

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

# ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY'S COLLEGE OF ENGINEERING, PUNE

ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETYS COLLEGE OF ENGINEERING, 1, KENNEDY ROAD, PUNE - 411 001 411001

www.aissmscoe.com

## Submitted To

# NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL BANGALORE

(Draft)

## 1. EXECUTIVE SUMMARY

## 1.1 INTRODUCTION

All India Shri Shivaji Memorial Society's College of Engineering (AISSMS COE) started in the year of 1992, is approved by AICTE, New Delhi, recognized by Directorate of Technical Education, Government of Maharashtra and affiliated to one of the premier university of India, Savitribai Phule Pune University, Pune. College is run by All India Shri Shivaji Memorial Society, established by His Highness Rajarshi Chhatrapati Shahu Maharaj in the year 1917 for the noble cause of education.

AISSMS COE, offering 9 UG, 6 PG and 5 PhD research programs, has achieved A+ grade by NAAC (3.29 CGPA) in first accreditation cycle. Recently, six programs earned accreditation from National Board of Accreditation (NBA). College is also recipient of "Best Professional College" Award in the Urban Category from SPPU, Pune. Notably, the institute had the honor of receiving a grant under the UGC's "PARAMARSHA" mentor-mentee scheme, allowing it to guide nearby institutes on the path to NAAC accreditation.

AISSMS COE follows curriculum developed by SPPU with CBCS. Qualified and experienced faculty always contribute in the curriculum development and its implementation with innovative and modern teaching methods. Examination and evaluation processes are followed as per SPPU guidelines with the implementation of outcome based education (OBE). Well defined teaching learning process and excellent learning resources such as well-equipped laboratories, ICT enabled classrooms, enriched library keeps academic environment vibrant in the institute.

Student development activities are supported through various student chapters of professional bodies, general association of students (GSA), NSS unit and Gymkhana unit of the institute. Institute level committees such as Center for information, training and placement (CITP) also play important role for holistic and professional development of students. Highly preferred engineering college in the university region and state of Maharashtra, promising academic results producing university rankers, good student enrollment and faculty retention, recognitions received by students and institute, wide base alumni network working in diversified sectors at national and international level have become the strengths of the institute as a result of consistent efforts put by the institute in last three decades.

In overall, institute is progressing towards the fulfillment of vision through well-structured governance with the involvement of all the internal and external stakeholders.

#### Vision

• Service to society through quality education

#### Mission

• Generation of national wealth through education and research

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- Imparting quality technical education at the cost affordable to all strata of the society
- Enhancing the quality of life through sustainable development
- Carrying out high-quality intellectual work
- Achieving the distinction of the highest preferred engineering college in the eyes of the stakeholders

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

## **Institutional Strength**

- Strong foundation established by social reformers
- Active, participative and supportive management
- Well qualified and experienced faculty with good retention ratio
- Well maintained infrastructure for curricular, co-curricular and extra-curricular activities
- Located in the heart of the city and good connectivity with all modes of transport.
- Mentor institute under PARAMARSH scheme of UGC.
- Good connect with various professional bodies
- Well-resourced digitized Library
- Vibrant NSS unit
- Eco-friendly clean and green campus
- UGC recognition with 2(f) & 12(B) certificate.
- Accredited by NBA: 6 UG Programs
- Accrediated by NAAC A+ grade in its first cycle.

#### **Institutional Weakness**

- Less number of funded research and consultancy projects.
- Limited placements in core industries
- Less student enrollment from other states
- Less number of doctorate faculty.
- Limited flexibility in curriculum design as affiliated to SPPU.
- Insufficient accommodation facility

## **Institutional Opportunity**

- Research and consultancy initiatives
- Revenue generation through resources sharing
- To achieve commendable NIRF ranking
- Development of industry supported laboratories
- Large pool of alumni can be harnessed to improve the quality of placement and research activities.
- Strengthen the Innovation and Incubation Centre
- To come up as autonomous institute / Private university

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### **Institutional Challenge**

- Placement of students in core industries
- Adoption of emerging technologies
- Enhancing networking with institutions of eminence within the nation and abroad.
- Branding of institute to attract meritorious students

## 1.3 CRITERIA WISE SUMMARY

## **Curricular Aspects**

The institute follows the Savitribai Phule Pune University curriculum framework, with faculty members actively contributing to its design and development as members of Academic Council, Board of Studies, and Subject Chairmen for syllabus revisions. Institute has Academic Development and Monitoring Committee (ADMC) to ensure high-quality technical education. This committee formulates teaching-learning strategies, rules, and regulations aligned with university calendar and institute goals. Faculty plan courses, industrial visits, and expert talks to address curriculum gaps and meet Program Outcomes as per departmental academic calendar.

Academic activities are reviewed weekly using Google Sheets, Enterprise Resource Planning, and Guardian Faculty Meetings, with thorough audits conducted in Head of Department; Academic Coordinator; and Planning and Quality Improvement Cell meetings. Thus, the academic landscape is constantly improved and evaluated. Institute Academic Coordinator through Department Academic Coordinators (DACs) and HODs monitors curriculum coordination and delivery. Academic Audit ensures curriculum quality and completion of unit tests, assignments, seminars, projects, practical, and continuous assessments.

To address interdisciplinary issues and promote well-rounded development, the institute offers soft skills supplementary courses and actively promotes student engagement in internships, e-learning platforms, NPTEL, V-lab, Coursera, Ekeeda, Udemy, MOOC courses, etc. Students are encouraged to participate in extracurricular and co-curricular activities, including competitions, to improve their practical skills.

Electives and audit courses address crosscutting issues including Professional Ethics, Gender, Human Values, Environment, and Sustainability. The Vishakha Cell at the institute conducts many programs to empower women and promote gender equality. The institute's Solar Energy Society of India western regional chapter organized a climate change and awareness seminar with Solar Yatra in association with Energy Swaraj Foundation. The institution regularly collects and disposes of e-waste.

Regular feedback collected on curriculum, faculty, infrastructure, and extension activities guides improvements to enhance the learning environment. Structured feedback on teaching and learning processes is conducted twice a semester. A mentoring system is in place to guide and support students throughout their academic journey.

Through these initiatives, the institute aims to offer a comprehensive education that meets industry demands and student goals, promoting continuous improvement and innovation in teaching and learning methods.

## **Teaching-learning and Evaluation**

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AISSMSCOE prioritizes teaching-learning practices, which play a pivotal role in disseminating knowledge and fostering the overall development of students. Students are admitted in the institute through the Centralized Admission Process (CAP) conducted by the Directorate of Technical Education, Govt. of Maharashtra as per reservation policy. Average enrollment percentage is 88.42% for last five years. The reserved seats are filled as per the state's reservation policy.

The institute adheres to AICTE norms for appointments, ensuring an optimal teacher-student ratio. The average teacher-student ratio of last 5 years is 1:19. The recruitment process is aligned with SPPU norms. The average ratio of recruited faculty over sanctioned post is 100%. More than 30% of the teachers are Ph.D. qualified.

The institute prioritizes a blend of offline and online pedagogical initiatives, employing instructional strategies with a strong focus on student-centered approaches. A diverse array of experiential learning techniques, including expert talks, industrial visits, and internships, enrich the educational experience. Participatory learning is demonstrated through student clubs, involvement with professional organizations, and the yearly technical event, AISSMS-ET. Problem-solving skills are honed through multifaceted approaches such as Project-Based Learning (PBL), Mini Projects, Final Year Projects, and participation in external competitions and in-house clubs. The laboratories and classrooms are seamlessly integrated with ICT, facilitating the sharing of course-related content, including notes, assignments, quizzes, and lecture videos through platforms like Microsoft Teams, ERP, and Canvas. Cutting-edge tools like the Lecture Capture System automatically archive audio and video content, forming a dynamic knowledge repository. Furthermore, the Knimbus m-Library App provides extensive e-resources, fostering a rich learning environment.

The examination and evaluation processes are in accordance with the SPPUs guidelines and AICTE's examination reform policy. A well-structured examination committee, led by the Principal, College Examination Officer (CEO), and department examination coordinators, guarantees the impartial, transparent, and robust conduct of examinations. The committee actively addresses any examination-related grievances, ensuring the sanctity of the evaluation system.

Outcome-Based Education (OBE) is a cornerstone of our teaching-learning methodologies. Well-defined Course Outcomes, Program Outcomes, and Program Specific Outcomes are prominently displayed, fostering continuous improvement. This commitment to excellence is reflected in the commendable average pass percentage of final-year students, standing at an impressive 94.13%.

AISSMSCOE's educational approach, deeply rooted in quality and innovation, prepares students for academic success and the challenges of a dynamic professional landscape.

## Research, Innovations and Extension

Research, innovation, and extension activities are fostered through various dedicated cells, nurturing an ecosystem of innovation. Research and Development Cell assists faculty and students in applying for funding and conducting awareness sessions on current technologies and research methodology. The institute has robust research infrastructure. It has heavily invested in modernizing labs, research centers, and facilities. Well-equipped spaces foster innovation by transforming ideas into reality. Researchers have academic, financial, administrative, and execution freedom. As a result, faculties have received 41.19 lacs from government and non-government agencies.

The institution encourages stakeholders to research and innovate. The Institution has established Institution

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Innovation Council (IIC) per Innovation Cell, MHRD, Government of India (GoI) guidelines. The institute also has a research and development committee, industry institute interaction committee, and IPR cell. The IPR cell hosts sessions on research methodology, intellectual property rights, and entrepreneurship to promote research, entrepreneurship, and IPR awareness. Overall, 39 patents and copyrights were filed and granted. The institute's Start-Up and Innovation Cell hosts awareness sessions to develop entrepreneur skills and start-up culture. Last five years, 77 research, innovation, and entrepreneurship programs were organized.

Research publications in peer-reviewed national and international journals have increased significantly. Over the past five years, faculty have published over 1000 research and conference papers indexed in Scopus, UGC Care, and Web of Science, as well as books/chapters. The institute has PhD research centers in five core departments namely Chemical, Computer, Civil, Electrical and Mechanical Engineering affiliated to SPPU with 100+ research scholars currently pursing PhD and 30+ guides attached to the center. Plagiarism detection softwares such as Drillbit and Turnitin are available.

The student association and NSS unit conduct extension activities which include water treatment training, blood donation camps, tree planting, traffic awareness, teamwork, and electoral awareness to promote ethics and social issues. These efforts of institute are well appreciated and resulted in receiving many accolades from various agencies.

The institute has 116 MoUs with distinguished national and international industries and academic institutions. These links have enabled labs, industry and institute-sponsored projects, joint publications, student and faculty training and hands-on experience, internships, and resource sharing.

## **Infrastructure and Learning Resources**

The institute has adequate infrastructure for curriculum, extracurricular, and administrative activities. The 18.71-acre campus has 19197 sq. meters of built-up instructional, administrative, and amenities space with beautiful landscaping per regulatory norms. The institute has been augmented with infrastructure that interplays intelligent design and space articulation with ergonomically designed classrooms and laboratories equipped with LCD projectors, sound systems, internet connectivity, digital smart boards. A spacious library, workshop, 10 lecture capture rooms, exam control room, CITP office, seminar halls, Gymkhana, Health care unit, girl's and boy's common rooms, faculty rooms, and facilities for 'Divyangjan' are available. The infrastructure facility is utilized in the optimized way to uphold the teaching-learning process in addition to conducive environment for co-curricular activities and extra-curricular activities. The environment at the institute is supportive to student and faculty research and innovation and also offers the necessary resources to host cultural, sports and yoga events.

The Central Library is well-equipped with Reference Section, Journal Section, Reading Hall, Digital Library, and Stack-Room. Library is automated with use of SLIM 21 and RFID Softwares. It has a huge stock of books, Print journals, e-books, e-journals and e-resources. Central library has an e-library section comprising dedicated computers for accessing e-journals & e-resources IEEE, Springer, Science Direct, etc. All E-resources also available with remote access. Institutional Repository and Plagiarism softwares like Turnitin and Drill bit are available.

The institute hosts modern ICT infrastructure and upgraded with technological advancements. The institute has 500 Mbps internet bandwidth secured with Sophos XGS 3300 Firewall and Seqrite antivirus software connecting 1090 high end computers. For seamless connectivity, 40 routers installed within the campus provide

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Wi-Fi in all blocks. Student-to-computer ratio at the institute is 3.8:1. The institute is secured with 121 CCTV cameras. Academic and administrative softwares are procured as per needs.

For ensuring efficient institutional operations, the institution has undertaken the development of infrastructure and consistently invested in its regular maintenance. Over the past five years, 23.47% of the annual average expenditure has been allocated to enhance infrastructure, while 48.68% has been dedicated to the maintenance of existing facilities.

## **Student Support and Progression**

The institute's reservation cell plays a pivotal role in guiding and assisting students from economically weaker background in securing scholarships from various government and private organizations. Eligible students benefit from financial assistance offered by state governments, government and non-government entities, industries, individuals, philanthropists, and the institute itself. The economically weaker students also get benefited by The earn-learn scheme of SPPU.

To ensure the continuous development and academic excellence of the students, the institute organizes various events, including seminars, workshops, and expert sessions. These initiatives are instrumental in fostering capacity building and enhancing skills among the students. The institute has established several committees, including the Grievance Redressal Committee, Internal Complaint Committee, Anti-Ragging Committee, OBC Reservation Committee Cell, SC/ST Reservation Committee, and Women's Grievance Cell. These committees diligently implement guidelines set forth by statutory bodies and regularly organize meetings and awareness programs.

The institute has a dedicated Training and Placement Cell (CITP) that conducts On/Off/Pool campus drives to provide job opportunities and foster industry connections. The cell also offers value-added courses on aptitude and soft skills training, in addition to facilitating internships for students. The Industry Institute Interaction cell actively collaborates with industries through Memorandums of Understanding (MoUs) and Centers of Excellence. Students are encouraged to pursue higher education, and the institute provides necessary support for competitive examinations such as GATE, GRE, UPSC, CAT, etc.

In addition to academic pursuits, the institute organizes co-curricular and extracurricular activities to nurture the diverse talents of its students. Events like **Engineering Today** (an annual national-level technical event), **Shivanjali** (an annual cultural event), and **Ashwamedh** (an annual sport event) provide platforms for students to showcase their skills in technical, cultural, fine arts, and sports domains. Moreover, the institute hosts various clubs such as NSS unit, Gymkhana, Art and Craft Circle, and Student clubs, where students actively participate to develop leadership qualities, communication skills, and technical expertise.

The institute's registered alumni association ensures alumni engagement in ongoing academic activities. Alumni contribute financial support, offer career guidance, and provide other assistance

## Governance, Leadership and Management

The institute's vision, aligns with the All India Shri Shivaji Memorial Society's vision, places a strong emphasis on high-quality education with participation from all stakeholders. The mission statements serve as a roadmap for the institute's entire operations. The institute's well-stablished leadership and administration

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operate with a progressive mindset in line with the vision and mission of the institute. The Governing Body (GB), College Development Committee (CDC), Internal Quality Assurance Cell (IQAC), Department Advisory Board (DAB), and Program Assessment and Quality Improvement Committee (PAQIC) comprise the institute's governance structure. Both internal and external stakeholders contribute to the institute's vision and mission through these committees.

With regard to all stakeholders involved, the Institute has a perspective plan in place to guarantee clear standards for both administrative and academic operations. Through authority delegation, learning environments that are supportive of learning, and a positive work culture, the institutional Strategic Plan has been implemented successfully for both quality improvement and overall development. The Principal represents the Institute and is aided in making decisions by Heads of Departments, Academic Coordinators, ILC committees and College Examination Officers (CEOs).

The Institute's competent faculties establish a supportive and stimulating learning atmosphere on campus. The hiring process is conducted in accordance with UGC guidelines. The AICTE, DTE, Maharashtra government, and SPPU service laws and regulations have been adhered to. Faculties are encouraged to pursue programs for faculty development, publications of high quality, consultancy, and qualification upgradation. Professional memberships, research work, and conference attendance are all financially supported. Faculty performance reviews are taken twice a year through 360-degree performance appraisal.

The institute has procedures and strategies in place to ensure that financial management is transparent. Operational and permanent assets are used to manage money and resource mobilization and use in an efficient manner. The Institute's Central Purchase Department (CPD) follows the standard procedure, requesting quotation from vendors, comparing specifications and costs, and selecting the best quote after consulting with the Principal. The Internal and Statutory Audit conducts periodic audits of the financial resources and real expenses.

The IQAC looks into the continuous improvement and academic excellence of the institute which in turn helps the institute to achieve the overall mission and vision by providing quality education.

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

AISSMSCOE conducts regular activities at the Institute to raise awareness about emerging changes and critical issues such as gender equity, environmental consciousness, energy sustainability, and related matters. Gender equity is actively promoted through measures like stringent policies against sexual harassment, integration of women into significant roles, and the organization of annual gender sensitization programs. Facilities ensuring gender equity encompass safety measures, dedicated common spaces, hostel amenities, counseling services, and healthcare provisions.

The Institute promotes eco-friendly practices such as energy, waste, and water conservation, maintaining a green campus, and ensuring disability accessibility. These initiatives undergo verification through audits and clean campus efforts, alongside external environmental promotion. Measures to ensure an inclusive environment include admitting students from diverse backgrounds, promoting awareness of human values and cultural diversity, fostering communal harmony, and conducting social and environmental projects. Citizenship responsibilities are promoted through philanthropic initiatives like village adoption and well-being programs.

AISSMSCOE surpasses traditional academic standards by fostering well-rounded leaders through its

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'Diversified Collaboration for Synergizing Education' approach, integrating rigorous academics with diverse activities to prepare students for real-world challenges effectively. Emphasizing societal service, the college provides state-of-the-art facilities and comprehensive support for extracurricular pursuits like sports, arts, and music. The success of these efforts is evident in students' achievements across academics, research, sports, and cultural activities, showcasing holistic development.

The Institute prioritizes holistic student development through Integrative Development of Students through Clubs and Chapters, aiming to foster essential skills, creative thinking, and managerial capabilities in STEAM fields. The institution's commitment is evidenced by students consistently securing national and international awards, demonstrating practical skills and global impact. Financial challenges and leadership turnovers are effectively managed to ensure seamless transitions and sustained success.

The campus-community connect initiative fosters socioeconomic transformation within local government areas, emphasizing 'Service to society through technical knowledge' for sustainability and resilience in both the Institute and its surrounding rural community. Objectives include sensitizing students to societal challenges, bridging theory and practice, identifying and addressing development challenges, and fostering responsible citizenship and public sector capabilities, alongside addressing water resource challenges in the community's watershed.

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## 2. PROFILE

## 2.1 BASIC INFORMATION

Name and Address of the College				
Name	ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY'S COLLEGE OF ENGINEERING, PUNE			
Address	All India Shri Shivaji Memorial Societys College of Engineering, 1, Kennedy Road, Pune - 411 001			
City	Pune			
State	Maharashtra			
Pin	411001			
Website	www.aissmscoe.com			

Contacts for Communication						
Designation	Name	Telephone with STD Code	Mobile	Fax	Email	
Principal	Dattatraya Shankar Bormane	020-26059562	9850282286	020-2605894	principal@aissmsc oe.com	
Professor	Dinesh Yashwant Dhande	020-26058587	9822699851	020-2605894	dydhande@aissmsc oe.com	

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

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

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## **Establishment Details**

State	University name	Document
Maharashtra	Savitribai Phule Pune University	View Document

Details of UGC recognition				
<b>Under Section</b>	Date	View Document		
2f of UGC	17-05-2017	<u>View Document</u>		
12B of UGC	17-05-2017	View Document		

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

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

Location and Area of Campus						
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.		
Main campus area	All India Shri Shivaji Memorial Societys College of Engineering, 1, Kennedy Road, Pune - 411 001	Urban	18.71	19197		

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## 2.2 ACADEMIC INFORMATION

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 Engineerin g,Mechanical Engineering Sandwich	48	HSC or twelfth class with PCM and appeared for MHTCET or JEE with non zero score	English	60	49
UG	BE,Mechanic al Engineerin g,Mechanical Engineering	48	HSC or twelfth class with PCM and appeared for MHTCET or JEE with non zero score	English	120	93
UG	BE,Electrical Engineering, Electrical Engineering	48	HSC or twelfth class with PCM and appeared for MHTCET or JEE with non zero score	English	60	41
UG	BE,Electroni cs And Telec ommunicatio n Engineerin g,Electronics Engineering VLSI Design and Technology	48	HSC or twelfth class with PCM and appeared for MHTCET or JEE with non zero score	English	60	46
UG	BE,Electroni cs And Telec ommunicatio	48	HSC or twelfth class with PCM	English	60	60

	n Engineerin g,Electronics and Telecom munication Engineering		and appeared for MHTCET or JEE with non zero score			
UG	BE,Productio n Engineerin g,Robotics and Automation	48	HSC or twelfth class with PCM and appeared for MHTCET or JEE with non zero score	English	30	29
UG	BE,Chemical Engineering, Chemical Engineering	48	HSC or twelfth class with PCM and appeared for MHTCET or JEE with non zero score	English	60	47
UG	BE,Compute r Engineering ,Computer Engineering	48	HSC or twelfth class with PCM and appeared for MHTCET or JEE with non zero score	English	120	120
UG	BE,Civil Eng ineering,Civi 1 Engineering	48	HSC or twelfth class with PCM and appeared for MHTCET or JEE with non zero score	English	120	92
PG	ME,Mechani cal Engineeri ng,Mechanic al Engineering Design Engineering	24	Batchelor of Engineering	English	18	1

PG	ME,Electrica l Engineering ,Electrical Engineering Power Electronics and Drives	24	Batchelor of Engineering	English	18	1
PG	ME,Electroni cs And Telec ommunicatio n Engineerin g,Electronics and Telecom munication Engineering IOT and Sensor Systems	24	Batchelor of Engineering	English	18	0
PG	ME,Chemica l Engineering ,Chemical Engineering	24	Batchelor of Engineering	English	9	2
PG	ME,Compute r Engineering ,Computer Engineering Artificial Intelligence and Data Science	24	Batchelor of Engineering	English	18	8
PG	ME,Civil En gineering,Civ il Engineering Structural Engineering	24	Batchelor of Engineering	English	18	13
Doctoral (Ph.D)	PhD or DPhil ,Mechanical Engineering, Mechanical Engineering	36	Passed M.E. or M.TECH. and clearance of PET and As per SPPU guidelines	English	1	0
Doctoral (Ph.D)	PhD or DPhil ,Electrical En	36	Passed M.E. or M.TECH.	English	1	0

	gineering,Ele ctrical Engineering		and clearance of PET and As per SPPU guidelines			
Doctoral (Ph.D)	PhD or DPhil ,Chemical En gineering,Ch emical Engineering	36	Passed M.E. or M.TECH. and clearance of PET and As per SPPU guidelines	English	5	0
Doctoral (Ph.D)	PhD or DPhil ,Computer E ngineering,C omputer Engineering	36	Passed M.E. or M.TECH. and clearance of PET and As per SPPU guidelines	English	5	0
Doctoral (Ph.D)	PhD or DPhil,Civil E ngineering,Ci vil Engineering	36	Passed M.E. or M.TECH. and clearance of PET and As per SPPU guidelines	English	1	0

## Position Details of Faculty & Staff in the College

	Teaching Faculty											
	Profe	Professor			Assoc	iate Pro	ofessor		Assis	stant Pr	ofessor	
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				33			107					
Recruited	6	2	0	8	16	5	0	21	67	40	0	107
Yet to Recruit	7	7			12			0				
Sanctioned by the Management/Soci ety or Other Authorized Bodies	0				0				26			
Recruited	0	0	0	0	0	0	0	0	26	0	0	26
Yet to Recruit	0	1	1	1	0	1		1	0	'	'	

		Non-Teaching	Staff	
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				83
Recruited	74	9	0	83
Yet to Recruit				0

	Technical Staff									
	Male	Female	Others	Total						
Sanctioned by the UGC /University State Government				44						
Recruited	40	4	0	44						
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

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	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.	1	1	0	1	1	0	14	8	0	26	
M.Phil.	0	0	0	0	0	0	0	0	0	0	
PG	0	0	0	0	0	0	36	19	0	55	
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.	5	1	0	14	5	0	6	4	0	35	
M.Phil.	0	0	0	0	0	0	0	0	0	0	
PG	0	0	0	0	0	0	20	26	0	46	
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	1837	43	0	0	1880
	Female	663	9	0	0	672
	Others	0	0	0	0	0
PG	Male	30	1	0	0	31
	Female	19	0	0	0	19
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	44	1	0	0	45
	Female	30	0	0	0	30
	Others	0	0	0	0	0

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

Category		Year 1	Year 2	Year 3	<b>Year 4</b> 56	
SC	Male	73	61	61		
	Female	33	26	35	31	
	Others	0	0	0	0	
ST	Male	14	11	12	9	
	Female	2	3	5	1	
	Others	0	0	0	0	
OBC	Male	169	158	173	154	
	Female	67	46	47	50	
	Others	0	0	0	0	
General	Male	276	243	342	290	
	Female	109	101	95	85	
	Others	0	0	0	0	
Others	Male	140	128	76	91	
	Female	34	27	19	24	
	Others	0	0	0	0	
Total		917	804	865	791	

## Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:

In order to encourage multidisciplinary and interdisciplinary approach, institute focuses on implementation of certain changes incorporated in the curriculum at university level such as honor degrees, project-based learning, industry internships, audit courses, electives / open electives. Internship, projects, project-based learning, audit courses are mandatory as per curriculum whereas students are motivated to adopt honor courses and open electives for better exposure to multi and inter disciplinary approach. Efforts are put across various departments to motivate students for interdisciplinary projects. Choices of the audit courses at department level are in line with the multidisciplinary approach for overall

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development of student. Interdepartmental project exhibition is organized annually in the institute providing multidisciplinary exposure to students. Through various students' chapters and clubs, interdisciplinary projects are carried out involving a blend of students from different disciplines. Institute offers program Mechanical Engineering with Sandwich pattern wherein students get opportunity to work in industry for one year. During industry training students work on live industry project with multi and inter disciplinary approach. In overall, every effort is put by the institute to promote multidisciplinary / interdisciplinary approach through curricular, co-curricular and extra-curricular activities.

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

The institute has registered on National Academic Depository (NAD) (ID: NAD064909). The institute also has academic bank of credit (ABC) account. The institute appeals the students to create Digi locker account and then subsequently register individual ABC account. After registration of ABC account, the student has to upload its ABC ID on affiliating university portal (SPPU) through his/her student profile system of the university. The institute uploads marks/credits of the student through online internal marks entry system of SPPU. The earned credits are fetched to students ABC account.

## 3. Skill development:

As per NEP 2020, one of the focused outcomes is skill development of learner. Gained knowledge is always required to be shared with the society or to be used for the benefit of the society / industry through various skills. At AISSMS COE, various skills focused are communication: verbal and written, ability to use modern IT tools, ability to work as an individual and as a member of team and "Life Learning". At the same time, ability of the student to apply gained knowledge to solve real life problems is also focussed. Institute has established Entrepreneurship and skill development committee, Institute Innovation Council and various students' chapters for conducting different activities providing real life exposure and skill development. Participation in Project exhibitions, innovation related competitions, paper / poster presentation are the platforms were students are encouraged to show their creativity and skills. Self-learning assignments, course activity for every course as an assignment,

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

industry internships, audit and honor courses are the avenues available for students to develop various skills.

The institute is dedicated to the appropriate integration of the Indian Knowledge System in education. It emphasizes the use of the local language in official communication alongside English. Faculty members leverage regional languages for instructional purposes, ensuring comprehensive understanding of complex concepts in both the regional language and English. The institute takes pride in its vibrant Cultural Club, actively organizing and participating in various cultural events conducted in regional languages. The annual social event, 'Shivanjali,' showcases classical and semi-classical singing, Bharatanatyam, Kathak, and regional/folk dances, highlighting the diverse talents of students. The college's Magazine committee annually publishes annual magazine with a blend of Marathi, Hindi, and English languages. NSS unit of the institute organizes extension activities such as celebration of national days, regional festivals sensitizing of students towards regional culture. The institute has proposed a credit course on the Indian Knowledge System in the revised syllabus by the university, further emphasizing its commitment to integrating indigenous knowledge into the academic curriculum. Faculty of the institute is encouraged to undergo faculty development programs on effective implementation of Indian knowledge system through curriculum and various academic activities.

5. Focus on Outcome based education (OBE):

In the institute, each department has administrative system for implementation of OBE which includes Course Coordinator, Module coordinator, Program Coordinator, PAQIC Committee, department advisory board (DAB) and internal quality assurance cell (IQAC). Every department has well defined Program Outcomes (PO), Program Specific Outcomes (PSO) and Program Education Objectives (PEO). The PSOs, POs and COs are designed using top-down approach. Each course has specific measurable course outcomes. Each course outcome is mapped with the Program outcomes and programspecific objectives. While calculating the attainment level bottom to top approach is used. For each course, the attainment level of all course outcomes is arrived at rigorously based on the student performance in the

internal and external examinations and course end survey. CO attainment contributes to PO-PSO attainment. Exit survey, alumni, and employer surveys are conducted for indirect assessment of the PO-PSOs. Each department has a Program Assessment Committee (PAQIC). The quality of the test paper is examined by the PAQIC. Before commencement of the semester, PAQIC analyzes the CO-PO mapping of the courses and defines the curriculum gaps. Various activities are planned and conducted to cover the curriculum gaps. During the semester, various assessment tools such as unit tests, assignment, quizzes, etc. are used to analyze the attainment of POs and PSOs. External assessment tools are also considered to compute the final attainment of POs and PSOs. If the POs are not satisfied to the target level, the course teacher is advised to improve the same by conducting various activities. Thus, the Institute follows a well-defined OBE system.

#### 6. Distance education/online education:

The institute has always inclination towards online/distance education. Various platforms including Google Drive, Google Classrooms and Microsoft teams have been seamlessly incorporated for the effective delivery and evaluation of courses. On Google Classroom, students can easily access comprehensive course content, including academic calendars, syllabi, PowerPoint presentations (PPTs), and notes. Acknowledging the importance of distance learning opportunities, the institute motivates students to join various online certification courses platforms such as CourseEra, Udemy, and eKeeda. The institute proudly serves as a nodal centre for SWAYAM courses. The institute library also offers online access to its e-journals and blog. The institute has created YouTube channel wherein recorded lectures of faculty are available. To facilitate assessments, online assignments and quizzes have been embraced. Multiple-choice question (MCQ) tests are conducted through the Moodle platform. Google Meet is utilized for both live and recorded online sessions, where student activities are also conducted seamlessly. Lecture recordings and practical sessions are made conveniently accessible on YouTube for students' reference.

## **Institutional Initiatives for Electoral Literacy**

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	Yes. The institute's Electoral Literacy Club work in collaboration with NSS unit.
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 activities are coordinated by NSS unit of the institute.
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.	• ELC Awareness program and registration drive conducted in collaboration with district collector office, Pune • Data Collected on google form • Information of Voter Registration App is provided. Our student, Ms. Samruddhi Sonawane (BE computer), is working as a member of electoral committee Maharashtra state. • The institute conducted the conference 'TRITUYA PANTHIYANCHA LOKSHAHITIL SAHABHAG' (Transgender Participation in Democracy) in collaboration with Electoral commission, Maharashtra State and Savitribai Phule Pune University, Pune. • The institute organizes awareness drives to promote electoral literacy among the students every year.
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.	• Voters Survey conducted in our college. • Awareness drives and rallies, poster creation activities are conducted. • Voter Registration drive is conducted in adopted village Kaylan. • Constitution day is celebrated in the institute.
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.	All voters' registration completed for the students who enrolled in the college. Additionally, the drive is conducted in our sister institutes and registration has been completed.

## **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
3099	3105	3186	2898	3024

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: 203

3	File Description	Document
	Upload Supporting Document	View Document
	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
158	155	154	161	163

## 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
1348.20	955.77	758.38	1314.61	1255.34

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:**

In line with the Insitute's vision to impart Quality technical education an Academic Development and Monitoring Committee (ADMC) is established at institute level to create an environment conducive for teaching learning process besides effective planning and monitoring of curriculum implementation. Furthermore, each department has its own Program Assessment and Quality Improvement Committee (PAQIC). To ensure effective planning and delivery of curriculum, policies are framed and documented in the Process Mannual, and is made available on the Institute website.

Following the academic calendar of Savitribai Phule Pune University (SPPU) and incorporating insights from the Internal Quality Assurance Cell (IQAC), Department Advisory Board (DAB), Institute Academic Coordinator (IAC), in collaboration with Heads of Departments (HOD), and Institute Level Coordinators (ILC), curricular, co-curricular, and extra-curricular activities are planned and integrated into the institutional and departmental academic calendars.

Students are also made aware of commencement of term through a common notice/Emails/SMS/through ERP system and an academic calendar well in advance. Heads of Departments allocate courses to faculty members based on their expertise and preferences. Faculty members create teaching plans, which are then uploaded onto the ERP system. Regular academic review are conducted by the Institute Academic Coordinator. The institute employs outcome-based education through innovative pedagogy, information and communication technology (ICT), and participative learning to enhance the teaching-learning process.

The effective implementation of curriculum is ensured by supplementing classroom teaching with expert lectures, presentations/seminars, mini projects, in-house and industry supported projects, project based learning, tutorials, group assignments, case studies, industry visits, industrial training, internships, hands-in-sessions, e-learning, NPTEL lectures, V-lab, Coursera, Ekeeda, Udemy, MOOC courses, technical quiz, assignments, internal-tests etc.

Academic performance is assessed through class tests, assignments, course activities, continuous assessment for practical, term work, projects, and seminars through well-defined rubrics. To foster holistic development, soft-skills training, value-added courses, internships, counselling, and co-curricular/extracurricular activities are organized.

Advanced and slower learners are identified at the beginning of the term based on prerequisite tests and previous semester results. Question papers for internal tests are crafted depicting Course Outcomes and Bloom's Taxonomy. The departmental PAQIC oversees the quality of the question papers. Assignments

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are given after completion of every two units and are assessed based on timely submission and quality of response. Final year students are undergoing two internal reviews per semester. A review panel assess the quality of project through a well-defined rubrics.

Every two weeks, parents of students receive notification regarding attendance issues through a defaulter list, and counselling sessions are conducted by batch mentors. Feedback from students is collected twice per term, while other stakeholders provide input annually through ERP/website or physical channels. Summarized inputs from various stakeholders are communicated to the department and action taken report is prepared. Adherence to the academic calendar is monitored through course file verification, department meetings, GFM meetings, and internal Academic and Administrative Audit periodically.

Confronting the challenges posed by the COVID-19 pandemic, AISSMSCOE adeptly shifted to online teaching and learning, utilizing platforms such as Microsoft Teams, Zoom, Google Meet, and Google Classrooms. This adaptive approach guaranteed continuous education amid exceptional circumstances.

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: 2010

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
Provide Links for any other relevant document to support the claim (if any)	View Document

Other Upload Files	
1	<u>View Document</u>

## 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: 53.72

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
1756	2758	506	3052	153

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

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### **Response:**

The current curriculum incorporates the issues on Gender equality, Environment and Sustainability, Human Values, and Professional Ethics through elective courses, audit courses, value added courses and activities. The courses such as humanities and social sciences, environmental engineering, air pollution and control, disaster management, industrial management and entrepreneurship, soft skills, energy audit management, and human rights are included in the curriculum of various programs in order to foster the holistic development of students. Students are also exposed to courses such as Industrial Psychology and Organizational Behavior, Humanity and Social Science, Social Awareness, and Governance Program, promoting values in their education. Mechanical Engineering students delve into Energy Engineering and Renewable Energy Technologies, emphasizing environmental sustainability. Computer engineering students take 'Sustainable Energy Systems' courses, fostering awareness of renewable energy sources. Electronics and Telecommunication Engineering introduces 'Energy Resources, Economics, and Environment,' focusing on nonconventional energy for a sustainable future. Compulsory internships across programs expose students to modern tools, technologies, and industry practices, creating awareness of social, economic, and administrative aspects in professional settings.

As part of the curriculum implementation, the institute incorporates discussions on crosscutting topics by hosting expert talks and seminars. These sessions focus on environmental concerns and sustainability, including themes such as climate change, raising awareness about the significance of solar energy, and promoting efficient utilization of resources like water, energy, and electricity. The Vishakha Cell at the institute organizes diverse programs dedicated to advancing women's empowerment and fostering gender equality. The National Service Scheme (NSS) consistently arranges expert lectures by distinguished professionals to instill a sense of gender equality among all students. NSS actively coordinates a range of initiatives related to the environment and sustainability, including Swachha Bharat Abhiyan, Tree plantation drives, Plastic Kachara Mukti Abhiyan, and Disaster management training. The organization conducts awareness programs on diverse subjects such as road safety, the Constitution of India, fire safety mock drills, climate change, the significance of solar energy, tobacco de-addiction, human rights, women's literacy, COVID-19, and more. Blood donation camps are set up as part of initiatives promoting human values. The institute has taken on the responsibility of adopting five villages, working towards their development and improvement. Additionally, guest lectures are organized to address interdisciplinary topics, including human rights and health-related matters.

Students are inculcated with professional ethics through active participation in various professional activities such as seminars, conferences, workshops, and tech fests, AISSMS Engineering Today. The creation of Students' Chapters such as Institution of Engineers (IE(I), Solar Energy Society of India (SESI), Computer Society of India (CSI), Institution of Electronics and Telecommunication Engineers (IETE), Indian Concrete Institute, Society of Automotive Engineers (SAE), Indian Institution of Chemical Engineers, and technical clubs like "Drone" and "Robotics" aims to cultivate both technical expertise and social consciousness among students.

The institute's Entrepreneurship Development Cell (EDC) actively fosters the entrepreneurial spirit, addressing components related to employability, research, and social needs among students.

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

## 1.3.2

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

Response: 96.97

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

Response: 3005

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

## 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

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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	<u>View Document</u>
Link of institution's website where comprehensive feedback, its analytics and action taken report are hosted	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

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

## 2.1 Student Enrollment and Profile

#### 2.1.1

## **Enrolment percentage**

Response: 88.42

## 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
765	683	730	713	852

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

2022-23	2021-22	2020-21	2019-20	2018-19
825	852	852	852	852

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Final admission list as published by the HEI and endorsed by the competent authority	View Document
Document related to sanction of intake from affiliating University/ Government/statutory body for first year's students only.	View Document
Provide Links for any other relevant document to support the claim (if any)	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: 84.28

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

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2022-23	2021-22	2020-21	2019-20	2018-19
278	247	259	258	288

# 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
316	328	326	304	304

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
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
Provide Links for any other relevant document to support the claim (if any)	View Document

## 2.2 Student Teacher Ratio

#### 2.2.1

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

Response: 19.61

## 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

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### **Response:**

Various instructional methods and pedagogical initiatives in online and offline mode are adopted for student centric methods.

## **Experiential Learning**

Experiential learning opportunities are seamlessly integrated into the institute's curriculum, offering myriad benefits to students. Third-year students gain invaluable firsthand industry experience through internships, equipping them with essential practical skills for their careers. Industrial visits bridge theoretical knowledge with real-world applications, showcasing how academic concepts translate into marketable products. Participation in competitions like hackathons fosters creativity, teamwork, and problem-solving abilities. Additionally, the institute utilizes virtual labs and simulation software to enhance students' practical skills, while courses on open-source platforms like NPTEL, Coursera, etc. encourage continuous learning and adaptability. Moreover, Hands on Workshop activities are incorporated for overall end-to-end technical based learning development. Engaging in realistic, industry-specific projects sponsored by companies provides application oriented experience and prepares students for professional challenges ahead.

## **Participatory Learning**

Participatory learning thrives through diverse platforms within the institute. Membership in **professional bodies** like IETE, SAE, ISTE, IEI, SESI, IGS, and IWA offers students opportunities to excel professionally, network with industry experts, and stay abreast of field advancements. Additionally, **student clubs** such as Avit- O-Virtue Drone and Robotics, e-Baja, Supra, BAJA, and Garudashwa foster communication and leadership skills, empowering students as effective collaborators and future leaders. The annual technical event **AISSMS ET** provides a stage for students to showcase talents, enhance practical skills, and explore emerging technologies. Furthermore, the institute's social gathering "Shivanjali" nurtures creativity and belonging, while the **NSS unit** instills values of community service and social responsibility, preparing students for impactful contributions to society.

## **Problem Solving Methodologies**

Problem-solving methods are essential components of the learning experience, offering students numerous benefits and practical skills. Through **project-based learning** (PBL), teams of 3-5 students collaboratively tackle real-world problems under mentor guidance, fostering critical thinking, teamwork, and communication skills. This approach is embedded in the curriculum, ensuring that all first and second-year students receive structured exposure to problem-solving methodologies. Additionally, the **final year project** allows students to apply their knowledge to real-life scenarios, promoting creativity, innovation, and independent learning. **Mini-projects** further enhance students' understanding of specific concepts, while collaborative efforts within department clubs facilitate joint problem-solving, enabling students to develop resilience, adaptability, and confidence in navigating complex challenges and succeeding in various endeavors.

#### **ICT Tools:**

ICT tools utilized by faculty enhance teaching and benefit students in various ways. **Learning Management Systems** such as Microsoft Teams, ERP, Google applications, and Canvas simplify online

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teaching, providing easy access to course materials like notes and assignments. Integration of online drawing tools like Wacom tablets and smart boards improves teaching mathematical subjects, facilitating interactive and visual learning experiences. Additionally, tools like YouTube channels, Kahoot, GitHub, demonstration videos, Google Colab, Mentimeter, Spinning wheel, and Quizziz enrich the teaching-learning process, promoting engagement and creativity. Lecture Capture system record classroom lectures, which students can review at their own pace. Access to e-resources on platforms like Knimbus m-library App fosters independent learning, contributing to students' academic growth and readiness for future career challenges.

File Description	Document	
Upload Additional information	<u>View Document</u>	
Provide Link for 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
158	155	154	161	163

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 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: 31.98

## 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
65	60	46	45	37

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	<u>View Document</u>
Copies of Ph.D./D.Sc / D.Litt./ L.L.D awareded by UGC recognized universities	<u>View Document</u>
Provide Links for any other relevant document to support the claim (if any)	View Document

## 2.5 Evaluation Process and Reforms

#### 2.5.1

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

#### **Response:**

The assessment framework, integrating internal and external evaluation processes, is distinguished by its commitment to transparency and efficiency. This comprehensive approach is supported by a well-organized grievance redressal system, ensuring a student-centric evaluation within the academic environment.

**Internal Assessment:** Internal evaluation is foundational for continuous assessment. This involves the timely administration of class tests and assignments, explicitly outlined in academic calendars and prominently displayed on notice boards. The subsequent evaluation of answer sheets is executed diligently, with results and answer sheets distributed for student verification within a week. Transparency is a key facet, maintained through the sharing of assessment rubrics. Parents are kept informed of student progress through mentor faculty, encouraging a collaborative approach. Any queries are actively discussed, ensuring swift resolution and a supportive learning environment.

External Assessment: Savitribai Phule Pune University (SPPU) conducts external assessments, covering

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in-semester, end-semester, and oral/practical/term work examinations. Schedules are transparently communicated through notice boards and the university website. External examiners ensure impartial evaluations in oral and practical examinations. Importantly, students are granted access to photocopies of their end-semester answer sheets upon request, reinforcing transparency and accountability in the evaluation process.

Assessment of Term Work, Seminar, Project, and PBL: The assessment of term work, seminar, project, and Project-Based Learning (PBL) incorporates parameters such as regularity, understanding, teamwork, and communication skills. Evaluation processes and rubrics are openly shared with students at the start of each semester, providing clarity on expectations. Term work marks are prominently displayed on notice boards, offering students insights into their performance and fostering a culture of accountability.

#### **Grievance Redressal:**

A robust grievance redressal system, led by the College Examination Officer (CEO), stands as a pillar for effective conflict resolution. Internal concerns are initially addressed by course teachers, with the option for escalation to Guardian Faculty Members (GFMs) should the need arise. If matters persist, further recourse is available through the head of the department and ultimately, the Principal, ensuring a comprehensive approach to grievance resolution. Oversight by the grievance committee, operating under the Principal's guidance, ensures that grievances are handled promptly and corrective actions are duly documented.

For grievances related to external evaluations, the CEO serves as the conduit, directing complaints to the university examination cell via the Principal. The university has established an accessible online platform for lodging grievances, encompassing requests for photocopies, rechecking, or revaluation of answer sheets. To enhance transparency, university circulars detailing various grievance procedures are prominently displayed on notice boards and readily available on the university website. Timely corrective measures are enforced by university authorities within stipulated periods, ensuring accountability and fairness.

The CEO assumes a pivotal role in facilitating corrective actions by Savitribai Phule Pune University (SPPU), fostering continuous improvement within the assessment framework. By coordinating with university entities, the CEO ensures that student grievances are addressed efficiently, contributing to the ongoing enhancement of the evaluation process.

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

# 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:**

The PEOs, POs, PSOs, and COs for all programs are readily accessible on the institute's official website. These critical components of our educational framework are also prominently displayed across various mediums, such as HoD and staff cabins, Laboratories, display boards, department notice boards. They are disseminated through emails, presentations in induction programs, parent meetings etc. This multichannel dissemination strategy ensures that the educational philosophy is communicated effectively to all stakeholders, fostering a shared understanding of institute's objectives and expectations.

In adherence to Outcome-Based Education (OBE), the institute employs a meticulous and comprehensive approach to align each program with the overarching vision and mission of the institute. Beginning with the institute's vision and mission, PEOs and PSOs are derived that encapsulate the broader goals of each program. POs are aligned with the POs crafted by National Board of Accreditation and are based on graduate attributes. Each program within the institute has tailored Program Specific Outcomes (PSOs), reflecting the distinct features and uniqueness of the respective programs These outcomes serve as guiding principles, informing the subsequent design of COs.

The institute aims at cultivating a dynamic learning environment that empowers students to excel academically and thrive in their chosen fields. This approach fosters a holistic understanding of our educational objectives, aligning the aspirations of the institution with the expectations of students, faculty, and industry stakeholders. In the OBE framework, institute's approach cascades from program-level objectives down to course-level objectives, ensuring seamless alignment of learning outcomes. Courses are integral building blocks within this framework, where teaching strategies, learning activities, assessments, and resources are tailored to assist students in achieving the defined learning outcomes at the course level. Each course is equipped with a set of 4 to 6 SMART (Specific, Measurable, Achievable, Relevant, Time-bound) Course Outcomes. CO are formulated based on the content covered within each unit and follow Bloom's Taxonomy, ensuring clarity.

COs are finalized through discussion and approval in departmental Program Assessment and Quality Improvement Committee (PAQIC) meetings. This iterative process ensures that outcomes are relevant and robust. The continuous refinement and alignment of the learning outcomes are underscored by a commitment to quality improvement. This involves a proactive engagement with industry partners to understand their expectations from our graduates. The resulting insights contribute to the evolution of our PSOs, and COs, ensuring our programs stay relevant and responsive to industry trends. Moreover, a robust feedback loop involving faculty and students ensures that learning outcomes remain agile and responsive to the dynamic educational landscape. Regular monitoring and evaluation of assessment data enable to identify areas of strength and improvement, contributing to our continuous enhancement efforts.

In essence, our transparent and communicative OBE approach reflects a commitment to excellence in education. It is a dynamic framework that adapts to industry demands, fosters student success, and creates a learning ecosystem where each stakeholder is aligned with the institution's vision for holistic education.

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

#### 2.6.2

Attainment of POs and COs are evaluated.

Explain with evidence in a maximum of 500 words

#### **Response:**

#### CO Attainment:

The assessment process involves developing measurable criteria, collecting data on student performance, analysing results, and using findings for improvement. A systematic process is developed for evaluation of Course Outcome (CO) attainment. It involves various steps to assess the extent to which course outcomes have been met. The process begins with the selection of appropriate assessment tools, both direct and indirect. Direct assessment tools are internal (Test, Assignment) and external (university conducted In-sem, End-sem, Term-Work Oral/Practical). These tools measure student performance against predefined indicators, facilitating an objective evaluation. In addition, indirect assessment tools, Course End Survey, is utilized.

Mapping assessment tools to COs ensures consistent and effective evaluation, aligning with intended learning outcomes and verifying their measurement of desired knowledge, skills, and abilities for valid and reliable assessments.

Attainment levels for COs are measured as a percentage of students achieving a specific threshold of marks. Three defined attainment levels classify students' performance, reflecting their success in meeting COs.

The weighted average method is employed to calculate CO attainment from attainment values by tools. Weights are assigned based on the maximum marks, relative importance, and contribution to overall attainment. The direct assessment tools (internal and external) contributes 80% and the indirect assessment tools (Course End Survey) contribute, a 20% weightage in the overall CO attainment. This assessment approach ensures thorough evaluation of COs, fostering continuous improvement in education. The evidences of the CO attainment are available on https://naac.aissmscoe.com/assets/images/criteria2/2-6-2-2.pdf

The detailed calculations for one sample case is available on https://naac.aissmscoe.com/assets/images/criteria2/2-6-2-3.pdf.

#### Attainment of PO/PSO

Assessing POs and PSOs is crucial for enhancing academic programs in Outcome-Based Education (OBE). POs drive curriculum design and assessment, ensuring alignment with individual learning

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experiences through a "design down" approach. Competencies and Performance Indicators further clarify high-level outcomes, linking them with course content and assessment.

Assessment tools for PO/PSO include tools same as CO assessment tools (internal and external) and indirect tools (surveys). Indirect tools, includes surveys like graduate exit surveys, Alumni survey, Parents Feedback and employer surveys, provide valuable insights into student perceptions. Equal weightage is given to these surveys contributing to a holistic assessment approach. A balanced weightage distribution of 80% for direct and 20% for indirect tools is set. A sample PO attainment is available on https://naac.aissmscoe.com/assets/images/criteria2/2-6-2-6.pdf

By combining direct and indirect tools, departments gain a comprehensive understanding of program effectiveness. This multifaceted evaluation ensures continuous improvement in achieving learning outcomes and program objectives.

#### **Evaluation of CO, PO/PSO Attainment:**

Targets, aligned with program and industry standards, are set by the Programme Assessment and Quality Improvement Committee (PAQIC). Departmental PIQAC meetings determine actions based on CO, PO/PSO attainment values. If targets are not met, learning resources and student support services are enhanced, alongside improvements in teaching methods and assessment tools. Upon meeting targets, new, higher-value targets are set, with additional efforts suggested for achievement.

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

#### 2.6.3

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

Response: 94.29

# 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
724	772	788	726	736

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

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2022-23	2021-22	2020-21	2019-20	2018-19
865	807	792	727	782

File Description	Document
Institutional data in the prescribed format	View Document
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
Provide Links for any other relevant document to support the claim (if any)	View Document

# 2.7 Student Satisfaction Survey

### 2.7.1

Online student satisfaction survey regarding teaching learning process

### **Response:**

File Description	Document
Upload database of all students on roll as per data template	<u>View Document</u>

## 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: 41.19

# 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
4.5	33.84	1	1.15	0.7

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:**

The institution has ingeniously crafted an ecosystem that serves as a fertile ground for innovation to flourish. At its core, the institution recognizes the indispensable role of innovation in the progress of both academia and society at large. To this end, it has implemented a diverse range of initiatives dedicated to the creation and transfer of knowledge, setting the stage for ground breaking discoveries and the advancement of cutting-edge technologies.

One of the institution's hallmark features is its robust research infrastructure. It has invested heavily in state-of-the-art laboratories, research centres, and facilities. These well-equipped spaces serve as the crucible in which ideas are forged into tangible innovations.

Moreover, the institution actively promotes a culture of research and innovation among its faculty and students. The institution has established the Institution Innovation Council under the directives received

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from MoE Innovation cell and AICTE. Also, start-up innovation cell is working as per directives from Savitribai Phule Pune University Pune. Institute takes initiatives for creation and transfer of knowledge by conducting different activities, competitions and programmes for students and faculties to cater the need of movement towards innovation and start-up such as Ideathon, Internal Smart India Hackathon, Internal YUKTI Innovation Challenge, Avishkar, PBL competitions, Scitech -villagethon, celabration of "Dr APJ Abdul Kalam Innovation and Start-up week to motivate students and conversion of innovation to start up idea. Different webinar, workshop, seminar, impact lecture series were also organized with sponsorship from MoE Innovation Cell and AICTE. As an outcome of this culture, students won First Prize in Smart India Hackathon in 2019-20 and 2022-23. Also, students won final start up competition at Savitribai Phule Pune University in 2019-20, Innovation competition in 2020-21. Students won Avishkar Innovation Competitions at University level, state level, zonal level and national level in 2020-21. In addition to this, research and development committee and industry institute interaction committee, IPR cell are constituted in institute. Institution Innovation Council conducts different sessions related to intellectual property rights. As a result of the same, many students and faculties have filed patents and some patents are also granted, published.

Furthermore, the institution has implemented entrepreneurship programs that empower students and faculty to transform their innovative ideas into viable start-ups. These programs provide mentorship, funding, and incubation support, creating a pathway for innovation to find its way into the market and make a meaningful impact on society.

In addition to above, institute promotes the faculties to attend workshop, faculty development programme on Indian Knowledge System to gain a comprehensive understanding of the fundamental principles, philosophies, and concepts that form the basis of the Indian Knowledge System. Morever NSS unit also organises sessions on Indian heritage, fort conservation, constitution of India.

In conclusion, the institution has cultivated an ecosystem where innovation thrives, and the creation and transfer of knowledge are celebrated as paramount. Through cutting-edge research, knowledge dissemination, and entrepreneurial initiatives, it is not only pushing the boundaries of what is possible, but also ensuring that the benefits of innovation reach society at large. In this way, the institution is not merely an academic institution; it is a dynamic engine of progress and positive change.

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

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Response: 79

# 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
27	27	15	09	01

File Description	Document
Upload supporting document	View Document
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: 2.85

# 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
194	135	86	102	61

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
Provide Links for any other relevant document to support the claim (if any)	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: 0.98

# 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

2022-23	2021-22	2020-21	2019-20	2018-19
37	43	21	62	35

File Description	Document
List of chapter/book along with the links redirecting to the source website	View Document
Institutional data in the prescribed format	<u>View Document</u>
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
Provide Links for any other relevant document to support the claim (if any)	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:**

The institute organizes a numerous extension activity to promote institute-community interaction and sensitize the students towards community needs. The students of our college actively participate in social service activities leading to their overall development. Extension Activities aims at enabling our volunteers to develop social responsibility, learning by work experience and leadership quality. Students and faculty volunteers have contributed in the field of mass literacy, environment preservation, watershed management, health education, disaster management, food for the homeless, communal and social harmony etc. in past years. Blood donation camp, plasma donation camp twice in a year and as per the need with government and Army hospital Pune to save the life of our poor people and brave soldier. Various activities which have contributed towards patriotism, national services and students are briefed below with their impact as mentioned

Students go the adopted villages to involve themselves in the field work thereby knowing the problems of the villagers. Main Activities – Thrust Areas: Fit India, Environment protection, Blood donation, Disaster preparedness, Tree plantation, Personal health & hygiene, Mental wellbeing, National integration & harmony, Energy saving & promote renewable energy, Life skills development, Soil and Water Testing, clean drinking water facilities (RO Plant), drainage free village (Soak Pits), digital literacy, UPI significance, voter registration, Swachh gram Abhiyan, Tabaco free campaign, Mask and sanitizer distribution, grocery kit distribution, Eradication of superstition, organic farming, various workshops, Heritage conservation. The following analysis shows the extension activities and its impact and sensitizing students to social issues and holistic development. The spirit of voluntary work through sustained community interaction and campus to community connect is enthralled amongst students, which reflects on the personality development of students through community service.

#### IMPACT ON NEIGHBOURHOOD COMMUNITY

Environmental Program	Creating eco-friendly society.
Water conservation	Awareness of their responsibility
RO Plant	Social, Economic and Environmental Impact
Blood Donation Camp	Saving lives
Orphanage and Physical disabled school visit	Humanity
Health Check Up Camp	Assessment of health parameters
Eye check Up Camp	Ensuring healthy eyes
Women empowerment	Interdependability
Road Safety and Traffic Awareness	Traffic and safety awareness
Heritage conservation	Preserving history and culture
Tree Plantation	Climate change
Transgender in Democracy	Got recognition in society
"Tritiya Panthiyancha Lokshahitil Sahabhag"	
Soak Pits	Effective disposal of liquid waste
Cybercrime awareness and police mitra karyashala	Awareness about malicious activities
Grocery distribution at Kusarpeth	Societal
Adult Literacy program	Enriching the lives.

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Ek Divas Balirajasathi	Learned the devotion, dedication and hard work
Fit India	Fitness
Swachha wari Harit wari, Swasta wari	Symbol of devotion, harmony, and spiritual
	awakening

#### HOLISTIC DEVELOPMENT OF STUDENTS

Extension activities on neighbourhood community have a positive impact on the students, and they developed campus community relationships, leadership skills, social entrepreneurship and self-confidence, long term memory and understand the real world. It also helped in cultivating the hidden personality of students and creating social awareness and also inculculates awareness about water conservation, road safety, woman empowerment, cyber crimes, ethics and their resposibilities.

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

#### 3.4.2

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

#### **Response:**

The institution takes immense pride in its continuous dedication to community engagement and extension activities, and this commitment has been duly recognized and celebrated by various government and government-recognized bodies. These accolades and awards serve as a testament to the institution's unwavering commitment to making a positive impact beyond its campus boundaries.

Over the years, the institution's extension activities have garnered attention and appreciation from governmental agencies and organizations working towards the betterment of society. These accolades not only acknowledge the institution's exceptional contributions but also highlight its role as a catalyst for positive change.

Among the notable recognitions received, the institution has been honored for its outstanding contributions to areas such as rural development, healthcare outreach, environmental conservation, and community education. Institute was honoured for organizing blood donation camps every year. One of the institute students was appreciated as Corona Warrior. Also he is selected as "Mahamitra" for Vidhayak Sandesh – Viveki Samaj campaign. Our students were appreciated for various extension activities like participation in national integration camp and adventure camp, participation in state and national republic day parade. The NSS volunteers were cherished for participation in programmes organised by SPPU like personality development, gender equality, contribution of transgender in democracy youth leadership, tree plantation, clean city initiatives, tobacco free youths etc. Our student was identified as district level best NSS volunteer. Institute was also honoured for immense contribution in social activities through NSS programmes and residential camp. Students also very well recognized

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during COVID 19 pandemic by online participation in various activities like PRERANA2020, Yoga Day etc. Few students were honoured with COVID YODHHA. These awards not only acknowledge the institution's dedication but also inspire faculty, staff, and students to further amplify their efforts in serving the community.

Institute has been recognised as a mentor institute under UGC PARAMARSH scheme for mentoring five NAAC accreditation aspiring institutes.

Institute has received best engineeing college award (professional college in urban category) by Savitribai Phule Pune University Pune. Also, recognized as Sakal Educational Idol of Maharashtra as a significant contribution in campus to community engagements. Faculties have received award as Innovation Ambassador from Ministry of Education Innovation Cell. Head of the Institute has received many prestigious awards for exceptional contribution in education sector such as Shastri Foudation Pune, Marathwada Yuva Manch etc. Institute is also appreciated for green energy literacy from Solar Energy Society of India.

In conclusion, the institution's receipt of awards and recognitions for its extension activities from government and government-recognized bodies underscores its pivotal role as a socially responsible entity. These honours serve as both validation and motivation, driving the institution to continue its impactful work in the service of society and reaffirming its dedication to making a meaningful difference in the lives of communities it engages with.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for 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: 374

# 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
61	109	58	78	68

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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
Provide Links for any other relevant document to support the claim (if any)	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:** 116

File Description	Document
Summary of the functional MoUs/linkage/collaboration indicating start date, end date, nature of collaboration etc.	View 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	<u>View Document</u>
Provide Links for any other relevant document to support the claim (if any)	View Document

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## **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 institution has the adequate infrastructure to facilitate curricular, co-curricular, and extracurricular activities as per guidelines set by authorities like AICTE, DTE, and Savitribai Phule Pune University. The physical infrastructure includes classrooms, tutorial rooms, laboratories, and seminar halls. These classrooms and seminar halls are furnished with modern amenities such as LCD projectors, sound systems, internet connectivity, digital smart boards, comfortable furniture, adequate ventilation, and effective lighting. Institute has 01 Interactive touch panel display, 08 Interactive smart classroom board, 10 biometric time and attendance system, 10 lecture capture system. An Enterprise Resource Planning (ERP) system is in place for student support, finance and account, academic administration and examination. The laboratories are consistently maintained and updated to ensure their relevance, equipped with cutting-edge equipment. A specially configured five-axis industrial robot is present in the Robotics laboratory, capable of executing five distinct arrangements or operations. The institute having research laboratory with an Environmental Discovery System (EDS), Bearing Life Testing, four Ball Tester, etc. The workshop contains various facilities for practical work in mechanical areas like machine work, fitting, carpentry, etc. For Internet access and computing, the institute boasts a substantial network of 1090 computers with a 500Mbps bandwidth and 40 Wi-Fi access points. Data security is monitored by the centralized Sophos XGS 3300 Firewall system. The library is well-furnished with 37,014 printed books, 16,044 e-books, 91 national journals, and 1,016 e-journals, web-based resources, audio/video materials, and Slim 21 software. Library has a separate reading hall with 300 seating capacity. An information kiosk and RFID system improve the overall library efficiency. The Training and Placement (T&P) cell operates with dedicated infrastructure, including a separate seminar hall and interview rooms. The institution has facilities such as ramps and elevators for physically impaired students. Electronic surveillance enhances security with 140 CCTV cameras. Separate agencies are appointed for housekeeping and security duties. A fire fighting system with smoke sensors is available in the institute. Institute provide facilities for crafting models in diverse clubs and activities such as Robotics, Drone Club, Aero-Design Club, Garudashwa, BAJA, SUPRA, GO KART, and EFFICYCLE. Additional amenities include a central public address system, canteen, stationary store, and ATM services. Common rooms for boys and girls, an NSS room, a magazine room, and a sick room are also provided. Furthermore, the campus provides separate hostels for boys and girls, as well as transportation services. An ambulance is readily available in campus for emergency transportation.

The Institute has established a Gymkhana Department to supervise the organization of sports, cultural events, and the annual publication of the institute magazine. The institute offers a range of outdoor and

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indoor sports and cultural facilities, including: Outdoor Games: Cricket, Football, etc. and Indoor games: Table tennis, Chess, etc. A gymnasium facility is available to both students and faculty, with a dedicated Gym instructor. Additionally, there is a Yoga center within the institution that hosts various activities. The AISSMS COE Art Circle is well-equipped with a variety of musical instruments to nurture diverse talents, reflecting our dedication to fostering a comprehensive educational experience.

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

#### 4.1.2

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

Response: 23.47

# 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
431.82	181.94	99.03	320.17	288.94

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
Provide Links for any other relevant document to support the claim (if any)	View Document

# 4.2 Library as a Learning Resource

#### 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

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#### faculty and students

#### **Response:**

The Library is place where information becomes knowledge. Institute Central Library is using Slim21 library management software as well as Open Source software's for Automation of Library Services.

Institute library is automated with Library Information and Management System (SLIM) software having version 21. The library web OPAC link is provided on the website. The RFID system is implemented in the Library which is helping students and faculty for faster, easier check-in and checkout of library materials. RFID-enabled security gates are useful for anti-theft dictation. To access the library resources information kiosk system is installed in the Library. Kibo software (multilingual translation) is utilized by the library to provide translation services.

The Library is subscribing to various print journals, newspapers, magazines, e-Journals (Science Direct, IEEE, ASME, ASCE, Springer, MC Graw Hill, N-List, Delnet) and e-books, (Schand, NewAge, Person Pub.) All database links are made available on the website. The library database is accessible to faculty and students via a remote access facility. The library is also an institutional member of Indian Institute Technology Mumbai, Automotive Research Association of India, and Vasantdata Sugar Institute Pune. Previously Turnitin software was available from 2022-2023 now Drillbit is used for plagiarism-checking. Students are informed by the library about E-learning platforms such as like NPTEL, IIRS Coursera and EDX (during the COVID period). Wi-Fi facility is available in the Library and Reading hall.

Open Education Resources Platform Link are given on the library website with DOAJ (Directory of Open Access Journals) Search box integration. Rare Books, open source books, and previous year question papers, are made available for students and faculty through Caliber open source software. Dspace open-source software is used to build an institutional repository. The library is using social media platforms for information dissemination like the Library blog. The library continuously organizes workshops, and conferences for library professionals on various Library related themes. The Library also conducts activities like, story telling competitions, Author meets and training sessions on access to e-resources in online and offline modes. Vidwan platform is made accessible for faculty and students. The Library has also formed the National Digital Library of India Club.

The library has spent 17.13 Lakhs on books, 14.63 Lakhs on journals, 16.19 Lakhs on e-journals, 8.02 Lakhs on e-books, and 14.95 Lakhs on an RFID project over the last five years.

The library's aims to encourage an increasing number of students, faculty members, and researchers to utilize a variety of library resources. The SLIM 21 software has facilitated a total of 89,002 transactions. The library has recorded a footfall of 107,415 visitors. Additionally, there have been 107,415 downloads from the library's E-resources. The cumulative number of remote access logins during the last five years is 30,667. The library blog is progressively gaining popularity up to the present day. The Library blog has received a total of 50332 visits.

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

The Institute is committed to providing state-of-the-art IT infrastructure and services. With the growth of users, IT services and increasing internet bandwidth demand, the institution has scaled up the switching capabilities and implemented latest managed through optical fibre cables and Wi-Fi access. The Institute has high-end core switches and servers. The upgradation of computer systems is taken up on periodically. The printers and scanners are also upgraded with new additions to the laboratories, office, library and departments. The IT infrastructure is continually upgraded. The bandwidth has been progressively increased from 50Mbps to 500 Mbps over a period to suit the demands. For ease of access, all blocks have been enabled with Wi-Fi. All the seminar halls and classrooms have been installed with LCD projectors. Biometric scanner based attendance capturing system is upgraded for faculty members. Institute has 01 Interactive touch panel display, 08 Interactive smart classroom board, 10 biometric time and attendance system, 10 lecture capture system.

#### **Description of IT facilities**

The IT facilities available in our college can be summarized as follows,

#### **LAN Facility**

There are 45 data network switches (Giga /Megabyte) and 121 CCTV 1 & 2 mega pixel Cameras with 2TB storage. 500 Mbps of internet connectivity is shared across the campus.

#### Server configurations in computer centre

There are 02 servers with HP and IBM Xeon Processor, 8 GB RAM, 1.0 TB hard drive, which are served as online examination and lecture capture system.

#### Work station

1090 desktops are provided to all department labs with configuration of Intel core i3, i5 (2nd, 4thand 7th generation) 4GB and 8GB RAM, 500GB and 1 TB hard disks with LAN connectivity.

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#### **Software**

Windows systems and applications, ERP Cloud based, Microsoft Campus Agreement, including Intune Open and Office 365 Pro Plus Open Faculty, Sophos XGS 3300 Firewall, Seqrite antiviruses Software etc. Also Utilize open source operating systems like CentOS, Ubuntu, and Fedora as well. The institute's language laboratory is equipped with Orell Talk pro-version (lifetime license) software for 500 users. Microwind Software, MATLAB, ANSYS, Altair Hyper Works, Master CAM X9, Solid Edge ST8, PTC Creo 3.0, Proteus 8.0, Multisim, Auto CAD Civil 3D, and more application software are available at the institute. These software are updates regularly such as MATLAB has been updated from version 10 to 16, while ANSYS has progressed from version 10 to 17.

#### **Printers**

56 Laser jet printers, 5 Xerox machines are provided across the campus for academic and administrative purposes.

#### Updates and up gradation

Updates are maintained regularly through WSUS (Windows server Update service) and antiviruses, firewall are updated through cloud portal.

#### Wi-Fi

40 Extendable Wi-Fi access points are placed from 15/4/2023 in various places like library, corridor, Labs.

Wi-Fi access is provided to all the students which is monitored and controlled by Omada application server at the computer department for secure content access. All access points are routed to a Wi-Fi controller in the Computer centre where configuration and updates are maintained in a centralized fashion.

.

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

#### 4.3.2

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

Response: 3.78

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

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Response: 820			
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		
Provide Links for any other relevant document to support the claim (if any)	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: 48.68

# 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
527.21	526.11	495.78	628.79	563.73

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
Provide Links for any other relevant document to support the claim (if any)	View Document

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# **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: 73.69

# 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
2495	2405	2286	2038	2060

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.	<u>View Document</u>
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	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
Provide Links for any other relevant document to support the claim (if any)	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: 95.85

# 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
2463	3105	3186	2898	3024

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

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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
Provide Links for any other relevant document to support the claim (if any)	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: 62.07

# 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
361	517	555	436	456

### 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
724	772	788	726	736

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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:** 11.75

# 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
39	34	49	35	10

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	<u>View Document</u>
Provide Links for any other relevant document to support the claim (if any)	View Document

## 5.3 Student Participation and Activities

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#### 5.3.1

Number of awards/medals for outstanding performance in sports/ cultural activities at University / state/ national / international level (award for a team event should be counted as one) during the last five years

**Response:** 71

# 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	
21	23	01	11	15	

File Description	Document
Upload supporting document	<u>View Document</u>
list and links to e-copies of award letters and certificates	<u>View Document</u>
Institutional data in the prescribed format	<u>View Document</u>
Provide Links for any other relevant document to support the claim (if any)	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: 53.6

# 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
77	62	10	61	58

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

### 5.4 Alumni Engagement

#### 5.4.1

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

#### **Response:**

The Institute established the Alumni association in the academic year 2014-15.

The main mission of the association is to cultivate a dynamic and mutually beneficial relationship between alumni and the institute by promoting engagement, establishing regional chapters, nurturing interest in institute development, facilitating student placements, encouraging research and development, mentoring for higher education and character development, providing scholarships, guiding towards entrepreneurship, supporting professional avenues, fostering industry-institute interaction, aiding regional bodies in entrepreneurship training, endorsing involvement in sports and extracurricular activities, promoting computer and internet literacy, offering medical support to staff, organizing debates on social issues, contributing to environmental conservation and anti-pollution activities, extending assistance to victims of natural calamities, guiding against anti-drug and anti-ragging activities, publishing for public interest, and arranging blood donation, eye donation, and health awareness camps.

Sighting the above objectives of the Alumni Association Institute alumni contributes in many ways to the development and betterment of Institute. Students and Institute benefit in various fields such as student placement, training, Internship, expert lectures, career guidance sessions, Industrial visits, and mentoring. Alumni are contributing in different ways, One of Institute Alumni has contributed **Rs 2.5 Lakhs** in Lab Instruments for research work. The alumni of the Institute are guiding and nurturing students to become engineering professionals. To develop everlasting relations with alumni which in turn will give rise to mutual benefits. Alumni are technically and financially supporting students for participating and organizing different technical events at National and International level. The Events like Baja, Supra, Garudashwa, Engineering Today a Technical Symposium, etc. have vital contribution of alumni. Not just in technical but in cultural and sports activities alumni support students to perform better in the programs arranged at different level.

Institute organize Alumni meet on regular basis. In each alumni meet batch wise distinguished alumni are felicitated by the institute. The new initiative for interaction with alumni an event named "Coffee with Alumni" was designed by the college for the current students, alumni and faculty. During the academic year 2020-21, due to pandemic situation, the initiative was taken by individual departments to conduct online alumni meets. These online meets were a great success and it was upheld by alumni. As the platform was online, the alumni located globally could attend and exchange their views. Departments of Institute also organise the Alumni meet at department level to encourage the active participation of alumni in department, for guiding the current students.

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Institute has fully devoted website for the Alumni Association (https://alumni.aissmscoe.com/). Different event announcement and other student's alumni association activities like job posting, internship, alumni meet glimpses and alumni connects, etc. This helps students of institute in networkwing, placement, internship, and carrer guidance from alumni.

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

## 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:**

Institute is run by All India Shri Shivaji Memorial Society established by Rajarshi Chhatrapati Shahu Maharaj in the year 1917 for the noble cause of education and moto of society is "Truth is Eternal".

#### Vision:

"Service to society through quality education"

#### Mission:

- Generation of national wealth through education and research
- Imparting quality technical education at the cost affordable to all strata of the society
- Enhancing the quality of life through sustainable development
- Carrying out high-quality intellectual work
- Achieving the distinction of the highest preferred engineering college in the eyes of the stakeholders

Vision of the institute which is in line with the vision of All India Shri Shivaji memorial Society emphasis quality education with the involvement of all the stakeholders. Well defined mission statements are guiding paths for the overall working in the institute.

Administration and leadership works with progressive approach in accordance with the vision and mission of the institute. The governance structure of the institute includes the Governing Body (GB), College Development Committee (CDC), Internal Quality Assurance Cell (IQAC), Department Advisory Board (DAB) and Program Assessment and Quality Improvement Committee (PAQIC) wherein internal as well as external stakeholders contribute towards the vision and mission of the institute. Institute level committees such as academic development and monitoring, research and development cell, industry institute interaction, alumni engagement, and grievance redressal committees also plays an important role in the overall administration. The Principal receives support from Heads of Departments (HODs), Administrative Head, and various cell/committee coordinators in the decision-making process. Understanding the importance of quality of education, every attribute of technical education is focused through delegation and by forming different committees. Committee coordinators are delegated and empowered with accountability of decisions related to their assigned portfolio with continuous motivation to work for set objectives. Head of departments have authority to organize various activities for the overall development of students and faculty as well.

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Individual faculty members are also encouraged for administrative work and decision making processes in addition to their teaching responsibilities. As a guardian faculty member, mentor, member of various committees, faculty advisor of various student chapters' / clubs, faculty, decentralization and participative management in the institute is ensured.

Institute has set goals for the sustained growth and works in line with strategic plan of the institute focusing major aspects such as excellence in teaching - learning and academic processes, infrastructure and learning resources, research and innovation, collaborations, interaction with outside world, professional and holistic development of students and branding of the institute. The institute fosters learning habits and creativity through interactive teaching methods. The project-based learning approach ensures students gain practical skills and industry-relevant experience. We maintain strong industry partnerships to provide real-world exposure and opportunities for internships and projects. Continuous quality improvement and entrepreneurship programs further equip students for success in a dynamic world, emphasizing sustainable development and teamwork.

In view of the implementation of NEP 2020 institute has been taking initiatives as per the guidelines given by affiliating university SPPU. Awareness sessions, registration of students for academic bank of credits, focus in experiential learning are the areas where institute has been focusing. At the same time, in view of proposed autonomy, institute is working on curriculum and syllabus development as per the NEP guidelines.

File Description	Document
Upload Additional information	View Document
Provide Link for 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:**

Institute has been taking various strategic initiatives referring the suggestions and recommendations received from all the internal and external stake holders, from various statutory and accreditation education bodies are also taken into consideration.

Major aspects focused in the perspective plan are Excellence in Teaching - Learning and Academic Processes, Infrastructure and Learning Resources, Research and Innovation, Interaction with Outside world, Industry Institute Interaction, Holistic Development of Students and branding of the institute.

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Some of the initiatives and deployment outcomes in the focused areas are as follows.

- 1. Implementation of Outcome based Education (OBE)
- 2. Provision of smart class rooms, lecture capture room and use of ICT based innovative teaching methods.
- 3. Digitization of library, making library as a knowledge center
- 4. Accreditation from National Board of Accreditation (NBA) for six programs offered by the institute.
- 5. Start of PhD research centers in five departments.
- 6. Start of new UG and PG courses: BE in Robotics and Automation, ME E & TC (IoT and Sensors and ME (Artificial Intelligence and Data Science) in 2022. BE (Electronic Engineering VLSI Design and Technology) in 2023.

The institute follows principles of decentralization, participative management, and collaborative decision-making. The governing body is the highest decision making body, constituting members of the management, Principal and nominated faculty members. College Development Committee includes representatives of members of society, Principal, three members elected from teaching faculty and one member of non-teaching staff. Regular meetings of these committees are conducted for developing various policies and plans which are communicated to faculty through Head of Departments.

Institute has a defined organization structure with defined roles and responsibilities of various portfolios and committees of administrative set up. Through institute level committees, policies and procedures are defined for every important aspects of quality education such as academic planning, academic infrastructure, academic monitoring, code of conduct for students and faculty, administrative support to students through student section, examination section, scholarship section, training and placement (CITP)) and library.

Institution has established Internal Quality Assurance Cell (IQAC) to ensure the culture of quality in the institution and deployment of plan and policies through all the department and committees which are also discussed and approved in DAB and PAQIC meetings.

Institute follows all the defined service rules, policies and code of conduct laid down by AICTE, UGC, Government of Maharashtra and SPPU and is documented in "Quality Assurance and Standard Operating Process Manual" and is also made available on Institute website. Every employee of the institute is made aware of rules of the service, recruitment and promotion.

File Description	Document
Upload Additional information	<u>View Document</u>
Institutional perspective Plan and deployment documents on the website	View Document
Provide Link for Additional information	View Document

#### 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
Provide Links for any other relevant document to support the claim (if any)	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:**

The institute provides effective welfare measures and performance appraisal system which helps to create positive workplace environment supporting personnel for professional development.

Institute has adopted 360 degree PBAS PROFORMA, performance based appraisal system as per the

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AICTE recommendations. At the end of every semester, a self-assessed and duly filled form by faculty is evaluated by respective HOD and Principal. PBAS system inspires faculty for innovative teaching-learning methods, contribution in department and institute level various academic and techno social activities. PBAS also motivates faculty for research work, development of e-content, interaction with outside world and for professional development through continuous learning to address the stakeholders need.

Institute has defined policies for motivating faculty for joining various faculty development programs, for undertaking research and consultancy projects which has been resulting into professional development of faculty. Based on the performance, faculty availed promotions, increments in salary and appreciated for outstanding performances. Faculty also motivated to interact with outside organizations such as professional bodies, affiliated university which consequently helping faculty for career development.

Institute has well defined Performance Appraisal System for non-teaching staff which observes performance parameters such as capacity to get the work done by subordinates, relations with colleagues, physical ability, technical ability, obedience and punctuality. The integrity and their character are also reviewed. Filled in form by staff is reviewed by HoD and analyzed by the Principal. After the evaluation every concerned staff is either appreciated or directed for further improvements.

Following are the some of the schemes / benefits offered by the institute to the staff.

- Group Insurance is provided to staff.
- Accidental Insurance are given to all employees who desires to avail. The amount given as advance is thereafter deducted from monthly salaries.
- Uniform are provided for faculty and staff:
- Maternity leave: 6 Months maternity leaves are provided to women employee
- Medical and Earned leaves: This facility is provided to teaching and non-teaching staff.
- Gratuity: Gratuity is received by an employee in gratitude for their services offered to the institute.
- Employees' Provident Fund is deposited along with same contribution from institutes' side.
- Doctor on call: This facility is available for all staff and students. Doctor is available as and when required
- Employees Co-operative Credit Society: The loan facilities are given to all employees working in the institute.
- Employees Co-operative Credit Society: Cooperative society works for the welfare of the employees and their family members. Loan facility is available.
- Encouragement and motivation for research work and higher studies: Financial assistance of Rs.1 Lakh or study leave as per requirement is provided.
- Gymnasium facility
- Laptops to HoD s for better connectivity and networking

Friendly workplace environment and all the welfare measures fosters education ecosystem within the institute. Interaction of faculty with industry, professional bodies, research and academic institutions provides wider platform for professional development. This, in turn, helps students to acquire knowledge and skills required for professional world.

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

#### 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: 52.21

# 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
89	152	70	37	65

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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
Provide Links for any other relevant document to support the claim (if any)	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:** 57.57

# 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
172	179	176	160	100

### 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
119	115	116	116	110

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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	<u>View Document</u>
Copy of the certificates of the program attended by teachers.	View Document
Annual reports highlighting the programmes undertaken by the teachers	View Document
Provide Links for any other relevant document to support the claim (if any)	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 has a well formulated financial policy which ensures effective and optimal utilization of finances for academic, administrative and development purpose which help ultimately in realizing the institute's vision and mission.

#### Mobilization and optimal utilization of resources and funds

The Institute ensures adequate funds for development and maintenance through various sources of funds as follows:

- Fees from students of UG (BE), PG (ME), and Ph.D. candidates.
- Institute faculty gets funds from national agencies such as AICTE for programs such as FDP, Conferences, Travel grants for student competition, Refresher Programs, etc

The funds received from various agencies like AICTE, University or any other organization for conducting Research, FDP, Refreshers Course, Travel grants etc is utilized for specific activity for which it is sanctioned. Physical resources are also utilized for various activities such as social awareness, conduction of various government/nongovernment exams.

The Institute has a well-defined procedure to monitor effective and efficient utilization of available financial resources for infrastructure development and academic processes. Every year, the budget is prepared well in advance after taking into consideration the requirement of every Department, salary, infrastructure development and maintenance, library etc. Each Department prepares the budget based on

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the requirement such as equipment, computers, software's as well as consumable required for next academic session. Principal puts up the budget in Governing Body meeting and after discussion with necessary corrections/modifications, Governing Body recommends the budget for approval. The budget is reviewed by the management and approved after necessary changes. As and when required, the institute makes a provision for advance additional fund.

The Management has given complete support to Principal for organization of various co-curricular & extra- curricular activities like technical events, sponsoring of faculty & staff for various skill development programs, providing financial support for attending conferences, workshops, pursuance of higher education etc. Financial support is also provided for participation of students at various national and international level events.

The Society has constituted a separate purchase Committee comprising of Management representative, Principal & college concerned staff. The purchase procedure such as calling quotation, technical bid, preparing comparative statement, negotiation meetings are followed for effective and efficient use of available financial resources. The committee ensures that suitable equipment with right specification is procured at competitive and optimal prices.

Financial audits are conducted by Society and a statutory auditor every financial year as per the standard established process of Audit. The Society ensure that the funds have been utilized as per the budget sanctioned every year. Also they ensure that the payments are made through cheque/NEFT/RTGS. Actual expenses are periodically checked and verified with budgeted expenses.

The Financial statements are prepared after due Audit of all income and expenses by following standard accounting procedure.

Institute account linked through PFMS is maintained for the grants. The external audits of the utilization of funds received through various grants by government or nongovernment agencies are done with respect to the mandate requirements of the schemes. Every year, statutory financial audits are carried out externally.

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

# **6.5** Internal Quality Assurance System

#### 6.5.1

Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the

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#### incremental improvement in various activities

#### **Response:**

Internal Quality Assurance Cell (IQAC) has been contributing to develop a mechanism to build and ensure quality culture at institute level. Various quality initiatives have been taken to improve the academic and administrative performance of the institution. Standardizing and institutionalizing of various formats, procedures is done aiming at excellence in Teaching - Learning and academic Processes, infrastructure and learning resources, research and innovation, interaction with outside world, industry institute interaction, professional holistic development of Students. IQAC has defined Annual Report format and procedure for maintaining documentation of all the student and faculty contributions which are verified in the annual academic and administrative audit. Formulation of institute level committees, "Overall Best Department Trophy" on annual basis, celebration of "Dr. A P J Kalam Innovation and Start Up week", interdepartmental project competitions on annual basis, practice of "Course Activity" for encouraging experiential learning and "Class Study Circle" are the few important practices initiated by IQAC and implemented effectively. Institute level committees, department advisory boards (DAB), program assessment and quality assurance committees (PAQIC) are supporting in the implementation of quality initiatives. Review and follow up for the same is taken in the meetings of head of department on weekly basis. At department level, meetings of faculty are conducted by head of departments on weekly basis. Meetings of class guardian faculty members (GFM) is conducted by Head of Department and department academic coordinator on fortnightly basis, mainly to take review of teaching learning processes.

All the departments have formulated PAQIC following the guidelines issued by IQAC. PAQIC meets twice in a semester to take the review of implementation of outcome based education (OBE) and incremental improvements in various activities. Meeting of department advisory board is conducted once in a year wherein external stakeholders are involved. Major outcomes of PAQIC meetings and HoD meetings are put up for approval in the DAB meeting.

For reviewing teaching learning process on continuous basis, academic google form and weekly activity report is shared with faculty on weekly basis in which faculty update their teaching – learning and academic contributions. ERP software is also used for monitoring teaching learning process including attendance of students, teaching plan, etc. Benchmarking sheets are prepared by departments at the start of academic year to ensure incremental improvement in all the academic activities.

Referring the SPPU academic calendar, institute level academic calendar is prepared by IQAC, in line of which all the departments prepare department academic calendar. Department conducts various activities referring activity plan sheet and annual report issued by IQAC. Annual report contains individual faculty contribution, activities organized, research contribution, details of interaction with industry. In addition to this, it contains, academic results, infrastructure and students' achievements. At the end of academic year, academic and administrative audit of all the departments is conducted to take review of follow up of all the initiatives taken by IQAC and improvement in various activities are recorded. Involvement of stakeholders with their representation on various committees and through collection of feedback for curriculum and its delivery, infrastructure and facilities, etc. is ensured.

In overall, IQAC of the institute is contributing in developing quality culture in the institute.

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File Description	Document
Upload Additional information	View Document
Provide Link for 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

File Description	Document
Quality audit reports/certificate as applicable and valid for the assessment period.	<u>View Document</u>
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
Provide Links for any other relevant document to support the claim (if any)	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:**

All India Shri Shivaji Memorial Society's College of Engineering is unwavering in its commitment to fostering Gender Equity, guided by core values that supports the Freedom of Thought and Expression. The Institute firmly believes in evaluating individuals based on their commitments and actions, rejecting biases related to gender, race, religion, physical abilities and sexual orientation. This commitment permeates every facet of the campus, nurturing a climate of ethical conduct, respect, responsibility, and trust. The institute proactively addresses the issue through a diverse array of programs, including expert talks and workshops such as 'Prevention of Sexual Harassment at Work Place', 'Gender Equality: Let's Rise from the Shadows' etc. supported by a dedicated group and budget, these initiatives are guided by experts and information about them is widely disseminated across the Institute through various campaigns.

For empowerment of women, the institute has established a 'Vishakha Women's Grievance Cell' to address the issues such as unfair treatment or harassment. At present, the institute has 40 % female faculty and 28% female students. The institute has provided separate facilities such as ladies room, sanitary vending machine etc. The Institute maintains a robust culture of fairness for its female employees and students, evident through careful security measures, stringent anti-bullying rules, and separate accommodations for student's residents. The institute actively encourages and supports women employees and girl students to take on leadership roles, leading teams at various levels.

For counselling, the institute offers diverse support mechanisms with specific female mentors available for counselling needs. Efforts are being taken to raise awareness about gender issues include encouraging participation in activities such as sports and community programs. The Institute organizes events to aware gender-related challenges and solutions. These events serve as platforms for sharing experiences, fostering understanding and promoting a culture of inclusivity.

Beyond educational initiatives, the institute ensures that its policies and procedures align with the principles of gender equity. The Institute regularly reviews and updates guidelines to create an environment free from discrimination and bias. The statistics further underscore commitment to gender equity. The percentage of female admissions, General Secretary Association members, and participants in sports and cultural activities stands at 25%, 30%, 19%, and 31%, respectively. These numbers highlight not only the presence of a strength of female students, but also their active involvement in leadership roles. It is a clear indication of ongoing efforts to promote gender equity and foster an enriched environment for all.

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Furthermore, institute encourages collaborative efforts with external organizations and experts working in the field of gender equity. By fostering partnerships, the Institute aims to stay informed about the latest developments, share best practices, and contribute to the broader societal conversation on gender issues.

In conclusion, AISSMSCOE's commitment to promoting gender equity goes beyond rhetoric, manifesting in concrete actions, policies, and programs. The Institute recognizes the multifaceted nature of the challenge and addresses it comprehensively, fostering an environment where everyone, irrespective of gender, can thrive and contribute to the academic community. Through its steadfast dedication to these principles, AISSMSCOE sets a commendable example for other educational Institutions, demonstrating that a commitment to gender equity is not just a statement but a lived reality on its campus. The equal opportunities are given to females and are actively participates in leading teams at various levels.

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

#### 7.1.2

#### The Institution has facilities and initiatives for

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

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

File Description	Document
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
Provide Links for any other relevant document to support the claim (if any)	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	<u>View Document</u>
Green audit/environmental audit report from recognized bodies	View Document
Certificates of the awards received from recognized agency (if any).	View Document
Provide Links for any other relevant document to support the claim (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 of citizens (Within 500 words)

#### **Response:**

The Institute has successfully cultivated an inclusive environment for Students, Staff and Faculty members through diverse activities organized by the NSS, Sports, and Cultural Committees. Embracing individuals from varied cultural, regional backgrounds and regular Blood donation camp, the Institute hosts events like Shivanjali, Engineering Today /Technical Symposium, Author Meet, and Traditional days, fostering tolerance and harmony to create a culturally and regionally inclusive atmosphere.

In addition to annual flag hoisting ceremonies on Republic and Independence Day, the Institute conducts activities such as guest lectures on the Constitution of India, Human Rights, guidance sessions for Sensitizing of students and employees to the constitutional obligations. The trust being founded with the

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great values of Visionaries promoting human values and education, special celebrations like Shahu Maharaj Jayanti and Shiv Jayanti take place on a large scale within the education complex, introducing cultural rituals to the younger generation. On June 26th every year, all 18 Institutes gather for this observance, with management members and chief guests addressing the gathering and reflecting on Chh. Shahu Maharaj's impactful work during his tenure in the Kolhapur Sansthan.

During the pandemic situation, as Institute sessions shifted online, the Institute emphasized the importance of tree plantation. Faculty members, Staff and students were encouraged for tree plantation. Throughout the year, the Institute engages in various activities, including Sports week, Treks, International Yoga Day, Guest Lectures on Disaster management, NSS winter camp, blood donation camp, Swachata Abhiyaan, NSS day, and awareness programs on HIV–AIDS and Organ Donation. These initiatives aim to inculcate a sense of duty and responsibility among citizens, contributing to the building of a healthy nation.

During natural disasters such as floods or pandemics, the Institute's Faculty Members, Staff and Students actively participate in relief efforts, including donations of groceries and clothes, distribution of sanitizers and face masks, and conducting family surveys. Notably, all Employees donated one day's salary in September 2019 to the Chief Minister's Relief Fund in Mumbai for supporting those affected in Kolhapur, Sangli, Satara, and the Konkan Region. For promoting inclusivity, the Institute organizes various activities such as World Environment Day, Tree Plantation, Spitting Kills Campaign, Kargil Vijay Divas, Raksha Bandha, Food Distribution Drive, World AIDS Day (Awareness Drive), Human Rights Day, Cleanliness Drive, and street plays addressing social issues like women's literacy as well as electoral literacy. As an outcome of this initiative one of the students was felicitated, awarded and is now working as a member of Electoral Committee, Maharashtra state. Images and works of great promoters of education and science are displayed on the walls of the Institute for inspiring the budding engineers.

The Institute upholds a code of conduct for students, accessible on the Institute website and thoroughly explained during the Induction Program. Encouraging students to serve the nation, the Institute arranges expert sessions with eminent personalities from Defence, Civil Services, Medical expert. Entrepreneurs, and Engineering fields. The Institute's core values such as Leadership and cultural heritage, Honesty and Integrity, Freedom of thought and Expression, Excellence, Accountability and Transparency, Encouragement and Social Responsibility which significantly contribute to the creation of an inclusive environment through activities facilitated by NSS, Sports, and Cultural Committees.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for 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 I: Integrative Learning of Students through Clubs and Chapters

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

- To facilitate holistic development of students.
- To foster creative thinking and innovative problem-solving abilities.
- To enhance managerial capabilities through diverse roles, promoting a comprehensive educational approach beyond academics.
- To enable the students to develop a sense of culture and values.
- Nurturing strong sense of social self-directed learning and communication skills.

#### **The Context:**

- Institute being an affiliated Institute, Student have a limitation of hands-on learning opportunities.
- Student centric activities provide opportunities for the overall development of the students.
- Clubs and chapters play a vital role in nurturing a strong sense of community, empowering self-directed learning, and enhancing communication skills.
- The student-centric activities at institute leverage technology for interactive learning, emphasizing both theoretical comprehension and practical application.
- Through these activities, institute receives accolades at state, national, and international levels.

#### The Practice:

- The chapter and clubs are formed according to the technological and social requirements.
- Session are organized to Aware Students about different chapters and clubs.
- Faculty advisors are appointed to guide and ensure the excecution.
- The students are guided for solving multidisciplinary problems by academic as well as industry experts.
- The participating students are instructed well in advance about the format, conduct and assessment methodologies.
- The requisite provision of fund is provided by institute, Professional bodies and sponsors.
- The commitment to strengthen industry-institute interaction is evident in the organization of expert lectures, workshops, and industrial visits.
- These events inculcate learning habits, foster creativity and innovation, promote project-based learning, strengthen industry-institute interaction, ensure continuous quality improvement, develope entrepreneurship skills, nurturing teamwork, catalysing all-round student development, and contributing to sustainable development through technology while participating at University, State, National and International levels

In essence, unique approach to hosting professional student chapters and clubs reflects a commitment to holistic education and development.

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

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Institute has fostered a culture of remarkable success, evident in students consistently securing prestigious national and international awards, showcasing the Institution's commitment to holistic student development. The SAE club's victories in renowned events, winning the IE(I) National Best Students' Chapter Award for nine times highlight the practical skills instilled. Internationally, student achievements through the IUCEE chapter and SAE Aerodesign & TRIZ chapter reflect institutes global impact. 'Kavyansh' receiving the Best Magazine award. Over the past two decades, student clubs have amassed numerous awards 34 (2018-19), 36 (2019-20), 10 (2020-21), 36 (2021-22), and 62 (2022-23), 17 (2023-24) with mBaja and REEV teams securing the All India Rank One Prize, SESI Chapter won awards for maximizing Solar literacy.

#### **Problems Encountered and Resources Required**

- Leadership turnovers between academic years are effectively managed with involvement of experienced senior students and alumni, ensuring seamless transitions.
- Maximizing student and activity involvement poses financial challenges for managing club finances. The institute tackles these challenges adeptly by providing adequate funding and sponsorships.
- Problem in getting visa for international competitions.
- Academic calendar management challenges addressed through better planning.
- Late-hour work raises parental permission challenges, but Institute security and care address them.

The dedication and success of institute Clubs and Chapters features the institution's commitment to holistic student development and excellence in education.

#### **Best Practice 2: Campus to Community Connect**

#### **Objectives of the practice:**

- To serve the community through technical knowledge
- To strengthen bonding between the institute and community.
- To sensitize students to address real-life societal development challenges and implement solutions for local issues such as water, energy and health.
- To foster partnerships with communities to leverage knowledge and wisdom, while bridging the gap between the institute and community.

#### The context:

- There is nothing more beautiful than someone who goes out of their way to make life beautiful for others.
- Inline of vision of institute, the institute takes classroom learning into practice to provide solutions for real-life problems through the campus-to-community connect practice.
- National Service Scheme play vital role in implementing the holistic approach grounded in principle of social justice, social equality and social empowerment.

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• Through these activities, institute has received honours at state and national levels.

#### The Practice:

- The institute adopted five villages and identified the local real life problems.
- After rigorous surveys institute identify diversified challenges in the areas of water, energy, health, infrastructure, environment and agriculture.
- The institute start working on these problems, designing solutions, and effectively implementing them.
- In addition to that the awareness programs are conducted in the adopted villages.
- In the water sector, issues such as wastewater management and drinking water quality are identified.
- During survey,in the local community health issues were observed due to impure water.
- In this program, the participating students and staff are instructed well in advanced about the program.
- The participants are appreciated, and volunteers are felicitated with certificates, medals and trophies etc.

Thus, the campus-community connect plays pivotal role in developing social skills by building qualities of ethical and responsible citizens. It also improves student health and wellbeing, mitigate social and ecological problems, and nurture institute-community relationships.

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

- The severe drinking water crisis due to the percolation dam constructed by Government agencies is identified in Kalyan village and discussed in Gram Sabha.
- To address this, institute initiated manual and satellite surveys as decided Gram Sabha and prepared a result sheet.
- Gram Sabha approved the repair of the percolation dam.
- The proposal was presented in the ZP official meeting, and the Government of Maharashtra sanctioned it as a pilot project with financial support.
- Currently, work on the percolation dam is in progress, and upon completion, it will effectively resolve the water crisis in Kalyan village, providing water for drinking and agricultural purposes.
- Open drainage caused problems in both Malvandi Dhore and Tulapur villages, but the institute constructed cost-effective and efficient soak pits to address this issue, both villages have become open drainage-free.
- Water ATM is installed in Malvandi Dhore in association with NGO.

Through this practice, Students realized that community problems can be solved with scientific and engineering solutions.

#### **Problem encountered and Resources required:**

- Not ready to adhere to change and non-cooperation by villagers.
- Schools, districts and states still require assistance in developing comprehensive programs.
- Delay in decision making process.
- in adiquate resources to interact with the community.

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Best practices as hosted on the Institutional website	<u>View Document</u>
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:**

Diversified collaboration for synergizing education.

Institute surpasses typical academic standards. Institute cultivate well-rounded leaders to tackle real-world challenges through the unique 'Diversified Collaboration for Synergizing Education' approach. This combines rigorous academics with various activities, aiding students in succeeding in all aspects of life. Institute commitment to serving society by providing high-quality education and a supportive ecosystem of co-curricular and extracurricular activities helps students become multidimensional personalities aligned with societal demands. Beyond conventional classrooms, AISSMSCOE offers state-of-the-art facilities to enrich student life in-line with National Education Policy 2020. Institute has diversified collaborations in the fields viz.:

- Academic (IUCEE, IE(I), ISTE, ISF, IEEE, IWWA, IGS, Vlab),
- Innovation and Research (IETE, TRIZ, SAE, Universities from Australia, USA, Malaysia and Nigeria),
- Technical (Ultra-tech cement, Automation Anywhere, Kone cranes),
- Social (SESI, Unnat Bharat, Rotary club, Gokhale Institute of Politics and Economics)

Along with academics the students have best of the facilities and guidance in Sports, Dance, Drama, Art, Music, or other Art Skills, there are dedicated spaces and resources to nurture talents. The Alumni are also kept engaged and these associations resulted in many activities which nurtured students with compassion.

Led by visionary leaders, Institute focus on student growth and support for faculty. Institute's goal is to connect students with society, empowering them to solve various problems sustainably. Institute aims to redefine success by combining academics with activities outside of class, helping students become well-rounded leaders. Within the Institute, leadership, including the Principal, Heads of Departments, and Portfolio Coordinators, plays a crucial role in motivating and providing facilities for the holistic development of students. A fundamental aspect of Institute's vision involves pursuing recognition from national certification bodies, ensuring third-party approval of the guaranteed quality of education and complete development. The Institute places a strong emphasis on the professional growth of its faculty. Comprehensive support to enhance technical capability includes funding for FDP, leave, travel, stay expenses, projects, research, certification courses, and incentives for scholarly achievements. Financial

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rewards include consultancy schemes and grants. The "One Faculty One Industry" initiative fosters meaningful connections between academia and industry. The Mechanical and Production Engineering Department have a unique Sandwich pattern in which the students undergo Implant training for one year out of four years of the program. This also resulted in many fruitful collaborations, which benefitted the other students too.

The emphasis on industry participation is evident through MOUs, Centre of Excellence, Internships, Industrial Training, Sponsored projects, and the Entrepreneurship Development Cell. These initiatives seamlessly integrate theoretical knowledge with practical industry insights, preparing students for the challenges of the professional world. Institute stands as a beacon of excellence in education, driven by a commitment to societal service, holistic student development, and strong ties with the industry. Institutional DNA is woven with the threads of quality education, visionary leadership, dedicated faculty, and empowered students who collectively contribute to the betterment of society.

Commitment to holistic education is evident through a comprehensive set of offerings. In the curricular domain, Institute provide cutting-edge tools and resources, including Virtual Labs (VLab), YouTube Channels, Lecture-Capture, ERP, an Advanced Library with remote access and e-Journals, and expert lectures. Institute support system is robust, covering mentoring, counseling, soft skills training, and state-of-the-art gymkhana facilities. In the co-curricular sphere, students participate in sports, clubs, national symposiums, technical events, Smart India Hackathon (SIH), cultural events, magazine publication, National Service Scheme (NSS) activities, and benefit from tie-ups with NGOs and Government agencies.

Furthermore, the achievements inspire students, showcasing the possibilities of success and leadership in various domains. Faculty members serving on national committees and boards contribute to the Institute's influence in shaping educational policies. This collective recognition contributes to a positive learning atmosphere, fostering a sense of pride and motivation among students, encouraging them to strive for excellence in their academic and extracurricular pursuits. In essence, the awards earned by Faculty members significantly contribute to the overall development of the Institute, creating a dynamic and inspiring educational ecosystem.

The Students excels academically with numerous gold medals and university rankers, showcasing academic excellence. In co-curricular events like Smart India Hackathon, wherein the team bagged first prizes in Hardware and Software editions. The teams fared well in the State-level Avishkar, where students exhibited innovation. Additionally, students have excelled in innovation competitions such as the i2e SPPU start-up competition and Motwani Jadeja Hackathon, earning accolades for their projects.

Cultural victories in Firodiya Karandak (competition of performing arts) and Vinodottam (One-act play) highlight talents beyond academics. Individual successes include participation in the Republic Day Parade, representing India at Bangladesh and recognition as a Student Innovation Ambassador. This diverse excellence fosters pride and motivation among students, creating a dynamic educational environment. Through the conducive ecosystem, students have achieved remarkable success across various platforms, showcasing their innovation. As an outcome students have received prestigious awards, recognizing achievements in areas such as education, research, sports, and culture. This also helps them realize their dreams in their chosen career and secure admission for the course at the Institute they sought.

The efforts have yielded remarkable outcomes, evident in numerous accolades and recognitions. The

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Institute has been awarded the Best Professional College by SPPU and Sakal media group, recognized as an Idol Maharashtra education excellence. Notably, it has received the Best Engineering College award under education excellence, placing a strong emphasis on placement and industry interface. Business Connect 2020 has acknowledged AISSMSCOE as the Best Engineering College in India. The Institute's achievements extend to National and International rankings, with a top position in the NPTEL Local Chapter and impressive ranks in surveys conducted by Chronicle Magazine and Times Engineering Institute Ranking Survey. The Institute has been accredited with NAAC A+ Grade (2018-2023) and holds recognition under section 2(f) and 12(B) of the UGC act, 1956. Committed to societal service and holistic student growth, the Institute has garnered notable recognition and awards, showcasing its dedication to quality education, industry engagement, and enriching the learning journey.

The success of AISSMSCOE lies in the achievements of students, who have consistently excelled in academics, research, sports, and culture, showcasing their well-rounded development. Through the synergistic education approach, institute continue to emphasize success and demonstrates commitment to holistic development.

File Description	Document	
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Any other relevant information	View Document	

# 5. CONCLUSION

### **Additional Information:**

AISSMS COE follows curriculum developed by Savitribai Phule Pune University (SPPU) with CBCS. Many senior faculty members have been contributing in the university activities as a member of board of studies, member of academic council and member of various academic committees appointed by university authorities contributing in curriculum development at a larger scale. Institute contributes in conduction of assessment of question papers through central assessment centers assigned by university to institute. Institute is always keen in organizing activities initiated by university such as curriculum development for university faculty, innovation related competitions like "AVISHKAR" and state level sports activities organized by the university. Head of the institute has worked as a President of University sports committee.

Faculty members of the institute are encouraged to work as a member of governing bodies of professional chapters at state and national level. Head of the institute and faculty are working as a designated authority for Institution of Engineers, IETE, IEEE, DELNET and many more. State and national level meetings of professional bodies are organized in the institute. Management of the institute is always supportive in providing infrastructure and facilities for pool campus drive, employment drive, state government examinations and academic activities initiated by different government and non-government organizations.

Organization of intercollegiate technical event "Engineering Today", intercollegiate sports event "Shauhu Trophy", intercollegiate cricket tournament "Chhatrapati Shivaji Trophy", have become the brand of AISSMS COE.

For outstation students, hostel facility is made available which are in and outside the society campus. Bus transport facility is also available for students from hostels to college premises.

ATM, copying machine and stationary store, canteen, sufficient parking space with CCTV and security personnel are making the campus supportive and barrier free.

War memorial historic fighter plane "CANBERRA" kept in the campus has become a landmark identity of the institute and a symbol of pride for institute.

With a balanced blend of academics, co-curricular, extracurricular, social and techno social activities institute management always trying for the best for overall development of students. In overall, with the involvement of all the internal and external stakeholders, Institute has been contributing in the nation development.

# **Concluding Remarks:**

All India Shri Shivaji Memorial Society's College of Engineering is a renowned educational institute in India. Along with academics, a variety of co-curricular and extracurricular activities are planned to assist students prosper holistically. Various curriculum enrichment programs, such as certification courses, value-added programs, and training programs, are offered to students.

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The institute has Innovation Council (IIC), IPR cell, R&D committee, start up and innovation cell and industry institute interaction committee to promote the research and innovation practices. The faculty have published over 700+ research papers in reputed journals and conferences. The institute has signed MoUs with national and international agencies. Wide spread alumni are also supporting the institute in providing real life exposure to students.

Institute has adequate facilities for academic, extracurricular, and administrative activities. The library is automated with SLIM 21 and RFID software, enriched with books, print journals, e-books, e-journals, and e-resources.

The institute has Grievance Redressal mechanism with the involvement of Internal Complaint committee, Anti-Ragging committee and Women's Grievance Cells for timely redressal of the concerned issues. Institute's CITP cell organizes On/Off/Pool campus drives along with aptitude and soft skills trainings and internships for students.

The institute's stable leadership and administration are progressive in line with its vision and mission. The institute is governed by the Governing Body (GB), College Development Committee (CDC), Internal Quality Assurance Cell (IQAC), Department Advisory Board (DAB), and Programme Assessment and Quality Improvement Committee (PAQIC). These committees involve internal and external stakeholders in the institute's mission.

The IQAC monitors the institute's academic excellence and continuous improvement ensuring development of the institute towards vision of the institute.

AISSMSCOE organizes awareness sessions and activities based on social values such as gender equity, environmental consciousness, energy sustainability, etc. 'Diversified Collaboration for Synergizing Education' approach creates well-rounded leaders by integrating rigorous academics with diverse activities to prepare students for real-world challenges. Campus-community connect promotes socioeconomic transformation in local areas with the sensitization of students towards social issues.

To summarize, AISSMS College of Engineering provides quality engineering education consistent with its vision, 'Service to society through quality education'.