# **SELF STUDY REPORT**

#### FOR

# **1st CYCLE OF ACCREDITATION**

# JSPM'S BHIVARABAI SAWANT INSTITUTE OF TECHNOLOGY AND RESEARCH

GAT NO 720 ( 1 AND 2) PUNE NAGAR ROAD, WAGHOLI, TAL HAVELI, DIST PUNE 412207 www.bsiotr.org

SSR SUBMITTED DATE: 19-01-2018

Submitted To

#### NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

#### BANGALORE

January 2018

# **<u>1. EXECUTIVE SUMMARY</u>**

#### **1.1 INTRODUCTION**

Bhivarabai Sawant Institute of Technology and Research (BSIOTR) is approved by All India Council for Technical Education (AICTE) and Directorate of Technical Education (DTE) Government of Maharashtra and Affiliated to Savitribai Phule Pune University (SPPU), Maharashtra State. The institute is self-financed private organization established in the year 2009. It is located at GAT No.720/1&2, Pune-Nagar road, Wagholi, Pune and its geographical location is latitude 18.58614 and longitude 74.003956. The institute is offering full-time five under-graduate courses and two post-graduate courses in engineering discipline. Five batches of students have graduated from the institute. The institution is committed to impart quality technical education to achieve vision and mission which are stated as below:

#### Vision

Satisfy the aspirations of youth force, who want to lead nation towards prosperity through techno-economic development.

#### Mission

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

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

#### **Institutional Strength**

- 1. Dedicated faculty members.
- 2. Student centric teaching- learning.
- 3. Student mentoring.
- 4. Infrastructure that is conducive to teaching and learning.
- 5. Exploring new techniques to enhance learning.

#### **Institutional Weakness**

- 1. Liaoning with research organization.
- 2. MOU 's with foreign Universities

#### **Institutional Opportunity**

- 1. Imbibing *entrepreneurship* skills to buddy entrepreneurs.
- 2. Student and faculty exchange program with institute of repute of National and International level.
- 3. Collaborative research with industries and research organization.
- 4. Enhancing consultancy.

#### **Institutional Challenge**

- 1. Changing learning style of students from exam oriented learning to knowledge based learning applicable to real life.
- 2. Making students ready for fast changing scenarios in industries.
- 3. Developing entrepreneurs.

#### **1.3 CRITERIA WISE SUMMARY**

#### **Curricular Aspects**

The Institution ensures effective implementation of planned curriculum in accordance with syllabus prescribed by the affiliating University aided with ICT enabled facilities and e-resources. The curriculum is planned taking into consideration the current industry requirements and the technological advancements. In order to bridge the gap, Certificate programs, workshops, seminars, add-on, value added courses are conducted by in-house faculty members and invited professionals and industry experts. To cope up with the changing technologies, new courses are introduced and electives are offered which facilitates academic flexibility.

Various courses prescribed by the University which integrates different cross cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics are implemented. In addition, various activities are organized to address the above mentioned issues under the banner of National Service Scheme (NSS) and Student Development Cell (SDC). Various departments existing in the institution engaged their students in variety of technical and non-technical activities which sensitize them on various community, society, environment and national issues. Opportunities for experiential learning and hand-on training and emphasis are given for involvement of students in field trips and internships. The institution has signed MOU's with industries and educational institutions for transfer of knowledge and student internships. All this has helped to give the students a complete exposure to current industry practices, applications and technological advancements.

Institution has strong feedback system to get direct and indirect feedback from different stakeholders namely students, parent, alumni, employers and teachers on implemented curriculum/ Syllabus, teaching-learning process, academic and physical facilities.

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

The student enrolment is done as per the rules and regulations given by DTE considering the reservation policies. The institution organizes special induction programme for the entry level students with the motive to familiarize them with the Institute's working policies, rules and regulations. Learning levels of the students are assessed and sincere efforts are taken on the slow as well as advanced learners to excel their academic performance. The student teacher ratio is as per guidelines of the statuary body.

Student-centric teaching learning methods such as participative, experiential, self-learning, problem-solving methodologies are carried out for enhancing the learning experiences by adopting ICT facilities, E-Learning resources, MOODLE. Various creative and innovative teaching learning techniques such as the use of MOODLE, OFA, Video Conferencing Lectures, role-plays, debates, group discussions, etc. are opted. Students are constantly motivated to participate in various enrichment programs.

Institute has dedicated and experienced faculty members. Continuous internal evaluation of the student's performance is carried out through assignments, tests, mini-projects, etc. Internal evaluation and end-semester evaluation is used to ascertain the attainment of COs, POs and PSOs. Reforms are made in these internal assessment evaluation methods whenever required. Any grievances related to examination and evaluation is addressed properly. The institute has clearly stated its learning outcomes and accordingly implements the curriculum. On completion of each course, the attainment level of Course Outcomes is evaluated and efforts are taken on students to achieve high level attainment of Program and Program Specific Outcomes.

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

Research projects funded by various funding agencies and sponsored by industries are undertaken by faculty members and students guided by Academic Research Cell. The institute promotes the research activities by providing infrastructural and financial support. The Institution has created an eco system for innovations which includes Research Centre, Centre for Innovation Incubation and Entrepreneurship development (CIIED), Lab as a Museum, Knowledge Walls, JSPM's BSIOTR Video Lecture Series. Various seminars, workshops are conducted on Intellectual Property Rights (IPR), filing patents; copyrights for promoting research activities.

The institution promotes extension and out-reaches activities for the students under the banner of *National Service Scheme (NSS)*, Student Development Cell (SDC), to sensitize the students towards gender, environment sustainability, human values, and professional ethics. This helps to groom the students into socio-economic technocrats.

The institute is situated in the vicinity of large number of industries located in and around Pune city. The institute has signed MOU's with different industries and reputed educational institutes for knowledge, student, and faculty for technology exchange. Various activities like placement drives, student internships, field trips, field projects, etc. are conducted under these functional MOU's.

#### Infrastructure and Learning Resources

The institute has academic, administrative, amenities as per the guidelines of statutory bodies. The class rooms are equipped with ICT enabled facilities including LCD projectors and Smart Boards. All the departments have sufficient number of laboratories equipped with state of the art equipments and sufficient IT facilities with Internet and Wifi-connectivity. Sufficient number of text books, reference books, e-Journals, CDs, e-books, printed journals is available in Central library. Institutional membership of Delnet and Jaykar library of SPPU provide database of learning resource. Centre for Innovation Incubation and Entrepreneurship development (CIIED) cell existing in the institution helps the start ups for innovation and product design. The learning

resource includes lecture notes, video lectures, etc. prepared by the faculty members are made available to the students through a digital learning platform, Modular Object-Oriented Dynamic Learning Environment (MOODLE).

College has an exclusive transport department, which takes care of transport arrangements for various academic purposes. The transport department has vehicles including buses, vans, cars for the use of students and faculty members. ATM, food court is available inside the campus. Separate sick room, common rooms, rest rooms are available. Ambulance is also available for medical care. College has different maintenance team like civil, electrical, water; garden, AC maintenance and housekeeping to maintain the entire campus. Sufficient water is available throughout the year and 24 hour power supply is maintained in the campus with sufficient generators to provide uninterrupted power supply throughout the academic sessions.

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

Students are given scholarships by the Government as per the Government rules for various categories. Institution also provides scholarship to the students namely, Academic Excellence Scholarship, JSPM's Scholarships. In case of exceptional cases fees is waived partly for students coming from economically weaker sections on their request. The institution has dedicated Training and Placement Cell comprising of Training and Placement Officer (TPO), Departmental Training and Placement Co-ordinators (TPC) and student co-ordinators. Various programs such as guidance for competitive exams and higher studies, career counselling, personal counselling, soft skill development, etc. are conducted. Field projects and internships are facilitated for the students through MOU's signed with industries for experiential learning and hands-on training. A good number of students have qualified in competitive exams for higher studies and recruitment by various Government departments. A satisfactory number of students are placed in core and IT industries through campus drives.

Students are encouraged to participate in co-curricular and extra-curricular activities organized by the institute and at other institutes by providing financial assistance and transport facilities. Good number of students has participated in various activities and has won prizes. The college has registered Alumni Association. Alumni assist the institution financially or non- financially by way of internships, Guest Lectures, Workshops, Industrial Visits, Campus Drives, etc.

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

The management has effective organizational structure comprising of technocrats including Founder Secretary of the Trust who an Electrical Engineering is having vision of imparting quality education. The governance of the institution is executed through various cells, bodies and committees comprising of Principal, Department Heads and faculty members entrusted with various responsibilities and duties in tune with the vision and mission of the Institution. Liberty is given to the members of various committees to take decisions in academic and administrative matters giving opportunities for participative management.

The perspective and strategic plan of the institution includes setting up the research centre, signing MOUs with foreign Universities, tie up with premier institutions like IITs, providing internships for all students, up gradation and sustenance of quality in teaching-learning process.

E-governance is implemented in various areas of operations like administration, examination, Finance and

Accounts, Student Admission and Support. The reforms and suggestions made by various committees are implemented for outcome-based education. The institution takes welfare measures such as leave for pursuing higher studies, sabbatical leave, and financial assistance to attend Conferences, STTP, Workshops, group insurance, and laboratory facilities for research activities for staff. A number of professional training programs are organized for non-teaching staff for enhancement in performance. Apart from the funds generated from the student's fees, efforts are made by the teaching staff to generate the funds through research projects funded by various funding agencies. These funds are monitored through periodic internal and external financial audits.

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

The institution provides equal opportunities to all without any gender discrimination. Guest lectures and seminars are conducted by inviting eminent speakers like advocate, social workers, motivational speakers, etc. to address issue of gender equity. Complete safety and security is provided for both the genders by installing CCTV cameras and separate common rooms for boys and girl. Non conventional energy resources like solar energy and LED tubes are used to minimize power requirements. The solid, liquid and e-waste are properly disposed to protect the environment. Rain-water harvesting system is provided for exploring natural resources. The sewage treatment plant facilitates re-cycling of water for non-drinking purposes.

Varieties of trees, plants and lawns existing in the campus create a pleasant environment. Measures such as taking minimum print-outs, paper- less administration and awareness sessions on hazards of plastic are some of the green practices adopted. Lifts, ramps, wheel chairs, ambulance, sick rooms, etc, are made available for differently-abled. Code of conduct for students, teachers, governing body, administration including Principal /Officials and support staff are well defined which are communicated to them through website of the institute.

The institution plans and organizes activities such as Celebration of birth and death anniversaries of prominent national personalities namely Mahatma Gandhi, Swami Vivekananda, Dr. A. B. Abdul Kalam, etc., Independence Day, Republic Day, Guru Poornima, International Women's Day, International Yoga Day to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations.

## <u>2. PROFILE</u>

#### **2.1 BASIC INFORMATION**

Name and Address of the College					
Name	JSPM's Bhivarabai Sawant Institute of Technology and Research				
Address	Gat No 720 (1 and 2) Pune Nagar Road, Wagholi, Tal Haveli, Dist Pune				
City	Pune				
State	Maharashtra				
Pin	412207				
Website	https://jspmbsiotr.edu.in/				

Contacts for Communication								
Designation	Name	Telephone with STD Code	Mobile	Fax	Email			
Principal	Nagaraj Kalayanappa Timalapur	020-67335108	9890678508	020-6733510 0	principalbsiotr@g mail.com			
IQAC Coordinator	Prabhuling Virbasappa Jatti	020-67335100	9881409050	020-6733510 0	pvjatti@gmail.com			

Status of the Institution	
Institution Status	Private

Type of Institution	
By Gender	Co-education
By Shift	Regular

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

# Establishment Details Date of establishment of the college Value University to which the college is affiliated/ or which governs the college (if it is a constituent college) State University name Maharashtra Savitribai Phule Pune University View Document

Details of UGC recognition	
Under Section	Date
2f of UGC	
12B of UGC	

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)								
Statutory Regulatory AuthorityRecognition/App roval details Inst 								
AICTE	View Document	10-04-2017	12	Temporary				

Details of autonomy	
Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	Yes
If yes, has the College applied for availing the autonomous status?	No

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

Location and Area of Campus									
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.					
Main campus area	Gat No 720 (1 and 2) Pune Nagar Road, Wagholi, Tal Haveli, Dist Pune	Urban	2.5	16529					

#### **2.2 ACADEMIC INFORMATION**

Details of Pi	Details of Programmes Offered by the College (Give Data for Current Academic year)								
Programme Level	Name of Pr ogramme/C ourse	Duration in Months	Entry Qualificatio n	Medium of Instruction	Sanctioned Strength	No.of Students Admitted			
UG	BE,Compute r Engineering	48	HSC	English	120	98			
UG	BE,Electrical Engineering	48	HSC	English	60	33			
UG	BE,Electroni cs And Telec ommunicatio n Engineering	48	HSC	English	60	24			
UG	BE,Informati on Technology	48	HSC	English	60	51			
UG	BE,Mechani cal Engineering	48	HSC	English	120	46			
PG	ME,Comput er Engineering	24	BE	English	24	10			
PG	ME,Electron ics And Tele communicati on Engineering	24	BE	English	24	6			

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Asso	ciate Pr	te Professor			Assistant Professor		
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government		1	1	13		1	1	36		1		90
Recruited	5	1	0	6	6	2	0	8	31	59	0	90
Yet to Recruit				7				28				0
Sanctioned by the Management/Soci ety or Other Authorized Bodies				0				0	J			37
Recruited	0	0	0	0	0	0	0	0	19	18	0	37
Yet to Recruit				0	-			0				0

		Non-Teaching	Staff	
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				58
Recruited	38	20	0	58
Yet to Recruit				0

		Technical St	aff	
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				24
Recruited	18	6	0	24
Yet to Recruit				0

#### **Qualification Details of the Teaching Staff**

	Permanent Teachers									
Highest Qualificatio n	Professor		Associate Professor		Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	5	1	0	2	2	0	0	0	0	10
M.Phil.	0	0	0	0	0	0	1	1	0	2
PG	0	0	0	4	0	0	49	76	0	129

	<b>Temporary Teachers</b>									
Highest Qualificatio n	Professor		Associate Professor		Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	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

Part Time Teachers										
Highest Qualificatio n	Profes	rofessor		Associate Professor		Assistant Professor				
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	1	0	0	0	0	0	0	0	0	1
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	3	0	0	24	3	0	30

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	1090	10	0	0	1100
	Female	596	7	0	0	603
	Others	0	0	0	0	0
PG	Male	1	0	0	0	1
	Female	28	0	0	0	28
	Others	0	0	0	0	0

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

Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	113	78	40	0
	Female	70	78	77	67
	Others	0	0	0	0
ST	Male	1	2	0	0
	Female	1	3	2	0
	Others	0	0	0	0
OBC	Male	393	281	150	423
	Female	263	406	459	0
	Others	0	0	0	0
General	Male	523	409	235	0
	Female	448	591	698	774
	Others	0	0	0	0
Others	Male	5	3	0	0
	Female	3	6	2	10
	Others	0	0	0	0
Total		1820	1857	1663	1274

#### 3. Extended Profile

#### **3.1 Programme**

Number of courses offered by the institution across all programs during the last five years

Response : 513

Number of self-financed Programmes offered by college

**Response : 7** 

Number of new programmes introduced in the college during the last five years

**Response : 0** 

#### 3.2 Student

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

2016-17	2015-16	2014-15	2013-14	2012-13
1820	1857	1663	1274	1017

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

2016-17	2015-16	2014-15	2013-14	2012-13
313	338	338	338	236

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

2016-17	2015-16	2014-15	2013-14	2012-13
542	426	321	341	213

#### Total number of outgoing / final year students

Response : 1843

#### 3.3 Academic

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

2016-17	2015-16	2014-15	2013-14	2012-13
189	191	175	148	114

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

2016-17	2015-16	2014-15	2013-14	2012-13
153	171	175	148	114

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

2016-17	2015-16	2014-15	2013-14	2012-13
153	171	175	148	114

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

**Response : 1504** 

Number of teachers recognized as guides during the last five years

**Response : 5** 

Number of full time teachers worked in the institution during the last 5 years

**Response : 314** 

#### **3.4 Institution**

Total number of classrooms and seminar halls

**Response : 36** 

#### Total Expenditure excluding salary year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
523.2	573.2	525.2	435.4	363.7

Number of computers

**Response : 640** 

Unit cost of education including the salary component(INR in Lakhs)

Response : 1.3

Unit cost of education excluding the salary component(INR in Lakhs)

Response : 0.357



## 4. Quality Indicator Framework(QIF)

#### Criterion 1 - Curricular Aspects

#### **1.1** Curricular Planning and Implementation

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

#### **Response:**

Institute implements the syllabus prescribed by the university through well planned curriculum taking into consideration any gaps existing in the university syllabus. Following **initiatives** are taken in order to ensure effective curriculum delivery.

#### **1. Curriculum Planning:**

- Before the commencement of each semester the Head of the respective departments assigns subjects to the faculty members taking into consideration the expertise of the faculty members.
- Curriculum for different subjects is planned taking into consideration the inputs given by Internal Quality Assurance Cell (IQAC), Academic Monitoring Committee (AMC) and other stakeholders like alumni, students, employers, industrialists.
- Faculty development program(FDP) is conducted before commencement of the semester in which subject experts, industry experts and faculty members participate to design the teaching and learning material which includes lecture notes, PPTs, video lectures etc.. Based on the curriculum designed with identified gaps, if any, guest lectures, workshops, industrial visits, add-on-courses, etc. are planned.
- The learning material designed through FDP and individual faculty member is uploaded on Modular Object Oriented Dynamic Learning Environment (MOODLE), wherein any student/faculty can access the study material for reference.

#### 2. Support for Effective Curriculum Delivery

- Deputation of Faculty members to attend in-house and out house conferences/seminars/workshops/FDPs.
- Up-graded laboratories and ICT enabled class rooms.
- Monitoring of Teaching –Learning process by

Internal Quality Assurance Cell (IQAC)

Academic Monitoring Committee (AMC)

Guardian Faculty Member (GFM)

#### Student Support

Training programmes were initiated to imbibe the students with skill sets required during campus

recruitment drives by the industries/employers. In plant trainings and Industrial visits.. Lectures/seminar by invited industry experts. Add-on courses to bridge the curriculum gap. Various competitions to provide the platform to showcase the innovative creation/ideas.

#### 1.3. Implementation of Curriculum

The institute adopts student centric teaching learning methodologies which are enumerated below.

Telecast of Video Conferencing lectures delivered from central studio of JSPM.

Teaching methodologies like Originative Facile Approach (OFA) and Lab as a Museum.

Use of E-Learning resources like MOODLE, NPTEL lectures by adopting ICT enabled class rooms.

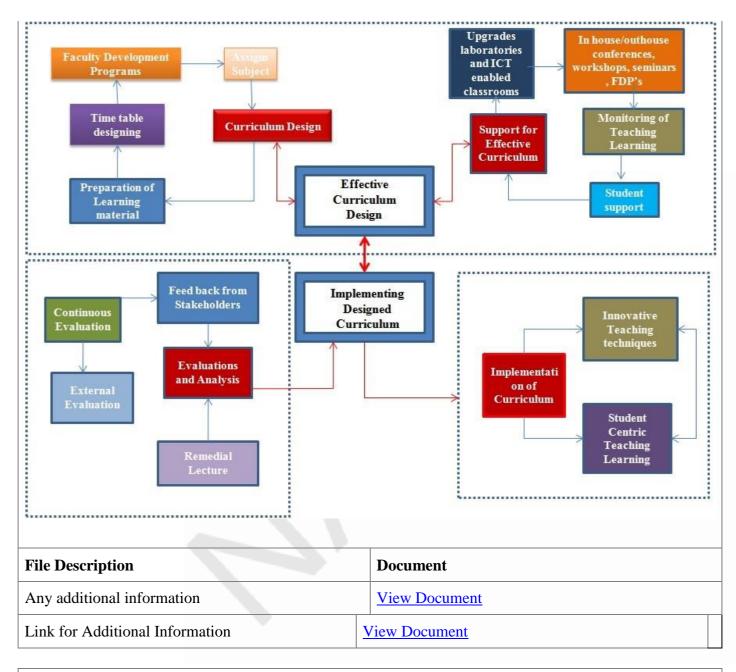
Ample number of subscriptions of text and reference books, e- books, e-journals. Intelligent Interactive Panel (IIP) to make teaching learning enjoyable and effective. Lecture Capturing System in class rooms.

#### 4. Evaluation and Analysis

- Continuous assessment of the student is carried out by conducting Class/ Unit tests /mock online tests/mock oral/mock practical exam to ascertain the attainment level of the students and thereby identify slow learners and advanced learners.
- External evaluation is done through in-semester, oral/practical and end semester written exam conducted by university.
- Remedial lectures are conducted for slow learners and opportunities are created for advanced learners to showcase their innovative ideas.
- Feedback from various stakeholders is taken for corrective measures to improve the effectiveness of curriculum delivery.

0

The following diagram shown below depicts the initiatives taken for effective curriculum delivery.



#### 1.1.2 Number of certificate/diploma program introduced during the last five years

#### **Response:** 34

#### 1.1.2.1 Number of certificate/diploma programs introduced year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
07	04	09	08	06

File Description	Document	
Details of the certificate/Diploma programs	View Document	

#### **1.1.3** Percentage of participation of full time teachers in various bodies of the Universities/ Autonomous Colleges/ Other Colleges, such as BoS and Academic Council during the last five years

#### Response: 29.53

1.1.3.1 Number of teachers participating in various bodies of the Institution, such as BoS and Academic Council year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
83	71	35	29	14

File Description	Document
Any additional information	View Document
Details of participation of teachers in various bodies	View Document

#### **1.2 Academic Flexibility**

**1.2.1** Percentage of new courses introduced of the total number of courses across all programs offered during the last five years

#### Response: 26.9

1.2.1.1 How many new courses are introduced within the last five years

Response: 138

File Description	Document
Details of the new courses introduced	View Document
Any additional information	View Document

# **1.2.2** Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented

Response: 100

1.2.2.1 Number of programs in which CBCS/ Elective course system implemented.

Response: 7

File Description	Document
Name of the programs in which CBCS is implemented	View Document
Any additional information	View Document

#### **1.2.3** Average percentage of students enrolled in subject related Certificate/ Diploma programs/Addon programs as against the total number of students during the last five years

#### **Response:** 53.4

1.2.3.1 Number of students enrolled in subject related Certificate or Diploma or Add-on programs year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1186	859	813	695	530

File Description	Document
Details of the students enrolled in Subjects related to certificate/Diploma/Add-on programs	View Document
Any additional information	View Document

#### **1.3 Curriculum Enrichment**

Sr.No	Title of the course	Class	Issue addressed				
	DEPARTMENT OF COMPUTER ENGINEERRING						
1	Soft Skills	SE	Human Values and				
			<b>Professional Ethics</b>				
2	Humanity and Social Sciences		Human values				
3	Road Safety		Professional Ethics				
4	Stress Relief : Yoga and Meditation		Human Values				

5	Software Engineering & Project Management	TE	Professional Ethics		
6	Professional Ethics and Etiquettes				
7	Leadership and Personality Development		Professional Ethics an Human Values		
	DEPARTMENT OF ELECT	RICAL ENGINEERIN			
1	Soft Skills	SE	Professional Ethics		
2	Solar Thermal Systems		Environment Sustainability		
3	Solar PV system		Environment Sustainability		
4	Seminar and Technical Communications	TE	Professional Ethics		
5	Wind Energy Systems		Environment and Sustainability		
6	Industrial Training and Management		Professional Ethics		
7			Environment Sustainability		
	Energy Audit and Management				
8	Bio-energy Systems		Environment Sustainability		
9	Renewable Energy Systems	BE	Environment Sustainability		
	DEPARTMENT OF ELECTRONICS	AND TELECOMUNI	CATION		
1	Environmental Studies	SE	Environment Sustainability		
2	Employability and Life Skill Development		Professional Ethics an Human Values		
3	Cyber Crime and Laws		Professional Ethics		
4	Cyber and Information Security	TE	Professional Ethics		
5	Business Management				
6	Employability Skills and Mini Project				
7	Leadership and Personality Development		Professional Ethics an Human Values		
	DEPARMENT OF INFORMA	ATION TECHNOLOG	Y		
1	Communication Language Lab	SE	Professional Ethics		
2	Audit Course 2- Environmental Studies		Environment Sustainability		
			Human Values		
3	Audit Course 2: Road safety		Fullian values		
3	Audit Course 2: Road safety         Software Engineering & Project         Management	TE	Professional Ethics		
	Software Engineering & Project	TE			

	Management		
7	Soft skill lab		
8	Management information system		
9	Audit course 3 : Intellectual Property Rights		Human Values &
	and Patents		Professional Ethics
10	Audit course 3 : Green construction and		Environment
	design		Sustainability
	DEPARTMENT OF MEHAN	NCAL ENGINEERIN	IG
1	Value Education	SE	Human Values
2	Road Safety		
3	Soft Skill		Human Values and
			Professional Ethics
4	Skill Development	TE	Professional Ethics
5 Entrepreneurship Development			
6	Fire & Safety Technology		
7	Lean Management		
8	Intellectual Property Right		
9	Energy Audit and management	BE	Environment
			Sustainability

#### Other activities initiated by the institute

Event/Activity	Issue Ad	dres
Seminar on Gender championship		
Celebration of International Women's Day		
	Gend	equi
	er	-
Tree Plantation		
NSS Day celebration & Swachatha Abhiyan		
Plastic Kachara Nirmulanavarti sandesh		
Seminar on Disaster Management		
Guest Lecture on Smart Village		
	Environme	Sust
	nt	
Terrorism and Violence Protest Day		
3rd International Yoga Day		
Peace March		
Celebration of Vachan Prerna Divas.		
Celebration of "Savidhan Din"		
Special Camp arranged for Cleanliness.		
Youth Day Celebration		
Visit to Anath Ashram		
Tribute to Dr. A. P. J Abdul Kalam		
"We the People "Bhartiya Savidhan Karyashala		
Speaker.		

Debate Competition on 'AZAADI 70', 'INDEPENDENCE 70'



	Document		
Link for Additional Information	View Document	V	

# **1.3.2** Number of valued added courses imparting transferable and life skills offered during the last five years

#### **Response:** 18

1.3.2.1 Number of value-added courses imparting transferable and life skills offered during the last five years

Response: 18

File Description	Document
Brochure or any other document relating to value added courses.	View Document
Details of the value-added courses imparting transferable and life skills	View Document

1.3.3 Percentage of students undertaking field projects / internships			
Response: 28.23			
1.3.3.1 Number of students undertaking field project	s or internships		
Response: 489			
File Description	Document		
Any additional information	View Document		
Institutional data in prescribed format	View Document		
List of students enrolled	View Document		

#### 1.4 Feedback System

1.4.1 Structured feedback on curriculum obtained from 1) Students 2) Teachers 3) Employers 4)Alumni 5) Parents For design and review of syllabus semester wise/ year wiseA. Any 4 of the above

**B.Any 3 of the above** 

C. Any 2 of the above

**D.** Any 1 of the above

Response: A.Any 4 of the above

File Description	Document
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	View Document
URL for stakeholder feedback report	View Document

# 1.4.2 Feedback processes of the institution may be classified as follows: A. Feedback collected, analysed and action taken and feedback available on website B. Feedback collected, analysed and action has been taken C. Feedback collected and analysed D. Feedback collected Response: A. Feedback collected, analysed and action taken and feedback available on website File Description Any additional information View Document URL for feedback report View Document

#### **<u>Criterion 2 - Teaching-learning and Evaluation</u>**

#### 2.1 Student Enrollment and Profile

2.1.1 Average percentage of students from other States and Countries during the last five years

#### Response: 2.46

2.1.1.1 Number of students from other states and countries year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
30	31	37	42	35

File Description	Document
Institutional data in prescribed format	View Document
List of students (other states and countries)	View Document

#### 2.1.2 Average Enrollment percentage (Average of last five years)

#### **Response:** 40.86

2.1.2.1 Number of students admitted year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
354	309	357	225	272

2.1.2.2 Number of sanctioned seats year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
648	816	816	816	672

File Description	Document
Institutional data in prescribed format	View Document

# **2.1.3** Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years

#### Response: 43.29

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

2016-17	2015-16	2014-15	2013-14	2012-13	
167	157	138	83	121	
File Descriptio	n		Document		
-	<b>n</b> a in prescribed format		Document View Document		

#### **2.2 Catering to Student Diversity**

# **2.2.1** The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners

#### **Response:**

The semester for the newly admitted student of first year and direct second year engineering and parents commences with an induction program in which the students as well as parent are given complete structure of the University Curriculum, examination and marking scheme, prerequisites for outcome based learning by the students.

#### **Prerequisite Enhancement Program**

Before the commencement of the teaching on the syllabus which is designed by affiliating University, basic topics required to understand the subjects are taught by the teachers.

#### Assessment of the learning levels of the student, after admission

The institute assesses learning levels of the students through following process:-

- 1. Analyze student's score in CET/ JEE.
- 2. Student's performance in their classrooms and during their practical are observed and assessed.
- 3. Respective subject teachers conduct internal Unit/ Class tests and undertake the result analysis.
- 4. The results of online exams which are based on the multiple choice questions for first year and second year engineering students are also used to assess the learning levels of the students.
- 5. Various technical and non-technical events like seminars, quiz, debate, group discussion, etc. are conducted which helps to categorize students as slow and advance learners.

• Institute has active Academic Monitoring Committee to, monitor and analyze the teaching learning process of different departments. And each department has Class co-coordinator having the responsibility to monitor and analyze the students to identify slow, average or a bright learner

#### Special program for advanced learners and slow learners

#### For advance learner

- Academic toppers from each class are awarded during Annual Social Gathering.
- Institute promotes advance learners by organizing and encouraging them to participate in various technical events held at State, National and International Level.
- They are encouraged to attend various seminars, guest lectures, workshops held at institute as well as in other renounced institute.
- They are encouraged to undertake certification courses, internships.
- Advanced learners are encouraged to learn more from resources like NPTEL materials and MOODLE.

#### For Slow Learners-

To overcome the risk of drop out, institute pays special attention to slow learners.

- Remedial/ make-up lectures are organized for some selected subject.
- At times, experts of the selected courses have been called to conduct remedial lectures on difficult topics/ subjects.
- Separate set of question banks are provided for them which contains important and mostly frequently asked University questions.
- Students exhibiting poor performance in the class test are asked to give re-test.
- They are encouraged to watch video lectures of concern subjects which are uploaded on MOODLE.
- Course related material like handwritten notes, PPTs, University solved question papers are provided through MOODLE.
- Attempts are made by the faculty members to teach them individually after the college working hours.
- Students are encouraged to participate in various technical as well as non-technical activities.

File Description	Document
Any additional information	View Document

2.2.2 Student - Full time teacher ratio	
<b>Response:</b> 10.07	
File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

2.2.3 Percentage of differently abled students (Div	yangjan) on rolls
Response: 0	
2.2.3.1 Number of differently abled students on rolls	
File Description	Document
Institutional data in prescribed format	View Document

#### **2.3 Teaching- Learning Process**

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

#### **Response:**

The institution has taken initiatives to shift learning from traditional "teacher centric" to the "student centric" approach. Following are some of the efforts been taken to make learning more student- centric:-

#### 1. Experiential learning: -

- Students are encouraged to undertake internship programs, hands on training, industrial training, sponsored projects in order to make them industry ready graduates.
- Further institute organizes **industrial visits, field trips** for the students to make them aware of the current market working trends and technologies.
- Various technical events like model making, robot making, circuit-designing, 3D- sculpt making, etc. are arranged.

#### 2. Participative learning

• Students are recurrently **motivated** to participate in **curricular, co- curricular and extracurricular activities** so that they become industry ready confident candidates and an amalgam of knowledge and persona.

- Different departments organize **paper presentation**, **mini- projects**, **project**, **and poster-making** competitions for the students to promote participative learning.
- "Cynosure" is a national level technical event organized annually by the institute. This is a platform created to promote awareness of advancements in respective fields and showcase technical expertise and talent of the students.
- To realize student participation, institute engages students in a number of modern teaching learning methodologies like **role play, group discussions, brain storming sessions,** etc.
- Role play-
- Here group of students simulate a scenario by assuming specific roles.
- Students work through a situation and try to enact a concept/scenario by making the concept live by conversing the dialogues between their group-members.
- This technique is an excellent mechanism of participative learning since students play their specific role and interact with their peers in order to accomplish their assigned task.

#### • Brainstorming sessions –

Random cases pertaining to day to day issues faced by industry, real life scenarios; technical, non-technical aspects, etc. are explored to nurture the student's problem solving skills.

#### Group Discussions-

To develop students into future leaders in industry, institute inspires students to participate in a number of group discussions.

- **Paper presentation:** Students are exposed to latest trends and practices in industry through case studies and research work presented in the form of research papers.
- **Project competitions:** Institute conducts in-house and outbound competitions pertaining to all disciplines by assigning a task in the form of competition.

#### **1.3. Problem solving methodologies**

- **Case studies:** A number of case studies are shared with students to make them understand about latest trends and practices being followed in industry.
- **Industry visits:** Industry visits are organized to give a real time feel of industry know-how.
- **Multiple choice questions:** Students are also provided with a number of multiple choice questions so that they get their fundamentals cleared.

#### 4. Independent Learning –

- **MOODLE** is used which provides e-learning resources. Students submit their assignments; undertake different quiz tests online through MOODLE.
- Institute has well stacked central library and departmental library.
- Individual seminars are conducted for the students to assess their performance. This activity enhances student's communication skills and facilitates deep understanding of their interested domain.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

# **2.3.2** Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.

#### Response: 100

2.3.2.1 Number of teachers using ICT

Response: 172

File Description	Document
List of teachers (using ICT for teaching)	View Document
Provide link for webpage describing the "LMS/ Academic management system"	View Document

#### 2.3.3 Ratio of students to mentor for academic and stress related issues

Response: 16.34

2.3.3.1 Number of mentors

#### Response: 106

File Description	Document
Year wise list of number of students, full time teachers and students to mentor ratio	View Document
Any additional information	View Document

#### 2.3.4 Innovation and creativity in teaching-learning

#### **Response:**

The biggest challenge any teacher faces is capturing the students' attention, and putting across ideas in such a way that it stays with them long after they have left the classroom. For this to happen, faculty member make attempts to inculcate creative and innovative ideas in their teaching-learning methodologies. Some of teaching-learning methods that are implemented by the faculty member to reinvent their traditional teaching methods and make their teaching interesting.

#### **1.MOODLE (Modular Object Oriented Dynamic Learning Environment).**

- Institute promotes digital education with the help of an Online Learning Management System called as MOODLE (Modular Object Oriented Dynamic Learning Environment).
- Faculty members upload their course materials like notes, PPTs, NPTEL videos, university question papers, Question banks, assignments, workbooks and case studies which can be accessed by students and faculty from anywhere using their login credentials..
- Students solve their assignments, workbooks, quizzes, etc. online and submit it through their respective MOODLE login.
- The faculties can assess the work submitted by the students online and in turn provide grading and feedback to the students.

#### 2. Originative Facile Approach

- This teaching-learning methodology was adopted by the Department of Information technology as a pilot process to shift the focus of teaching learning methodology from teacher centric to student centric.
- Here the main goal is to enhance student learning by making an effort to increase student's interest in different courses and trying to provide hands-on practice of the current trends and technologies.
- In this methodology a subject teacher will engage a group of twenty students for six hours once in a week. The students are introduced theoretical with the topic, and then its practical implementation is performed. Before concluding the session the topic-learning outcomes are assessed by the faculties by conducting tests, quiz, group-discussions, etc.

#### 3. Lab as a Museum-

• In order to promote student centric experiential learning the laboratories are transformed into a museum with knowledge walls and the project models which have come out of the innovative ideas of the students. Students/ visitors of this lab shall able to explore various engineering topics. It promotes self-learning and provides hands on experience.

#### 4. Video Conferencing lectures

At the institute level Video Conferencing lectures are scheduled throughout the semester. Experts from different fields are invited to deliver their expertise on desired subjects. The sessions are interactive by encouraging the students to ask their queries during these sessions.

#### 5. Spoken tutorials

- Government of India has taken initiative to launch a project named as Spoken tutorial through Open Source Software. Here a friendly online discussion takes place that explains the activities performed on the computer.
- It offers to learn various online computer courses like C, Advance C, C++, Java, Perl, PHP, Python, Latex, etc. in various linguistic languages.



#### 2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers again	inst sanctioned posts during the last five years
Response: 100	
File Description	Document
List of the faculty members authenticated by the Head of HEI	View Document
Year wise full time teachers and sanctioned posts for 5 years	View Document

#### 2.4.2 Average percentage of full time teachers with Ph.D. during the last five years

Response: 4.86

2.4.2.1 Number of full time teachers with Ph.D. year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
12	10	5	5	5

File Description	Document
List of number of full time teachers with PhD and number of full time teachers for 5 years	View Document
Any additional information	View Document

#### 2.4.3 Teaching experience of full time teachers in number of years

Response: 8.74	
File Description	Document
List of Teachers including their PAN, designation,dept and experience details	View Document

# 2.4.4 Average percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years

#### Response: 7.63

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13	
26	11	18	4	2	
File Descriptio	n		Document		
-	n rd letters (scanned o	or soft copy)	Document       View Document		

# 2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years

**Response:** 14.3

2.4.5.1 Number of full time teachers from other states year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
27	25	24	17	16

File Description	Document		
Any additional information	View Document		
List of full time teachers from other state and state from which qualifying degree was obtained	View Document		

#### **2.5 Evaluation Process and Reforms**

#### 2.5.1 Reforms in Continuous Internal Evaluation(CIE) system at the institutional level

#### **Response:**

Continuous internal evaluation system exists in the institute which is well planned to measure the attainment levels of POs, PSOs and COs. Head of the Departments and Academic Coordinator and his team ensures that all reforms of evaluation process are meticulously implemented. In-order to assess the learning levels of the students, different internal evaluation methods like assignments, internal class tests, Multiple Choice Questions tests, online exams, oral exams, Mock Oral and Practical exams are conducted. Efforts are taken to improve the overall performance of the students by undertaking remedial measures for slow learners.

#### Major reforms undertaken by the Institute:-

- 1. Evaluation of the assignments through MOODLE.
- 2. Evaluation of the Online MCQ tests through MOODLE.
- 3. Evaluation of student projects is done by the subject- experts during project review.
- 4. Appointment of Internal Unit Test Co-coordinator department-wise.
- 5. Continuous Assessment During practical sessions.

#### Evaluation Methods adopted by the Institute:-

#### 1.Assignments:-

- Assignments releated to each unit for all courses are given to students with the motive to increase their understanding level related to the topics.
- These assignments are in form of question bank, case-studies, tasks, mini-project, design problem etc.

#### 2. Unit Test

- Internal unit tests are conducted timely for each course.
- Each department of institute has a unit test coordinator for smooth conduction of internal tests.
- The results of unit tests are evaluated to identify weak and good students, and further more effort is applied on weaker students group.

#### 3. MOODLE –

- The major reform undertaken by the institute towards internal evaluation system is by the introduction of the MOODLE.
- MOODLE facilitates the students to submit their assignments online. Further these assignments can be evaluated by the concerned staff online.
- Further Online MCQ tests are also conducted using MOODLE and analysis is done in real time.

#### 4. Continuous Assessment during Practical:-

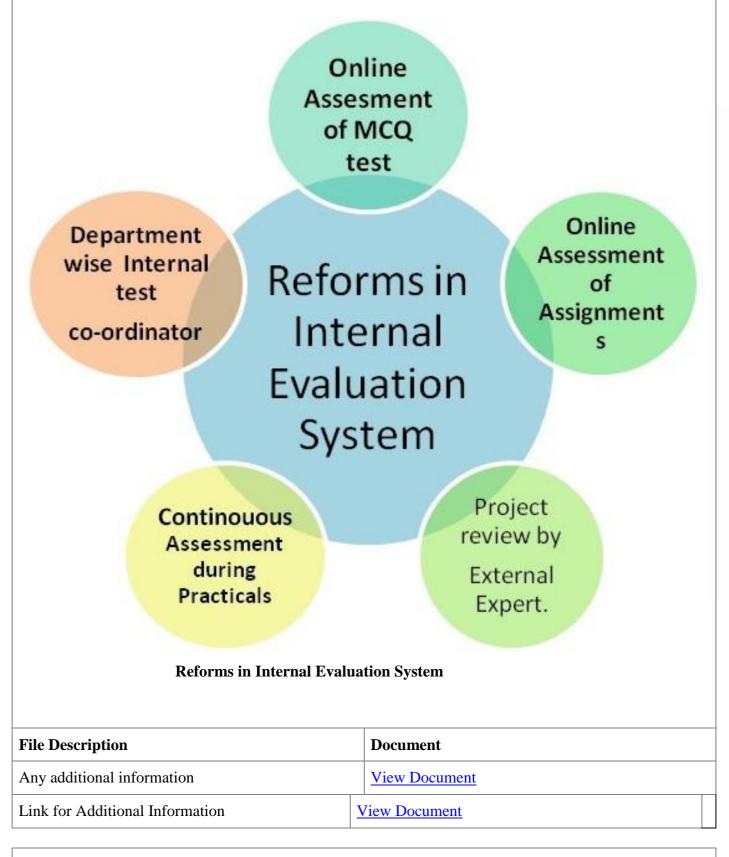
- Each students understanding level of their practical experiments performed is been evaluated during practical sessions.
- Student performance is evaluated based on his practical performance, oral questions related to the experiments, etc.

5. Mock Oral -Practical exams are conducted for every practical subject to give experience of external practical examination and to further analyze student's practical ability.

#### 6. Seminar and Technical Communications:-

Student's technical and communication skills are assessed by different types of competitions like paper presentation competition, project exhibitions, group discussion, quizzes etc.

**7. Project work analysis** is done though **continuous** project review meetings of project group students with the allotted guide and internal project presentation are conducted.



2.5.2 Mechanism of internal assessment is transparent and robust in terms of frequency and variety Response:

Page 38/120

#### Self Study Report of JSPM's Bhivarabai Sawant Institute of Technology and Research

Institute inculcates transparent internal evaluation system which consists of

Internal Class tests Re-test, and Mock Oral/practical examination Assignments MCQs Assignments'/tests through MOODLE

- **Examination coordinator is designated in each department** for the smooth conduction of all internal exams/tests.
- Examination coordinator in consultation with the HOD provides the schedule of the examinations well in advanced and this information is disseminated amongst the students and staff through displaying the Exam- Schedule through Curricular.
- Following efforts are taken to provide transparent and robust internal assessment methods:-

#### **1.**Assessment through MOODLE

• Practice of **online exams** is provided through MOODLE. These results are auto- generated and are made available to the students.

0

0

0

0

• Apart from this, unit-wise **assignments** of each course are solved and uploaded on the MOODLE by the students. These assignments are checked and graded by the faculties which accessible to the students.

#### 2. Internal Class/Unit Test

- Every department conducts two centralized internal Class/Unit test per semester of each course.
- Student's performance in this test is evaluated and the **test results** are conveyed to them which help them to understand their performance level.
- Test answer sheets with necessary remarks/guidelines are shown to students indicating transparency.

#### 3. Continuous Assessment during practical

- Student's academic performance is continuously assessed in each practical session in order to assess the student learning levels.
- This assessment is done after the **completion of each experiment** where assessment is based upon the student's depth of understanding about experiments, attendance, quality of journal maintained and its timely submission.
- The obtained marks by the students are shown to them on timely basis and these marks are carry forwarded in their **term work** marks.

#### 4. Mock Practical/Oral

- At the end of the semester, mock practical/oral examination is conducted for each laboratory course for preparation of final external University Oral-Practical Exams.
- The results of the Mock exams are conveyed to students with the motive for improvement in their final performance.

File Degerintion	Desument
File Description         Any additional information	Document           View Document
Link for Additional Information	View Document

### 2.5.3 Mechanism to deal with examination related grievances is transparent, time-bound and efficient

#### **Response:**

The examination is conducted by the Savitribai Phule Pune University. The examination structure includes the following

- Term Work /Oral/Practical examination
- Online examination based on MCQs for first year and Second Year Engineering students.
- In-Semester off line examination for Third Year and Fourth Year students.

Exams are conducted in accordance with the rules and regulations of examination prescribed by the affiliating university. The administrative team to conduct the exam appointed by university consists of

- College Examination Officer
- Internal Senior Supervisor
- External Senior supervisor
- Junior Supervisors
- Internal squad
- External squad
- Clerical staff

College Examination Officer is link between the institute and the affiliating university who acts as the custodian of question paper. Any misprint/missing data/insufficient data etc reported by the students are communicated to the University for Clarifications. And any changes in the question paper communicated by the university mostly through SMS are immediately conveyed to the students in the examination hall. Subject chairman is responsible to resolve the question paper related issues. Sometimes few grievances during the conduction of online/theory examinations are considered and discussed in consultation with the Principal and if necessary forwarded to the SPPU by examination section.

University appoints External senior supervisor who along with internal senior supervisor is responsible for fair conduction of the examination as per the guidelines of the University. Examination online form filling, exam seats allotments, results, photocopy, revaluations etc. are coordinated by office superintendent to University.

Following are the usual grievances/complaints received from the students which are resolved at university level:

- Missing of subject name and code.
- Spelling mistake /Correction in name of the student.
- Repeated PRN numbers.
- Missing Exam seat number.
- Delay in Result of revaluation.
- Delay in getting the photocopy of the answer sheet.
- Miss print of the marks in mark sheet.
- Absent mark in mark sheet.
- Complaint regarding the assessment of the answer sheet,etc

#### Mechanism

- In order to get the above mentioned issues/grievances/complaints resolved applicant student writes a letter to the principal mentioning issues/grievances/complaints.
- The application so received is forward to the SPPU along with covering letter of college requesting to consider the application of the students and resolve the issue at the earliest.
- Exam section clerk of the institute takes follow up such applications forwarded to the affiliating university (SPPU) from time to time to get the required solution from SPPU.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

#### 2.5.4 The institution adheres to the academic calendar for the conduct of CIE

#### **Response:**

- In the beginning of academic year, affiliating University (SPPU) gives guidelines about the dates of commencement of the semester, schedule of in semester, end semester, online examinations, schedule of oral & practical examinations, vacation schedule.
- By considering the academic calendar provided by SPPU, the Dean of academics prepares the institute academic calendar in consultation with the Principal and heads of the departments for both UG and PG courses separately before the commencement of academics and communicate the same to each department through Principal meeting. It is also displayed on the institute website.
- The departmental academic calendar is in line with the institute calendar which is prepared by the departmental academic coordinator in consultation with Head of the Departments.
- The dates of exam, mock oral, submission, sport, industrial visit, gathering, festival holidays, Principal meeting, Departmental Meetings, GFM meeting, teacher feed – back, cumulative attendance, percentage syllabus coverage, planning Guest lectures, subject related certificates courses, add-on courses, value added courses and many other aspects are considered while finalizing the calendar. This helps in implementation of academic activities as soon as the session starts.

### ACADEMIC CALENDER OF SPPU

Savitribai Phule Pune University ( Formerly University of Pune)



Circular No. 2150f 2017

Revised Dates of Commencement and Conclusion of terms for the Academic Year 2017-2018

For Affliated Colleges Only.

It is hereby informed that, the dates of commencement and conclusion of the First Term & Second Term of University Courses, under various faculties, for the academic year 2017-2018 shall be as under :

		2017-18			
54.	Name of the Courses	First Term		Second Term	
No.		Commencement	Conclusion	Commencement	Conclusion
1	Humanities (Formerly Faculty of Arts & Fine Arts)	15/06/2017	14/10/2017	13/11/2017	30/04/2018
	Humanities (Feenerly Faculty Mental,Moral and Social Sciences)				
2	Science & Technology (Formerly Faculty Science)	15/06/2017	14/10/2017	13/11/2017	30/04/2018
	Science & Technology (Formerly Faculty of Engineering : SE, TE, BE & MCA- II, & III Year)	15/06/2017	14/10/2017	18/12/2017	23/04/2018
3	Commerce & Management (Formerly Faculty of Commerce)	15/06/2017	14/16/2017	13/11/2017	30/04/2018

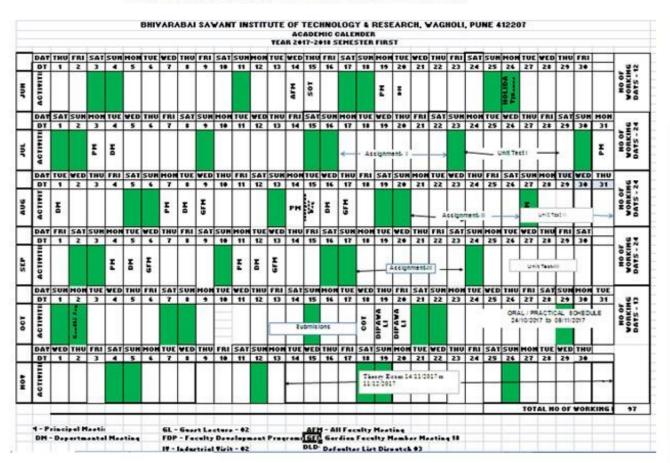
Note To comply with academic requirements, college may utilized helidays including Sunday for First Year Students.

In case, the Principal of the Affiliated Collges require to give additional holiday in exceptional circumstances, he may do so by compensating the same by keeping the College working on Sundays.

Deputy Registrat (P.G.Adminion)

Ganeshkhind, Pune-07 Ref. No. PGS/3753 Date: 09/10/2017

#### SAMPLE ACADEMIC CALENDER OF INSTITUTE



#### SAMPLE ACADEMIC CALENDER OF ELECTRICAL DEPARTMENT

Sr. No.         Activity         Data           1         Commencement of SE/LEB.E Classes         15/06/2017/           2         Online Exam for S.E.         9/10/17 to 14/1017/           3         In Sign Exam for S.E.         9/10/17 to 12/817/           4         End of Class Koom Teaching         15/10/17/16 12/817/           5         IW/Sx0Emassions         15/10/17/16 17/0/17/           6         University Examination Practical/Onal         24/10/17/16 9/10/17/           7         University Examination Incory         14/11/17/16 9/10/17/           7         University Examination Incory         14/11/17/16 9/10/17/           8         SE         Time - 9/00 AM aniversity           9         M = III         11/10/17/         AMA           9         M = III         11/10/17/         AMA           9         M = III         11/10/17/         EM = II           3         MS         12/10/17/         FM = II           4         ADE         13	8/8/17 9/8/17 10/8/17
2         Online Exam for S.E.         9/10/17 to 14/10/17           3         In Sign Exam for 1.E & E.E.         8/8/17 to 12/8/17           4         End of Class Room Teaching         18/10/17           5         TW/Submissions         13/10/17 to 12/8/17           6         University Examinition Product/Onl         24/10/17 to 17/10/17           7         University Examinition Product/Onl         24/10/17 to 17/10/17           7         University Examinition Product/Onl         24/10/17 to 17/17/17           8         E         The Schoolate           France - 9.00 A.M enverds           1         PCF1         9/10/17           1         PCF1         9/10/17           2         M = III         11/10/17           3         MS         12/10/17           4         ADE         13/10/17           5         EMI         14/10/17           6         EMI         14/10/17	8/8/17 9/8/17 10/8/17
3         In -Semi Examitor I.E & B.E.         8/8/17 to 12/8/17           4         End of Class Koom Teaching         13/10/17           5         I W/Submissions         13/10/17 to 17/10/17           6         University Examination Practical /Onl         24/10/17 to 9/10/17           7         University Examination Practical /Onl         24/10/17 to 9/10/17           7         University Examination Practical /Onl         24/10/17 to 10/2017           8         SE         T.E         B. E           7         SE         T.E         B. E           8         I ame - 9.00 AM envireds         Tune - 11:00-12:00         Tune - 3:00-4:           1         PC91         9/10/17         HMA         9/8/17         PSOC           2         M = III         11/10/17         AMA         9/8/17         MC & SCADA           3         MS         12/10/17         EM = II         10/8/17 <t< th=""><td>8/8/17 9/8/17 10/8/17</td></t<>	8/8/17 9/8/17 10/8/17
4         End of Class Room Leaching         13/10/17           5         1 W/Submissions         13/10/17 to 17/10/17           6         University Examination Practical /Onl         24/10/17 to 9/10/17           7         University Examination Practical /Onl         24/10/17 to 9/10/17           8         SE         T.E         E.E           7         SE         T.E         B. E           8         SE         T.E         E.E           9         9/10/17         TIM         8/8/17         9/8/17           2         M = III         11/10/17         A.MA         9/8/17         PIC & SCADA           3         MS         12/10/17         E.M = II         10/8/17         CS II           4         ALDE         13/10/17         PE         11/8/17         RES           5         EMI         14/10/17         EIMI         12/8/17         K & D<	8/8/17 9/8/17 10/8/17
6         University Examination Practical (Oral         24/10/17 to 9/11/17           7         University Examination Practical (Oral         24/10/17 to 11/12/17           Text Schedule           SE           Time - 9.00 AM onwards           1         PC91         9/10/17           2         M = III         11/10/17           2         M = III         11/10/17           3         MS         12/10/17           4         ADE         13/10/17           5         EMI         14/10/17	8/8/17 9/8/17 10/8/17
7         University Examination Theory         14/11/17 to 11/12/17           Test Schedule           Sr. No.         SE         T.E         B. E           1         SE         Time - 9.00 AM servards         Time - 11:00-12:00         Time - 3:00-4:           1         PG1         9/10/17         TIM         8/8/17         PSOC         2           2         M = III         11/10/17         AMA         9/8/17         PLC & SCADA         Application           3         MS         12/10/17         EM = II         10/8/17         CS II         4           4         ADE         13/10/17         PE         11/8/17         RES         5           5         EMI         14/10/17         EIMI         12/8/17         K & D         5	8/8/17 9/8/17 10/8/17
Test Schedule           Fr. No.         SE         T.E         B. E           Time - 9.00 AM onwards         Time - 11:00-12:00         Time - 3:00-4:           1         961         9710/17         Time         9300*           2         M = III         11/10/17         AMA         978/17         PIC & SCADA           3         MS         12/10/17         EM = II         10/8/17         CS II           4         ADE         13/10/17         PE         11/8/17         RES           5         EMI         14/10/17         EIMI         12/2/17         R & D	8/8/17 9/8/17 10/8/17
SE         T.E         E.E           Time - 9.00 AM environ         Time - 11300-12300         Time - 3300-43           1         PG1         9/10/17         Time - 11300-12300         Time - 3300-43           2         M = III         11/10/17         AMA         9/8/17         PIC & SCADA Application           3         MS         12/10/17         EM = II         10/8/17         CS II           4         ADE         13/10/17         PE         11/8/17         RES           5         EMI         14/10/17         EIMI         12/8/17         R & D	8/8/17 9/8/17 10/8/17
Time - 9.00 AM onwards         Time - 11300-12300         Time - 3300-43           1         PC91         9/10/17         11M         8/8/17         PSCC           2         M = III         11/10/17         AMA         9/8/17         PIC & SCADA           3         MS         12/10/17         EM = II         10/8/17         CS II           4         ADE         13/10/17         PE         11/8/17         RES           5         EMI         14/10/17         EIMI         12/6/17         R & D	8/8/17 9/8/17 10/8/17
I         VGI         V/10/17         IIM         S/8/17         VSOC           2         M = III         11/10/17         AMA         V/8/17         VIC & SCADA Application           3         MS         12/10/17         EM = II         10/8/17         CS II           4         ADE         13/10/17         PE         11/8/17         RES           5         EMI         14/10/17         EIMI         12/8/17         R & D	8/8/17 9/8/17 10/8/17
2         M = III         11/10/17         AMA         9/8/17         MC & SCADA Application           3         MS         12/10/17         EM = II         10/8/17         CS II           4         ADE         13/10/17         PE         11/8/17         RES           5         EMI         14/10/17         EIMI         12/8/17         R & D	9/8/17
A         ADE         12/10/17         EM = II         10/8/17         CS II           4         ADE         13/10/17         PE         11/8/17         RES           5         EMI         14/10/17         EIMI         12/8/17         R & D	10/8/17
4         ADE         13/10/17         PE         11/8/17         RES           5         EMI         14/10/17         EIMI         12/8/17         R & D	
5 EMI 14/10/17 EIMI 12/8/17 K&D	
	11/8/17
Extra Activitica Schodulc	12/8/17
. No. Activity Date	
1 Industrial Visit to Madday, Capacitor for S.E. Students. July 20	
2 Industrial Visit to power plant for S.E. Students. Aug 20	17
r. No. Holiday Date Day	
1 Kamana Date Daty 1 Kamana Date Daty	
1         000000 ED         2010117         Monto:           2         Independence Day         15/8/17         Incede	-
3 Chancels chaluelle 25/8/17 Frider	- C
4 Apart Chatratea	
5 Uprave 30/9/17 Saturda	e
6 Gandhi Jajagh 2/10/17 Monda	- C.
7 Lésmenues 19/10/17 Ibund	
8 Belgroppede 20/10/17 Finder	
9 Bhaubu 21/10/17 Saturdi	y .
Cumulabre Attendance Schedule	
No. Date of Display Letter Dispat	ch Date
1 15//17 17//1	7
2 10/3/17 13/3/1	
2 16/8/17/ 18/8/1	e
E 15/9/17 17/9/1	v
4 IV 18/10/17 20/10/	W.
Feedback Schedule	
. No. Class Feedback Date Feedback A	
1 SE, IE, BE 01/08/17/ 02/08/	
2 SE, IE, BE 01/10/17 02/10/2) Mochag Schedule	147 
HODs Meeting with Pancipal as weekly on Manday Faculty Meeting with H.O.D weekly on Saturday- 1:30pm	

### 2.6 Student Performance and Learning Outcomes

### **2.6.1** Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students

#### **Response:**

Program specific outcomes and course outcomes for all courses offered by the institution are formulated during the framing of the syllabus by the affiliating university. The syllabus is framed by the teachers of affiliated colleges involving the subject/industry experts. As there are large number of courses offered from first year to final year, COs of few of the courses are listed here, because the numbers words exceed the restricted number of words. The COs of few of the courses is as listed below.

#### First Year Engineering: Semester I: Engineering Maths – I 107001:

#### **Course Outcomes:**

• CO1: Explain the solution of system of linear equations by matrix method, orthogonality of linear transformation and Eigen values, Eigen vectors, essential in various engineering problems.

• CO2: Explain the solution of algebraic equation by De-Movires theorem and separate functions of complex variable into real and imaginary parts.

• CO3: Explain convergence and divergence of an infinite series and find nth derivative of product of functions by Leibnitz's theorem.

• CO4: Find Taylor's and Maclaurian series expansion of differentiable functions and evaluate the limit of indeterminate forms using L'Hospital Rule.

• CO5: Find Partial and Total derivative of functions of several variables.

• CO6: Apply the concept of Partial and Total derivative to find stationary values, error and approximate values of function. Also, examine functional dependency by Jacobean.

#### Second year Electrical Engineering: Semester: III: Power Generation Technologies, 203141:

#### **Course Outcomes:**

• CO1: Be aware of the principle of operation, components, layout, location, environmental and social issues of nuclear, diesel and gas power plant.

• CO2: Identify and demonstrate the components of hydro power plant and calculation of turbine required based on catchment area.

 $\cdot$  CO3: Find the importance of wind based energy generation along with its design, analysis and comparison.

• CO4: Apply solar energy in thermal and electrical power generation considering energy crisis, environmental and social benefits.

• CO5: Understand the operation of electrical energy generation using biomass, tidal, geothermal, hydel plants, fuel cell and interconnection with grid.

**Mechanism of communication of Program specific outcomes and course outcomes:** The POs, COs and PSOs are communicated through MOODLE, institute website, laboratory manuals, by inclusion of a slides with COs and PSOs in the PPT by teachers, by display boards in the departments.

File Description	Document
COs for all courses (exemplars from Glossary)	View Document
Link for Additional Information	View Document

### **2.6.2** Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution

#### **Response:**

**Program Outcomes (POs)** as identified by National Board of Accreditation (NBA) and NAAC are what the graduates of an undergraduate engineering program should be able to do at the time of graduation. The POs are discipline non-specific. A total of twelve Program Outcomes have been prescribed in the NBA/NAAC/affiliating University.

**Program Specific Outcomes (PSOs)** are what the graduates of a specific undergraduate engineering program should be able to do at the time of graduation. The PSOs are program specific. PSOs are written by the Department offering the program.

Course Outcomes (COs) are what the graduates of a specific undergraduate engineering program should be able to do in the concerned domain of the subject and apply the knowledge to solve an engineering problem.

#### Method of measuring attainment of POs, PSOs and COs

The process of measuring attainment of COs, POs and PSOs starts from writing appropriate COs for each course in the four-year engineering degree program. The course outcomes are written during framing of the syllabus action verbs of learning levels as suggested by Bloom Taxonomy.

The level of attainment of COs are worked out considering the performance of student in internal and external examinations conducted by institute and affiliating University respectively by subject teacher Then, a correlation is established between COs and POs and COs and PSOs on the scale of 0 to 3, 0 being no correlation, 1 being the low correlation, 2 being medium correlation and 3 being high correlation. A 6x12 mapping matrix of COs-POs and 6x4 mapping matrix of COs-PSOs is prepared in this regard for all courses in the program. The attainment in worked out considering the attainment levels as given below.

- 1. Attainment level 1: 60% of students scored more than 55% marks
- 2. Attainment level 2: 70 % of students scored more than 55% marks
- 3. Attainment level 3: 80% of students scored more than 55% marks

A detailed method of measuring the attainment of POs, PSOs and COs is uploaded as additional information in QIF.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

#### 2.6.3 Average pass percentage of Students

#### **Response:** 86.31

2.6.3.1 Total number of final year students who passed the university examination

#### Response: 542

2.6.3.2 Total number of final year students who appeared for the examination

Response: 628

File Description	Document
Institutional data in prescribed format	View Document

#### 2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process	
Response:	
File Description     Document	
Database of all currently enrolled students     View Document	

### Criterion 3 - Research, Innovations and Extension

#### **3.1 Resource Mobilization for Research**

**3.1.1** Grants for research projects sponsored by government/non government sources such as industry ,corporate houses, international bodies, endowment, chairs in the institution during the last five years

#### **Response:** 6.4

3.1.1.1 Total Grants for research projects sponsored by the government/non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year wise during the last five years(INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
1.7	0	4.7	0	0

File Description	Document
List of project and grant details	View Document
e-copies of the grant award letters for research projects sponsored by non-government	View Document

#### 3.1.2 Percentage of teachers recognised as research guides at present

#### Response: 2.33

3.1.2.1 Number of teachers recognised as research guides

Response: 4

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

# **3.1.3** Average number of research projects per teacher funded by government and non government agencies during the last five years

#### **Response:** 0.2

3.1.3.1 Number of research projects funded by government and non-government agencies during the last five years

Response: 62

File Description	Document
Supporting document from Funding Agency	View Document
List of research projects and funding details	View Document
Funding agency website URL	View Document

### **3.2 Innovation Ecosystem**

### **3.2.1 Institution has created an ecosystem for innovations including incubation centre and other initiatives for creation and transfer of knowledge**

#### **Response:**

Institution has created an eco system for innovations including incubation center. A Centre for Innovation Incubation and Entrepreneurship Development (CIIED) is functional in the institute which acts as catalyst for creation and transfer of knowledge for the students and industries with the objectives listed below.

#### Objective

- 1. To create physical infrastructure and support systems necessary for business incubation activities.
- 2. Facilitate networking with professional resources, which include mentors, experts, consultants and advisors for the incubate companies/individuals.
- 3. Services such as training.
- 4. Links to higher education resources.
- 5. Promote and facilitate knowledge creation, innovation and entrepreneurship activities

#### **Thrust Area of Proposed Incubation & Innovation Centre**

- 1. Mobile and Information Technology
- 2. Internet of things
- 3.E-commerce
- 4. Electronics design and VLSI design
- 5. CAD/CAM Applications
- 6. Software based Simulation and Optimization
- 7. Embedded System
- 8. Cyber Security
- 9. PLC logic development.
- 10. Renewable Energy

#### **Facilities to Incubatees**

#### Self Study Report of JSPM's Bhivarabai Sawant Institute of Technology and Research

- With Professional Experts, Consultants and advisor of incubatee companies.
- Promote and facilitate knowledge creation, innovation and entrepreneurship activities.
- Business Support Services: Consultants offering legal, IP, tax services.
- Permission to brand them as "BSIOTR Incubated Company" and providing 100% financial assistance for patent filing.

Sr No	<b>Description of the activity (seminar/Workshop/Hands – on – training)</b>	
1	Workshop on PHP Programming with MySQL	
2	Workshop on Web Technology using CMS	
3	Workshop on Java/Php Programming	
4	Workshop on Software Testing	
5	Workshop on Cyber Security	
6	Seminar on "Applications of Android Using Advanced JAVA"	
7	Workshop on "Pervasive Computing & Programming"	
8	Workshop on "Distributed System And Hadoop"	<u> </u>
9	Seminar "Advanced Technologies in Cyber Security "	
10	Seminar on Hacker's Tantra	
11	Workshop on DC automation	
12	Seminar on Recent Trends in VLSI Techniques	
13	Seminar on Signal Processing and Communication	
14	Seminar on Microcontroller applications	
15	A seminar on Wireless Sensor and Networks	
16	A National Level Workshop on "Core & Advanced Java"	
17	A National Level Workshop on "Core Networking : A Practical Approach"	-
18	A National Level Workshop on "Latest Trends And Technologies In Web Technolo	1 ]
19	Workshop on CCNA-Routing and Switching and MCSA	

Few of the activities undertaken under the banner of this centre are listed below.

#### Other initiatives by the institution

In addition the institution has created eco-system with the following initiatives for creation and transfer of knowledge.

#### 1. Creation of knowledge wall:

Technically informative display boards are prepared which would be useful in transfer of knowledge to the students. These are displayed in the various laboratories to create knowledge wall.

#### 2. Creation of museum with innovative project models:

Innovative projects undertaken by student with the help of sponsoring industries are preserved in various laboratories of the respective departments so that the laboratory becomes a museum in transferring the knowledge to the students.

#### **3. MOUs with industries**

MOUs are signed with industries, organizations and institutes to create an environment of mutual technological transfers and research orientated activities.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

# **3.2.2** Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the last five years

#### **Response:** 60

3.2.2.1 Total number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
16	09	15	12	08

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

#### **3.3 Research Publications and Awards**

 3.3.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research

 Response: Yes

 File Description
 Document

 Institutional data in prescribed format
 View Document

 Any additional information
 View Document

### **3.3.2** The institution provides incentives to teachers who receive state, national and international recognition/awards

Response: Yes

File Description	Document
e- copies of the letters of awards	View Document
List of Awardees and Award details	View Document

### 3.3.3 Number of Ph.D.s awarded per teacher during the last five years

#### **Response:** 0

3.3.3.1 How many Ph.Ds awarded within last five years

Response: 00

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document

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

#### Response: 0.13

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

2016-17	2015-16	2014-15	2013-14	2012-13
20	27	24	27	5

File Description	Document
List of research papers by title, author, department, name and year of publication	View Document
Any additional information	View Document

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

#### **Response:** 0.24

3.3.5.1 Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13	
72	46	46	9	17	
File Descripti	ion		Document		
File Descripti Any additiona			Document       View Document		

#### **3.4 Extension Activities**

**3.4.1** Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years

#### **Response:**

The institute has the following bodies/cells to promote various activities to sensitize students to social issues and holistic development:

- 1) National Service Scheme.
- 2) Student Welfare Cell
- 3) Women Empowerment Cell

4) Cultural Activities Cell. The activities and their Impact are as listed here.

#### **Event/Activities:**

- Tree Plantation
- Dahasatwad va Hinsachar Virodhi Diwas (Terrorism and Violence Protest Day
- Swachatta pandhrawada 1 to 15 aug17 Fifteen Days Swachatta Ahiyan.
- 5) Blood Donation Camp
- 6) NSS Day celebration & Swachatha Abhiyan at Wagholi
- 7) NSS, Special Camp at Mahagaon, Tal: Maval Dist: Pune, Pavananagar.
- 8) Plastic Kachara Nirmulanavarti sandesh at Z.P.School Kesnand, Pune

9) Yuvakanchi Badalati Manasikata ,Visit at Maher Swanstha a/p: Aapti Anatha Aasharam Donated: Food & old cloths

10) Two days workshop on Disaster Management by Dr.Abhay Saligram, Earthquake and Tsunami by Dr.Abhay, Lightening and storms by Dr.S.S.Kharat, Storm and fire by Dr.S.S.Kharat, Relief measure during and after the disaster by Dr.Prakash Shinde

11) Mahavidyalayin Yuvak Va Smart Village Sankalpana

12) Astitva-International Women's Day

13) "Amrutvarsha Mohstav" at Bhatlavani A/p: Venzur Tal: Bhor (Sowing of rice in the fields by students)

14) Guest Lecture on "Non Violence and Youth" by Inspector- General of Police (Retired) Mr. Suresh Khopade

15) Peace March arranged by Gandhi Smarak Nidhi. The theme -'Youth for Non Violence'

16) NSS-Seven Days"Vishesh Hiwali Shibhir" A/P: Mahagaon, Tal: Maval, Dist: Pune Pavananagar

17) Debate competition on AZADI

18) Seminar on "Women's Related Legislation "by Advocate Mrs.Kamal Sawant

19) Yoga and meditation by Prof P.V.Jatti

20) Participation of students in Van Mohostava under government of Maharashtra

21) Swachatta pandhrawada 1 to 15 Sep 17 (Fifteen Days Swachatta Ahiyan)

22) Seminar on "Welcoming the birth of girl Child" by Mrs.Kamal Sawant under Personal Development of Female Students sponsored by SPPU.

23) Independence Day celebration and Cleanliness drive at Wagheshwar Temple, Wagholi

24) "Sadhbhavana Divas" at Mukh Baddhir Vidhyalaya -Deaf and dumb School and many more.

**Impact** of the above activities in sensitizing student to social issues and holistic development are: Awareness on Protection of Environment, Awareness on Citizen Responsibility for the Nation, Development of thought process in the minds against Terrorism and Violence, Awareness on importance of cleanliness and social responsibility towards clean India, Social Responsibility towards the society(Human Values), Patriotism and Awareness on Protection of Environment, Social Responsibility towards the down trodden and specially abled, Awareness on Citizen Responsibility towards the community problems and development, Awareness on roll of Youths for a clean Nation, Awareness on impact of plastic waste and its impact on environment and cleanliness and its importance, Awareness on roll of a voter for development of the nation, Thought process initiation on Science and Technology, Social Responsibility towards the society during Disaster and natural calamities, Awareness on gender equity, Inculcation of patriotism, Self confidence in girl students, Awareness on fitness/stress/health, Development of confidence/empowerment, Responsibility towards the community problems and development of nation,

#### Self Study Report of JSPM's Bhivarabai Sawant Institute of Technology and Research

role of youths in nation development.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

### **3.4.2** Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years

#### **Response:** 12

3.4.2.1 Total number of awards and recognition received for extension activities from Government /recognised bodies year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
6	3	0	0	3

File Description	Document
e-copy of the award letters	View Document
Number of awards for extension activities in last 5 years	View Document

3.4.3 Number of extension and outreach programs conducted in collaboration with industry, community and Non-Government Organisations through NSS/NCC/Red cross/YRC etc., during the last five years

#### **Response:** 49

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

2016-17	2015-16	2014-15	2013-14	2012-13
23	12	5	5	4

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach programs conducted with industry,community etc for the last five years	<u>View Document</u>

#### 3.4.4 Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

#### Response: 56.92

3.4.4.1 Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1490	1589	730	490	354

File Description	Document
Report of the event	View Document
Average percentage of students participating in extension activities with Govt. or NGO etc.	View Document

#### **3.5** Collaboration

**3.5.1** Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc during the last five years

Response: 127

3.5.1.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
41 2	22	21	22	21

File Description	Document
Number of Collaborative activities for research, faculty etc.	View Document
Copies of collaboration	View Document

# **3.5.2** Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)

#### **Response:** 47

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

20	)16-17	2015-16	2014-15	2013-14	2012-13
26	5	8	3	6	4

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	View Document
Details of functional MoUs with institutions of national, international importance, other universities etc. during the last five years	View Document
Any additional information	View Document

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

#### **4.1 Physical Facilities**

**4.1.1** The institution has adequate facilities for teaching- learning. viz., classrooms, laboratories, computing equipment, etc.

#### **Response:**

AICTE is the statutory body which specifies the minimum requirement of facilities for teaching learning. The institute has all facilities as per the minimum specified requirement by statutory bodies.

Adequacy of facility for teaching learning as per the minimum specified requirement by statutory bodies

- Classroom: All classrooms are well ventilated and having proper sitting arrangement.
- Seminar hall: The institute has a common seminar hall with audio visual facilities for conducting online conferences, seminars and workshops. In addition to above, each department has their own seminar hall to conduct departmental activities.
- Laboratories: The institute has well equipped laboratories. All labs are equipped with adequate instruments /equipments to meet the curriculum requirement.
- Tutorial room: Every department has their own tutorial rooms to conduct tutorials
- Technology enabled learning rooms: To encourage students to utilize software available in the department, the laboratories are equipped with high end desktops. The Institute has provided classroom with ICT facility for efficient teaching learning process.
- Specialized features: Institute has created the Learning Management system on MOODLE platform available to all faculty and students for e- learning, Project Labs are available to enhance practical knowledge about new trends in engineering and technology. Central and departmental libraries support the teaching learning process through books, journals, e-journals, magazines etc.
- Library facility: It is well stacked with recommended text and reference books, e-books, e-journals, printed journals, CDs, rare books, digital library with air-conditioned reading room etc.Library has taken the membership of DELNET database.
- Sports Facilities: Grounds for outdoor games and facilities for indoor games are available.
- Transport facility: Institue provides bus facility for the students commuting form different places of Pune.
- Gymnasium well equipped Gymnasium is available for students and staff.
- Cafeteria: Canteens with all necessary amenities and hygiene are available.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

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

**Response:** 

#### **Facilities for Sports Activities:**

- The institute has adequate sports facilities and cultural centers for holistic development of students. The details of the facilities available are as follows: 1) Basketball court with size- 28mx15m meters
  2) Volley ball courts with size- 18mx9m 3). Football cum cricket field with size- 90mx45m meters.
  4) A Kho-Kho ground. 5) Indoor games facilities like Carrom and table tennis are made available to the students.
- College has a well-equipped gymnasium with facilities such as machine exercises, free weight exercises, etc,
- Physical Education Director is appointed to train the students participating in various zonal, all India and Inter-university level tournaments.



**Play Ground** 



#### **Basket Ball Ground**

#### Facilities and promotion of Cultural Activities:

- The College has auditorium with sound system, music system, drum set, light system and various allied equipment.
- To promote Indian classical culture among students an Hobby Club is formed with sufficient number of traditional and modern musical instruments.
- Every year students organize cultural event named "Nakshatra".which is annual Social Gathering in which dance, skits, singing etc are promoted
- The students from college have participated in various state and national level competitions and also won prizes in the same. Students are motivated to participate in intercollegiate competitions.



**Annual Social Gathering** 



<image/>	
File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

# 4.1.3 Percentage of classrooms and seminar halls with ICT - enabled facilities such as smart class, LMS, etc

#### Response: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 36

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	View Document

# **4.1.4** Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.

#### Response: 3.59

4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year wise during the last five

years (INR in L	akhs)				
2016-17	2015-16	2014-15	2013-14	2012-13	]
16.1	17.8	13.52	12.3	23.08	]
File Descriptio	n		Document		
Details of budg the last five yea	et allocation, exclud	ing salary during	View Document		
Audited utilizat	ion statements		View Document		

### 4.2 Library as a Learning Resource

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

#### **Response:**

The Central Library of the institute is partially automated with Autolib Software version 10, from 2010. This system enables efficient library administration to cater students and staff services. This software has various following modules as under;

Circulation (lending materials to patrons and receiving them back): In the library circulation module provision is made to issue/return/renew for books circulation, non-print material circulation (CD, DVD, etc.) and serial circulation (Print Journals/Magazines).Library rules setting; generate the barcodes, listing of books (by authors, publishers, and suppliers), printing of member barcode, etc. There is provision for immediate confirmation of library transactions through the email and message alert facility.

OPAC: Online Public Access Catalog for searching the library resources. User can search the library resources as per follows:

1. General Search: Title Author Publication Keywords Classification

2. Advance Search: The searching can be done with various combinations Title Author Publication Keywords Classification.

3. Accession Search: Search can also be done through the accession numbers without remembering the title or author of the book. This facilitates fast & accurate searching. Reports: This is an important component of the Integrated Library Management System (ILMS) which helps to generate various reports/ returns. The following reports are generated through this module: Books Issue/Return date wise, user wise, department wise, Reports required for various statutory bodies and inspection teams and History of user and library resources. This will help in maintaining optimum stock of the concerned resources. Serials: This is an important module of the Integrated Library Management System (ILMS) to maintain and keep record the serials (Print Journals, Magazine, bound volumes and Newspapers). Through this module we can track the subscription period and renewal date of the serials.

File Description	Document
Link for Additional Information	View Document

### **4.2.2** Collection of rare books, manuscripts, special reports or any other knowledge resources for library enrichment

#### **Response:**

The central library of the institute is well stacked with recommended text books, reference books, CDs. It has the subscription of e-books and journals and Printed journals. In addition library has collection of rare books, manuscripts, special reports and other knowledge resource for library enrichment, accessible to the students and faculty as reference material for enrichment of their knowledge. These rare books include books on competitive exam, Encyclopedia, motivational books, novels, books on health care, politics, history, inventions, research, etc. There are total of **145 titles and 281 volumes**. These are enlisted in the table which is uploaded as additional information. The table contains Name of the book/ manuscript, Name of the publisher, Name of the Author, Number of copies and Year of publishing.

File Description	Document
Link for Additional Information	View Document

4.2.3 Does the institution have the following:	
1.e-journals 2.e-ShodhSindhu	
3.Shodhganga Membership	
4.e-books	
5.Databases	
A. Any 4 of the above	
B. Any 3 of the above	
C. Any 2 of the above	
D. Any 1 of the above	
<b>Response:</b> B. Any 3 of the above	

File Description	Document
Any additional information	View Document
Details of subscriptions like e-journals,e- ShodhSindhu,Shodhganga Membership etc.	View Document

# **4.2.4** Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)

#### **Response:** 29.02

4.2.4.1 Annual expenditure for purchase of books and journals year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
42.43	31.00	39.9	9.06	22.72

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	View Document
Audited statements of accounts	View Document

#### 4.2.5 Availability of remote access to e-resources of the library

#### Response: Yes

File Description	Document
Details of remote access to e-resources of the library	View Document
Any additional information	View Document

4.2.6 Percentage per day usage of library by teachers and students		
Response: 7.09		
4.2.6.1 Average number of teachers and students using library per day over last one year		
Response: 135		
File Description     Document		
Details of library usage by teachers and students	View Document	

#### **4.3 IT Infrastructure**

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

#### **Response:**

The institution has IT facilities including WI-FI and sufficient number of computers and required number of peripherals. The facility available facilitates ICT enabled teaching-learning process and evaluation, research activities, and administration. The departments are having system software and application software, both licensed and open source softwares. The following table describes the computing facility available:

System Software	1. Windows XP
	2. Windows Vista
	3. Windows 7
	4. Windows 8
	5. Windows 8.1
	6. Windows 10
	7. Windows Server
	8. Ubuntu 14.04 (Open Source)
	9. Fedora 19/20 (Open Source)
	10. Windows Server 2008 R2 Standard
	11. Windows Server 2008 R2 Enterprise 64-bit
Application	1. Exchange Server Standard Turbo C++ 4.5
Software's	2. Adobe Flash MS Office 2013
	3. Oracle 9i
	4. Microsoft Visual Studio 2008
	5. Microsoft Visual Studio 2012
	6. Microsoft Visual Studio Express
	7. Microsoft Office 2003/2007/2010/2013

		8. MATLAB 6.0
		9. Proteus 11
		10. MATLAB Tool Boxes 5
		11. Chips scope pro software
		12. Embedded System Development software
		13. DSP Application Software
		14. Xilinx 14.1
		15. Chips scope pro software
		16. DSP Application Software
		17. Tally ERP 9
		18. Pro-E
		19. Auto CAD
		20. Master CAM
		21. Ladders Programming Triton
		22. NI Academic Site License
		23. NI Multisim Circuit
		24. Micro wind 3.1
		25. CAD FEKO
		26. EZNEC
		27. Code Block
Internet and WI-FI faci	lity:	Internet Facility Details:100 Mbps leased line
		Content Ratio: 1:1(Gold)
		(ISP provider –TATA Telecom),
		Date of Updating: 01/09/2017
		Aircell Backup line:10Mpbs

		Date: June 2017 Campus Wi-Fi available Nature of Updating:48 M	Ipbs to 200Mpbs	
Sr.	Courses	No of P-IV	Latest Configuration	
1	Computer Engineering	264	P-IV,	_
2	Information Technology	115	4 GB RAM, 500GB HDD,	
3	Electronics& Tele. Engg.	87	— Optical Mouse, Keyboard, INTI	I
4	Mechanical Engg.	55	Dual Core 1.7GHZ, TFT Monitor	
5	Computer Centre	45		
6	Electrical Engineering	52		
7	Lib+office+staff+hostel+WS	26		
	TOTAL	644		
le Des	cription	Document		
Any additional information <u>View Document</u>				

4.3.2 Student - Computer ratio	
Response: 2.71	
File Description     Document	
Student - Computer ratio     View Document	
Any additional information	View Document

# 4.3.3 Available bandwidth of internet connection in the Institution (Lease line) <5 MBPS

#### **5-20 MBPS**

#### 20-35 MBPS

#### 35-50 MBPS

#### **Response:** 35-50 MBPS

File Description	Document
Any additional information	View Document
Details of available bandwidth of internet connection in the Institution	View Document

# 4.3.4 Facilities for e-content development such as Media Centre, Recording facility, Lecture Capturing System (LCS)

Response: Yes	
File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	View Document
Link to photographs	View Document

### 4.4 Maintenance of Campus Infrastructure

**4.4.1** Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years

Response: 15.06

4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
90.87	100.12	82.34	59.73	40.21

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	View Document
Audited statements of accounts.	View Document

#### 4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic

#### and support facilities - laboratory, library, sports complex, computers, classrooms etc.

#### **Response:**

There are established systems and procedures for maintaining and utilizing physical, academic and support facilities such as laboratory, sports complex, computer, classroom etc in the institute. The maintenance of physical, academic and support facilities are carried out by the respective departments with the help of in house staff on daily basis and periodically. And care has been taken to keep the equipments, machine etc in working condition. In case of breakdowns standard procedure is followed to bring the equipment/machine in working condition. A supervisor is appointed to monitor and maintain the physical facilities and housekeeping. A brief description is presented below on maintenance and utilization of some facilities.

- 1. Laboratories (All Labs & Computer center): Each laboratory has one teacher as lab in-charge, a Lab Assistant and attendant. Lab in-charge is responsible to maintain and update the laboratory with necessary equipments from time to time to cope with change in the syllabus. Every end of the semester dead stock verification (Physical Verification) is carried out to verify working/nonworking/missing equipments etc. Preventive maintenance and performance monitoring is carried out. Every laboratory assistance keeps the record of utilization of equipments, computers and other required material for experiments.
- 2. Library: Librarian with supporting staff has been appointed to maintain central library. They focus on the availability and utilization of instructional material in teaching and learning process. Every end of the Academic year stock verification is done. Librarian will prepare the report on the same and utilization of books by the students and staff. Procurement of books as per the requirement is initiated through library committee by inviting the requirement of books from various departments which is then processed following the procurement procedure.
- 3. **Sport complex/ground/equipments:** Physical Director has been appointed to look after the all sports related activities. The sports equipments are issued to the students as per the schedule of the events. If any equipments get faulty sport director submits proposal for maintenance. Preventive maintenance measures are taken in time. Sport director is keeping the record of utilization of sport facilities.
- 4. **Class Rooms:** The class rooms are cleaned on daily basis monitored by institute supervisor. Head of the institute, HODs and Class teachers also monitor the cleanliness and ensure that the cleanliness is maintained in the class rooms.
- 5.**IT facilities:** A system administrator is appointed to maintain the IT facilities in the institute. In case of major issues of maintenance vendors are hired for maintenance of IT facilities.
- 6. **Electrical, Drinking water coolers, Lift etc.:** Institute has employed technicians for up keeping and maintenance of electrical and water drinking facility. Institute has also appointed housekeeping staff to maintain the gardens.
- 7. CCTV, Security etc: To maintain internet connectivity and CCTV security system, network and system administration team is appointed.LCD projectors, EPBX system, air conditioners are maintained with the help of external agencies. Security staff including ladies guards under a security supervisor is employed to safe guard the whole premises.

### Criterion 5 - Student Support and Progression

#### **5.1 Student Support**

### **5.1.1** Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years

#### Response: 63.34

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

2016-17	2015-16	2014-15	2013-14	2012-13
1382	1273	1020	696	572

File Description	Document
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	View Document
Upload self attested letter with the list of students sanctioned scholarships	View Document

# 5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution besides government schemes during the last five years

Response: 1.97

5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes year wise during the last five years

2016-17	2015-16	2014-15		2013-14	2012-13
07	05	01		110	05
File Description	<b>Dn</b>		Docum	nent	
Any additional	information		View D	Document	

5.1.3 Number of capability enhancement and deve	lopment schemes –
1.For competitive examinations 2. Career counselling 3.Soft skill development 4. Remedial coaching 5. Language lab	
6.Bridge courses	
7.Yoga and meditation 8.Personal Counselling	
o.i ei sonai Counsennig	
A. 7 or more of the above	
B. Any 6 of the above	
C. Any 5 of the above	
D. Any 4 of the above	
<b>Response:</b> A. 7 or more of the above	
	D
File Description	Document
Details of capability enhancement and development schemes	View Document
Any additional information	View Document

Link to Institutional website

# **5.1.4** Average percentage of student benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years

View Document

#### **Response:** 47.9

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

2016-17	2015-16	2014-15	2013-14	2012-13
1563	232	1123	484	362

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	<u>View Document</u>
Any additional information	View Document

# **5.1.5** Average percentage of students benefited by Vocational Education and Training (VET) during the last five years

#### Response: 100

5.1.5.1 Number of students attending VET year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13	
1820	1857	1663	1274	1017	

File Description	Document
Details of the students benifitted by VET	View Document

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

#### **Response:** Yes

File Description	Document
Details of student grievances including sexual harassment and ragging cases	View Document

#### **5.2 Student Progression**

# 5.2.1 Average percentage of placement of outgoing students during the last five years Response: 53.19 5.2.1.1 Number of outgoing students place wise during the last five years 2016-17 2015-16 2014-15 2013-14 2012-13 150 209 182 175 173

File Description	Document
Self attested list of students placed	View Document
Any additional information	View Document
Details of student placement during the last five years	View Document

#### 5.2.2 Percentage of student progression to higher education (previous graduating batch)

#### Response: 3.87

5.2.2.1 Number of outgoing students progressing to higher education

Response: 21

-		
File Description	Document	
Details of student progression to higher education	View Document	

# 5.2.3 Average percentage of students qualifying in state/national/international level examinations during the last five years (eg: NET/SLET/GATE/ GMAT/CAT, GRE/ TOFEL/ Civil Services/State government examinations)

**Response: 30.08** 

5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: NET/SLET/GATE/GMAT/CAT, GRE/TOFEL/Civil Services/State government examinations) year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
81	25	13	8	15

5.2.3.2 Number of students who have appeared for the exams year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
123	102	72	61	52

File Description	Document
Number of students qualifying in state/ national/ international level examinations during the last five years	View Document
Upload supporting data for the same	View Document

#### **5.3 Student Participation and Activities**

**5.3.1** 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) during the last five years.

#### Response: 131

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

2016-17	2015-16	2014-15	2013-14	2012-13
83	46	2	0	0

File Description	Document
The Description	Document
e-copies of award letters and certificates	View Document
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	<u>View Document</u>

# **5.3.2** Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution

#### **Response:**

Various Students council and academic and administrative bodies exist in the institution which are as listed follows

- Institute Student Council
- Indian Society for Technical Engineering student forum,
- Institute of Electronics and Telecommunication Engineering forum
- Institute of Electrical and Electronics Engineers forum,
- JSPM's Bhivarabai Sawant Institute of Technology and Research Alumni Association
- Training and Placement Committee
- Electronics and Telecommunication Engineering Students Association

- Computer Engineering Students Association
- Mechanical Engineering Students Association
- Information Technology Students Association
- Electrical Engineering Students Association

Student Council:

The composition is as follows:

General Secretary

Cultural Secretary

Sports Secretary

Activities organized by student council–Various co-curricular, extracurricular and cultural activities are organized by the student council members along with the faculty coordinators. Students play administrative role in following activities..

- Annual social gathering "NAKASHTRA"
- National level Mega technical event "CYNOSURE"
- Technical project & poster exhibition "TECHNOVATION"
- Technical event"TECHNOMANIA"
- Technical and Non Technical events "INFONERVE"
- Hobby Club
- Art gallery
- Workshops, Seminar and guest lecturers organized under banner of Student forum.
- University level project completion; "AVISHKAR" orientation program.
- Treasurer ensures proper financial management of the Student Body corpus so that various student run activities can be conducted smoothly.
- Council Members and the teams together strive hard to ensure that co curricular and extracurricular activities get an enriching and memorable experience during their tenure at BSIOTR.
- Sports secretary look after the all administrative part of annual sports activities along with members from each department under the guidance of sport director.

#### **Student's forum of Professional bodies**

Student's forums of professional bodies have the student's representation. The forums focus on the promotion of activities related to academics and skill enhancement programmes.

#### Alumni Association Committee:

The alumni association of BSIOTR is registered with the charity commissioner office. The executive committee of the alumni association comprises of present student and alumni as its members. These

members play very important role of initiating, maintaining and renewing communication with the BSIOTR alumnus. One of the critical elements of relations is networking. As BSIOTR chart its upward climb rapidly, a strong and healthy relationship with the alumni and the industry helps in providing newer avenue for growth across various sectors for the students.

#### **Placement Committee:**

At JSPM's BSIOTR Placement activity is run by training and placement officer along with students that is actively guided and supported by the training placement coordinator and the Faculty Council. The student coordinators and training & placement coordinators of each department are motivated for developing and nurturing relationships with corporations for both recruitment and non-recruitment related activities. These include actively engaging companies on a regular basis, handling operations during the Placement week and acting as a conduit for Organizations and Industry Leaders to interact with students through Business Talks and sponsored corporate Projects.

#### **Department Level students Associations**

These associations are fully represented by the students guided by a faculty member. These associations take initiative for promotion of activities related to academics, skill enhancement programmes cocurricular and extra-curricular activities. Students are encouraged to take decisions, plan and execute the programs to develop decision making and leadership skills.

File Description	Document
Any additional information	View Document

# **5.3.3** Average number of sports and cultural activities/ competitions organised at the institution level per year

#### Response: 30.4

5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year wise during the last five years

	012-13
44 36 29 20 23	5

File Description	Document
Report of the event	View Document
Number of sports and cultural activities / competitions organised per year	View Document

#### 5.4 Alumni Engagement

**5.4.1** The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non financial means during the last five years

#### **Response:**

#### Alumni Association:

The Alumni Association of BSIOTR was established earlier and registered with the charity commissioner office in August 2017(MAHA/1097/2017/Pune). Total registered members are more than one thousand one hundred (1100).

The executive committee of the alumni association comprises of present student and alumni as its members along with other members. These members play very important role of initiating, maintaining and renewing communication with the BSIOTR alumnus. One of the critical elements of relations is networking. As BSIOTR chart its upward climb rapidly, a strong and healthy relationship with the alumni and the industry helps in providing newer avenue for growth across various sectors for the students.

ى، «بىر يىسە ( «»، ئىيى چېر بىل ئىس پەر	[Brobu-ia, and (i)], in the state of
2	No. 37176
नोंदणी र	प्रमाणपत्र
संख्या गाँवची उ	अधिनियम, १८६०
(१८६० था व	मचिनियम, २१)
	भोहणी multer:/ 10.57 /2017/生 दिनाक 4 /名 /2017/生
alsit असे प्रमाणित करण्यान येते को, <sup>"</sup> OH	IVARABAI SAWANT
RESEARCH ALUMN	HNOLOGY AND I ASSOCIATION "
WAG HOLE CAMPUS and the second and was a second and was a second and a second a	Contraction and and and and and and and and and an
1. 00 1.	प्र बहाव्यक संस्था निर्वयक पुचे विजाय, पुचे विकास

#### **Contribution of Alumni:**

#### Financial

- 1. Every alumni contribute Rs. 500/- in the form of registration fees for the lifetime membership of alumni association.
- 2. Alumnae are also providing sponsorship for technical events organized by institution.

#### Non Financial:

- 1.IQAC has alumni of the institution as member; these members contribute to the improvement of teaching learning process.
- 2. The alumnae are invited to deliver guest lecture on current developments in competitive global market.
- 3. Alumnae are invited resource persons for workshops, seminars on recent trends in technology.
- 4. Alumni always help the institute for the Placement purposes.
- 5. Alumni visit the Institute for sharing their valuable experiences with juniors.
- 6. They guide the institute students in their industry oriented project work.
- 7. The alumnae actively participate as judges in various technical and nontechnical competitions organized by institution.
- 8. Adopt the Alumni Association core values of excellence, lifelong relationships, lifelong learning, inclusiveness and diversity, global citizenship, advocacy.
- 9. Participate faithfully and consistently in Alumni Council meetings and functions.

- 10. Enthusiastically communicate the mission and purpose of the BSIOTR and Alumni Association to the wider alumni population.
- 11. Support a strong relationship between the Alumni Association and current students.
- 12. Assist current students and alumni in career planning, placement and transitions.
- 13. Develop strong working relationships with other Alumni Council members.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

5.4.2 Alumni contribution during the last five years <1 Lakh			
1 Lakh - 3 Lakhs			
3 Lakhs - 4 Lakhs			
4 Lakhs - 5 Lakhs			
Response: 3 Lakhs - 4 Lakhs			
File Description	Document		
Any additional information	View Document		
Alumni association audited statements <u>View Document</u>			

#### 5.4.3 Number of Alumni Association / Chapters meetings held during the last five years

#### **Response:** 2

5.4.3.1 Number of Alumni Association /Chapters meetings held year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
01	01	0	0	0

File Description	Document
Number of Alumni Association / Chapters meetings conducted during the last five years.	View Document
Any additional information	View Document
Report of the event	View Document



#### **<u>Criterion 6 - Governance, Leadership and Management</u>**

#### 6.1 Institutional Vision and Leadership

**6.1.1** The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the institution

#### **Response:**

Vision: Satisfy the **aspirations of youth force**, who want to lead nation towards prosperity through technoeconomic development.

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

#### Nature of governance

Governing Body of the institute has framed the guidelines and directions for the programs, policies and processes. Local Managing Committee (LMC) which is now College Development Committee (CDC) looks after the decision making at the institute level. For effective implementation of plans/activities, various committees are formed and responsibilities are decentralized. Faculty members are involved actively in decision making at different levels. Academic responsibilities are fairly divided among all the faculty members. The management including (Local Management Committee, Internal Quality Assurance Committee, governing body, local management Committee, Board of Directors), Principal and faculty focus on institutional objectives as given below.

#### Perspective plans

Institute has a formally developed quality policy which is based on Vision, Mission and inputs from various stakeholders. The Institute has a perspective plan to be an Autonomous Institute and stage wise Centre of Excellence of various departments. Continuous quality improvement is aimed at teaching learning, research and development, community engagement, industry interaction. The institute has a mechanism for regularly obtaining and analyzing student feedback on its performance.

#### Participation of the teachers in the decision making bodies

Principal, Heads of the various departments teachers play key role through different committees in monitoring and evaluation of policies and plans of the institution for effective implementation and improvement in tune with the vision and mission of the Institution. Decentralized working and allocation of various responsibilities encourages involvement of staff in improving effectiveness and efficiency of Institutional processes.

File Description	Document
Any additional information	View Document

#### 6.1.2 The institution practices decentralization and participative management

#### **Response:**

#### **Participative management**

The JSPM's BSIOTR practices decentralization and participative management by assigning different rights and responsibilities to faculty members' through various designations and committees at institute and departmental level. Institute level Committees and designations with rights and responsibilities assigned to them are listed below. The power to take decisions is decentralized by the management.

Sr. No.	Committee/Designation	Rights & Responsibilities
1	Governing Body	Deciding Quality Policy and Code of Conducts for the institute
2	LMC(Local Management Committee)	Monitoring the execution of GB Policies.
3	IQAC (Internal Quality Assurance Cell )	To recommend/monitor reforms in academics and administration of the institute.
4	Dean (Academics)	Monitoring of teaching-learning process and recommend reforms.
5	Dean ( R&D)	Promoting Faculty members and students for extension activities.
6	Student welfare Officer	To plan and implement student welfare activities like earn and learn scheme.
7	Training & Placement Officer	Training and Placement of students.
8	Academic Monitoring Committee	Resolving Academic problems
	Research and Development Cell	Promoting Research & Funding Agencies
10		To motivate students to become entrepreneur through various programs

11	Industry-Institute Interaction Cell	Interaction With Industries & MOU	
12	Examination Cell/CEO	To conduct exams as per rules & Regulation	
13	Co-curricular activity Cell (CESA/ MESA	Promotion of co-curricular and extracurricular	
	ITSA)	Activities.	
14	Library advisory Committee (Central and	Up gradation /Development of library resources	
	Dept. library)		
15	NSS	To promote Social Activities	
16	Students Chapter	To motivate student centric activities	

# Department level Committees and designations with rights and responsibilities assigned to them are listed below.

Sr. No.	Committee/Designation	Rights & Responsibilities	
1	HoD (Head of Department)	Monitoring overall departmental working	
2	Departmental Academic Coordinator Monitoring daily working of Department.		
3	Guardian Faculty Member Monitoring and counseling students.		
4	Project coordinator	rdinator Guiding and motivating students.	
5	Time Table Coordinator	Prepare master and class wise Time Table	
6	Exam Coordinator	Conducting exam related task e.g. Unit test, In semester,	
		oral/practical	

A case study of practicing decentralization

#### Development of Laboratory

The power of up gradation of laboratories in the institute is completely decentralized. The in-charge faculty member of the concerned laboratory having the expertise in that domain is given complete rights to upgrade the existing systems includes software/hardware/equipments to create research oriented infrastructure. He is given the free hand to prepare necessary technical quotation with specifications taking into consideration the technical aspects required for conduction of practical as well as research activities. He calls the quotation from the vendors as per the specifications, visits the plant for demonstrations of major equipments, if required. Prepares comparative statement considering all the quotations received from different vendors. He then recommends a vendor considering the cost, quality and service provided by the vendor. The proposal is sent to management through Head of the Department for approval. Management initiates the process of procurement of the proposed equipments/systems/software/hardware etc after having discussion during the meeting of the purchase committee.

File Description	Document	
Any additional information	View Document	

#### **6.2 Strategy Development and Deployment**

#### 6.2.1 Perspective/Strategic plan and Deployment documents are available in the institution

**Response:** 

Example of activity successfully implemented based on the strategic plan

#### Goal:

To create a self disciplined physically fit, mentally robust and morally strong engineers and technocrats with a sense of purpose and integrity, who are capable of meeting challenges of the ever advancing technology and globalization for the benefit of mankind and nature.

#### Strategic plan for Add-on courses:

Conduction of add-on courses is one of the strategic plans of the institute to enhance the skill sets of the students for making them employable. The institute implements the syllabus framed by the affiliating university. The curriculum is designed by the institute considering the syllabus by conduction of FDPs in which all subject teachers, senior faculty and few industry experts participate. Considering the inputs given by the participants of the workshop and considering the latest technological skill sets required for developing a skilled engineer add-on Courses to bridge gap in the syllabus and the industry practices are designed. This activity is part of the institutional strategic plan. These courses are conducted by in-house faculty and partnering organization as the need be. These are conducted on evenings or on holidays and weekends. These courses have helped the students to update their knowledge compatible to the needs of the industry.

#### Example of activity successfully implemented based on the strategic plan:

As one of the strategic plan of the institute, Value added courses were conducted by various departments on current technologies on weekends and/or after regular college hours. The experts from industries and inhouse faculty members were the resource persons for the courses conducted. The following table shows few of the courses conducted as per the strategic plan.

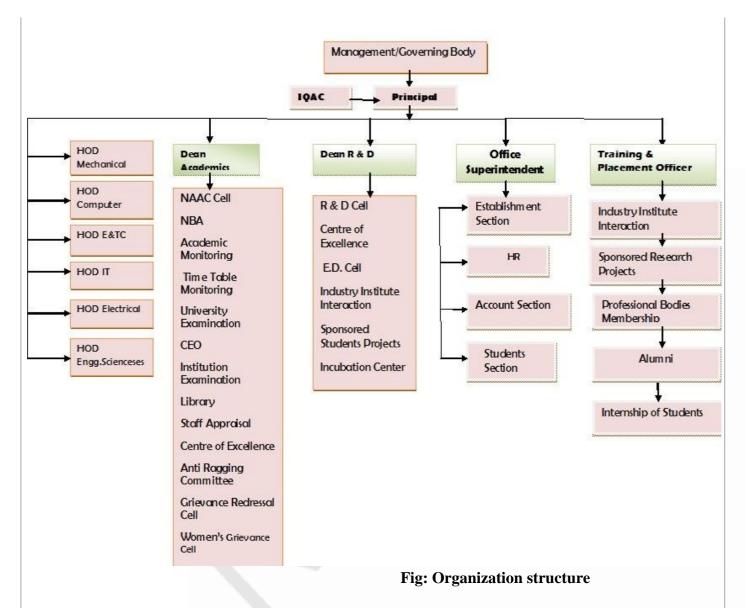
Sr.No	Name	ofName of Value Adde	Name of resource person	Partnering Organization
	Department conducting course	Course the		
1	Information Technology	Oracle-Pursue Caree as Databas Administrator	rMs. Sayali Landge e Prof. Pallavi Shejwal	Cognizant Technologies
2	Information Technology	CCNA-Routing an Switching and MCSA	dMr. Madhav Pande	NITS Global
3	Computer Engineering	Web Technology usin CMS	gMr.Aditi Giri	TechHub Pvt Ltd.
4	Computer Engineering	PHP Programmin with MySQL	gProf. Bharat Burghate	JSPM's BSIOTR
5	Electrical Engineering	PLC & SCADA	Mr. B. V. Kulkarni	Hi-tech Advance Vocationa Training System
6	Electrical Engineering	DC Automation	Mr.B.V.Kulkarni	Hi-tech Advance Vocationa Training System
7	Electrical Engineering	Matlab	Mr.B.V.Kulkarni	Hi-tech Advance Vocation Training System
8	E&TC	Embedded Systems	Mr.Deepak Kadam, Prof.	Trividh Tech Solution P

	Engineering		Puranik	Ltd
9	E&TC	Software Testing	Prof. Janavi Timalapur	JSPM's BSIOTR
	Engineering			
10	Mechanical	AutoCAD Certificate	eProf. Amar Kale	JSPM's BSIOTR
	Engineering	course in Boiler	r	
		Pressure Vessel Heat		
		Exchanger Design		
And man	ny more			
File Des	cription		Document	
Link for Additional Information		View Document		
Strategic Plan and deployment documents on the website		View Document		

# 6.2.2 Organizational structure of the institution including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism

#### **Response:**

The college has a well framed internal organizational structure of the College for decision making processes and their effectiveness.



#### Functions of Various Bodies are as given below:

Sr. No. Committee/Designation		Rights & Responsibilities	
1	Governing Body	Deciding Quality Policy and Code of Conducts.	
2	LMC(Local Management	Monitoring the execution of GB Policies and	
		handling any grievances at Institute level.	
	Committee)		
3	IQAC (Internal Quality	Monitoring of Conduction of Academics and	
		arranging IQAC induction programs.	
	Assurance Cell )		
4	Dean (Academics & R&D)	Monitoring conduction of daily working of	
		academics.	
5	Dean ( R&D)	Promoting Faculty members and students for	
		extension activities.	
6	HoDs	Administration of department	
7	Student welfare Department To conduct student welfare activities.		
8	(TPO)Training & Placement Officer	Training and Placement of students.	

9	Faculty Grievances cell	Resolving grievances of faculties
10	Student Grievances	Resolving grievances of students
	cell	
11	Academic Monitoring Committee	Resolving Academic problems
12	Research and Development Cell	Promoting Research & Funding Agencies
13	Entrepreneurship Development Cell	To entrepreneur skills
14	Industry-Institute Interaction Cell	Interaction With Industries& MOU
15	Competitive Examination Cell	Promoting Students to Commutative Exams
16	Examination Cell	Roles & Regulation of Exam
17	Disciplinary Cell	Related to Academic
18	Co-curricular activity Cell (CESA/ MESA/	Promoting Activities of all departments
	ITSA)	
19	Library Cell (Central and Dept. library)	Promoting Library
20	Cultural Cell	Motivating Events
21	Physical education Cell	Taking Responsibilities of Sports
22	Admission Cell	Admission Process
23	NAAC Steering Committee	Handle committees
24	NSS	Social Activities
25	Discipline Committee	Academic Discipline
26	Canteen and Food Committee	Quality of Food
27	Students Chapter	To organise co-curricular activities

#### **Recruitment process:**

Recruitment policy is as per the rules and regulations of SPPU.

- 1.Local selection committee is constituted with subject experts by college. The candidates recommended by committee forwarded to university for Adhoc approval. This is for urgent need of college.
- 2. Recruitment carried out as per roaster i.e. Approval by reservation cell of SPPU. Once roaster is approved advertisement in leading news paper is given and interview conducted by committee constituted by university.

Service rules are transparent and benefits like Provident Fund, Group Insurance Scheme etc. are provided to employees.

Grievance Redressel mechanism: Institute has Women's grievance cell, student's grievance cell, Staff

grievance cell and it resolves the grievances of students/staff /women if any.

**Promotional Policies:** JSPM's BSIOTR adapted the self appraisal System for teaching and non-teaching staff which includes all aspects of API (Academic Performance Index) to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal .It is based on the Performance of faculties.

6.2.3 Implementation of e-governance in areas of operation: 1.Planning and Development 2. Administration 3. Finance and Accounts 4. Student Admission and Support 5.Examination A. All 5 of the above

**B.** Any 4 of the above

C. Any 3 of the above

**D.** Any 2 of the above

Response: C. Any 3 of the above

File Description	Document
Details of implementation of e-governance in areas of operation Planning and Development,Administration etc	View Document
Screen shots of user interfaces	View Document

# **6.2.4** Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions

#### **Response:**

The institute has various bodies/Cells and committees comprising of Head of the institute, HODs of departments, teachers, industry experts and students. To name a few are

- Governing Body
- LMC (Local Management Committee)
- IQAC (Internal Quality Assurance Cell)
- Student welfare Department
- Academic Monitoring Committee
- Research and Development Cell
- Co-curricular activity Cell (CESA/ MESA)

- Library advisory committee etc
- Student chapters of ISTE and IETE etc

#### Internal Quality Assurance Cell (IQAC)

IQAC/Academic monitoring committee plays vital role by suggesting reforms in various academic and administrative areas. Regular meeting are conducted with the HODs and faculty to discuss various aspect.

#### Minutes of the meeting of IQAC

- FDP for the faculty members should be arranged for design of the curriculum for the revised syllabus.
- Value-added courses and training programmes should be conducted to improve the employability of the graduating students.
- Training and placement activities to be conducted to improve the students skill sets
- Various soft skill programs should be arranged in Institute to Improve the Students communication and soft skills
- Industry visits should be encouraged to give an exposure of industrial applications and practices.

#### Activities successfully implemented

The point No 2 in the minutes of meeting was successfully implemented. Following value added courses/training programmes/guest lectures were organized conducted by in-house faculty members and invited speakers/industry experts.

Add courses/training programmes/guest lecturers/Workshop	Resource person	
	(in-house and invited expert from industry and institutes)	
Soft skill sets for campus drives	Dr.T.K.Nagaraj	
Workshop on SMD	Mr.Rajendra Bhujbal	
workshop on IOT	Mr.Atul Wadkar	
Seminar on "Patent: IP discovery".	Mr. Kuldeep Nagarkar	
Workshop on open GL	Mr.Rajendra Pawar Mr.Rajendra Bhujbal	
FDP on curriculum Design -As per the need of NBA criteria-II		
workshop on Android	Mr.Shekar Duby	
FDP on outcome based education	Dr.D.M Yadav Mr.kiran Shinde	
Workshop on CLP-II		
Workshop on PAI	Prof. Narote Abhilasha	
workshop on Core Networking	Mr.Yadav Krishnand	
Seminar on Cloud IAAS	Prof. Sunil Mhamane	
Workshop on Latex	Mr.Sagar Anwade	
Course in oracle	Mis.Sayali Londgae	
Value added course Web Technology	Mr. Adinath R. Giri	
Course in networking	Network bulls Pvt. Ltd.	

Seminar on Signal Processing and Communication	Dr. M. B. Kokare	
Workshop on Microcontroller applications	Jeevan Kataria	
Workshop on Microcontroller applications	SPJ Systems Pune	
Project execution methodology & recent Trends	Mr. Atul Joshi	
Seminar on Wireless Sensor and Networks	Dr. S. S. Sonawane, Prof. J. W. Bakal, Prof. S. k	
	Khedkar, Mrs. Smriti Dagur, Dr. S. R. Jog	
Lecture on PLC / SCADA	Prof. Mr. Ravindra Jagtap	
Expert lecture on Embedded System	Prof. Gaurav Mane	
Expert lecture on Embedded System	Mr.Deepak Kadam	
Expert Lecture on DSP	Dr. R. S. Holambe	
Seminar on Signal Processing and Communication	Dr. A. N. Gaikwad, Mr. Makarand kale, Dr. R. S.	
	Bichkar, Dr. S. M. Mukane, Dr. S. D. Apte	
Workshop on Recent Trends in VLSI Techniques.	Dr. Jonthan Joshi, Mr.Abhay Phansikar, Mr.	
	Niranjan Pol, Prof. Mr. PravinPawar	
Expert lecture on Recent trends in Communication	Prof. Veena Bajare	
Expert lecture on MATLAB	Prof. Kaustubh Sakhare, Prof. Vaibhav	
	Vijapurkar	
And many	more.	
File Description D	ocument	
Any additional information	iew Document	

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

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

#### **Response:**

Various welfare schemes are provided for the benefit of teaching and non-teaching staff in the institution which are as listed below

- 1. Sabbatical leave, Vacation leave, medical leave, maternity leave, study leave
- 2. PF for all teaching faculty and non teaching staff members.
- 3. Free transport for non-teaching staff and subsidized rate for teaching staff.
- 4. Free accommodation for non-teaching staff in the campus.
- 5. Financial assistance to attend FDP, Conferences, Workshops, Seminars in their field of specialization
- 6. Loans for needy staff from Jayawant Multistate cooperate Bank
- 7. Distribution of 100% of the revenue generated by staff by various activities like testing and consultancy and value-added courses.
- 8. All the teaching and non-teaching members are covered under accidental insurance which is made mandatory in the institution.
- 9. Institute has the YOGA club which is coordinated by trained and certified YOGA instructor under which different activities and stress management sessions are organized

- 10. The Institute has provided RO Plant for safe drinking water in the college premises as well as in girl's hostel.
- 11. Canteen facilities with proper hygiene.

## **6.3.2** Average percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

#### Response: 36.53

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

2016-17	2015-16	2014-15	2013-14	2012-13
97	76	60	34	20

File Description	Document
Any additional information	View Document
Details of teachers provided with financial support to attend conferences, workshops etc. during the last five years	View Document

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

#### **Response:** 4.8

6.3.3.1 Total number of professional development / administrative training programs organized by the Institution for teaching and non teaching staff year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
03	04	05	05	07

File Description	Document
Any additional information	View Document
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	View Document

#### 6.3.4 Average percentage of teachers attending professional development programmes viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programme during the last five years

#### Response: 18.66

6.3.4.1 Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
34	32	25	20	28

File Description	Document
Any additional information	View Document
Details of teachers attending professional development programs during the last five years	View Document
IQAC report summary	View Document

#### 6.3.5 Institution has Performance Appraisal System for teaching and non-teaching staff

#### **Response:**

*Performance Appraisal System exits in the* institute for teaching and non-teaching staff to evaluate and ensure that information on multiple activities performed is appropriately captured and considered for better appraisal. The institute has designed self-appraisal form similar to API (Academic Performance Index of UGC/AICTE) for the teaching faculty members. Performance Appraisal Report is submitted by the concerned faculty member in this prescribed format. This form contains of three parts.

- The first part is filled by the faculty and submitted to Head of the Department with necessary documents to support the claim of the performance in various activities by faculty.
- The second part is filled by the Head of the department which includes his recommendations/remarks/observations.
- The third part is filled by the Head of the Institute.

The designed self-appraisal form consists of following parameters:

- Teaching-learning process /evaluation
- FDP/SDP/Industrial training etc. attended for self-development Seminars/Conferences/workshops /courses conducted as coordinator
- Consultancy work/externally funded research projects
- Contribution towards extra-curricular and co-curricular activities

- Specific duties / tasks assigned by HoDs Execution of exam duties assigned by the university
- Contribution for the benefits of students and institute Community service and extension activities Research contribution in terms of projects, publications and guidance to students
- Awards/rewards obtained by the faculty and staff
- Patents obtained
- Results of subjects taught
- Books Published
- Weakness in Teaching through student's feedback
- Guest Lectures given to outsiders as an expert

Appraisal reports are reviewed by the management at the end of every academic year. All the parameters discussed above are reviewed, and specific suggestions are communicated to individuals. Based on the reviews, decisions regarding continuation of the services, regular increments and promotions are taken and communicated accordingly. Strengths and weaknesses are identified through various information sources. Accordingly suggestions are given to concern staff for the further improvement. The outcome of feedback is analyzed by the HoDs and discussed with the teacher concerned. In case of poor performance in appraisal, staff members are subjected to counseling and necessary corrective measures like FDP, Training session etc are implemented.

#### 6.4 Financial Management and Resource Mobilization

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

#### **Response:**

- The institute has a well-defined mechanism to monitor effective and efficient utilization of available financial resources for the development of the academic processes and infrastructure development.
- Institutional budget is prepared every year taking into consideration of recurring and non-recurring expenditures.
- All the major financial decisions are taken by the Institute's Local Managing Committee (LMC) and Governing Body (GB).

#### The institutional mechanisms for internal and external audit

The institute has a mechanism for internal and external audit.

- We have our own internal audit mechanism where internal audit is an ongoing continuous process in addition to the external auditors to verify and certify the entire Income and Expenditure and the Capital Expenditure of the Institute each year.
- Qualified Internal Auditors from external resources have been permanently appointed and a team of staff under them do a thorough check and verification of all vouchers of the transactions that are carried out in each financial year.
- Likewise an external audit is also carried out on an elaborate way on quarterly basis. The

institutional accounts are audited regularly by both Internal and statutory audits. So far there have been no major findings / objections. Minor errors of omissions and commissions when pointed out by the audit team are immediately corrected / rectified and precautionary steps are taken to avoid recurrence of such errors in future.

Internal/External Audit	Last Audit date	Details of Compliance
P.C.Patil and associates, Pune	21/09/2017	There is no adverse remark on
		the accounts of the institution
P.C.Patil and associates, Pune	09/06/2016	There is no adverse remark on
		the accounts of the institution
P.C.Patil and associates, Pune	11/06/215	There is no adverse remark on
		the accounts of the institution
P.C.Patil and associates, Pune	09/06/2014	There is no adverse remark on
		the accounts of the institution
P.C.Patil and associates, Pune	08/06/2013	There is no adverse remark on
		the accounts of the institution

#### Internal and external financial audits carried out during last five years

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

Response: 3.16

6.4.2.1 Total Grants received from non-government bodies, individuals, philanthropists year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13	
1.41	0.79	0.52	0.23	0.21	
File Description     Document					
File Description	n	Ι	Document		

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

#### **Response:**

The institute has a well-defined mechanism to monitor effective and efficient utilization of available financial resources for the development of the academic processes and infrastructure development. Institutional budget is prepared every year taking into consideration recurring and non-recurring expenditures. The institution has own internal audit structure to process and monitor effective and efficient use of available financial resources.

The annual budget of the institution is prepared considering recurring and non-recurring expenditures which is submitted to management for perusal. Finance Committee scrutinizes and details submitted and the budget is approved taking into consideration the available financial resources and its feasibility. Generally, the recurring expenses and the capital expenditures are projected to be within the budgeted resources of the institution. Thereby deficit budgeting is not encouraged. The expenses are monitored, checked and controlled under vertical hierarchy through internal control system. Apart from above we have also appointed external statutory auditors.

Apart from the funds received by the institute through fees collection, funds are mobilized as per the policy defined by the institute as follows:

Fund mobilization to support needy students through university schemes like "Earn and Learn". Fund mobilization to support activities under the banner of NSS unit by students through university schemes.

Fund mobilization for organization of events like seminar/conference/workshops/STTPs/Induction programs/Orientation programs from AICTE/UGC/SPPU/DST/ISTE etc.

Fund mobilization for research projects from AICTE,/UGC/DST/ISTE etc

Fund mobilization for co-curricular and extra-curricular activities through university schemes.

Donations by philanthropists, scholarships and free ships from government schemes and NGOs.

The various departments of the institute are given free hand to raise the funds for above mentioned purposes from government and non-government agencies. The individual/department seeking the fund takes the follow-up of the funding agency to which proposal is submitted. On receiving the funds, as per the directives of the funding agency, the funds are handed over to the fund seeker and its utilization is monitored closely. In case of funded activities, where procurement is involved, standard purchase procedure of the institute is followed. The head of Institute assumes its responsibility for appropriate utilization of released funds by funding agencies either in single installment or multiple. As per the guidelines of funding agency, the individual/department submits the audited reports along with activity report to the funding agency through head of the institute.

#### 6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

#### **Response:**

The institution has IQAC for academic and administrative transactions of the institute.

#### Best practice No-1

#### **Guardian Faculty member (GFM)**

**Goals of the Practice:** To acclimatize the new students to the campus life in BSIOTR, to enlighten the students on professional ethics and conduct, helping students overcome home sickness, establishing rapport between teachers, student & parents, Monitoring attendance and behavioral aspects of every student.

#### The Challenges:

Challenge No 1: Lack of knowledge/ proficiency in English.

Challenge No 2: Home sickness,

Challenge No 3: Circumstantial Unrealistic perception of students about their career.

**The Practice:** For a batch of about fifteen to twenty students, a teacher is assigned the role of Guardian. Teacher Guardian works as a friend, philosopher and guide for these students. He keeps the track of every student's day-to-day activities and records daily attendance, test results, internal assessment, prelim examination results and other related information of students in the specially designed teacher guardian book.

**Evidence of Success:** Improvement in Attendance, Performance of students in Internal/External examinations, participation of students in co-curricular and extra-curricular activities: Problems Encountered: Some sort of casualness is observed with some parents when the institute tries to interact with him for betterment of their wards. This may be due to their ignorance.

**Best practice No-2** 

**Regular Conduction of Community outreach programs for students** 

Goals of the Practice: To inculcate the responsibility towards society, human values and ethics

**Objectives of the Practice:** To educate students on social responsibilities so that they will serve the nation as a technocrat with honesty, integrity and self esteem.

**The Context:** The context for undertaking this practice is to make socially responsible engineers while serving the nation.

**The Practice:** Different community oriented program are undertaken for students under the banner of **NSS** and Student Development Centre. These two units in the institute are recognized by Savitribai Phule Pune University to which the institute is affiliated. The programs include various activities to sensitize the students on issues like gender equity, environment and its sustainability, moral values, professional ethics,

inclination towards social service, patriotism, Cleanliness awareness and its importance etc. These activities are implemented through seminars, experiential learning through camps and rallies etc.

**Evidence of Success:** Notable changes are observed in the students when they take part in community service activities or attend any seminar on above mentioned issues. They get an opportunity to think out of the box and orient themselves into positive thinking towards the community and society.

**Problems Encountered and Resources Required:** Such programs are supported by management and the affiliating university and hence no problems are encountered as far as resources are concerned.

File Description	Document
Any additional information	View Document

# 6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms

#### **Response:**

#### The primary aim of IQAC is

- To develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution.
- To promote measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices.

The institution reviews its teaching learning process, structures the methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms.

**Example No 1: Review of teaching learning methods by teachers:** 

The IQAC has formulated the monitoring of teaching learning process which is accomplished by

- Taking feedback from students and its analysis
- Attending lecture delivered by teachers.
- Monitoring the delivery of the contents and extent.
- Analysis of the internal and external evaluation of students.
- Analysis of teaching techniques and tools used by teacher.

#### The general observations by IQAC:

• More interactive teaching emphasized by students.

- Difficulty to understand in-depth content delivery due to various reasons.
- Poor performance of the slow learners in internal and external tests/exams.

#### **Implementation of teaching learning reforms facilitated by the IQAC:**

- **Counseling of the teachers** undertaken at regular intervals, wherever necessary with respect to lecture plans, content delivery, interaction with students, attitude towards students etc.
- Faculty Development Programs were conducted
- Develop an appreciation for the teachers' training in view of changing roles and responsibilities of technical institute faculty.
- Understand the significance of alignment amongst the fundamental elements of effective teaching and learning;
- Be able to suitably apply the principles of learning in varied learning contexts;
- Get motivated to use case method of teaching in appropriate learning contexts;
- Become aware of preparations required for the successful use of case based approach;
- Become aware of elements of a good research proposal;
- Get basic understanding of qualitative and quantitative data analysis tools and techniques;
- Get acquainted with the use of selected qualitative and quantitative software; and
- Get motivated to publish in top-notch journals by understanding the expectations of editors of such journals.

#### Example No 2: Review of teaching techniques and tools used by teachers.

The general observations made during the above mentioned review by IQAC with respect of teaching techniques and tools used by teachers are of the following nature.

- Consistent use of ICT by most of theteachers
- Tendency of teachers new teachers to use board and chalk method.

#### **Implementation of teaching learning reforms facilitated by the IQAC:**

- All class rooms, seminar halls and laboratories are made ICT enabled for effective delivery of the curriculum.
- Intelligent Interactive Boards are provided in the class rooms to make teaching and learning more enjoyable and effective.

	umber of qualit	y initiatives by IQ	AC for promoting qual	ity culture per year
<b>Response:</b> 5				
6.5.3.1 Number of	of quality initiati	ves by IQAC for pr	omoting quality year-wis	se for the last five years
2016-17	2015-16	2014-15	2013-14	2012-13
4	8	5	2	6
File Description			Document	
Number of qualit promoting quality	•	QAC per year for	View Document	1
IQAC link			View Document	
1. Regular i Quality A improver 2. Academic 3. Participa 4. ISO Cert	meeting of Inter Assurance Repo ments c Administrativ ation in NIRF tification any other qualit	rt (AQAR) to NAA e Audit (AAA) and	n include: ance Cell (IQAC); time AC; Feedback collected d initiation of follow up	, analysed and used for

C. Any 2 of the above

**D.** Any 1 of the above

#### Response: E. None of the above

File Description	Document
Details of Quality assurance initiatives of the institution	View Document

6.5.5 Incremental improvements made during the preceding five years (*in case of first cycle*) Post accreditation quality initiatives (*second and subsequent cycles*)

#### **Response:**

Quality enhancement initiatives in the academic domain successfully implemented are as follows

- 1. Teachers Training Programs ((FDPs) covering various aspects as enumerated below.
- Introduction to Teaching Learning and Evaluation Process.
- Blooms Taxonomy, Course Outcome (CO), Program Outcome (PO), Porgram Educational Outcome (PEO), PSO.
- Understanding Curriculum -- Content and its Level (Blooms), CO,TLO, ELO and Mapping with PO.
- Teaching model -- Concept Attainment Model, Inquiry Training Model, Problem Based Learning, Interactive Teaching, Originative Facile Approach (OFA).
- Design and Development of appropriate Teaching Material -- Course File.
- Use of ICT for Teaching.
- Developing appropriate Learning Material corresponding to Teaching method adopted and CO requirement, (Raptivity) --- Self Learning.
- Practical Preparation, Planning and Implementation, Lab as Museum.
- Effective delivery of content Class room Management.
- Modular object Oriented Dynamic Learning Environment (MOODLE).
- Design and Implementation of Teaching Plan
- Assessment and Evaluation Tools and their applications, Student Portfolio
- Dealing with Students Guidance and Counseling, Laboratory Development and Maintenance, University System and Examination.

2. Up gradation of Class Rooms and Seminar Halls with ICT facility.

3. Up gradation of laboratories with modern equipments and necessary software to facilitate research among faculty and students were initiated.

4. Laboratory as a museum: which emphasizes the display of knowledge wall and innovative projects which will act as learning material for the students?

5. Feedback System:

A structured feedback system was initiated to obtain feedback on various aspects like teaching learning process, infrastructure, training and placement etc from different stakeholder. The feedback so obtained is analyzed and the corrective measures were taken wherever required.

6. Faculty Support and progression:

Faculty members are deputed to attend conferences/seminars/workshops to give them an exposure to new technological developments and to have opportunity to interact with engineering fraternity.

7. Student Support and progression:

Various activities were initiated for holistic/overall development of the students. Few of them are enumerate below.

- Training programmes were initiated to imbibe the students with skill sets required during campus recruitment drives by the industries/employers.
- In plant trainings to gain hands on experience.
- Lectures/seminar by invited industry experts to update the students on industrial practices and latest technological developments.
- Add-on courses to bridge the gap in industry practices and the syllabus prescribed by SPPU.
- Various community oriented activities to inculcate the social responsibilities under the banner of Student Welfare Department and NSS.

8. Formation of cells/bodies with student and staff participation for administrative and academic purposes.



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

#### 7.1 Institutional Values and Social Responsibilities

7.1.1 Number of gender equity promotion programs organized by the institution during the last five years

#### **Response:** 14

7.1.1.1 Number of gender equity promotion programs organized by the institution year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
4	3	3	3	1

File Description	Document
Report of the event	View Document
List of gender equity promotion programs organized by the institution	View Document

#### 7.1.2

#### 1. Institution shows gender sensitivity in providing facilities such as: 1. Safety and Security 2. Counselling

3.Common Room

#### **Response:**

#### Safety and Social Security

Various committees like Women's Grievance Redressal Cell, anti-ragging squad, anti-ragging committee, SC/ST Complaint Committee, Grievance Redressal Committees exist in the institute which perform their designated duties and shoulder the responsibilities.

#### The functions/objectives of the committees are as follows

#### Women grievance cell:

- The Cell will deal with the cases / complaints of sexual harassment and any other type of harassment of the female students, teaching and non-teaching women staff of the college.
- The Cell shall process all the individual complaints and take immediate suitable action.

- The Cell will provide assistance to the Faculty/Colleges for taking preventive steps in the matter of gender discrimination and sexual harassment.
- The Cell may form / review the guidelines / policy for redressal of the grievance as required from time to time, which may be in accordance with those issued by Supreme Court and Government Agencies.

#### Anti-ragging sqad:

- Surprise visit to classes, hostel premises, college canteens and other places vulnerable to incidents and having potential for ragging.
- Round the clock vigil and personal interaction with fresher and senior students to know about any untoward activity related to ragging.
- Conducting on-the-spot enquiry into any incident of ragging reported to or referred by any student or any member of the committee.

#### Anti-ragging committee

- To call the meeting of the members of the committee to discuss on the cases reported by antiragging squad.
- To draw a report based on the enquiry and report to the Principal with recommendation of the punishment for act of ragging with evidences for further action.

#### **SC/ST Complaint Committee**

- Encouraging the SCs/STs employee/student to express their grievances freely and frankly without any fear of being victimized.
- Entertain written signed complaints and petitions of SCs/STs students/staff in respect of matters directly affecting them individually or as a group.
- Enquiry into the grievances, making recommendations, and reporting to the concerned authorities. .

#### Counseling;

Counseling of students plays a very vital role in steering them into right direction leading to overall development. Guardian Faculty member (GFM) system is one of the initiatives taken up by the institute. The main objectives of the practice are as enumerated below.

- To acclimatize the new students to the campus life in BSIOTR
- To provide academic counseling
- To enlighten the students on professional ethics and conduct
- To ease the trauma of transfer to a new place
- To communicate with the ward's parents
- Providing emotional support to students on individual basis.
- Helping students overcome home sickness.
- Establishing rapport between teachers, student & parents.
- Monitoring attendance and behavioral aspects of every student.
- Identifying weak areas and working out remedies helping students thereby taking their complete

care.

#### Common Room:

Self contained common room for girls and boys is separately available in our institute. The common room is provided with TV and indoor games facility for recreational purpose. This provides privacy to the students especially for the female students.

File Description	Document	
Any additional information	View Document	

# 7.1.3 Alternate Energy initiatives such as: 1.Percentage of annual power requirement of the Institution met by the renewable energy sources Response: 4.8 7.1.3.1 Annual power requirement met by the renewable energy sources (in KWH) Response: 4380 7.1.3.2 Total annual power requirement (in KWH) Response: 91250 Document File Description Document Details of power requirement of the Institution met by renewable energy sources View Document Any additional information View Document

#### 7.1.4 Percentage of annual lighting power requirements met through LED bulbs

#### Response: 23.07

7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)

#### Response: 3650

7.1.4.2 Annual lighting power requirement (in KWH)

#### Response: 15822.75

File Description	Document
Any additional information	View Document
Details of lighting power requirements met through LED bulbs	View Document

#### 7.1.5 Waste Management steps including:

- Solid waste management
- Liquid waste management
- E-waste management

#### **Response:**

#### Waste Management

The institute is very much conscious about the waste management to keep the campus clean and ecofriendly. The waste management in the campus is as briefed below.

#### Solid waste management

- The machine scrap (C I Boring) generated during machining is collected properly in the workshop at marked area and sold out.
- Dead leaves, tree remains and waste from the canteens is used for composting. The manure so produced is used for the trees and plants in the campus.

#### Measures taken to minimize generation of solid waste

- ICT based teaching-learning and E-governance is adopted.
- Optimal utilization of print out papers is emphasized.
- Use of eco-friendly cups and paper bags are strongly encouraged in the campus.
- Institute prefers to offer sapling instead of bouquets to the guest visiting the institute.

#### Liquid waste management

The campus generates liquid waste from various sources in campus like the buildings of the institute, hostels and canteens. This waste is treated in dedicated sewage treatment plant with a capacity of 14000 lit/day installed in the campus. Later this water is utilized for non-drinking applications like gardening and watering the pathways and washing floors etc., in the campus.



#### **Sewage Treatment Plant**

#### **E-Waste Management**

- The outdated and non-upgradable/non-working components of electronic equipments are identified after proper scrutiny by system administrator.
- Students are encouraged to reuse the components from scrap in their projects. And rest e-waste is disposed.

File Description	Document
Any additional information	View Document

#### 7.1.6 Rain water harvesting structures and utilization in the campus

#### **Response:**

#### **Rain Water Harvesting structures**

Rainwater harvesting is a critical component in integrated urban water management. Roofs are an ideal location for rainwater harvesting for three main reasons. First, gravity can be used to collect runoff thus eliminating the need for electricity for pumps. Second, when compared to toilet and other household wastewater, water collected from roofs could be relatively clean. Third, a second and separate plumbing system would not be required. The rain water harvesting structure existing in the institute consists of PVC pipes laid from the roof tops which are then connected to a main PVC pipe. This main pipe leads the water to a bore well. Water from this bore well is drawn and utilized for non-drinking purposes gardening and watering the pathways and washing floors etc., in the campus. The details of rain water harvesting system are as follows:

Roof Top surface area = 1320 sq. m

Total Covered Catchment Area: 1.1 Acre

Depth of Borehole: 250 ft

Total Cost of Project: 51,135/-(Fifty one Thousand one Hundred thirty Five)

The photograph below is the Rain water harvesting structures



Rain water harvesting system

#### 7.1.7 Green Practices

- Students, staff using
- a) Bicycles
- b) Public Transport
- c) Pedestrian friendly roads
- Plastic-free campus
- Paperless office
- Green landscaping with trees and plants

#### **Response:**

The institution has adopted green practices to reduce the carbon foot print thereby protecting the environment with the efforts as listed below.

Bicycles: Bicycles are used by few students who are staying in the vicinity of the campus.

**Public Transport:** Institute provides paid bus services for students and staff from different location of the Pune. And many travel by public transport like city bus, six seated vehicles.

Pedestrian friendly roads: Enough wide roads are in the campus for easy walk within and out of campus.

**Plastic free campus:** All canteens and stores in the campus follow the concept of plastic free business by not providing plastic carry bags.

Paperless office: Most of the circular, office orders are issued online and communication with the students

and faculty is encourage through email, social media, MOODLE, etc.

**Solar Water Heater and Solar Street Lights:** Solar water heater are provided in the institute and in the hostel and the solar street lights are also provided for use of renewable energy source thus reducing the use of conventional energy.

**LED tubes:** These are provided to reduce the consumption of electricity.

**Green landscaping with trees and plants:** Institute prefers to offer sapling instead of bouquets to the guest visiting the institute. And lush greenery is maintained in the campus with well grown up trees and plants and lawns which are maintained using recycled water. There are total 74 numbers of varieties of trees and plants numbering to a grand total of 4635 in the campus.

File Description	Document
Any additional information	View Document

# **7.1.8** Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years

#### Response: 5.27

7.1.8.1 Total expenditure on green initiatives and waste management excluding salary component year wise during the last five years(INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
24.15	25.45	18.28	30.42	24.80

File Description	Document
Green audit report	View Document
Details of expenditure on green initiatives and waste management during the last five years	View Document

#### 7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:

- **1.Physical facilities**
- 2. Provision for lift
- 3. Ramp / Rails
- 4. Braille Software/facilities
- 5. Rest Rooms
- 6. Scribes for examination

#### **7.Special skill development for differently abled students 8.Any other similar facility (Specify)**

- A. 7 and more of the above
- **B.** At least 6 of the above
- C. At least 4 of the above
- **D.** At least 2 of the above

#### **Response:** A. 7 and more of the above

File Description	Document
Resources available in the institution for Divyangjan	View Document
Any additional information	View Document

## 7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years

#### **Response:** 9

7.1.10.1 Number of specific initiatives to address locational advantages and disadvantages year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
2	1	2	2	2

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	View Document

## **7.1.11** Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)

#### Response: 10

7.1.11.1 Number of initiatives taken to engage with and contribute to local community year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13	
6	1	1	1	1	
File Descripti	on		Document		

#### 7.1.12

# Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff

Response: Yes	
File Description	Document
Any additional information	View Document
URL to Handbook on code of conduct for students and teachers, manuals and brochures on human values and professional ethics	View Document

7.1.13 Display of core values in the institution and on its website		
Response: Yes		
File Description     Document		
Any additional information	View Document	
Provide URL of website that displays core values	View Document	

# 7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations

**Response:** Yes

File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	View Document
Any additional information	View Document

#### 7.1.15 The institution offers a course on Human Values and professional ethics

#### Response: Yes

## **7.1.16** The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions

#### Response: Yes

File Description	Document
Provide URL of supporting documents to prove institution functions as per professional code	View Document

7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years

#### Response: 65

File Description	Document
List of activities conducted for promotion of universal values	View Document
Any additional information	View Document

## **7.1.18** Institution organizes national festivals and birth / death anniversaries of the great Indian personalities

#### **Response:**

To inculcate and carry forward the rich culture of India, the institution organizes national festivals like Deewali, Dassehra, Gudipaadva, Ganesh Festival etc. A pluralist approach is adopted by the institution towards functions and celebrates. Republic Day, Independence Day, Guru Purnima, Gandhi Jayanti, Shivaji Jayanti, Maharashtra Foundation Day, Teacher's Day, Engineers Day, Founders Days, Children's day etc.

The Republic day celebration is one of event organized jointly by the Jayawant Shikshan Prasarak Mandal in a big way. This event is presided over by Dr. T.J. Sawant, Founder Secretary of Jayawant Shikshan Prasarak Mandal. At the event patriotic programs conducted to depict the national integration. Prizes are distributed to the students and staff who shown outstanding performance in sports and academics. This event is eye catching event.

File Description	Document
Any additional information	View Document

# 7.1.19 The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions

#### **Response:**

The institute believes in participative management by staff and students in its financial, academic, administrative and auxiliary functions with complete transparency. The institution has developed strategies for mobilizing resources and ensures transparency in financial management of the institution. There are established procedures and processes for planning and allocation of financial resources which leads to effective & efficient use of financial resources. The respective HODs of the departments submit the budget requirements in the Standardized format which are processed at corporate office.

The various heads of the budget include the department capital requirements, staff cost based on the manpower plan, student & faculty related expenses, event expenses, research & development, administrative expenses including lab consumables, repairs & maintenance & other infrastructure related expenses, etc. The head of the institution and Heads of various departments are given appropriate freedom to implement the design curriculum to achieve the desired outcome. Academic calendar, timetables, teaching plan, lesson plans, laboratory manuals etc are prepared by Heads of the department maintaining complete transparency with teacher's participation. Various events such as seminars, workshops, conferences etc are organized by staff and students chapters and associations where complete transparency is maintained.

Administrative functions like appointment of teachers, purchase formalities and other functions have participation of office staff, department teaching and non-teaching staff. For example the interview for appointment of teachers at institute level is done through an interview and demo lecture assessed by heads of departments and senior teachers. The library resources are enhanced based on the recommendations by the department staff.

#### 7.2 Best Practices

**7.2.1** Describe at least two institutional best practices (as per NAAC Format)

#### **Response:**

Two best practices of the Institute which have contributed to the achievement of the Institutional Objectives and contributed to the Quality improvement of the core activities of the college are:

**Best Practices No 1** 

Institute regularly conducts Faculty Development Programs (FDP) for effective planning and

#### implementation of curriculum and thereby improving teaching practices.

#### 1. Goal

The Institute annually organizes Faculty Development Program for promoting quality in faculty members. FDPs are arranged and conducted with an aim to improvised personal, profession and holistic development of faculty.

#### 2. Objectives of the Practice:

- To develop effective curriculum.
- To develop Teaching Learning Material.
- To develop digital content for ICT enabled learning.
- To enhance effectiveness in content designing and its delivery.
- To enhance instructional skills of the faculty.
- To update knowledge and inculcate professional ethics.
- To promote technical expertise.

#### 3. The Context

The research shows that an inspiring and informed teacher is the most important factor influencing student achievement, so it is critical to pay close attention to how we train and support both new and experienced educators. Support for new teachers is often uneven and inadequate.

Mentoring and coaching from veteran colleagues is important to the successful development of a new teacher. FDPs create opportunities for novice teachers to learn from best practices, analyze and reflect on their teaching.

The context for undertaking this type of faculty development is our realization that observable teaching actions and skills are central to effective teaching, and fundamental to how teaching is perceived by students. These actions and skills have been identified by student feedback, a staple practice in our institution. Building on this information, we thought of enhancing the effectiveness of course delivery through workshops, seminars and common platform discussions and consultations that concentrate on particular teaching techniques and skills. We built the program on the assumption that once the novice instructors are aware of any discrepancies between their professed aims and their teaching practice, they would then take steps to minimize that discrepancy.

#### 4. The Practice

Faculty Development program is conducted every year for all faculty or a selected number of faculty as per need. The sessions during FDP addressing various domains are conducted by in-house senior faculty and invited experts. The faculty members are grouped into their respective domains headed by a module coordinator who will be responsible to monitor and guide the proceedings. Recently in view of outcome based education stress is laid on formulation of topic learning outcomes, course outcomes, programme specific outcome and its linkage with programme outcomes. Every faculty member creates his own course file with all outcomes and objectives clearly mentioned, the faculty members also plan the sessions minute to minute so as to have uniformity across faculty members teaching the same subjects. Encouragement is given to faculty members to indentify real life problems and recent issues of national and international

#### Self Study Report of JSPM's Bhivarabai Sawant Institute of Technology and Research

importance so that the students get benefit of connecting wherever is learnt in class to real life.

#### 5. Evidence of Success

The success can be enumerated in two areas. The first is related to new faculty joining the institute without any teaching experience, this faculty receives in depth inputs as what is to be conducted during the class along with ready use digital material and valuable resource contributed by senior faculty members. To illustrate the benefit the new faculty members were good at developing digital content. A blend of the senior faculty with modern usage of the digital content created session material which is useful for the tech-savvy students of day.

For the senior faculty member it was an experience of learning, unlearning and re-learning considering the fast changes in the technical field. The students feedback have indicated marked improvement in faculty performance as the involvement of students is enhanced due to meticulous session plans prepared in FDP. The real life examples were also appreciated by students and there has been marked enthusiasm in participating various competitions that enhance learning like Go-Cart by mechanical engineering students, Smart-India Hackthon by computer and IT and electronic and Telecommunication students and many more.

#### 6. Constraints and limitations:

As such there are no Constraints and limitations related to FDP.

#### **Best Practices No 2**

Effective teaching-learning process

#### **1.** Goals of the Practice

To develop, implement and maintain effective teaching-learning process.

#### 2. Objectives of the Practice

The objectives/intended outcomes of this best practice are:

- To assist in curriculum planning
- To ensure effective delivery of contents across all the courses
- To improve student's learning experiences and outcomes
- To provide staff with information in regard to professional development needs

#### 3. The Context

Quality teaching is defined in terms of effective pedagogical techniques to produce learning outcomes for students. It involves several dimensions, including the effective design of curriculum and course content, a

variety of learning contexts (including guided independent study, project-based learning, collaborative learning, experimentation, etc.), soliciting and using feedback, and effective assessment of learning outcomes. Institutions need to ensure that the education they offer meets the expectations of students and the requirements of employers, both today and for the future.

One of the most challenging paradoxes in the world of academics is the fact that while innovativeness in teaching is largely agreed upon as the most desired aspect of teaching, it is also equally a fact that innovativeness as a tangible teaching component cannot be defined or promoted. To meet the challenge of promoting innovativeness of teachers the best way was found to be insisting on documentation of individual teaching plans/lessons which in turn help to identify the most creative methodologies /approaches that can be shared with others who are not spontaneously creative.

Under the system of standardized procedures the pedagogical tools adopted by most creative teachers get to be systematically documented and this can work as frame of reference for teachers who are not spontaneously creative.

Senior faculty or sometimes even the youngest faculty coming from diverse backgrounds like industry etc., explore alternative pedagogies or adapt student support to varied student profiles and pedagogical competencies. Their alternative teaching methodologies can serve as training models to other teachers.

The individual performance of each faculty member is a crucial factor in quality teaching. The unit plan designed by the faculty becomes the frame of reference to make the teacher accountable for the status of syllabus completion. In the context of teachers moving towards greener pastures / IT Sectors, the need for adopting standardized procedures was deeply felt as transition becomes smooth when there is a switch of teachers as the former teacher's records becomes a ready reference for the teachers.

Through constant checks of teacher's documents which include their teaching plans, laboratory plans, academic records, course files, etc., the institution finds scope to identify areas of deficiencies and also take up appropriate FDP programs for the betterment of their professional effectiveness and also for the quality enhancement of the academic program.

#### 4. The Practice

The procedures which constitute the implementation of the practice are as follows:

- The institution has a meticulously organized and clearly planned teaching, learning and evaluation schedule, well integrated into the total institutional scheme.
- Each faculty of the department has an individually drafted teaching and laboratory plan, which reflects how each unit and experiment is taught by indicating the time frame along with a mention of methodologies/ references used and modes of evaluation practiced.
- Self appraisals, submitted by the individual teachers gives a clear indication of the teachers' contributions in various categories academic, administrative and extension activities. The Academic Monitoring Committee ensures the effectiveness of the process by fortnightly check of the attendance of students, academic records, Self appraisals and syllabus completion statements submitted by the faculty. The effectiveness is further ensured through cross verification by the Head of the institution.
- The teaching- learning process is continuously reviewed by the AMC and Principal by taking into account the feedback given by the students.

- Each department timely reports on the activities comprising academic activities, research and extension activities, innovations in teaching/learning, publications, staff and student achievements, extra and co- curricular activities to the Principal.
- To ensure quality sustenance and enhancement the college periodically conducts the performance audit of the departments which includes course review, Review of Teaching learning methodologies, Result analysis, Research output, Faculty Development Programs attended/conducted and Extension activities, Co-curricular and extra-curricular activities conducted during the year.
- Departmental meetings are conducted once a month and whenever needed. The minutes are documented and signed by the HoD.
- Result analysis is submitted by the individual faculty. The result analysis of each department is submitted to the Principal after each semester.
- Monthly Syllabus coverage report is also periodically submitted by the individual teachers in order to ensure timely completion of the syllabus.
- Feedback is taken from the students twice in a semester for teacher evaluation.

Thus the regulatory mechanism of timely checks on teacher quality has the double advantage of improving not only teacher but also student performances.

#### 5. Evidence of Success

The evidence of success is also seen in achieving the targets/benchmarks/distinctions mentioned below:

- Availability of increased options with diversification of courses
- Industry relevant curriculum with thrust on employability skills.
- Better placement records.
- Word of mouth publicity through successful Alumni.
- Enhanced reputation among academicians networked through regular conduct of seminars/guest lectures.
- University ranks achievements are held by the students and High pass percentage least cases of dropouts.
- The College has emerged as a trusted name for discipline & value based /holistic education.
- Better performance in national level competitive exams like GATE.

#### 6. Problems Encountered and Resources Required

- University syllabus has limitations for catering to fast phase of technological developments. Although the institute tries to bridge the gap by conducting various add-on courses and guest lectures by experts from industry.
- The mind set of exam oriented learning of the students is a major issue and needs to be tackled by continuous counseling to students to switch from exam oriented learning mode to knowledge oriented learning mode which will be useful for securing gainful employment or entrepreneurship for life time.

#### 7.3 Institutional Distinctiveness

# **7.3.1** Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust

#### **Response:**

The Vision of the institute is "To satisfy the aspirations of youth force, who want to lead nation towards prosperity through techno-economic development".

The college is unwavering in its commitment to create and sustain an ambience in the campus that is most conducive to learning, an ambience that will facilitate full blossoming of the innate potential of the students and development of their personality.

The distinctive area in line with the vision to satisfy the aspirations of the students so that they have gainful employment and turn to be entrepreneurs serving the society at national and international level, institute has best infrastructure with dedicated teachers. The institute has MOUs with leading industries which gives an opportunity for students to have real life experience in the field. The eco-system has been so designed that innovation is imbibed in the minds of the students. For doing so a Centre for innovation incubation and entrepreneurship Development (CIIED) has been established in the institute. In order have overall development of t he students and generate teamwork and leadership skills the institute gives an opportunity to students to participate in co-curricular and extra-curricular activities.

The institute is committed for student centric learning. On experimental basis recently we have introduced "Originative Facile Approach", of teaching- learning. This approach is an effort to change from traditional teaching learning process to the process which was followed during the ancient times. In brief the process is, the class of 60 students is divided into batches of 15-20 students and a faculty member is assigned each batch. A topic is selected on daily basis related to the curricula. The teacher professes the contents of the topic in the first two hours taking real life examples. During this time the student is in the mood of observing the teacher, taking down notes and carefully listening to the instruction given. This helps the students to face the real life challenge especially in the employments to take the instruction from the boss and take notes. In the second slot which is of two hours students are allowed to practice what has been taught in the first slot, by taking up assignments or practical related to that topic. This helps student to prepare for the challenges in his employment to look at alternative solutions to the given problem. The last slot of two hours is for development of the presentation skills and preparing the students to meet competitions. In this slot the student has to present whatever he has learnt in the first two slots to teacher and teammates and has to face the queries raised by students as well as teachers. He also has to answer questions related to competitive exams that are helpful for him to participate in any competitive exam. By the end of the day all the students are well prepared on the topic discussed and are able to take up any challenges related to the topic, thus preparing him for challenges in life on daily basis.

## 5. CONCLUSION

## **Additional Information :**

As Pune has been earmarked to be developed as smart city, the institute motivates students to participate with their innovative ideas and latest technological inputs to contribute in the development of Pune as a smart city.

### **Concluding Remarks :**

The institute is dedicated to impart quality education to its key stakeholders. Innovative methods are implemented to cater the changing learning styles of students by giving more stress on digital learning. This will help the students to be industry ready, develop a flair for entrepreneurship and contribute to national and global development.