smoothly, the institute has a well-established organizational structure. There is an effective welfare measure for teaching and non-teaching staff .Wherever necessary, e-governance has been put into place with ISO standardization. The institute is preparing for "Centre of Excellence" and "Academic Autonomy" in collaboration with industry and

governmental entities in light of all the aforementioned credentials and recognition in the field of technical education over the years.

## 6.ANNEXURE

### 1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																				
1.2.1	<p><b>Number of Add on /Certificate/Value added programs offered during the last five years</b></p> <p>Answer before DVV Verification :</p> <p>Answer After DVV Verification :53</p> <p>Remark : As per the revised data and clarification received from HEI, based on that DVV input is recommended.</p>																				
1.2.2	<p><b>Percentage of students enrolled in Certificate/ Add-on/Value added programs as against the total number of students during the last five years</b></p> <p><b>1.2.2.1. Number of students enrolled in subject related Certificate/ Add-on/Value added programs year wise during last five years</b></p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>2215</td> <td>2103</td> <td>1877</td> <td>2100</td> <td>1937</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>2257</td> <td>1664</td> <td>2616</td> <td>884</td> <td>995</td> </tr> </tbody> </table> <p>Remark : As per the revised data and clarification received from HEI, based on that DVV input is recommended.</p>	2021-22	2020-21	2019-20	2018-19	2017-18	2215	2103	1877	2100	1937	2021-22	2020-21	2019-20	2018-19	2017-18	2257	1664	2616	884	995
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2215	2103	1877	2100	1937																	
2021-22	2020-21	2019-20	2018-19	2017-18																	
2257	1664	2616	884	995																	
1.3.2	<p><b>Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)</b></p> <p><b>1.3.2.1. Number of students undertaking project work/field work / internships</b></p> <p>Answer before DVV Verification : 3329</p> <p>Answer after DVV Verification: 3188</p> <p>Remark : As per documents provided by HEI, DVV input is recommended.</p>																				
2.4.1	<p><b>Percentage of full-time teachers against sanctioned posts during the last five years</b></p> <p><b>2.4.1.1. Number of Sanctioned posts / required positions for teaching staff/ full time teachers year wise during the last five years:</b></p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>244</td> <td>186</td> <td>186</td> <td>186</td> <td>186</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	244	186	186	186	186										
2021-22	2020-21	2019-20	2018-19	2017-18																	
244	186	186	186	186																	

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
241	194	194	194	194

Remark : As per the revised data and clarification received from HEI, based on that DVV input is recommended.

**3.3.1 Number of research papers published per teacher in the Journals notified on UGC care list during the last five years**

**3.3.1.1. Number of research papers in the Journals notified on UGC CARE list year wise during the last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
75	75	92	62	36

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
57	50	60	18	1

Remark : As per the revised data and clarification received from HEI, based on that calendar year would be considered so DVV input is recommended accordingly.

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

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
12	19	08	44	15

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
13	15	09	45	10

Remark : As per the revised data and clarification received from HEI, based on that calendar year would be considered so DVV input is recommended accordingly.

**5.1.1 Percentage of students benefited by scholarships and freeships provided by the Government and Non-Government agencies during last five years**

5.1.1.1. Number of students benefited by scholarships and freships provided by the Government and Non-Government agencies year wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
2733	3162	2456	2542	2015

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
2728	3144	2424	2541	2015

Remark : As per the supporting documents available DVV input is recommended.

5.2.1 **Percentage of placement of outgoing students and students progressing to higher education during the last five years**

5.2.1.1. **Number of outgoing students placed and / or progressed to higher education year wise during the last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
377	419	410	333	334

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
372	414	405	331	334

5.2.1.2. **Number of outgoing students year wise during the last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
828	1021	897	971	740

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
831	1024	898	971	740

Remark : As per the revised data and clarification received from HEI, based on that DVV input is recommended.

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

5.3.2.1. **Number of sports and cultural programs in which students of the Institution**

**participated year wise during last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
94	08	43	26	32

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
26	3	24	14	22

Remark : As per SOP Events can not be split into Activities. DVV input is recommended accordingly.

**2.Extended Profile Deviations**

ID	Extended Questions																				
1.1	<p><b>Number of teaching staff / full time teachers during the last five years (Without repeat count):</b>            Answer before DVV Verification : 434            Answer after DVV Verification : 376</p>																				
1.2	<p><b>Number of teaching staff / full time teachers year wise during the last five years</b></p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>181</td> <td>180</td> <td>173</td> <td>194</td> <td>210</td> </tr> </tbody> </table> <p>Answer After DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>125</td> <td>180</td> <td>173</td> <td>194</td> <td>194</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	181	180	173	194	210	2021-22	2020-21	2019-20	2018-19	2017-18	125	180	173	194	194
2021-22	2020-21	2019-20	2018-19	2017-18																	
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