

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

# THE SHETKARI SHIKSHAN MANDAL, SANGLI, PADMABHOOSHAN VASANTDADA PATIL INSTITUTE OF TECHNOLOGY

SR.NO. 33/22,BAVDHAN(KHURD) OFF PIRANGUT ROAD, NEAR CHANDANI CHOWK, BAVDHAN PUNE 411021 pvpittssm.edu.in

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NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

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Self Study Report of The Shetkari Shikshan Mandal, Sangli, l	Padmabhooshan Vasantdada Patil Institute of Technol	logy
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#### 1. EXECUTIVE SUMMARY

#### 1.1 INTRODUCTION

Padmabhooshan Vasantdada Patil Institute of Technology (PVPIT) is governed by The Shetkari Shikshan Mandal a charitable Trust registered under Bombay Public Trust Act 1950 and Societies Registration Act1860. The TSSM started the Padmabhooshan Vasantdada Patil Institute of Technology in the academic year2006-07. The College is approved by All India Council for Technical Education (AICTE), New Delhi, recognized by Government of Maharashtra Director of Technical Education (DTE) and affiliated to Savtribai Phule Pune university, Pune and accredited by NAAC with grade 'A' in the first cycle(2018-2023). Institute is located in Vicinity of Pune industrial hub which includes IT, automobile and infrastructure development sectors.

Prof. Dr.T.J.Sawant President TSSM is renowned Industrialist and educationalist. He strongly believes that establishment of excellent technical institutions is the key solution to the problem of development of techno economic society. He is also Founder Secretary of Jayawant Shikshan Prasarak Mandal(JSPM) which is established in the year 1998 and is known as a leading education group in India with a JSPM university and number of other institutes such as Engineering, Management, Pharmacy, Diploma, Computer Application and Pre-Primary, Primary, Secondary School in and around Pune in five campuses.

Padmabhooshan Vasantdada Patil Institute of Technology is housed in a spacious campus at Bavdhan (KD), Chandni Chowk, near Kothrud, Pune, which is surrounded by greenery. Under the dynamic leadership of Prof.Dr.T.J.Sawant, the institute is progressing by keeping pace with the world. PVPIT is offering UG and PG engineering courses like Mechanical Engineering, Civil Engineering, Electronics and Telecommunications, Computer Engineering with introduction of Computer Science Engineering (Data science) as an emerging technology at UG level from academic year 2023-24. The institute is having strong linkages with nearby industries for academia-industry interaction. The institution is becoming one of the leading institutions in the area with strong academics, research development and Training Placements in reputed companies.

#### Vision

To satisfy the aspirations of youth force, who want to lead the nation towards prosperity through technoeconomic Development.

#### Mission

To provide, nurture and maintain an environment of high academic excellence, research and entrepreneurship for all aspiring students, which will prepare them to face global challenges maintaining high ethical and moral standards by implementing quality practices.

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

#### **Institutional Strength**

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- ?
- Qualified, Dedicated and enthusiastic faculty members.
- Innovative teaching-learning methodology with effective use of ICT facilities.
- Student centric functioning with mentoring, counseling and Effective academic monitoring through GFMs.
- Good participation of students in Co-curricular and extra-curricular activities at National and International Level.
- Center of excellence funded by SAP lab for training and placements.
- Eco friendly campus with state of art infrastructure.

#### **Institutional Weakness**

- faculty members have registered for doctoral programme, at present there is less number of faculties who have completed their doctorate.
- The socio-economic background of many of the students (some of them are first and second generation learners) admitted in the College is responsible for poor language competence.

#### **Institutional Opportunity**

- To achieve commendable NIRF Ranking and NBA accreditation.
- To sign MoU's with international universities for collabrative teaching-learning and research.
- To take advantage Pune smart city and industrial hub.

#### **Institutional Challenge**

- To prepare students for higher studies through GATE and other competitive examination.
- To collaborate with national and international agencies for research and exchange program.
- Changing mind set of aspirant from rote learning to thoughtful learning.

#### 1.3 CRITERIA WISE SUMMARY

#### **Curricular Aspects**

- The effective integration of curriculum planning, academic flexibility, enrichment, feedback mechanism through committees and a well-planned academic calendar reflects a commitment to provide quality education that aligns with the vision and mission of the institute.
- Adherence to the academic calendar prepared by the Academic Dean with Academic Monitoring

- Committee members (AMC), and the implementation of a Choice Based Credit System (CBCS) with elective courses demonstrate the institute's commitment to providing flexibility and relevance in its educational offerings.
- Supplementing the core curriculum with value-added certificate courses enhances the educational experience by providing students with opportunities to develop essential skills beyond academic knowledge. Offering certificate courses in areas such as personality development, soft skills, and research skills equips students with practical skills that are relevant in today's global context.
- The institute promotes holistic student development through a variety of avenues, including add-on courses, industrial visits, problem-based learning, internship, major projects, guest lecture series, and workshops. These activities complement the core curriculum and provide students with opportunities for practical application, skill development and exposure to real-world scenarios.
- The institute efforts to integrate crosscutting issues into its curriculum and activities demonstrate a holistic approach to education that goes beyond academic learning. By addressing ethical, social, and environmental concerns, the institute not only prepares students for their professional careers but also nurtures responsible citizens who are aware of their role in society and the environment.
- The institute feedback system is a comprehensive and structured approach to continuous improvement and quality assurance. This feedback system allows the institute to continuously monitor its performance, identify areas for improvement, and take proactive measures to enhance the quality of education and academic environment. By involving multiple stakeholders and following a structured process, the institute can effectively address concerns and maintain high standards of excellence.

#### **Teaching-learning and Evaluation**

- Curriculum Design and Delivery: Institute follows Curriculum designed by savitribai phule pune university, Pune however curriculum enriched to some extent at institutes level as per industry requirements. With a focus on emerging technologies and interdisciplinary learning, the university ensures that its curriculum remains abreast of the latest advancements in the field. Through regular curriculum reviews and stakeholder feedback, university ensures that its academic programs cater to the evolving needs of the industry and society. The institute sticks to the univerity curiculam with enrichment of technical and softskill tranings along with extra curicular activities.
- Teaching-Learning Processes: We emphasize student-centered teaching methodologies that promote active learning and critical thinking. Faculty members leverage innovative pedagogical approaches, including flipped classrooms, project-based learning, and experiential learning opportunities to engage students effectively. Moreover the institution encourages faculty to undergo continuous professional development programs to enhance their teaching skills and stay updated with best practices in education. MOODLE & Google Classrooms are utilized to offer the content of the lessons quizzes, assessments and test for each subject for online, offline mode of teaching learning.
- Evaluation System: The evaluation system at PVPIT is designed to assess student learning outcomes comprehensively while ensuring fairness and transparency. In addition to traditional examinations, students are evaluated through a variety of assessment methods such as assignments, laboratory work, presentations, and seminars. Regular feedback mechanisms are in place to provide students with constructive guidance for improvement, thereby facilitating their overall academic growth.
- Infrastructure and Facilities: Institute provides state-of-the-art infrastructure and modern facilities to support teaching, learning, and research activities. The institution's well-equipped laboratories, libraries, and ICT resources provide students with a conducive environment for hands-on learning and academic exploration.PVPIT ensures the accessibility and maintenance of its facilities to enhance the overall learning experience for its students.

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• Faculty Development: At our college we are committed to the professional growth and development of its faculty members. The institution organizes various faculty development programs, workshops and seminars to enhance teaching effectiveness, research capabilities, and industry engagement. By fostering a culture of continuous learning and collaboration, empowering its faculty to deliver quality education and mentor students effectively.

#### Research, Innovations and Extension

#### • Grants received for research projects / endowments:

The Institute has received total grant for research projects worth Rs. 26.64 lakhs from Government and non Govt. agencies. The Research Project entitled "Parametric Evaluation of Vertical Axis Wind Turbine for Low Wind Speed Terrain" has received research grant of Rs. 25.24 Lakhs from Science and Engineering Board under Department of Science and Technology.

• Workshops/seminars/conferences on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship:

The institution organized workshops and seminars focused on Research Methodology, Intellectual Property Rights to equip faculty members, researchers, and students with essential skills and knowledge in designing, conducting and analyzing research.

Total 46 programs have been conducted to highlight this aspect.

#### • Number of research papers published

Faculty members have published their research papers in the journals that are part of the UGC Care List. The UGC (University Grants Commission) Care List includes SCI and SCOPUs listed reputable and recognized journals across various disciplines.

Total more than 62 research papers are published in the UGC, SCI and Scopus indexed journals

#### • Number of books and chapters:

Faculty members have attended reputed international / National conference organized by IEEE, Springer, ACM, SAE etc. These papers are published in the conference proceedings as well in the form of book chapters.

#### • Extension and outreach programs :

The extension and outreach programs are conducted by the institution through NSS demonstrate a commitment to social responsibility, community development, and addressing critical issues such as cleanliness, health awareness, blood donations, gender equality etc.

Total more than 53 extensions and outreach programs are conducted under NSS and other activities

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#### • MoUs, collaborations/linkages :

The MoUs and Collaborations cover various aspects such as faculty exchange, student exchange, internship, field projects, on-the-job training, research and other academic activities. MoUs are made with Companies and Organizations for Student training programs, internships and on-the-job training, field projects etc.

The MoUs are made with reputed companies and organizations like- Edunet Foundation, Vodafone –Idea, Indovance Pvt. Ltd, Rubicon, Design Tech CADD center, FUEL etc. Edunet foundation has given the grant of Rs. 14.76 lakhs for setting up Center of Excellence on emerging Technologies.

#### **Infrastructure and Learning Resources**

- The institute's infrastructure is designed in accordance with AICTE standards. The prominent aspects of the Institute infrastructure include ICT-enabled classrooms and well-equipped acoustically constructed seminar halls. Wi-Fi is available in classrooms, making it easy to utilize online materials and virtual labs. Smartboards are available in every classroom. The design and layout of the classroom gives professors and students the chance to participate in activities including presentations, short role plays, demonstrations, and group discussions. White boards, LCD projectors, and public address systems are all available in the Institute's seminar halls.
- Learning Management systems [LMS] like MOODLE & Google Classrooms are utilized to offer the content of the lessons quizzes, Assessments, and test for each subject for online, offline mode of teaching learning & evaluation. MOODLE & open-source learning management system provides access to animations, video clips, simulations & E-resources to enhance learning experience. Online platforms like ZOOM, Google Meet, Cisco, Webex & Microsoft Teams are used for online classes.
- The institute emphasizes total student development through participation in co-curricular and extracurricular activities. Outdoor and indoor sports and games play an important role in student development. Such sporting activities can instill qualities in students such as leadership, team spirit, and competitive spirit. Students are encouraged to participate in a variety of sports/games as well as cultural activities.
- Cultural activities are held at the institution's seminar halls, Auditorium, and open-air cultural center. The institute features a large and well-equipped indoor sports facility where students can play table tennis, chess, caroms, table tennis, Gym and other games.
- PVPIT's library is located on the ground level and has a stack area of 490square meters. The reading hall has a space of 545square meters with a seating capacity of 160students. The digital library has 13PCs with internet access. The Digital Library offers scanning and printing services. The library is automated with Koha software, which allows for in-house catalogue preparation and book circulation. The Engineering books are available in the library number 4917titles & 15368 Volumes.E resources like e-journals, ProQuest, DELNET have been made available to students for academic excellence.

#### **Student Support and Progression**

• The institute assists students to facilitate their holistic development and progression. To make personal interactions with students on regular basis the institute has constituted student-mentoring system. In addition, various committees were formed as well as faculties are available to support and help the students in academic as well as personal front. The institute assist student to get government scholarships and freeships as well as scholarships from non-government organizations and

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philanthropist.

- The institute organizes guest lectures of various eminent persons to counsel student for competitive examination, career counseling, higher education and soft skill development of students during every academic year. The institute organizes motivational and social Programmes on yoga and meditation and physical fitness. The institutes create awareness of trends in technology among students. Digital language laboratory is provided to improve communication and soft skill of students. It also extends its activities in helping students for placements as well as helps in career guidance.
- The Training and placement cell offers various training in line with industry requirement and updated technologies. The Training and placement cell invites of various companies for campus recruitment and conducts more no. of placement drives. It also provides internships to every in third year students. In line with the objective of Higher Education Policy of the nation, the institution provides education to the students of all caste, creed, religion and financial backgrounds. The institute also offers scholarship to the economically backward students. The needy students can also avail the installment facility to pay their fees. The students are motivated timely to participate in co-curricular and extracurricular activities.
- They are also encouraged to participate in various national and international Programmes and activities like sports, technical events and competitions. The Institute also carries out different activities under the alumni cell to promote the interaction of the students with alumni to gain experienced learning and encourage entrepreneurship. The institute also carries out social support by organizing Blood Donation Camps, Orphanage Visits, Tree plantation & Nurturing, PUC Camps, etc.

#### Governance, Leadership and Management

- The institute is functioning as per guidelines provided by Governing Body, IQAC and College Development Committee. The management has transparent policies and processes and includes all stakeholders in decision making process. This commitment sets the stage for a well-regulated and disciplined educational institution. Transparency is a cornerstone of the institute management, reflected in the implementation of clear policies and processes.
- Faculty participation in governance promotes diversity of ideas, shared responsibility, collaboration, coordination and institutional excellence. Furthermore, it is the right of all faculty members to participate in governance without fear of retaliation in subsequent decisions. It is the responsibility of the central administration, deans and department chairs to protect these rights.
- The Head of the Institute in coordination with Dean and depatrment Heads establish the operating procedures and governance entities including procedures of agenda setting, establishment of a quorum, preparing of minutes of meeting.
- Institute leadership is actively participating in all decision making processes. Principal is member of Governing body and CDC.
- PVPIT has a set of well-defined welfare policies to ensure students' and employees' overall development and welfare. Institute encourages and empowers students for higher studies and also supports its staff financially to participate in various seminars/workshops/conferences/trainings. Institute organizes professional development/administrative training programmes for teaching/non-teaching staff.
- The institute operates with unwavering dedication to adherence to guidelines, meticulously crafted by governing bodies and the college development committee. This commitment sets the stage for a well-regulated and disciplined educational institution. Transparency is a cornerstone of the institute's management approach, reflected in the implementation of clear and open policies and processes.
- IQAC plays an important role in planning, execution and satisfaction of needs to achieve quality policy, vision and mission of the institute. It constantly monitors all activities in all departments and

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- gives suggestions to improve the quality of education. IQAC has prepared strategic plan to achieve the goals of quality education.
- Encouraging innovation in teaching, research, and administration, and adopting best practices that contribute to the enhancement of the quality of education and overall institutional effectiveness.

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

Institutional values and best practices encompass the core principles and ethical standards that guide an educational institution. These values contribute to the overall development of the institution and its commitment to quality education.

- Institutions are encouraged to actively engage in social initiatives and contribute to community development. An emphasis on environmentally sustainable practices, such as energy conservation, waste management, and green initiatives, are part of institutional values. Promoting inclusivity and diversity within the campus community, ensuring equal opportunities for all students and staff, and fostering a culture of respect for differences.
- Best practices that involve the establishment and promotion of specific facilities or programs like a Robotics Lab and National Service Scheme (NSS). Robotics Lab with the latest technology and tools to support hands-on learning and experimentation.
- Encourage interdisciplinary collaboration by involving students from various departments in robotics projects. This fosters a holistic learning experience. Encourage students to participate in national and international robotics competitions. Supporting student teams in such events can enhance their skills and bring recognition to the institution.
- NSS Provide training and skill development opportunities for volunteers, aligning their activities with the development of employable skills and leadership qualities. Actively engage volunteers in community service activities that address local needs. This may include organizing health camps, environmental clean-up drives, and awareness campaigns.
- Institutional distinctiveness reflects the institution's identity, values, and contributions to the educational landscape. "Code Unnati SAP Center for Deep Tech" is established which refers to a specialized center that focuses on research, development, education, and innovation in rapidly advancing and transformative technologies. The SAP Lab, an integral component of the SAP Code Unnati program established by the company in the institution, has significantly enriched the academics. This lab is designed to become a hub of expertise, fostering collaboration among researchers, industry professionals, and educators. The exact focus of such a lab varies depending on the specific technologies deemed "emerging" at a given time, but it often includes areas such as artificial intelligence, robotics, block chain, Internet of Things (IoT), cyber security, and more.

### 2. PROFILE

#### 2.1 BASIC INFORMATION

Name and Address of the College	
Name	The Shetkari Shikshan Mandal, Sangli, Padmabhooshan Vasantdada Patil Institute of Technology
Address	SR.NO. 33/22,BAVDHAN(KHURD) OFF PIRANGUT ROAD, NEAR CHANDANI CHOWK, BAVDHAN PUNE
City	Pune
State	Maharashtra
Pin	411021
Website	pvpittssm.edu.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Ramkisan Shrirang Pawar	020-24317384	9049989805	-	principalpvpit@tss m.edu.in
IQAC / CIQA coordinator	R.d.kAmble	020-	9307096824	-	rdkambleiitb@gmai l.com

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minroity institution	No

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#### **Establishment Details**

State University name		Document
Maharashtra	Savitribai Phule Pune University	View Document
Maharashtra	Savitribai Phule Pune University	No File Found

Details of UGC recognition		
<b>Under Section</b>	Date	View Document
2f of UGC		
12B of UGC		

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	Recognition/Appr oval details Instit ution/Department programme	Day,Month and year(dd-mm- yyyy)	Validity in months	Remarks
AICTE	View Document	02-06-2023	12	Extension of approval for current academic year
AICTE	View Document	02-06-2023	12	Extension of approval for current academic year
AICTE	View Document	02-06-2023	12	Extension of approval for current academic year

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				
<b>Campus Type</b>	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	SR.NO. 33/22,BAVDHAN(KHURD) OFF PIRANGUT ROAD, NEAR CHANDANI CHOWK, BAVDHAN PUNE	Urban	7.5	15478

#### 2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Pro gramme/Co urse	Duration in Months	Entry Qualificatio n	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Mechanic al Engineering,	48	H.S.C.	English	120	52
UG	BE,Electroni cs And Telec ommunicatio n Engineering,	48	H.S.C.	English	60	56
UG	BE,Civil Engineering,	48	H.S.C.	English	60	15
UG	BE,Compute r Engineering,	48	H.S.C.	English	180	180
UG	BE,Compute r Science And Engineering Data Science,	48	H.S.C.	English	60	60
PG	ME,Mechani cal Engineeri ng,Heat Power Second shift	24	B.E Mechanical Engineering	English	12	4
PG	ME,Mechani	24	B.E	English	24	4

	cal Engineeri ng,Design		Mechanical Engineering			
PG	ME,Electroni cs And Telec ommunicatio n Engineerin g,VLSI and Embeded Systems	24	BE,Electroni cs And Telec ommunicatio n Engineering	English	24	8
PG	ME,Civil En gineering,Co nstruction Management	24	BE,Civil Engineering	English	24	21
PG	ME,Compute r Engineering ,Computer Engineering	24	BE,Compute r Engineering	English	24	6

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

				Te	aching	Faculty	y					
	Profe	Professor			Assoc	ciate Pr	ofessor		Assis	stant Pr	ofessor	
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	10				27				77			
Recruited	2	0	0	2	4	0	0	4	50	27	0	77
Yet to Recruit	8			23			0					
Sanctioned by the Management/Soci ety or Other Authorized Bodies	0				0				31			
Recruited	0	0	0	0	0	0	0	0	10	21	0	31
Yet to Recruit	0	1		1	0				0			

Non-Teaching Staff								
	Male	Female	Others	Total				
Sanctioned by the UGC /University State Government				69				
Recruited	58	11	0	69				
Yet to Recruit				0				
Sanctioned by the Management/Society or Other Authorized Bodies				0				
Recruited	0	0	0	0				
Yet to Recruit				0				

Technical Staff								
	Male	Female	Others	Total				
Sanctioned by the UGC /University State Government				19				
Recruited	12	7	0	19				
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

	Permanent Teachers										
Highest Qualificatio n	Professor		Associate Professor			Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total	
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0	
Ph.D.	2	0	0	4	0	0	5	3	0	14	
M.Phil.	0	0	0	0	0	0	0	0	0	0	
PG	0	0	0	0	0	0	55	45	0	100	
UG	0	0	0	0	0	0	0	0	0	0	

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

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

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

#### Provide the Following Details of Students Enrolled in the College During the Current Academic Year

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	877	1	0	0	878
	Female	243	0	0	0	243
	Others	0	0	0	0	0
PG	Male	50	0	0	0	50
	Female	15	0	0	0	15
	Others	0	0	0	0	0

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

Category		Year 1	Year 2	Year 3	Year 4	
SC	Male	15	18	18	8	
	Female	9	3	5	6	
	Others	0	0	0	0	
ST	Male	2	2	0	0	
	Female	0	0	0	0	
	Others	0	0	0	0	
OBC	Male	32	15	20	23	
	Female	15	7	9	8	
	Others	0	0	0	0	
General	Male	44	38	87	52	
	Female	16	12	21	16	
	Others	0	0	0	0	
Others	Male	64	64	48	46	
	Female	16	27	14	19	
	Others	0	0	0	0	
Total	·	213	186	222	178	

#### **Institutional preparedness for NEP**

1. Multidisciplinary/interdisciplinary:

PVPT is affiliated to Savitribai Phule University (SPPU), Pune and its curricula are being revamped to incorporate a diverse range of subjects, fostering a holistic and interconnected learning environment. Faculty development programs are being implemented to equip educators with the skills required for collaborative, cross-disciplinary teaching methodologies. As per NEP, Technological integration plays a pivotal role, Institute provides utilization of online platforms and digital tools such as Moodle, Digital Library, Microsoft teams facilitates multidisciplinary engagement among students and faculty. Inter-institutional collaborations such as Hackathons, Technothon are being actively

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pursued to broaden the scope of interdisciplinary programs and research projects. Aligning institutional policies with the National Education Policy's directives, PVPIT implementing flexible effective communication strategies to disseminate information about the benefits and objectives of multidisciplinary education and creating awareness among students through innovation clubs like Robocon, Robowar, SAE, Go-Kart, Club of Code, Aero Modeling, Concrete club and extracurricular clubs like Cultural and sports clubs etc.in which students from all departments can enroll and work on projects.

#### 2. Academic bank of credits (ABC):

PVPT actively realigning the systems of NEP by ensuring seamless integration and compliance with credit accumulation and transfer processes for students in registering on the ABC portal. To facilitate student participation, institution encourages students to create Automated Permanent Academic Account Registry (APAAR) IDs on the ABC portal. Institution also focusing on comprehensive faculty training to adeptly guide students through the ABC framework in fostering a smooth credit accumulation and reby SPPU, Pune. To uphold the NEP policy's guidelines, institution enhancing technological infrastructure to support efficient credit management through the ABC portal. A collaborative approach with industry and other educational entities such as SAP, Centre of excellence, Robotics is being adopted by PVPIT to ensure the effective integration of ABC into the broader education ecosystem with same assessment band.

#### 3. Skill development:

PVPIT proactively restructure their curricula to integrate practical and technical skills seamlessly with due respect of NEP initiatives. Training is provided for students and faculty members to incorporate skill-centric pedagogy to ensure knowledge and practical competencies. For imparting training to students on Emerging technologies to compete industry needs, Centre of Excellence is established with financial support and technical support SAP and Edunet foundation Strategic partnerships are being forged with industry through MOUs, and skill training providers to align educational offerings with the evolving demands of the job market by the institute. Institution established state-of-the-art skill labs and workshops to provide hands-on training and experiential learning

opportunities for students. PVPIT enhances skill development initiatives, with the integration of online platforms, simulations, and virtual labs through various innovative clubs such as Robotics, SAE Baja, Go-Kart, Club of Coding, etc. PVPIT organizes Internship programs and industry collaborations to offer real-world exposure and bridge the gap between academic learning and practical application. PVPIT actively encourages students to participate in the Skill India mission to incorporate recognized skill in every student toflexible teaching learning processes. Additionally, PVPIT provides training programs and placement activities to empower students with the practical competencies needed for success in the dynamic and competitive job market. Rigorous skill development program of PVPIT as above is found to be effective in improving students' placements.

4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):

Institution gears up for a paradigm shift in teaching methodologies. PVPIT integrate indigenous knowledge, traditions and cultural perspectives, providing students with a more comprehensive and contextually relevant education. PVPIT Collaborates with indigenous scholars, local communities, and traditional knowledge to ensure authenticity and accuracy in the incorporation of Indian knowledge systems. PVPIT actively participates in research initiatives to document and preserve indigenous practices, languages, and cultural heritage. As such, Students of PVPIT from "Padma" art circle competes in and win intercollegiate PURUSHOTTAM Drama and FIRODIYA contests. In the esteemed Firodiya Karandak, our Institute stood second in place and took fourteen separate awards for various categories. To foster students' development in the areas of painting, photography, literature, and multilingual article writing, the institute holds poster competitions and publishes annual magazines. PVPIT also encourages students to participate in Yoga to improve strength, balance and flexibility and sports at University, state and National levels. Events like Tech-Rhythm and Technothon are the part of PVPIT Institute's innovative and all-encompassing educational program. These kinds of events have a vast impact on students' growth as well as the creation of a lively campus culture. These activities support and enhance the institutional readiness for educational best practices and the National Education

Policy (NEP). Students participate in technological competition events like Technothon, which promotes creativity, problem-solving abilities, and collaboration. In a similar vein, Tech-Rhythm, as a cultural program, fosters students' overall growth by enticing them to engage in non-technical activities, nurturing their creativity, and developing soft skills. PVPIT promotes experiential learning opportunities that immerse students in local cultures and traditions. Cultural initiatives like Tech-Rhythm are engaged to support the NEP's reference to "cultural integration", which enriches diversity on the appropriate integration of Indian knowledge systems, aiming to create a more culturally inclusive, linguistically diverse, and technologically advanced educational landscape.

#### 5. Focus on Outcome based education (OBE):

PVPIT emphasis on OBE indicating a dedication in guaranteeing educational outcomes corresponding to industry demands and student competencies, which endorses a more outcome-driven methodology. As the Institute is affiliated to Savitribai Phule Pune University, Pune. The University creates the curriculum and syllabus, and the institute adheres to it thoroughly. Assessment methodologies are evolving to align with outcome-based education, emphasizing continuous evaluation and authentic performance assessments. PVPIT established robust feedback mechanisms to gather input from students, employers, and other stakeholders to continually refine and improve educational outcomes. Learning analytics and data-driven approaches are being adopted to monitor student progress and ensure the effectiveness of educational interventions by identifying the student abilities such as advanced learners and slow learners. PVPIT concentrates towards outcome-based education in fostering studentcentric approaches, encouraging personalized learning trajectories and adaptive teaching methods. It actively engages in outcome-based research to contribute valuable insights to educational practices and policies. Professional bodies and industry experts are involved to evaluate curricula to align with the practical needs of the workforce. In fulfilling the process and policies by NEP, PVPIT makes attainments of CO's and PO/PSO which are well established by diverse disciplines faculty and reviewed by module committee.

6. Distance education/online education: PVPIT embracing innovative approaches to expand accessibility and flexibility in education. Institute has robust online platform and CC Lab which incorporates advanced technologies to deliver highquality engineering education remotely. PVPIT actively participating in the creation of digital resources, open educational materials and online assessments to support remote learning initiatives through MOODLE and Microsoft Teams. The institute and SAP have signed a Memorandum of Understanding for the provision of online and offline courses to foster the development of soft skills. Institution also established strong support systems for students to engage in online education, including virtual counselling services, online libraries, and peer collaboration platforms. With due recommendation of NEP, PVPIT encourages students and faculty to earn certification in areas such as spoken tutorials, Massive Open Online Courses (MOOCs) such as

Coursera, SWAYAM NPTEL etc.

#### **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, The college has active ELC. The constitution is as follows: Prof. Navnath Bagal, Nodal officer of ELCs Prof. Sanjay Ubale - Members of ELCs Prof. Surendra Kokane - Members of ELCs Prof. Avdhut Kadu - Members of ELCs Prof. Akshay Auti - Members of ELCs Mr. Prasad Sastapure- Students representative The ELC is functional
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.	Electoral literacy refers to the knowledge, skills, and understanding that individuals need to participate effectively in the electoral process of a democratic society. It encompasses various aspects of the electoral system, including voter registration, the voting process, understanding the broader concepts of democracy and civic responsibility. ELCs in coordination with NSS Unit of The Shetkari Shikshan Mandal, Sangli, Padmabhooshan Vasantdada Patil Institute of Technology established a dedicated team of students and faculty members to oversee the planning and execution of electoral literacy club

activities. Under the aegis of ELC various activities regarding voter awareness conducted. College has collaborated with District Election Office and Worship Earth Foundation, Pune to facilitate voter registration campaigns, ensuring that eligible students are registered to vote.

4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.

Electoral literacy among students is of paramount importance for several reasons, as it contributes to the development of informed, engaged, and responsible citizens. Electoral literacy goes hand in hand with social awareness. It encourages students to stay informed about societal issues, political developments, and the impact of government policies on various communities. This awareness contributes to a more socially conscious and responsible generation. College has collaborated with District Election Office and Worship Earth Foundation, Pune. The goal of this activity was to enhance voter awareness and promote ethical, electoral participation with continuous engagement of students in electoral democracy.

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.

The ELCs in coordination with NSS unit had organized voter awareness program to make students aware about voting right. The institution further Collaborate with local authorities to facilitate voter registration campaigns. Voter Registration Drive organized on 07/12/2022 to 08/12/2022 aiming to increase civic participation and ensure that eligible students are registered to vote. 62 students registered through Voter Registration Drives in college. This drive help to develop positive and proactive effort towards increasing civic engagement among the student body.

#### **Extended Profile**

#### 1 Students

#### 1.1

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

2022-23	2021-22	2020-21	2019-20	2018-19
1362	1632	1743	1651	1986

File Description	Document
Upload Supporting Document	<u>View Document</u>
Institutional data in prescribed format	View Document

#### 2 Teachers

#### 2.1

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

Response: 199

9	File Description	Document
	Upload Supporting Document	<u>View Document</u>
	Institutional data in prescribed format	View Document

#### 2.2

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

2022-23	2021-22	2020-21	2019-20	2018-19
114	148	148	148	131

#### 3 Institution

#### 3.1

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

2022-23	2021-22	2020-21	2019-20	2018-19
965.57	1073.96	735.5	700.16	1115.53

Self Study Report of The Shetkari Shikshan Mandal, Sangli, Padmabhooshan Vasantdada Patil Institute of Technology

File Description	Document
Upload Supporting Document	<u>View Document</u>

#### 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:**

#### Curriculum Planning:

- The Padmabhooshan Vasantdada Patil Institute of Technology, Bavdhan, Pune (PVPIT) is affiliated to Savitribai Phule Pune University (SPPU), Pune. PVPIT is having well-defined planning and implementation process for the effective delivery of the curriculum framed by SPPU.
- The principal, along with IQAC, conducts meetings with the Academic Monitoring Committee (AMC) before the commencement of each academic year to assign subjects, class teachers, and guardian faculty members.
- The Academic Committee, in alignment with the university's academic calendar, formulates a comprehensive schedule for each semester. The schedule includes internal examinations for both theory and lab courses, as well as significant events like Annual Day, Sports Day, and General Holidays.
- The schedule is disseminated to respective departments. Each department creates its own calendar of events aligned with the university's academic calendar. This departmental calendar is distributed to all relevant stakeholders.

#### Curriculum Delivery:

- The institution follows the guidelines and directives set by Savitribai Phule Pune University, particularly regarding the Choice Based Credit System. Faculty members are assigned courses (theory and laboratories) based on their areas of specialisation, expertise, and preferences by the heads of departments.
- Faculties prepare teaching plans on the basis of the syllabus, indicating an effort to provide students with a broader and more comprehensive understanding of the subjects.
- The teaching plans include not only the syllabus but also course files and laboratory manuals, emphasising a holistic approach to education that encompasses both theoretical and practical aspects.
- Faculties present subject-specific presentations to the Academic Monitoring Committee (AMC), seeking suggestions for improvement in the delivery of content and teaching techniques. This demonstrates a collaborative approach and a willingness to incorporate feedback for continuous enhancement.
- The AMC conducts monthly reviews as an integral part of the teaching-learning process.
- This ensures regular assessments of the progress of curricula, allowing for timely adjustments and improvements.

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#### Curriculum Enrichment:

- The certificate courses and value added courses additionally offered by the institute contribute significantly to enriching the overall curriculum and fostering holistic development among students.
- Students are encouraged to utilize e-learning platforms like SWAYAM, NPTEL, and Moodle etc, enhancing their learning experience.
- Students are inspired to participate in technical events such as seminars, webinars, National and international conferences, and National level design and Project Competition, promoting a practical understanding of their field.
- The institute organizes industrial and field visits, cultural and sports events, and arranges guest lectures by eminent personalities, offering diverse learning experiences.
- Students are encouraged to publish papers in indexed journals and file patents, fostering a research-oriented mindset. Faculty members stay updated by attending seminars and workshops on the recent scenario of the curriculum, ensuring they can disseminate the latest knowledge to students
- This comprehensive approach indicates a commitment to provide students with a well-rounded education, incorporating theoretical knowledge, practical skills, and a focus on personal and professional development.
- The active involvement of the AMC, monthly reviews by module coordinator, HODs and internal audits by academic dean, all contribute to a robust quality assurance mechanism, fostering a culture of continuous evaluation in the teaching-learning process.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

#### 1.2 Academic Flexibility

#### 1.2.1

Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

**Response:** 42

File Description	Document
List of students and the attendance sheet for the above mentioned programs	View Document
Institutional programme brochure/notice for Certificate/Value added programs with course modules and outcomes	View Document
Institutional data in the prescribed format	View Document
Evidence of course completion, like course completion certificate etc. Apart from the above:	View Document

#### 1.2.2

Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

Response: 59.71

1.2.2.1 Number of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
1346	534	1487	685	948

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

#### 1.3 Curriculum Enrichment

#### 1.3.1

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

#### **Response:**

#### Gender and Human Values:

• The college seems to have a strong commitment to the well-being and empowerment of its female

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students

- It organizes various initiatives such as blood testing, health checkups and folk dance competitions specifically for womens.
- The internal complaint committee also organizes programs on Women's Day, Women's Laws, and Anti-Harassment for Women, highlighting the importance of gender equality and safety.

#### **Environment and Sustainability:**

- Additionally NSS unit plays an active role in addressing gender-related issues through campaigns like the Save Girl Child initiative.
- They also focus on environmental protection and sustainable development, conducting programs on tree plantation and village cleanliness.
- The college participates in government-led initiatives like Swachch Bharat Abhiyan, Summer Internship, further emphasising environmental awareness and community engagement.

#### **Professional Ethics:**

- The college also prioritises incorporating ethical and human values into the education process.
- Through extracurricular activities, guest lectures on value education and national holidays like Republic Day and Independence Day, students are encouraged to develop moral and patriotic values. Moreover, the college actively engages in social initiatives such as promoting voter awareness, road safety, blood donation, AIDS awareness, and health and hygiene awareness.
- Overall, the college takes a holistic approach towards education aiming to create socially responsible and ethical individuals. By addressing societal issues, fostering environmental consciousness and instilling a sense of social responsibility, the institution strives for the holistic development of its students and active community engagement.

File Description	Document
Upload Additional information	<u>View Document</u>

#### 1.3.2

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

Response: 61.53

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

Response: 838

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	<u>View Document</u>

#### 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

**Response:** A. Feedback collected, analysed, action taken& communicated to the relevant bodies and feedback hosted on the institutional website

File Description	Document
Feedback analysis report submitted to appropriate bodies	View Document
At least 4 filled-in feedback form from different stake holders like Students, Teachers, Employers, Alumni etc.	View Document
Action taken report on the feedback analysis	View Document
Link of institution's website where comprehensive feedback, its analytics and action taken report are hosted	View Document

#### **Criterion 2 - Teaching-learning and Evaluation**

#### 2.1 Student Enrollment and Profile

#### 2.1.1

#### **Enrolment percentage**

Response: 32.96

## 2.1.1.1 Number of seats filled year wise during last five years (Only first year admissions to be considered)

2022-23	2021-22	2020-21	2019-20	2018-19
188	162	213	163	243

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

2022-23	2021-22	2020-21	2019-20	2018-19
588	588	588	588	588

File Description	Document
Institutional data in the prescribed format	View Document
Document related to sanction of intake from affiliating University/ Government/statutory body for first year's students only.	View Document

#### 2.1.2

Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first year admission during the last five years

**Response:** 36.43

## 2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years (Exclusive of supernumerary seats)

2022-23	2021-22	2020-21	2019-20	2018-19
103	62	76	78	89

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

2022-23	2021-22	2020-21	2019-20	2018-19
224	224	224	224	224

File Description	Document
Institutional data in the prescribed format	View Document
Final admission list indicating the category as published by the HEI and endorsed by the competent authority.	View Document
Copy of communication issued by state govt. or Central Government indicating the reserved categories(SC,ST,OBC,Divyangjan,etc.) to be considered as per the state rule (Translated copy in English to be provided as applicable)	View Document

#### 2.2 Student Teacher Ratio

2.2.1

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

Response: 11.95

#### 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 and teachers use ICT- enabled tools including online resources for effective teaching and learning process

#### **Response:**

Teachers of PVPIT have been trained and equipped with modern ICT tools in addition to Conventional Teaching Tools. Faculties have attended professional development programmes and training to enhance skill sets related to ICT. Each department has a smart board and interactive flat panel with internet connectivity to make teaching more vibrant. Student-centric teaching-learning methods are used to improve student learning which includes conventional chalkboard and non-conventional learning viz. experiential, problem-solving, participative, and collaborative learning for slow, advanced, and average

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#### learners

- 1. Experiential Learning: Students undergo summer internships and Project Based Learning to learn about the latest technology, this teaches students to mine data from various sources and adopt various approaches. Students present their project work in the form of presentations, which improves their communication and presentation skills. To enhance self-learning, learning material created by faculty is made available through blogs, google classroom, and YouTube channels.
- 2. Participative Learning: Flipped Classroom aims to increase student engagement and learning. Students are encouraged to actively participate in additional courses such as NPTEL/Coursera/SWAYAM etc. For advanced learners, these courses are mandatory to promote higher-order thinking. Activities like Robowar (Tech-fest IIT Mumbai), Robocon (IIT Delhi), Smart India Hackathon, Supra, BAJA, Go-Cart and provide an opportunity for the students to work as an individual and in teams.
- 3. Problem-Solving Methodologies: Multiple activities are carried out to familiarise students with real-world industry issues. Institute conducts activities to boost their problem-solving abilities like puzzles, quizzes, etc. through Moodle platform. The seminar helps to understand fundamental concepts, recent trends/technologies, and the expression of practical skills and knowledge gained. Some of the ICT tools and resources used in PVPIT are given below
- 1. Classrooms (equipped with network connectivity, LCD projector, standard teaching aids, audio-video components, smart boards, etc.)
- 2. Moodle Platform
- 3. Google classroom, google meet, google form
- 4. YouTube channels and blogs, video lectures on the website (https://pvpittssm.edu.in)
- 5. Simulation software
- 6.Online material like E-books, E-Journals etc.

Extensive use of Moodle, google meet etc. was observed during the pandemic and it has been continued in the post-pandemic period in hybrid mode. Institute encourages students to use the available tools for the conduction of various workshops, hands-on training, and technical events with an emphasis on the use of the software.

Experiential Learning	Participative learning	Problem-Solving methods
Industrial Visit	Group discussions	Case studies
Field Visit	Presentations	Projects
Seminar	Technical events	Puzzles
Project Based Learning	Student committees	Quizzes
Projects	NPTEL/ Swayam/Coursera	Moodle
Use of Softwares	Hands-on experience	Online tests
Youtube, Videos, Blogs	Resource pooling	
Industry internship		
Virtual labs		

Computer assisted Learning	
File Description	Document
Upload Additional information	View Document

#### 2.4 Teacher Profile and Quality

#### 2.4.1

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

Response: 100

#### 2.4.1.1 Number of sanctioned posts year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
114	148	148	148	131

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts)	<u>View Document</u>

#### 2.4.2

Percentage of full time teachers with NET/SET/SLET/Ph. D./D.Sc. / D.Litt./L.L.D. during the last five years (consider only highest degree for count)

**Response:** 6.53

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

2022-23	2021-22	2020-21	2019-20	2018-19
13	10	4	10	8

File Description	Document
List of faculties having Ph. D. / D.Sc. / D.Litt./ L.L.D along with particulars of degree awarding university, subject and the year of award per academic year.	View Document
Institution data in the prescribed format	View Document
Copies of Ph.D./D.Sc / D.Litt./ L.L.D awareded by UGC recognized universities	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:**

TSSM's PVPIT institute has formed an Examination committee consisting of the Principal, College Examination Officer and Examination committee members. It is responsible for the organization, coordination and administration of the internal assessment as well external assessment for B.E. and M.E. students. The examination and evaluation process is carried out in accordance with the course structure provided by SavitribaiPhule Pune University (SPPU).

The mechanism followed for internal and external assessment is listed below;

- 1) Internal Assessment:
  - Institute/Department academic calendars have internal examination schedules.
  - Examination timetables are displayed on the notice board.
  - After every internal test, the faculty members explain the solution in class.
  - Answer sheets are evaluated within one week after examination and providedto
  - students in the classroom for verification.
  - Necessary action is taken by course faculty on a query raised.
  - A retest is conducted for absent and failed students. Marks are shared with
  - parents in parent meetings.
  - The evaluation process and assessment rubrics of term work, seminar, project,
  - Project Based Learning (PBL) are shared with students at the beginning of each
  - semester to keep transparency.
  - Continuous internal assessment and their frequency of conduction are as follows:

Sr.no.	Teaching Scheme	Internal Assessment	Recurrence per
		Tools	Semester
1.	Theory	Unit Test	
		Prelim Examination	1

		MCQ Test/ Prerequisite	1
		Test	
			1
		Assignment	
			3 to 6
2.	Practical	Practical Assessment	Continuously throughout
			the semester
		Mock Oral/ Practical	
			1.
3.	<b>Project and Seminar</b>	Project Review	2 to 3
		Seminar Review	2 to 3
* Internal assessment and its conduction frequency are selected as per the need of the course.			

#### 1. External Assessment:

- 1. University conducts external assessments through in-semester and end-semester examinations.
- 2. University also conducts external practical/ oral/ project/ seminar examinations by appointing external examiners.
- 3. The examination timetable is displayed on the notice board and is available on the university website.

#### **Grievances Redressal:**

#### 1.Internal Assessment:

- The students raise their grievance to the subject teacher.
- Examination Grievances Redressal Committee (EGRC) & subject teacher resolves the grievance in a time bound manner.
- Students who are absent for sessional examination due to medical reasons have to submit an application along with the necessary supporting documents to the Examination Grievances Redressal Committee (EGRC).
- The application is forwarded to the principal by the college examination officer and upon approval by principal; the student is entitled to appear for the re-sessional examination.

#### 2. External Assessment:

- Any problems regarding filling the online examination forms and Hall tickets are resolved by the Examination Grievances Redressal Committee (EGRC), it is communicated to the Savitribai Phule Pune University via an authorized letter and supporting papers.
- Students having grievances regarding evaluation in any subject for the end term assessment may register their grievances to the Examination Grievances Redressal Committee (EGRC) which are further communicated with Savitribai Phule Pune University (SPPU).
- Any grievance regarding examination process if noticed is communicated to the Savitribai Phule Pune University.
- After the declaration of the university result, Grievances regarding the Verification and Revaluation procedure are resolved by the Examination Grievances Redressal Committee (EGRC) and students apply for photocopies through the university's online system.

File Description	Document
Upload Additional information	<u>View Document</u>

#### 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

#### **Response:**

Effective teaching in engineering education extends beyond traditional methods, incorporating modern pedagogical approaches such as experiential learning, project-based learning, and industry collaborations. Engineering colleges are encouraged to foster an environment that promotes active student participation, critical thinking, and problem-solving skills. Faculty members are expected to keep pace with advancements in their respective fields, ensuring that the curriculum is not only up-to-date but also aligned with industry demands.

The teaching-learning process adheres to Outcome-Based Education (OBE) principles, with a focus on predefined outcomes such as Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs). These objectives are formulated collaboratively, involving all pertinent stakeholders at the departmental level responsible for delivering the respective program. Once a consensus is reached among stakeholders, the objectives are disseminated and made public. This approach ensures that the educational goals and expectations are clearly defined, aligning with the perspectives and insights of various contributors within the academic community. The transparency and inclusivity in deriving these outcomes underscore the commitment to a comprehensive and stakeholder-driven education framework. The objective are publicize through

- Curriculum Class rooms
- Department Notice Boards
- Laboratories
- Student Induction Programs
- Meetings/ Interactions with Industry person
- Parent meet
- Faculty meetings
- Alumni meetings
- Library

Program Specific Outcomes (PSOs) are formulated by leveraging the distinct skill sets of faculty members, who serve as a valuable asset to the department, and by considering any collaborative industry partnerships. These outcomes are tailored to align with the strengths and expertise present within the department. An evaluation at the end of the program involves assessing students to analyze specific requirements and achievements at a granular level, ensuring that the educational objectives are met effectively.

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On the other hand, Program Outcomes (POs) encompass broader statements that articulate the overarching professional achievements targeted by the program. These outcomes encapsulate a wide array of interconnected knowledge, skills, and personality traits that students are expected to acquire throughout their graduation. Students are tasked with achieving these outcomes by the time they complete the program, reflecting a comprehensive and integrated approach to their educational journey.

Course Outcomes (COs) delineate the fundamental and lasting disciplinary knowledge and abilities that students are expected to possess upon successfully completing a course. These outcomes explicitly articulate the subject-specific knowledge that students should acquire. The responsibility for formulating and communicating these outcomes lies with the faculty member instructing the particular course, ensuring clarity and alignment with the educational objectives of the curriculum.

File Description	Document
Upload Additional information	View Document

#### 2.6.2

Attainment of POs and COs are evaluated.

#### Explain with evidence in a maximum of 500 words

#### **Response:**

In PVPIT we believe in outcome based education system .The assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes in our college are mentioned below.

Our faculty systematically tracks each student's progress using designated course outcomes through an ongoing evaluation process. To gauge the attainment of Program Outcomes (POs) and Program Specific Outcomes (PSOs), faculty members employ various assessment methods. These include assigning home tasks, administering internal tests, conducting viva sessions, surprising students with tests and assigning projects. Through this diverse set of evaluation strategies, the faculty aims to comprehensively assess and measure the achievement of both overall program objectives and specific program-related goals by each student.

- 1 .External Assessment: End Semester University Examination is a one of way through which students are evaluated . These examinations serve as a means for the institution to evaluate program outcomes, adhering to the predetermined course attainment levels set by the program. The external assessment has a weightage of  $80\ \%$
- 2. Internal Assessment: Internal Assessment has a weightage of 20 % .Students engage in assignments specifically crafted to align with the Program Outcomes of their respective subjects. Furthermore, throughout the semester, Our faculty conducts a series of internal/class tests, quizzes, viva sessions, and other assessments regularly to evaluate students' performance on an ongoing basis.

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- 3. Practical Assessment: External evaluation involves the invitation of university-appointed external experts to assess each student. This assessment includes the conduction of practical examinations, oral examinations (Viva), and the evaluation of practical files.
- 4. Result Analysis: At the end of each semester, result analysis of each course is carried out using bar charts indicating the percentage of students falling in different categories of CGPA obtained. This is an effective indicator in order to evaluate the level of attainment of POs, PSOs and COs as specified by the university.
- 5. Internships and Placements: Students are urged to pursue internships, projects, and fieldwork to enhance their practical experiences. The college's Placement Cell actively supports and refines students in accordance with industry standards, offering abundant opportunities for them to secure positions in prestigious companies. This initiative aids students in acquiring essential skills and practical experience within their chosen field of study.

File Description	Document
Upload Additional information	<u>View Document</u>

#### 2.6.3

Pass percentage of Students during last five years (excluding backlog students)

**Response:** 89.9

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

2022-23	2021-22	2020-21	2019-20	2018-19
334	466	617	605	523

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

2022-23	2021-22	2020-21	2019-20	2018-19
431	543	620	609	628

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File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Certified report from Controller Examination of the affiliating university indicating pass percentage of students of the final year (final semester) eligible for the degree programwise / year-wise.	View Document
Annual report of controller of Examinations(COE) highlighting the pass percentage of final year students	View Document

# 2.7 Student Satisfaction Survey

-	_	
′ 7	7	- 1

# Online student satisfaction survey regarding teaching learning process

**Response:** 3.69

File Description	Document
Upload database of all students on roll as per data template	View Document

## Criterion 3 - Research, Innovations and Extension

#### 3.1 Resource Mobilization for Research

#### 3.1.1

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

Response: 26.64

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

2022-23	2021-22	2020-21	2019-20	2018-19
1	0	0.4	25.24	0

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	<u>View Document</u>

### 3.2 Innovation Ecosystem

#### 3.2.1

Institution has created an ecosystem for innovations, Indian Knowledge System (IKS),including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident

#### **Response:**

Padmabhooshan Vasantdada Patil Institute of Technology (PVPIT) has created a research and innovation culture and has taken initiatives in favor of creation and transfer of knowledge. The institute is committed for the contribution to Nation's Vision to become a global superpower by achieving a 5 trillion dollars economy. This is possible by generating wealth through quality research, innovations and intellectual properties.

PVPIT has a Research and Innovation (R&D) Cell, Entrepreneurship Development Cell (EDC) to encourage faculty and students to explore their creative ideas and convert them into innovations.

The Institute has Center of excellence on emerging technologies-Code Unnati by Edunet foundation. Students are motivated to undertake design, fabrication and development projects based on innovations and prove their skills through various technical competitions.

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**Research and Innovation – PVPIT** has a research culture spread over the all departments. Faculty members have published their work in the SCI and SCPOUS indexed journals.

Mechanical dept has organized Internal Conference and PGCON conference, where 500+ students and faculty members have participated in these conferences.

P-Idea center is established in the Institute to promote students ideas, Innovative projects. Support is provided for enterprenuership and startups.

**P-Idea center and Incubation center -** Students are encouraged to undertake industrial projects. Institute provided financial support of Rs.2.0 lakhs for the competitions like Robocon, Robowar, Smart India Hackathon. Every year college organize technical festival- Technothon, Students from various college participate in the technical events. Industry experts are called for the assessment and evaluation sothat students get valuable inputs for the future enhancement. Project Based Learning (PBL) is introduced in the curriculum, which is recognized by the university and introduced as a mandatory part of the Engineering syllabus of 2019 pattern courses.

**Entrepreneurship Development** – Institue has Innovation and start up cell recognized by Savtribai Phule Pune University which organizes entrepreneurship awareness sessions, industry experts talk about career opportunities and technology trends in the industrial environment, orientation program for new entrepreneurs etc.

File Description	Document
Upload Additional information	View Document

#### 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: 43

# 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

2022-23	2021-22	2020-21	2019-20	2018-19
13	11	10	4	5

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File Description	Document
Upload supporting document	<u>View Document</u>
Institutional data in the prescribed format	View Document

#### 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: 0.31

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

2022-23	2021-22	2020-21	2019-20	2018-19
15	16	11	10	10

File Description	Document
Link to the uploaded papers, the first page/full paper(with author and affiliation details)on the institutional website	View Document
Link to re-directing to journal source-cite website in case of digital journals	View Document
Links to the papers published in journals listed in UGC CARE list or	View Document
Institutional data in the prescribed format	View Document

#### 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: 0.09

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

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2022-23	2021-22	2020-21	2019-20	2018-19
4	4	9	1	0

File Description	Document
List of chapter/book along with the links redirecting to the source website	View Document
Institutional data in the prescribed format	View Document
Copy of the Cover page, content page and first page of the publication indicating ISBN number and year of publication for books/chapters	View Document

#### 3.4 Extension Activities

#### 3.4.1

Outcomes of Extension activities in the neighborhood community in terms of impact and sensitizing the students to social issues for their holistic development during the last five years.

#### **Response:**

- **Padma:** Institute has introduced **an Art Circle- Padma** which provides platform for students to explore their leadership qualities, problem solving ability, teamwork, social and cultural values, ethical framework by organizing and participating in activities such as Ganesh Utsav, Navratri Har Ghar Tiranga, Women's Welfare, Old age home Visit etc.
- Yoga and Meditation: Stress and unpredictability have become a part of life. Mindfulness is a great stepping stone to aid the accomplishment of other goals. Physical and mental fitness is the need of today's era. Mindful meditation has a lot of stress reduction techniques that give us the space and time to process tough emotions and make thoughtful decisions toward more constructive behavior. Institute makes students aware about importance of Yoga and Meditation by conducting activities such as seminar on Mindfulness to Success, workshop on Stress Management and Add on course on Yoga and Meditation helps to maintain healthy lifestyle and Holistic Development of the students.
- Sensitization to National Integrity and Communal Harmony amongst the students: Institute motivates students to celebrate various auspicious occasion like Teacher's Day, Constitution Day, National Integration Day, Marathi Bhasha Day, Guru Poornima, Shiv Jayanti, Gandhi Jayanti, Dandiya (Navratri), Independence and Republic day Celebration etc.
- Social Responsibility: Institute arranges Health check- up camp, Blood donation camp, etc. in association with NSS unit and Government health department. Such service-learning activities imbibe social responsibility amongst students.
- National Integrity, Environmental and Social Responsibility: Students are motivated to participate in outreach activities, such as 'Swachh Bharat Abhiyan', campus cleaning, tree plantation, E-Waste Collection, Food packets to hungry people etc.

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- Social and Ethical Behavior amongst the students: Student volunteers provide medical help to 'Varkaris (pilgrim)' during Ashadi wari procession (annual pilgrimage of Maharashtra). They raise funds and distribute food items to Varkaries. Such activities help to inculcate social and ethical behavior among the students.
- Emotional, Intellectual, Social, and Inter-Personal Development: Every year Institute celebrates Engineers Day in collaboration with ISTE/IETE Pune Branch. Theme based activities like street play, Poster presentation, Project Competition, Quiz etc. are organized in the institute. Students actively participate in various inter-college competitions like Singing, Elocution, Debate, Essay competitions. These activities lead to emotional, intellectual, social, and inter-personal development of students.
- Students have opportunity to improve their leadership, interpersonal skills, self-confidence by organizing a National level Socio-technical event- 'Technothon' which is arranged every year.

File Description	Document
Upload Additional information	<u>View Document</u>

#### 3.4.2

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

#### **Response:**

- Ø Institute Awarded With Certificate of Appreciation for Swachha Bharat Abhiyan. Blood donation camp, health checkup camp are routinely organized at college by recognized blood banks and Govt Health Department.
- Ø Certificate of Appreciation in sports: Students have actively participated in the National Level sports competition and various Outdoor and Indoor Games.
- i)Participation in CoochBehar Trophy
- ii) participation for National Cricket regional camp under Maharashtra Team
- ii)Swimming National Player
- iv)International Roll Ball Chamion ship
- v) Participation in National Basket Ball champion ship
- Ø Certificate of Appreciation in the drama competitions:

#### Students participate in the reputed competitions and bagged the prizes. i)Firodiya Karandak

- ii)Purushottam Karandak
- iii)Vinodattam Karandak
- iv)Bharat Karndak
- v)Intercolligate Drama competition

### Ø Certificate of Appreciation in technical events:

Students participated in the International-Robocon event which is organized by DD and Prasar Bharti.

Students participate in the technical competitions at the college level and regional level arranged by various Institutes.

File Description	Document
Upload Additional information	View Document

#### 3.4.3

Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community during the last five years.

#### **Response:** 53

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

2022-23	2021-22	2020-21	2019-20	2018-19
11	10	10	13	9

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File Description	Document
Photographs and any other supporting document of relevance should have proper captions and dates.	View Document
Institutional data in the prescribed format	View Document
Detailed report for each extension and outreach program to be made available, with specific mention of number of students participated and the details of the collaborating agency	View Document

## 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:** 35

File Description	Document
List of year wise activities and exchange should be provided	View Document
List and Copies of documents indicating the functional MoUs/linkage/collaborations activitywise and year-wise	View Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

# **Criterion 4 - Infrastructure and Learning Resources**

### 4.1 Physical Facilities

#### 4.1.1

The Institution has adequate infrastructure and other facilities for,

- teaching learning, viz., classrooms, laboratories, computing equipment etc
- ICT enabled facilities such as smart class, LMS etc.

Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc (Describe the adequacy of facilities in maximum of 500 words.)

#### **Response:**

The infrastructure of the institute is designed in accordance with AICTE standards. The prominent aspects of the Institute infrastructure include ICT-enabled classrooms, advanced laboratories, spacious & enriched library and well-equipped acoustically constructed seminar halls. Wi-Fi is available in classrooms, making it easy to utilize online materials and virtual labs. Smart boards are available in every classroom. The design and layout of the classroom gives professors and students the chance to participate in activities including presentations, short role plays, demonstrations, and group discussions. White boards, LCD projectors, and public address systems are all available in the Institute's seminar halls.

These halls are frequently used to host seminars &conferences and various events including group discussion and paper presentation and students are urged to participate actively.

In addition, the institute has a dedicated activity lab named PIDEA's Center in which students congregate to discuss novel ideas leading to enhance student's vision on entrepreneurship and innovative product development/startup. Also there is separate robotics lab for student experiential learning with multidisciplinary approach. Center of excellence is established funded by SAP Lab and Edunet foundation for imparting technical training to the students

All departments have their own IT infrastructure. In addition to computer laboratories in each department, a central computer center is provided. The computers are all connected to the LAN. The IT infrastructure is updated as needed for the curriculum, and its smooth operation is overseen by central administration.

ICT enabled facilities such as smart classrooms, LMS etc., facilities for cultural and sports activities, yoga center, indoor outdoor games, Gymnasium, Auditorium.

ICT tools help students in enhancing their knowledge, promote higher order thinking skills and also develop digital literacy & improve engagement and retention. Classrooms & Seminar halls are fully equipped with ICTs- enabled facilities such as smart boards & LCD ,WI-FI-LAN, Web Camera, and Lecture Capture Facilities. Swayam classroom is also developed to access open education resources.

Learning Management systems like MOODLE & Google Classrooms are utilized to offer the content of the lessons quizzes, Assessments, and test for each subject for online, offline mode of teaching learning

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& evaluation. MOODLE & open-source learning management system provides access to animations, video clips, simulations & E-resources to enhance learning experience. Online platforms like ZOOM, Google Meet, Cisco, and Webex & Microsoft Teams are used for online classes.

The institute emphasizes total student development through participation in co-curricular and extracurricular activities. Outdoor and indoor sports and games play an important role in student development. Such sporting activities can instill qualities in students such as leadership, team spirit, and competitive spirit. Students are encouraged to participate in a variety of sports/games as well as cultural activities.

The Techrythm cultural event and alumni meet were held at the open-air cultural center. Every year on June 25th, Yoga Day is observed to encourage students to practice physical fitness. Through involvement in technological activities like robotics, Supra, E-Baja, and gokarting, etc.,the institute focuses on the overall development of the students. In Firodiya Karandak and Purushottam Karandak, students have won awards.

File Description	Document
Upload Additional information	View Document

#### 4.1.2

Percentage of expenditure for infrastructure development and augmentation excluding salary during the last five years

Response: 8.41

# 4.1.2.1 Expenditure for infrastructure development and augmentation, excluding salary year wise during last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
88	118	110	6	64

File Description	Document
Institutional data in the prescribed format	View Document
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for infrastructure augmentation should be clearly highlighted)	View Document

# 4.2 Library as a Learning Resource

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#### 4.2.1

Library is automated with digital facilities using Integrated Library Management System (ILMS), adequate subscriptions to e-resources and journals are made. The library is optimally used by the faculty and students

#### **Response:**

PVPIT's library is located on the ground level and has specious stack area & the reading hall with a seating capacity of about 160 students. The digital library has 15PCs with internet access. The Digital Library offers scanning and printing services. The library is automated with Koha software, which allows for in-house catalogue preparation and book circulation. The Engineering books are available in the library with 4917 Titles &15368 Volumes. Library is provided with online subscription of reputed journals through J-gate & adequate printed journals.

The library resources are all barcoded followed by registration of each student and faculty member in which a unique registration number is assigned. The movement of resources is computerized via barcode scanning.

OPAC provides various search options of books by Title, Author, Publisher, Keywords & Accession number. It provides online information about the library collection availability status of the books etc. WEB OPAC application is also provided for remote access.

E resources like e-journals, ProQuest, DELNET have been made available to students for academic excellence. All the e-resources are integrated into the digital library viz. NPTEL Videos & lectures, VIDWAN database etc. All year syllabus, previous year questionpapers & earlier final year project reports are also made available in library.

Koha web based multilingual open-source software is used by the Institute. It is full featured MARC based integrated library system to fulfill the functional requirement of libraries.

#### Features of KOHA

- 1 Free/open-source software
- 2 Union catalog facility
- 3 Simple acquisitions system for the library
- 4 Contains modules like cataloguing, circulations, acquisitions, serials, and reporting.
- 5 Serials system for magazines or newspapers

We have the membership of SPPU JAYKAR Library through which we can access books as per requirement.

Reading material like GATE preparation, Aptitude preparation, Communication Interview skill Preparation are also available in library. Newspaper like Employment News, Lokmat, loksatta, sakal,

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Times of India, The Hindu, Navabharat paper daily arrived at college library.

We have made central library committee at PVPIT for awareness of library facility to students with the help of Teaching, Non Teaching Faculties & Student Representatives. In our Committee there is chairman, Secretary, Members from Faculties & two student representatives from all Departments. The committee members actively participate in events of library like Book Exhibition, Vaachan Prernadin & Dr. A.P. J. Abdul kalam Jayanti.

The Book Exhibition has organized on 15th & 16th June 2023 from 9:30 AM to 4:00 PM. The exhibition consist of New books of Technical, Non Technical, General books (Novels in Hindi, Marathi & English), Science Journals & Magazine. This event has established more interest among students, staff members for reading & gives awareness with new books.

File Description	Document	
Upload Additional information	View Document	

#### 4.3 IT Infrastructure

#### 4.3.1

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

Describe IT facilities including Wi-Fi with date and nature of updation, available internet bandwidth within a maximum of 500 words

#### **Response:**

Recognizing the importance of technology in education, the institute has implemented the latest state of the art IT infrastructure, which is regularly updated. The institution frequently reviews and upgrades its IT facilities as per the need of curriculum and has required computing facilities which include hardware, software, and networking. Maintenance of IT infrastructure is done through the central system administration team.

All the academic and administrative IT infrastructure requirements are addressed by this team. The budget allocation for IT is in line with the existing requirements and is foreseeing the future ones. The upgradation of computer systems is taken up on a periodic basis as and when the necessity arises.

For example, as per change in curriculum, the systems are upgraded as per institute policy. The computing systems are replaced with new ones, whenever a particular system is found beyond repair.

The old computers are used for hardware and networking courses being introduced as addon courses. Also updates in Wi-Fi routers take place periodically. The open-source software is updated on a quarterly basis as per the requirement of the curriculum. Various advanced software is also provided to students and faculty like Pro-E, ANSYS, Solid-Edge, MATLAB etc.

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File Description	Document	
Upload Additional information	View Document	

#### 4.3.2

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

Response: 2.18

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

Response: 624

File Description	Document
Purchased Bills/Copies highlighting the number of computers purchased	View Document
Extracts stock register/ highlighting the computers issued to respective departments for student's usage.	View Document

# 4.4 Maintenance of Campus Infrastructure

#### 4.4.1

Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, during the last five years (INR in Lakhs)

Response: 11.69

# 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)

2022-23	2021-22	2020-21	2019-20	2018-19
136	196	89	7.6	108

File Description	Document
Institutional data in the prescribed format	View Document
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for maintenance of infrastructure should be clearly highlighted)	View Document

# **Criterion 5 - Student Support and Progression**

### **5.1 Student Support**

#### 5.1.1

Percentage of students benefited by scholarships and freeships provided by the institution, government and non-government bodies, industries, individuals, philanthropists during the last five years

Response: 71.81

# 5.1.1.1 Number of students benefited by scholarships and freeships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
1149	1260	1117	1122	1365

File Description	Document
Year-wise list of beneficiary students in each scheme duly signed by the competent authority.	View Document
Upload Sanction letter of scholarship and free ships (along with English translated version if it is in regional language).	View Document
Upload policy document of the HEI for award of scholarship and freeships.	View Document
Institutional data in the prescribed format	View Document

#### 5.1.2

Following capacity development and skills enhancement activities are organised for improving students' capability

- 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

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File Description	Document
Report with photographs on Programmes /activities conducted to enhance soft skills, Language and communication skills, and Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)	View Document
Report with photographs on ICT/computing skills enhancement programs	View Document
Institutional data in the prescribed format	View Document

#### 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: 40.6

# 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

2022-23	2021-22	2020-21	2019-20	2018-19
768	224	804	929	675

File Description	Document	
Upload supporting document	<u>View Document</u>	
Institutional data in the prescribed format	View Document	

#### 5.1.4

The institution adopts the following for 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
Proof w.r.t Organisation wide awareness and undertakings on policies with zero tolerance	View Document
Proof related to Mechanisms for submission of online/offline students' grievances	View Document
Proof for Implementation of guidelines of statutory/regulatory bodies	View Document
Details of statutory/regulatory Committees (to be notified in institutional website also)	View Document
Annual report of the committee motioning the activities and number of grievances redressed to prove timely redressal of the grievances	View Document

# **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:** 71.59

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

2022-23	2021-22	2020-21	2019-20	2018-19
276	341	402	416	440

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

2022-23	2021-22	2020-21	2019-20	2018-19
405	425	602	576	611

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File Description	Document
Number and List of students placed along with placement details such as name of the company, compensation, etc and links to Placement order(the above list should be available on institutional website)	View Document
List of students progressing for Higher Education, with details of program and institution that they are/have enrolled along with links to proof of continuation in higher education.(the above list should be available on institutional website)	View Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 5.2.2

Percentage of students qualifying in state/national/international level examinations during the last five years

**Response:** 1.34

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

2022-23	2021-22	2020-21	2019-20	2018-19
6	0	2	0	2

File Description	Document
List of students qualified year wise under each category and links to Qualifying Certificates of the students taking the examination	View Document
Institutional data in the prescribed format	View Document

# 5.3 Student Participation and Activities

#### 5.3.1

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

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

**Response:** 38

# 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

2022-23	2021-22	2020-21	2019-20	2018-19
11	4	6	1	16

File Description	Document
list and links to e-copies of award letters and certificates	View Document
Institutional data in the prescribed format	View Document

#### 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: 21.4

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

2022-23	2021-22	2020-21	2019-20	2018-19
25	22	18	20	22

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	<u>View Document</u>

## 5.4 Alumni Engagement

#### 5.4.1

There is a registered Alumni Association that contributes significantly to the development of the

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#### institution through financial and/or other support services

#### **Response:**

TSSM's Padmabhooshan Vasantdada Patil Institute of Technology, Bavdhan has been established in 2006 and the first batch passed out in 2010. To date, 14 batches have passed out. In the last 14 years around 3800 alumni have been there. The alumni are in continuous touch with PVPIT and their respective departments.

TSSM's PVPIT has registered Alumni Association with Registration Number MH/412/2013/Pune. The purpose of the association is to bring together all the alumni on a single platform, to share their experiences, to extend support, and provide guidance to the students.

Apart from this, the alumni have formed groups at various locations. A special Alumni connect portal (https://pvpittssm.edu.in/notice.php) is designed for alumni registrations.

Despite being in its infancy, our alumni have occupied various positions like Managers, Design engineers, Entrepreneurs, and plant heads at various MNCs, Public sector, and Government organizations at the global, national level, and state levels.

The Institute organizes alumni meet every year. On average more than 300 alumni participate in the event. During the meeting, they interact with the students, faculties, and management and share their ideas for improvement of the overall progress of the institute and department.

Few of our alumni are members of our department advisory board (DAB) and college development committee (CDC), apart from the annual event, the alumni visit the department throughout the academic year to provide guidance through guest lectures, seminars, workshops and support for industry visits and internships etc.

The alumni of the institute support the students for getting sponsorship (not always in the form of money) for their project work or competitions. They also provide facilities at their own end wherever the technological need arises.

Alumni provide feedback on infrastructure development and other academic-related matters of the college and suggest gaps in the syllabus considering the current demands of the industry.

Our alumni indirectly contribute to the college and department through events like BAJA, SUPRA, Go Cart, ROBOCON, Robowar etc.

Alumni guide the students in academics, skill development, psychological development, and career development. Department invites them as a jury member for events. They inspire and motivate the student to achieve excellence by sharing their own journey.

File Description	Document
Upload Additional information	<u>View Document</u>

Self Study Report of The Shetkari Shikshan Man	ndal, Sangli, Padmabhooshan Vasantdada Patil In	astitute of Technology
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# **Criterion 6 - Governance, Leadership and Management**

### **6.1 Institutional Vision and Leadership**

#### 6.1.1

The institutional governance and leadership are in accordance with the vision and mission of the Institution and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance and in their short term and long term Institutional Perspective Plan.

#### **Response:**

#### Vision:

To satisfy the aspirations of youth force, who want lead nation towards prosperity through technoeconomic development.

#### Mission:

To provide, nurture and maintain an environment of high academic excellence, research and entrepreneurship for all aspiring students, which will prepare them to face global challenges maintaining high ethical and moral standards; by implementing quality practices.

In line with Vision and Mission, PVPIT has defined four pillar philosophies as illustrated below

The Padmabhooshan Vasantdada Patil Institute of Technology (PVPIT) Pune has developed a thorough and guiding Four-Pillar Philosophy in line with its vision and objectives. The institution's strategic approach is based on this philosophy, which emphasizes important ideas that support its main objectives.

Pillar 1: High Academic Excellence

Pillar 2: Techno-Economic Development

Pillar 3: Research and Entrepreneurship

Pillar 4: Ethical and Moral Standards

The Four-Pillar Philosophy of PVPIT is carefully crafted with its vision and goals in line with NEP 2020. PVPIT aims to establish a comprehensive educational experience that equips students to address global issues while keeping the highest moral and ethical principles. It does this by stressing techno-economic development, academic achievement, research and entrepreneurship, and ethical standards. This concept provides a foundation for the institution's on going dedication to quality and social impact.

The ultimate decision-making body, the governing body (GB), is in charge of outlining the organization's vision and mission as well as important policy choices. All stakeholders were involved in the formation of the GB, which followed AICTE guidelines. There are at least two meetings held each year.

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The Maharashtra Public University Act of 2016's Section 97 governs how the College Development Committee (CDC) does its duties.

All HoDs, faculty members, support staff, and student representatives are represented in the CDC. It routinely assesses and keeps track of the institute's overall progress.

Academics, Financial Planning, Utilization, and Administration are all reviewed by CDC.

In accordance with NAAC guidelines, an Internal Quality Assurance Cell (IQAC) was established. It provides standards for the Institute's overall audit, with a focus on the academic side. IQAC focuses on quality and excellence in Academics and Administration.

Internal and external audits are carried out and reviewed in Management Review Meetings. To enable decentralized administration, distinct portfolios have been created. Faculty members are portfolio incharges and faculties and supporting staff are representing their departments.

Every portfolio possesses well-defined tasks and responsibilities and the principal oversees the overall development by conducting meetings with the pertinent committees.

In every department, portfolios have been established and are actively working. Student associations and Clubs have been established in each of the five departments with the goal of bolstering the Institute's Mission through student leadership.

The budget of the Institute includes the costs associated with various co-curricular and extracurricular activities.

Portfolio managers are permitted to make purchases within the approved budget.

In order to realize the Institute's vision, all stakeholders are involved in the governance and leadership process.

File Description	Document
Upload Additional information	View Document

## **6.2 Strategy Development and Deployment**

#### 6.2.1

The institutional perspective plan is effectively deployed and functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules, and procedures, etc

#### **Response:**

For deployment of perspective plan with regard to the implementation of NEP, PVPIT has a well-

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documented strategic plan 2021–26 that primarily focuses on qualitative and quantitative results that the institute must achieve in a planned, organized, and structured manner.

The perspective plan calls for actions like enhancing R&D infrastructure, fostering stronger partnerships, and achieving academic excellence through OBE. The plans are implemented via a variety of internal committees, portfolio assignments and processes.

The perspective plan prioritizes the growth of students, professors, and the institution on multiple fronts at the same time, with a focus on increasing student participation in social outreach projects.

The Action Taken Report and the Annual Report, which are sent in after the academic year, are used to track how the Departments, Committees, and Cells are implementing their perspective plans. All the reports are carefully examined to determine the best next steps.

#### **Administrative Setup:**

- The Governing Body (GB), which was established in accordance with the rules of the relevant authority, oversees the institute's well-organized administrative structure. The GB establishes and carries out academic and administrative policies for the general development of stakeholders in collaboration with pertinent statutory organizations.
- The College Development Committee (CDC) is in-charge of the institutional organized functioning.
- The Internal Quality Assurance Cell (IQAC), which periodically provides guidance to all committees, is essential to improve the ability of the institutional staff. A number of statutory committees are formed with the involvement of teaching staff, non-teaching staff, and students to promote the efficient operation of connected activities and increase the transparency and participation of the administration. Organizational structure, then, is a reflection of authority decentralization.
- Administrative guidelines and regulations include recruitment procedures for both teaching and non-teaching personnel, student-teacher ratio to UG/PG courses, the faculty cadre ratio and appointment of principal in accordance with approved posts as per the eligibility criteria.
- Service rules and Regulations include a promotion policy, pay scale as per AICTE guidelines, probation policy, service book, procedure for evaluating teachers' work, policy for increment and promotion, policy for seniority and retirement, code of conduct, disciplinary proceedings and their applications.
- Academic activities, research and consulting, administration, and extension services are all part of a teacherduties.
- Leave guidelines: For employees to take advantage of Medical Leave, Study Leave, Maternity Leave, Earned Leave, Special Leave, Vacation Leave, and Casual Leave, there are established policies and procedures.

File Description	Document
Institutional perspective Plan and deployment documents on the website	View Document

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#### 6.2.2

#### Institution implements e-governance in its operations

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

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

File Description	Document
Screen shots of user interfaces of each module reflecting the name of the HEI	View Document
Institutional expenditure statements for the budget heads of e-governance implementation ERP Document	View Document
Annual e-governance report approved by the Governing Council/ Board of Management/ Syndicate Policy document on e-governance	View Document

### **6.3 Faculty Empowerment Strategies**

#### 6.3.1

The institution has performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression

#### **Response:**

Performance Appraisal System: The institute conducts annual performance reviews for both teaching and non-teaching staff.

- 1. For Teaching staff: Each staff performance appraisal is based on determination of the performance index. The performance index assessment process considers a number of factors, including teaching and learning, exam results and related work, Industry connect, Research publication details, self-development training, professional organization membership, student guidance and counselling, internal revenue generation, extracurricular activities, and administrative work. The institute Principal extends an invitation to all of the teaching staff to complete the performance evaluation form and provide supporting documentation about the range of activities they participated during the academic year. The principal conducts the evaluation, and the management receives a report on the performance appraisal.
- 2. For Non-Teaching staff: staff performance appraisal is based on the determination of the performance index of every non-teaching employee. The Performance Index assessment considers a number of factors, including dependability, attitude toward the job profile, attendance and punctuality, job

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knowledge and performance, contribution to institutional tasks beyond the job profile, collaboration and communication with other team members. The management receives a performance appraisal report that details the regular observations of these metrics.

Welfare measures for both teaching and non-teaching staff:

PVPIT prioritizes Staff member's well-being. Numerous welfare programs are in executed.

- Provident Fund:Institute provides PF facility to all teaching and non-teaching staff members and related welfare schemes including gratuity.
- Insurance for teaching and non-teaching staff member is provided.
- Encouraging faculty members to participate in faculty development activities, conferences, seminars, and training sessions
- Programs for self-improvement and further education for all qualified teaching and non-teaching staff and promoting faculties for pursuing PhD and conducting research, in order to enhance their careers
- To resolve employee problems, there is an internal complaint committee and a Women's Grievance Redressal Cell.
- Staff members can avail leave benefits, including earned leave, medical leave, maternity leave, vacation leave, duty leave, and movements, in accordance with TSSM management's eligibility requirements and policies.
- Local travelling Allowances are provided to official duties
- Financial aid for attending seminars, workshops, conferences, and symposiums at the state, national, and international levels as well as for obtaining professional membership in related fields.
- There is an ATM on campus and Jaywant Multistate Cooperative Society offers FDs facility and loans with good interest rates
- Provided all teaching and non-teaching staff with subsidized health and medical care facilities.
- Sports facilities with free Wi-Fi, internet and staff parking are all provided on campus.
- For security, the college provides uniforms. Accommodations for non-teaching staff including peons are provided on request.

Opportunities for professional growth and advancement include:

- The institution hosts conferences, seminars, workshops, symposiums, professional memberships in pertinent fields, and financial assistance is provided for it.
- Salary increment is given to staff members for their extra-ordinary achievements in results and higher qualification.
- The institution offers a range of training programs to improve the abilities of nonteaching staff.
- It also encourages faculty members to apply for research grants, receive patents and write books to foster excellence and professional progress.

File Description	Document
Upload Additional information	<u>View Document</u>

#### 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: 55.01

# 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

2022-23	2021-22	2020-21	2019-20	2018-19
72	85	73	76	73

File Description	Document
Policy document on providing financial support to teachers	<u>View Document</u>
Institutional data in the prescribed format	View Document
Copy of letter/s indicating financial assistance to teachers and list of teachers receiving financial support year-wise under each head.	View Document
Audited statement of account highlighting the financial support to teachers to attend conferences / workshop s and towards membership fee for professional bodies	View Document

#### 6.3.3

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

Response: 61.44

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

2022-23	2021-22	2020-21	2019-20	2018-19
61	68	77	123	243

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

2022-23	2021-22	2020-21	2019-20	2018-19
47	49	48	50	48

File Description	Document
Refresher course/Faculty Orientation or other programmes as per UGC/AICTE stipulated periods, as participated by teachers year-wise.	View Document
Institutional data in the prescribed format	View Document
Copy of the certificates of the program attended by teachers.	View Document
Annual reports highlighting the programmes undertaken by the teachers	View Document

### 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 institute receives most of its funding from the fees collected from the students. The fees charged to the students are in-line with Maharashtra Government's Fees Regulating Authority approval.

Additionally, the college encourages faculties to apply for funding to the University, AICTE and DST for research projects, equipment purchases and NSS Unit extension initiatives.

### **Allocation of Budget:**

Before the commencement of the academic year, the head of the institute conducts a meeting with all the teaching staff and instructs them to prepare the requirements for the year.

Principal in consultation with HOD's, Store in-charge, CEO and OS finalizes the requirement and presents the same in meeting of college development committee and governing body for final approval.

The institute has an adequate budgeting system. The budget reflects the priorities as per plan. Funds are allocated for Infrastructure development, academic facilities and physical facilities. Enough funds are set

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aside for learning resources (books, journals, industrial visits, seminars, and workshops), recurring expenses (salary, maintenance etc.), and institutional development goals (new computers, equipments, furniture etc.).

#### **Resource Mobilization and utilization:**

Institute implements measures to enhance resource efficiency, such as optimizing workflows, leveraging technology, and streamlining processes. Resources are utilized as per well planned allocation. Funds are utilized for Infrastructure development, salary, student & faculty welfares, training and placements, research and development.

Institute has robust monitoring and evaluation system to track the progress of projects and programs and to assess the effectiveness of resource utilization against predefined metrics. Total about 90 % of allotted funds are utilized for the various needs as per budget.

#### **Financial Audits:**

Institute conducts regular internal audits to review financial processes, adherence to budgetary allocations, and compliance with financial policies. It identifies areas for improvement and corrective actions.

Each financial year, the institute conducts both internal and external audits. In addition to external audits, the institute has its internal audit procedure and mechanism. Daily internal audit is done by Principal.

Management has hired qualified Internal Auditors from external resources. A team of staff under them do verification of all vouchers of the transactions that are carried out in each financial year. The institutional accounts are audited regularly by both Internal and statutory audits. So far there have been no major findings / objections. Minor errors when pointed out by the audit team are immediately corrected / rectified and precautionary steps are taken to avoid recurrence of such errors in future. The institute regularly follows Internal & external financial audit system.

By following these strategies and processes, an institution enhances its ability to mobilize and utilize resources optimally while maintaining financial transparency and accountability through regular internal and external audits.

# 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:**

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IQAC plays an important role in planning, execution and satisfaction of needs to achieve quality policy, vision and mission of the institute. It constantly monitors all activities in all departments and gives suggestions to improve the quality of education. IQAC has prepared strategic plan to achieve the goals of quality education.

IQAC ensure the quality in teaching learning and administrative processes with critical analysis of data and feedback responses. The IQAC has framed standard processes and prepared formats and documents for record keeping. All departments maintain their data as per formats provided by IQAC. The institute has developed student centric environment for quality education as per institute's quality policy. The academic monitoring is carried out regularly by IQAC. All departments send their reports monthly to IQAC. It contributes in enhancement of evaluation procedures in teaching learning assessment. The academic audit also carried out for each department. The preparedness report is collected from each department at the beginning and end of semester to analyze the progress of department in each area.

IQAC proposes integration of modern methods / Tools in teaching and learning and encouraging facultiesto develop e-learning platform for student. IQAC has standard framework and administrative setup toimplement OBE process.IQAC has provided program assessment handbook to all faculties to maintainstandard procedure for assessment and CO-PO attainment.It also trains faculty for outcome based education.

The statements of POs, PEOs, are imbibed by the students and response is received towards the qualityimprovement in teaching learning process.IQAC keep watch on program attainment and ask alldepartments to take corrective measures for improvement.

IQAC receives the feedback from students in order to improve the quality of teaching methodology, variations of teaching aids and administration processes. It seeks contribution of students in the development of quality culture in the institute.

File Description	Document
Upload Additional information	View Document

#### 6.5.2

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

- 1. Regular meeting of Internal Quality Assurance Cell (IQAC); quality improvement initiatives identified and implemented
- 2. Academic and Administrative Audit (AAA) and follow-up action taken
- **3.** Collaborative quality initiatives with other institution(s)
- 4. Participation in NIRF and other recognized rankings
- 5. Any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA etc.

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

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File Description	Document
Quality audit reports/certificate as applicable and valid for the assessment period.	View Document
NIRF report, AAA report and details on follow up actions	View Document
List of Collaborative quality initiatives with other institution(s) along with brochures and geo-tagged photos with caption and date.	View Document
Link to Minute of IQAC meetings, hosted on HEI website	View Document

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

## 7.1 Institutional Values and Social Responsibilities

#### 7.1.1

Institution has initiated the Gender Audit and measures for the promotion of gender equity during the last five years.

Describe the gender equity & sensitization in curricular and co-curricular activities, facilities for women on campus etc., within 500 words

#### **Response:**

At PVPIT various initiatives are taken to promotion of gender equality and sensitization in curricular and co-curricular activities, the institute provides an amicable atmosphere in the campus and takes efforts for providing an inclusive environment with due consideration to diversities in different domains. Various programs are conducted for womens development and empowerment. During the annual cultural function, a special session is dedicated to building coherence and creating respect for diverse cultures of India through various cultural events. During the academic year, several activities are conducted by NSS. Besides celebrating national days and festivals, communal socio economic diversities are addressed. All the co-curricular and extracurricular activities help the students to build and boost their personal and social life with real time experiences.

The institute celebrates various national and international commemorative days like Beti Bachao Beti Padhao.Self Defense Drive, Arts and culture motivation for girls, Awareness Programme on Women Safety and Respect,Seminar on Gender Sensitization, Women's Day Seminar etc., tabulated below with events name, date and count of male and female.

Sr.No	<b>Event Name</b>	Date	Co	ount
			Male	Female
	Beti Bachao Beti	21/06/2018	530	350
	Padhao	10/09/2019	42	59
1				
	Self Defense Drive			
	Self Defense Drive	7/10/2018	478	296
		21/01/2020	45	87
2				
	Arts and culture	5/3/2019	564	256
	motivation for girls			
3				
	Awareness	5/8/2019	74	55
	Programme on	5/02/2021	10	17
4	Women Safety and			
	Respect			
5	Seminar on Gender	29/08/2019	68	45

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	Sensitization			
	Session on	12/3/2022	53	43
	Women's	16/02/2021	20	38
6	Empowerment	24/01/2022	13	35
		24/1/2022	13	35
7	Gender Equality	3/12/2020	12	18
	Webinar			
8	Aayushman Bharat	30/4/2021	20	28
	Diwas			
9	Webinar on National	24/1/2021	13	35
	Girls Day			
10	Women's Day	8/3/2022	60	90
	Seminar			
11	Elocution	22/4/2022	50	75
	Competition			

At PVPIT, the administration and strategic plans are focused towards providing utmost inputs regarding sensitization of students and employees for values, rights, duties and responsibilities of citizens through various activities. We also implemented earn and learn scheme for economical weaker students in which apart from university contribution, PVPIT also contribute monetarily Students are adhered to learn the values via different activities which involve human considerations, rights, humanity & empathy with respect to developing a good national citizen of the country.

Fundamental rights to the students and citizens are made aware through seminars, workshops and Guardian Faculty Member (GFM) meetings and activities are undertaken to imbibe these values.

The college designs various activities to create awareness about national preambles and souvenirs by celebrating Yoga Day, Tree plantation, Traffic rules awareness programme conducted under which PUC of the vehicles has been checked, Half Marathon, COVID 19 vaccination drive, Elocution Competition, Sports Day for Girls, Common Room Photographand various cultural activities., which are aimed at familiarizing the stakeholders about fundamental duties and rights.

Students and employees are encouraged to inculcate patriotism and human values by arranging various institute level programs like blood donation camp, women's day program, environmental day program, swachh Bharat cleanliness drive etc.

File Description	Document
Upload Additional information	<u>View Document</u>

### 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

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- 4. Green campus initiatives
- 5. Disabled-friendly, barrier free environment

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

File Description	Document
Policy document on the green campus/plastic free campus.	View Document
Geo-tagged photographs/videos of the facilities.	View Document
Circulars and report of activities for the implementation of the initiatives document	View Document
Bills for the purchase of equipment's for the facilities created under this metric	View Document

#### 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
Report on Environmental Promotional activities conducted beyond the campus with geo tagged photographs with caption and date	View Document
Policy document on environment and energy usage Certificate from the auditing agency	View Document
Green audit/environmental audit report from recognized bodies	View Document
Certificates of the awards received from recognized agency (if any).	View Document

#### 7.1.4

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

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#### of citizens (Within 500 words)

#### **Response:**

At PVPIT, every day begins with national anthem, the institute provides an amicable atmosphere in the campus and takes efforts for providing inclusive environment with due consideration to diversities in different domain. Various programs are conducted for harmony towards cultural, regional, linguistic and communal socioeconomic diversities. During annual cultural function, special session is dedicated on building coherence and creating respect for diverse culture of India. During the academic year, several activities are conducted by NSS and at the department level. Besides celebrating national days and festivals, communal socioeconomic diversities are addressed. Extempore competitions/quizzes and cultural events are organized. Various interdisciplinary student groups are formed which also demonstrates the harmony by working together and participating in different competitions.

The institute celebrates various national and international commemorative days to name a few

- 1. Tree Plantation, on 28th July 2021. The institute conducted Tree Plantation at Vetal Tekadi and college campus with 27 NSS Volunteers, to make students aware about global warming and its impact on the ecosystem.
- 2. E-waste Drive, on 19th Dec 2021: The institute conducted E-waste Drive, the collaborative partners for the event were PMC and Janvani NGO. Around 68 NSS volunteers participated to make students aware about E-waste. It made students to understand 3R concept to avoid Ewaste (Reduce, Reuse and Recycle).
- 3. Traffic Awareness Program, on 18th Nov 2021: The institute conducted Traffic Awareness Program, the collaborative partners for the event were Kothrud Traffic Police. Around 40 NSS volunteers participated to make students aware about Traffic rules. Students are able to understand importance of traffic rules and also help to senior citizens to cross the roads.
- 4. E-waste Drive, on 22nd Oct 2021: The institute conducted E-waste Drive, the collaborative partners for the event were PMC and Janvani NGO. Around 73 NSS volunteers participated to make students aware about E-waste. It made students to understand 3R concept to avoid Ewaste.
- 5. Health checkup and Blood donation camp, on Nov. 2021: The institute conducted blood donation and health checkup camp to enhance the awareness of social and society problems.

At PVPIT, the administration and strategic plans are focused towards providing utmost inputs regarding sensitization of students and employees for values, rights, duties and responsibilities of citizens through various activities. Students are adhered to learn the values via different activities which involve human considerations, rights, humanity & empathy with respect to developing a good national citizen of the country. Fundamental right to the students and citizens are made aware through seminars and Guardian Faculty Member GFM meetings and activities are undertaken to imbibe these values. The college designs various activities to create awareness about national preambles and souvenirs by celebrating Independence Day, Republic Day, ShivJayanti, Teachers day, National science day, Engineers day. etc., which are aimed at familiarize the stake holders about fundamental duties and rights. Students and employees are encouraged to inculcate patriotism and human values by arranging various institute level programs like blood donation camp, women's day program, environmental day program, Swachcha

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Bharat cleanliness drive etc.

File Description	Document
Upload Additional information	View Document

#### 7.2 Best Practices

#### 7.2.1

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

#### **Response:**

#### **Best Practice 1: ROBOTICS LAB**

#### 1. Objectives of the practice:

- Conduct research to advance the field of robotics, exploring new technologies, algorithms, and methodologies that can enhance the capabilities of robots.
- Create a space for designing, prototyping, and testing new robotic systems.
- Provide a platform for students, researchers, and professionals to gain hands-on experience in robotics.

#### 1. The Context

A robotics lab is a dynamic hub for cutting-edge research and development, bringing together experts in mechanical and electrical, computer science, and artificial intelligence. Around 20 students of CS, 20 students of E&TC and 10 students of Mech are worked together. Practical exposure in a robotics lab enhances the skill set, preparing them for careers in academia, industry, and entrepreneurship. Robotics lab often establish partnerships with industry, ensuring that research outcomes align with practical industry needs.

#### 1. The practice

The key practice to develop the skills are:

- Understand the competition requirements and identify specific problems or needs that can be addressed through robotics.
- Analyze competition and potential users to determine the viability and demand for the product.
- Software like CATIA, Fusion 360, and EasyEDA is installed in the Robotics lab
- Use of CAD software for detailed Modeling design, including mechanical, and software components. Building by using 3D printer in the robotics lab and testing prototypes of robotic systems in the lab to validate

- Participate in or organize autonomous robot competitions. Develop robots capable of completing specific tasks autonomously and participate in Inter-college competitions like Technothon to stimulate innovation.
- Design of fully automated robots for real word applications Collaborate with local industries on projects with practical applications. Robotics labs contribute to the development of interactive and autonomous robots for entertainment purposes. Agricultural robots for various tasks, and harvesting, **Assistive** robots for tasks as serving in hotels, homes etc.
- Encourage students to undertake research in specific robotics domains. Investigate emerging technologies in robotics. Contribute to ongoing research projects within the robotics lab.
- Foster collaboration with industry for ongoing research and knowledge exchange.

#### 1. Evidence of success

#### Robotics lab teams "Olympians and Tech-Titans" Evidence of success

- Team Olympians, has been a regular participant in National and International events, showcasing our technical expertise and innovation.
- Team Olympians, has been honored with a prestigious offer letter from IHFC (TIH of IIT Delhi ) to collaborate through them.
- Team Tech-Titans participated and won numerous awards in various competitions some are listed below:

Sr.No	Event Name	Venue	Date	National/Internation
1	Cozmo-Clench Tech-Fest	IIT Bombay	Dec 2021-22	al Level International Level
2	e-Yantra	IITBombay	2021-22 2022-23	International Level
3	ABURobocon	IIT Delhi	Aug 2021- 22, Aug 2022-23	International Level
4	Technothon	PVPIT Pune	MAR 2023	University Level
5	INDUU-INACCCU	Genba Sopanrac Moze College	MAR 2023	University Level
6	Tech-It-OutR obotCompetiti on	Ajeenkya D.Y Pati University	Feb 2023	University Level

7	Battle	of Moscow Russia	Sep 2023	International Level
	Robots			

#### **Problems Encountered:**

- Limited budget for acquiring equipment, tools, and software.
- Difficulty in keeping up with the latest robotics technologies.
- Challenges in integrating robotics into the existing curriculum.

### **Resources Required:**

- Financial support for the budget for equipment, software licenses, and maintenance
- Robotics kits, robotic arms, sensors, actuators, 3D printers, CNC machines, and various hand tools.
- CAD software (e.g., Solid Works, CATIA), simulation tools (e.g., ROS, V-REP), and programming environments.

#### **Best Practice 2: Social Awareness and Practice through National Services Scheme (NSS)**

NSS is an extension programme, an integral part of higher education. The College aspires to produce responsible graduates and be aware of the social impact of engineering solutions and contribution to national development.

#### **Objectives of the Practice**

- To provide social dimension to the educational system and inculcate social responsibility and commitment in students
- NSS promotes the idea of unity in diversity and strives to strengthen the bonds of national integration.
- The program provides a platform for students to develop various skills, including communication, organizational, and problem-solving skills.

#### The Context

Social service has a connotation of giving away things for free. In this case, our engineering students are the enablers and hence at the end of the day they become competent engineers with the spirit of professionalism and responsible citizenship. The NSS operates in the context of engaging the youth in meaningful activities that contribute to the betterment of society.

#### **The Practice**

- Around 25% students voluntarily enroll in NSS, expressing their willingness to participate in community service activities.
- Enrolled students undergo orientation sessions to understand the objectives, principles, and guidelines of NSS during NSS day celebration.

- NSS units collaborate with local communities to identify their needs and challenges.
- NSS units plan and organize various activities like Tree plantation, Swachhta Abhiyan, Blood donation, Health checkups etc. on the identified needs.
- NSS often conducts health check-up drives, Blood donation, health awareness programs, and sanitation drives to address health-related issues in the community.
- NSS organize educational campaigns like Beti Bachao Beti Padhao, A yushmann Bharat workshops, and tutoring sessions on women empowerment to address literacy and educational disparities.
- NSS encourages eco-friendly practices and conducts activities like Tree Plantation, Plastic Free Drive, E-Waste Drive etc. related to environmental sustainability.
- NSS units actively participate in and organize events to celebrate special days related to social causes International Women's Day, World water day, Word Environment Day, International Yoga Day etc.

#### **Evidence of Success –**

Evidence of the success of the NSS in promoting social awareness and community service can be observed through various tangible outcomes and impact indicators.

Some of the evidences of success are listed below:

Sr.	Name of Event	Date	NSS Volunteers
No.			
1	Swachhta Abhiyan	2 /10/2020	40
2	International Yoga Day	13/01/2020, 21/06/2022,	43, 233, 35
		21/06/ 2020	
3	Beti Bachao Beti Padhao	2022	50
4	Tree Plantation	31/01/23, 14/07/2019	73, 23
5	Plastic Free Drive	7 /11/2020	23
6	E waste Drive	16/10/2022, 8/12/2020,	68,73
		11/10/219	
7	Health checkup Drive	09/02/2023	210
8	Food Packet Distribution	15/03/2023	50
9	Har Ghar Tiranga	17/08/2022	220
10	Blood Donation Camp	22/07/2022, 10/11/2022,	135,130
		2/07/2019	
11	NSS Day Celebration	24/09/2022	35

#### **Problems Encountered:**

- Students may find it challenging to balance academic and NSS commitments.
- Difficulty in finding suitable projects or resistance from the local community.

#### **Resources Required:**

- Allocations from the college budget, fundraising activities, and sponsorships.
- Workshops, training materials, and partnerships with external trainers or organizations.

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• Collaboration with local NGOs, government bodies, and community leaders.

File Description	Document
Best practices as hosted on the Institutional website	View Document
Any other relevant information	View Document

#### 7.3 Institutional Distinctiveness

#### 7.3.1

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

#### **Response:**

#### **Code Unnati SAP Center for Deep Tech**

At PVPIT, "Code Unnati SAP Center for Deep Tech" is established which refers to a specialized center that focuses on research, development, education, and innovation in rapidly advancing and transformative technologies. The SAP Lab, an integral component of the SAP Code Unnati program established by the company in the institution, has significantly enriched the academics. This lab is designed to become hub of expertise, fostering collaboration among researchers, industry professionals, and educators. The exact focus of such a labvaries depending on the specific technologies deemed "emerging" at a given time, but it often includes areas such as artificial intelligence, robotics, block chain, Internet of Things (IoT), cyber security, and more. This is the unique and specialized lab for students training. For SAP center company funded Rs.15 lakhs under CSR. Here are key aspects and functions associated with a Code Unnati SAP Center for Deep Tech.

#### **Objectives**

- Enable students to adopt industry 4.0 technologies such as machine Learning, Internet of things, Computer Vision, Deep Learning, SAP Modules etc. and solve some real-life, Industry Specific, Community problems Using Technologies.
- Students should leverage the center of excellence to learn IR 4.0 Technologies to enhance exponential career growth.

#### **Learning outcomes**

- Demonstrate fundamentals of Python tools and its data analytics libraries.
- Apply the basic principles, models, and algorithms of AI to recognize, model, and solve problems in the analysis and design of information systems.
- Analyze the structures and algorithms of a selection of techniques related to machine learning and Artificial Intelligence.

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- Able to design and implement various machine learning algorithms in a range of real-world applications.
- Appreciate the underlying mathematical relationships within and across Machine Learning algorithms and the paradigms of supervised and un-supervised learning.
- Be able to identify new application requirements in the field of computer vision using Deep Learning.
- Able to solve real life challenges on computer vision technology.
- Design Prototype level solution using IoT.
- Demonstrate Industry Specific Modules, SAP Technical Modules SAP ABAP, SAP HANA, SAP analytics Cloud

#### **SAP LAB**

SAP India is the fastest growing subsidiary of SAP SE, the world's leading provider of business software solutions. Founded in November 1998, SAP Labs India drives SAP's product strategy, is responsible for SAP core solutions and provides product localization and India specific solutions. Unique to SAP Labs India is that it represents the entire breadth of SAP product portfolio and contributes to SAP flagship products such as SAP HANA, the platform for next generation applications and analytics; SAP S/4HANA, the real-time ERP suite for digital business and holds key product responsibilities across the Customer Engagement, Human Capital Management, Analytics and IoT portfolios.

The Center of Excellence (CoE) is an initiative of SAP to collaborate and equip engineering students for the present demand and future skills enhancement in the field of Technology (High-Performance Computing, Artificial Intelligence, IoT, Edge Computing), with certifications from SAP. The program is focused on upskilling of engineering students across branches like CS/IT/EC/EE/IN of 2nd,3rd & 4th year. The benefits for the institution include:

- Up to 50% placement/internships for all eligible students
- SAP Center of Excellence on campus
- Industry relevant topics: AI, Machine Learning, IoT, Edge Computing & Professional development skills
- Enhanced branding for the institution
- Faculty development programs as part of the CoE

SAP's commitment extended beyond training, as the lab facilitated internships and final placements for students, fostering a seamless transition from academia to industry. The lab's significance is further underscored by SAP's generous contribution of new equipment, dedicated to AI, deep learning, machine learning, IoT, and SAP ABAP.

The SAP Code Unnati program, with a financial infusion exceeding 15 lakh rupees, exemplifies SAP's dedication to fostering educational excellence and technological innovation. This collaboration between SAP and PVPIT College stands as a beacon of industry-academic synergy, ensuring that students are well-prepared for the challenges of the evolving IT landscape.

Edunet Foundation (EF) was founded in 2015 to create educational networks that promote employability and entrepreneurship. The organization has enjoyed Special Consultative Status with the Economic and Social Council (ECOSOC) of the United Nations since 2020. With a national footprint, EF's programs, online and instructor-led, benefit tens of thousands of learners every year.

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# The List of Equipments and high Configrations computer's worth Rs.15 lakhs Provided by Edunet Foundation for the Centre of Excellence

- 1. Tower Server
- 2. Desktop Machines
- 3. Neural Compute Stick-2 (NCS2)
- 4. Raspberry Pi 4B
- 5. GrovePi+ Starter Kit
- 6. Power Supply for Raspberry Pi 4 Mobel B
- 7. USB Camera Accessory for Raspberry Pi
- 8. Micro SD card
- 9. Projector and screen for the lab

#### **Trainings Provided**

The SAP Lab, an integral component of the SAP Code Unnati program established by the company for PVPIT College, has significantly enriched the educational experience. A pivotal aspect of this initiative was the successful completion of a 5-day Faculty Development Program (FDP), equipping instructors with the latest insights into emerging technologies. This program aimed at enhancing the overall quality of education by integrating industry-relevant practices.

For students, the lab provided an extensive 300-hour training program encompassing AI, deep learning, machine learning, IoT, and SAP ABAP. This hands-on training not only augmented their theoretical knowledge but also ensured practical exposure to contemporary technologies, preparing them for the dynamic IT landscape.

#### **Training Programs conducted for Faculty till date:**

Machine Learning, Deep Learning, Computer Vision, IoT, Raspberry pi and GrovePi+, SAP, ABAP

### Training Programs conducted for Students till date:

Till dates various training programs have been conducted for students like - Python Basic, Python Advance, Python for Advanced Mathematical Operation – NumPy, Data Analysis using Pandas, Data Visualization using Matplotlib, Data Visualization using Seaborn, Artificial intelligence – Basic, Industry Specific tools – SAP, Capstone Project, Machine Learning, Deep Learning and Computer Vision OpenVINO Toolkit, IoT, SAP Technical Module, Capstone Project, Cyber Security in IoT, SAP Analytics cloud, project marathons, capstone projects etc.

File Description	Document	
Appropriate web in the Institutional website	<u>View Document</u>	

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## 5. CONCLUSION

#### **Additional Information:**

Institute believes in holistic development of students beyond the curriculum so as make them responsible, creative and productive citizen of India. Students are encouraged for showing their talents in Innovation and Incubation Cell named P-IDEA Center in which students ideas are promoted and supported for entrepreneurship developments and start ups. Various Labs like Robotics Lab, Aero Modeling Lab, 3-D Printing Lab, Self Learning Lab, Skill Development lab (SAE BAJA, Go-Kart) are established under P-IDEA Centre for promoting students ideas and skills.

Strong Academics with students' centric approach under Guardian faculty member (GFM) and digitalized teaching learning process is leading to excellent results in University Examination. Advanced Trainings on Emerging technologies are imparted to the students in association with other institutes and Industries under Center of Excellence supported by SAP leading to better placement opportunities to the students.

# **Concluding Remarks:**

PVPIT is run by the renowned educational trust The Shetkari Shikshan Mandal, Pune, established in 2006, under the guidance of visionary President Hon. Prof. Dr Tanajirao Sawant. Institute is approved by AICTE New Delhi and affiliated to Savtribai Phule Pune University, Pune. Also it is located in the Maharashtra's well established Pune industrial hub.

- The Institute is having state of art infrastructure with advanced laboratories, ICT facilitated class rooms, Seminar Halls, Centre of Excellence funded by SAP, Computer Center, Library, central workshop etc.
- Institute is always striving to fullfill its vision and mission by engaging students in quality education and advanced trainings to meet industry requirements.
- Institute is accredited by NAAC with grade 'A' in its first cycle and continuously working on improvements in quality teaching learning process, examination results, industry tie ups, trainings and placements with add on skill development programs and extra-curricular activities.
- Institute is following SPPU curriculum with preparedness of NEP 2020 and following students' centric pedagogy. Many students have ranked in University Examination Results.
- Institute faculties are qualified and dedicated for students overall development. Each faculty is a mentor for batch of about 20 students under GFM. Research and development activities by faculties are executed and supported by institute. Institute believes in holistic development of all stakeholders.
- Our students are encouraged and prepared for state, national and international level technical, sports and cultural competitions like Robowar, Robocon, Smart India Hacketon, purushhottam karandak etc.
- Institute have established various chapters like SAE, IEEE,IETE ISTE, ACM and clubs like Robotics, Call of Code, Cultural club, Sports club for holistic development of students.

Advanced Trainings on Emerging technologies are imparted to the students in association with other institutes and Industries under Center of Excellence supported by SAP leading to better placement opportunities to the students.

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