

## **Yearly Status Report - 2019-2020**

Part A				
Data of the Institution				
1. Name of the Institution	TSSM'S BHIVARABAI SAWANT COLLEGE OF ENGINEERING AND RESEARCH			
Name of the head of the Institution	Ganesh Arunrao Hinge			
Designation	Principal			
Does the Institution function from own campus	Yes			
Phone no/Alternate Phone no.	020-24608500			
Mobile no.	9764560690			
Registered Email	principal@tssm.edu.in			
Alternate Email	principalbscoer@tssm.edu.in			
Address	S. No. 12/1/2 and 12/2/2, Narhe, Tal. Haveli, Dist. Pune			
City/Town	Pune			
State/UT	Maharashtra			
Pincode	411041			

2. Institutional Status	
Affiliated / Constituent	Affiliated
Type of Institution	Co-education
Location	Urban
Financial Status	Self financed
Name of the IQAC co-ordinator/Director	Atul Prakashchandra Khatri
Phone no/Alternate Phone no.	02024608500
Mobile no.	8149424224
Registered Email	atulkhatri.bscoer@gmail.com
Alternate Email	atul.khatri1@gmail.com
3. Website Address	
Web-link of the AQAR: (Previous Academic Year)	https://tssm.edu.in/naac-agar1
4. Whether Academic Calendar prepared during the year	Yes
if yes,whether it is uploaded in the institutional website: Weblink:	https://tssm.edu.in/storage/PDF/IQAC/20 19-20/1.1.1.pdf
5 Accrediation Details	

## 5. Accrediation Details

Cycle	Grade	CGPA	Year of	Vali	dity
			Accrediation	Period From	Period To
1	A	3.08	2019	15-Jul-2019	14-Jul-2024

## 6. Date of Establishment of IQAC 28-Jun-2016

## 7. Internal Quality Assurance System

Quality initiatives by IQAC during the year for promoting quality culture			
Item /Title of the quality initiative by Date & Duration Number of participants/ beneficiaries			
ICRIET-20	30-Jan-2020 2	194	

Workshop on Research Methodology and its aspects	12-Sep-2019 1	28
FDP on Intellectual Property Rights	01-Jun-2020 1	40
Plumbing and Fire Design	17-Sep-2019 1	25
Workshop on Python Programming for Data Science	20-Feb-2020 3	18
Microsoft Excel Training	28-Dec-2019 1	74
Workshop on Arduino Programming	20-Feb-2020 1	18
Teaching Methodology	06-Jan-2020 2	25
Cyber Security for Mobile and Desktop	12-Nov-2019 2	15
AutoCAD Training to Lab Assistant	30-Aug-2019 1	15

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# 8. Provide the list of funds by Central/ State Government- UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/Departmen t/Faculty	Scheme	Funding Agency	Year of award with duration	Amount	
No Data Entered/Not Applicable!!!					
No Files Uploaded !!!					

9. Whether composition of IQAC as per latest NAAC guidelines:	Yes
Upload latest notification of formation of IQAC	<u>View Link</u>
10. Number of IQAC meetings held during the year :	2
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	Yes
Upload the minutes of meeting and action taken report	<u>View Uploaded File</u>
11. Whether IQAC received funding from any of	No

# the funding agency to support its activities during the year?

### 12. Significant contributions made by IQAC during the current year(maximum five bullets)

• Improve the count of startup and quality placement of the students. • Emphasis on Digital content development. • Training program for faculties to increase the number of journal papers, funded project and grant for seminar, conference and workshops. • MOU's with reputed Institutes and industries.

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# 13. Plan of action chalked out by the IQAC in the beginning of the academic year towards Quality Enhancement and outcome achieved by the end of the academic year

Plan of Action	Achivements/Outcomes		
To arrange awareness program for writing research paper in reputed journal and fetch more funded projects	Number of proposals are submitted for research funded project and research papers are under review process		
To start digital content development which help the students to understand the concept and develop logic	Due to video lecture series students got better insights into the topics which helped them for conceptual understanding		
To increase number of add on courses to bridge the Industry Institute gap.	Due to addon courses students become employable and job opportunity enhances		
For quality placement and startup of the students training and awareness program are to be arranged	Students are placed with relatively higher salary packages. Incubation is established. More number of students come up with the startups.		
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# 14. Whether AQAR was placed before statutory body ?

Yes

Name of Statutory Body	Meeting Date
College Development Committee	27-Jun-2020
15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	No
16. Whether institutional data submitted to AISHE:	Yes
Year of Submission	2020
Date of Submission	25-Jan-2020

## 17. Does the Institution have Management Information System?

Yes

If yes, give a brief descripiton and a list of modules currently operational (maximum 500 words)

The institute uses an inhouse developed Management Information System (MIS) called eSamanway. There are four modules in this system: 1. Course Information System 2. Placement Information System 3. Student Information System 4. Faculty Information System. This system facilitates the maintenance of faculty personal details including faculty qualification, experience, Project guidance details, etc. The student information module contains the academic and personal information about the students. This module turns out to be extremely useful for the student mentoring system of the institute called Guardian Faculty Member (GFM) Scheme for tracking student attendance and academic progress as well as for the result analysis. The faculty information system also provides important insights into faculty appraisals. In addition to the eSamanway MIS, the institute utilizes various other tools for eGovernance such as, MOODLELMS, Tally ERP 9, and AutoLib for effective information management. In addition to these, the Directorate of Technical Education (DTE), Maharashtra facilitates the admissions process. The Savitribai Phule Pune University (SPPU) provides support for online record keeping of student assessment and results.

#### Part B

### CRITERION I – CURRICULAR ASPECTS

#### 1.1 - Curriculum Planning and Implementation

- 1.1.1 Institution has the mechanism for well planned curriculum delivery and documentation. Explain in 500 words
  - A quality plan is prepared by institute through Academic Monitoring Committee (AMC) and Internal Quality Assurance Cell (IQAC). The targets and the benchmarks for the academic year are set by the IQAC. The institute academic calendar in line with Savitribai Phule Pune University (SPPU) academic calendar is prepared by AMC. Further it is approved by Principal for implementation. The department academic calendars are prepared by department AMC coordinators. These calendars are comprised of co-curricular and extra-curricular activities at department level. It is verified and approved by Head of the Department (HOD). Institutional preparation is ensured at three levels viz., faculty, laboratory and departmental preparation. The theory and practical load is

The necessary formats for record keeping are made available to faculty members. The course files are prepared by faculty members as defined by AMC. • Then the learning material is made available for students through Learning Management System (LMS)-MOODLE before commencement of semester. All the students are enrolled for respective courses on MOODLE and access is provided to them. • At department level, time table is prepared by departmental time table coordinator. It is verified and approved by HOD. • The course files are verified by AMC for correctness and completeness before commencement of semester. • The department AMC monitors day to day lecture/practical throughout the semester. Teaching plan implementation is monitored weekly by HOD and fortnightly by Dean Academics. • The module coordinators monitor teaching plan execution, quality of teaching material and teaching method of associated teachers. The deviation, if any, is corrected. • Students are categorized into academically weak and strong category and are imparted training accordingly. During semester, continuous assessment of students is carried out through direct and indirect means. • Expert lectures, workshops and seminars are arranged to reinforce curriculum, and students are motivated to undertake mini projects wherever required as per subject plan. • The faculty members are motivated for adoption and usage of Information and Communication Technologies (ICT) tools, project based learning, blogs for respective courses, and experiential learning. • Evaluation of each student is conducted through unit tests, prelims as per institute's academic calendar and in semester, end semester examinations as per prescribed structure of SPPU. Results are discussed with students and remedial actions are taken for improvements. • AMC ensures implementation of curriculum for entire semester as per plan, also providing necessary guidelines against deviation and observations of IQAC. • IQAC verifies and validates the quality requirements of all academic processes and provides feedback to AMC.

distributed on the basis of experience, expertise and choices given by faculty members. Further it is communicated to faculty members through department AMC.

#### 1.1.2 - Certificate/ Diploma Courses introduced during the academic year

Certificate	Diploma Courses	Dates of Introduction	Duration	Focus on employ ability/entreprene urship	Skill Development
Auto CAD	Nil	12/01/2020	5	Employabil ity	Skill Development
Q GIS	Nil	12/07/2019	9	Employabil ity	Skill Development
Raspberry Pi Programming and Project Building	Nil	21/02/2020	10	Employabil ity	Skill Development
Software Testing	Nil	10/02/2020	7	Employabil ity	Skill Development
PCB designing and making	Nil	08/07/2019	7	Employabil ity	Skill Development
Bluetooth controlled robotics using Aurdino	Nil	20/02/2020	5	Employabil ity	Skill Development
Auto CAD	Nil	03/02/2020	15	Employabil	Skill

				ity	Development
Additive M anufacturing	Nil	19/09/2019	5	Employabil ity	Skill Development
Geometric dimenstions and tolerances	Nil	06/02/2020	5	Employabil ity	Skill Development
Heating Ventilation and Air Conditioning	Nil	17/09/2019	5	Employabil ity	Skill Development
Piping Design	Nil	23/09/2019	5	Employabil ity	Skill Development

### 1.2 - Academic Flexibility

1.2.1 - New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction		
BE	Engineering Mechanics 101011	15/06/2019		
BE	Basic Electronics Engineering 104010	15/06/2019		
BE	Engineering Chemistry 107009	15/06/2019		
BE	Programming and Problem Solving 110005	15/06/2019		
BE	Basic Electrical Engineering 103004	15/06/2019		
BE	Systems in Mechanical Engineering 102003	15/06/2019		
BE	Engineering Physics 107002	15/06/2019		
BE	Engineering Mathematics- I 107001	15/06/2019		
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1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective course system implemented at the affiliated Colleges (if applicable) during the academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
Nill	NA	Nill

1.2.3 - Students enrolled in Certificate/ Diploma Courses introduced during the year

	Certificate	Diploma Course
Number of Students	949	0

### 1.3 – Curriculum Enrichment

1.3.1 - Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled	
Hypermesh	14/08/2019	71	

Primawera P6	16/01/2020	57	
Sketch-up	29/08/2019	84	
Communication skills and teamworks	18/09/2019	25	
Professional skills	18/12/2019	16	
Social awareness	24/02/2020	18	
Network Administrator	01/08/2019	22	
Mobile making	07/02/2020	22	
Computer aided process planning	10/08/2019	48	
SAP	15/07/2019	48	
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#### 1.3.2 - Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships		
BE	Civil Engineering	146		
BE	Computer Engineering	54		
BE	E&TC Engineering	35		
BE	Electrical Engineering	2		
BE	Mechanical Engineering	157		
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#### 1.4 - Feedback System

#### 1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	Yes
Parents	Yes

1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

### Feedback Obtained

Feedback Process in Institute The institute has a well-defined feedback process. During the feedback process institute assures effectiveness, transparency, efficiency and appropriateness of the feedback system. The feedback forms are designed by IQAC and AMC including aspects like content delivery, curriculum, curricular and extra-curricular activities, placement activities and mentoring. After designing these forms are uploaded on moodle. After uploading the feedback forms on moodle, the notification is sent to stakeholders including students, faculty, alumni, parent and industry person. The stakeholders fill the feedback in online mode through moodle. The feedback filled by stakeholders is analysed by every department and it is reviewed by AMC and HoD at department level. Department wise necessary action is taken on the feedback received by stakeholders. The action taken report is prepared at department level. The information about the feedback is given to IQAC for further action. The action taken reports of all departments are uploaded on

institute website. During this feedback process institute takes feedback from students four times a year, from faculty members two times a year, from parent, alumni and industry person once a year. The feedback process of the institute - Provides the platform to the stakeholders in identifying a greater role in the teaching -learning process, Develops a sense of responsibility and belonging to the institution among the stakeholders, Provides opportunities to modify and rearrange the course contents based on students' constructive suggestions Helps the teachers modify and improve their teaching methodologies, Establishes a transparent communication channel between the students and the teacher, and Maintains the functioning of teaching-learning process in the best possible way.

### CRITERION II – TEACHING- LEARNING AND EVALUATION

#### 2.1 - Student Enrolment and Profile

### 2.1.1 - Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled	
ME	Power System	24	3	3	
ME	Design Engineering	24	3	3	
ME	Signal Processing	24	0	0	
ME	Computer Engineering	24	1	1	
ME	Construction Management	24	13	13	
BE	Electrical Engineering	60	11	11	
BE	Mechanical Engineering	126	43	43	
BE	Electronics and Telecommuni cation Engineering	63	17	17	
BE	Computer Engineering	63	60	60	
BE	Civil Engineering	120	25	25	
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### 2.2 – Catering to Student Diversity

#### 2.2.1 – Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	institution	Number of teachers teaching both UG and PG courses
2019	1647	60	121	16	0

#### 2.3 – Teaching - Learning Process

## 2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), Elearning resources etc. (current year data)

Number of Teachers on Roll	Number of teachers using ICT (LMS, e- Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Numberof smart classrooms	E-resources and techniques used
137	137	10	32	6	12

View File of ICT Tools and resources

View File of E-resources and techniques used

#### 2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

The student mentoring system in the institute is called Guardian Faculty Member (GFM) scheme. Under this scheme, every batch of 20 to 25 students is assigned to a faculty member. This faculty member is referred to as Guardian Faculty Member (GFM). The GFM is a local guardian to the students of his/her corresponding batch. Most of the students in the institute are coming away from their parents from remote locations in Maharashtra to the institute for education. The GFM supports the students on academic, personal as well as emotional fronts. The GFM also remains well connected with the parents of every student. This helps to establish healthy relations between teachers, students and parents. The GFM keeps a portfolio of every student which contains the progress and achievements of every student related to regular academics. In addition to that, details regarding the participation of the students in various competitions such as technical, social, cultural and sports activities is also maintained in the student details. During every activity, may it be curricular, co-curricular or extra-curricular, the GFM acts as a facilitator and provides a bridge to the students to reach the desired destination. The GFM motivates and supports the students for participation in various such activities. The institute tries to implement most of its student related activities and policies through the GFM so that it provides a parentally guidance and support to the students. The GFM is responsible to ensure maximum participation from his/her batch in such activities. The GFM also keeps track of the day to day activities of students and if any irregularities are found, counsels the student with the help of his/her parents and the institute counselor. With the effective and efficient implementation of the student mentoring system, the students feel safe, supported, and capable of solving academic and professional challenges.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
1710	137	1:12

#### 2.4 - Teacher Profile and Quality

#### 2.4.1 - Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
136	137	0	5	14

# 2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2019	Dr. Ganesh A. Hinge	Principal	Patent application published for A quick leveling head device and method therefor
2019	Saravanan Vaideswaran	Assistant Professor	Patent published, A solar

	Shanmugham		Photovoltaic Panel Cleaning Apparatus (Publication Number 49/2019)
2019	Dr. P. M. Patil	Professor	Patent published, Fruit inspection machine (Publication Number 201921054403
2019	Dr. Sanjay G. Kanade	Professor	NPTEL Certification, Topper 1 percent, Python for Data Science
2019	Dr. Sanjay G. Kanade	Professor	NPTEL Certification, Topper 5 percent, The Joy of Computing with Python
2019	Dr. Sanjay G. Kanade	Professor	NPTEL Believer
2020	Manohar Kishanrao Kodmelwar	Associate Professor	Patent published: AHR vahicle: Adjusting the height of a vehicle According to Indian Road Status (Publication Number 202021004323)
2020	Dr. Satish N. Gujar	Professor	Patent published: System And Method Implementing Adaptive Dragonfly Optimization For Privacy Preservation In Internet Of Things (IOT) (Publication Number 201821029029)
2020	Dr. P. M. Patil	Professor	Patent published: Electronic nose for predicting natural ripening time of the fruits (Publication Number 201921051174)
2020	Anil Daulatrao Gujar	Associate Professor	Patent published: IHY-Prediction: Intelligent System and Method for advanced harvest yield prediction using iot based

technology.
(Publication Number 201821025144)

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#### 2.5 - Evaluation Process and Reforms

2.5.1 – Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year- end examination	Date of declaration of results of semesterend/ year- end examination	
BE	664919110	1/2019-20	02/01/2020	25/04/2020	
BE	664919110	III/2019-20	05/12/2019	22/02/2020	
BE	664919110	V/2019-20	07/12/2019	20/01/2020	
BE	664919110	VII/2019-20	03/12/2019	28/01/2020	
BE	664919110	II/2019-20	30/05/2020	21/07/2020	
BE	664919110	IV/2019-20	30/05/2020	20/07/2020	
BE	664919110	VI/2019-20	30/05/2020	29/07/2020	
ME	664921010	ME I/2019-20	21/12/2019	21/02/2020	
ME	664921010	ME III/2019-20	18/12/2019	21/02/2020	
BE	664924510	1/2019-20	02/01/2020	25/04/2020	
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2.5.2 – Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)

The learning level of the students are checked by various methods in academics. The university distributed the overall marks for every subject by considering the internal and external performance. The institute has decided various ways by which all students are evaluated. The quizzes, assignments, MOCK, Unit test etc. for internal evaluation. This evaluation will help the students to understand how he can improve in succeeding exams. To evaluate the understanding level of student on taught topics through the Multiple Choice Question using Moodle. Where time duration is provided and students attempt the MCQ test. Their ability of reasoning and understanding is judged and performance evaluated. On important topics the various assignment is given to understand their presentation skill and contents written. The necessary guidance is provided on the evaluated performance. The unit tests are conducted on taught units by selecting the questions on course outcome based. The unit test results are given to students and their counseling is done for improvement in further unit tests. This unit tests will prepare the students for the theory exams in future. For considering the students to perform better in the Practical and oral exams the MOCK tests are conducted by subject teacher to understand their ability to detailed knowledge about the topic. To improve their ability to present and gather new content about the recent trends in the technology the seminars and project reviews are arranged on selected topics from research papers. The guidance is provided for selecting and getting the topic by teacher. The performance is evaluated on the basis of various parameters like content delivery, selection of topic, the presentation and answering ability to questions.

Institute prepares the academic calendar in every semester for execution of academic activity. For preparing the calendar the institute refers the university academic calendar to fit the academic activity within a given time period. Institute creates the academic committee at institute level for monitoring and executing the academic activity. The created calendar is referred by all department and prepares their own department academic calendar to execute various activities like guest lecture, workshop, unit test etc. The prepared calendar is displayed and circulated among the students and make them aware about the activities to happen in the future. The students voluntarily join, lead and participate in the activities. Every department having the departmental academic coordinator at department level. With the consultation of head of the department the activities are monitored and academic progress checked. The regular audit is planned in every month and the progress checked. The institute level dean academics in consultation with principal arranges the meeting with department academic coordinator and the discuss about the ongoing activities and academic progress. Problems in executing activities are solved. the audit contains the teaching information about the attendance of students, lectures conducted, teacher feedback by students, course completed. The audit report discussed with HOD and the possible solutions are applied. In the next audit the shortcoming found in previous audit are checked for improvement. the tests are conducted as per calendar and are assessed. The result displayed for the students. the student having less marks are separately counseled and motivate for achieving good result. Academic audit the set deadlines are followed for activities and reports are prepared and stored in department files.

### 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 in website of the institution (to provide the weblink)

https://www.tssm.edu.in/storage/PDF/IQAC/2019-20/2.6.1.xlsx

#### 2.6.2 - Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
664919110	BE	Civil Engineering	114	114	100
664924510	BE	Computer Engineering	104	103	99
664937210	BE	Electronics & Telecommun ication Engineering	26	25	96
664929310	BE	Electrical Engineering	58	57	98
664961210	BE	Mechanical Engineering	235	228	97
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#### 2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

https://www.tssm.edu.in/storage/PDF/IQAC/2019-20/2.7.1.pdf

## **CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION**

### 3.1 – Resource Mobilization for Research

3.1.1 – Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	0.5	0.5
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	0.75	0.75
Minor Projects	365	Sanas Engineering, Shivane, Pune	0.5	0.5
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	1	1
Minor Projects	365	Ganesh Accumulators Pvt.Ltd , Kolhapur	0.7	0.7
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	0.8	0.8
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	0.8	0.8
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	0.8	0.8
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	0.65	0.65
Minor Projects	730	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	2	2

### 3.2 – Innovation Ecosystem

# 3.2.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of workshop/seminar	Name of the Dept.	Date
Seminar on Patent File	Electrical Engineering	16/09/2019
Seminar on Patent Grant	Computer Engineering	26/11/2019
Workshop on Patent Publish	Electrical Engineering	06/01/2020
Workshop on Patent Publish and Grant	Mechanical Engineeirng	13/01/2020
Bio-disel and Turn Key Projects for Biodisel:A future oppurtunity	Electronics Telecommunication	23/01/2020
Workshop on Patent Publish and Grant	Civil Engineering	11/02/2020
Seminar on Paper Publication and Patent File	Mechanical Engineeirng	17/02/2020
Blutooth Control Robot using Arduino	Electronics Telecommunication Engineering	20/02/2020
Intellectual Property Rights (IPR)	Electronics Telecommunication Engineering	03/03/2020

## 3.2.2 - Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Sai Chavan	Pimpri	05/06/2020	
	Chinchwad College of Engineering ,Pune Institutions Innovation Council ( Ministry of HRD Initiative)	03/00/2020	Student
		Student	
	Suraj Birajdar	,Pune Institutions Innovation Council ( Ministry of HRD Initiative)  Suraj Pimpri Chinchwad College of Engineering ,Pune Institutions Innovation Council ( Ministry of HRD Initiative)	,Pune Institutions Innovation Council ( Ministry of HRD Initiative)  Suraj Pimpri 05/06/2020  Birajdar Chinchwad College of Engineering ,Pune Institutions Innovation Council ( Ministry of HRD

## 3.2.3 - No. of Incubation centre created, start-ups incubated on campus during the year

Incubation	Name	Sponsered By	Name of the	Nature of Start-	Date of
Center			Start-up	up	Commencement

Endeavour Incubation Center	Samadhan Ekande	TSSMs BSCOER	Ambika Electrical, Padoli, Osmanabad	Electrical Contractor	08/01/2019
Endeavour Incubation Center	Pratik Pimparikar	TSSMs BSCOER	Pravah Media and En tertainment / Pravah Cad Lab (Pune )	Media Engg. Design	29/05/2020
Endeavour Incubation Center	Mayur Tagunde	TSSMs BSCOER	Winsdom Autocomp (Jambulwadi Pune )	Sheet metal works	27/11/2019
Endeavour Incubation Center	Anup Jadhavar	TSSMs BSCOER	Jadhavar C onstructions	PWD- Contractor	11/12/2019
Endeavour Incubation Center	Lokesh Darshankar	TSSMs BSCOER	LD engineering	Electronic circuit designing	01/06/2019
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#### 3.3 - Research Publications and Awards

3.3.1 - Incentive to the teachers who receive recognition/awards

State	National	International
0	6	0

## 3.3.2 – Ph. Ds awarded during the year (applicable for PG College, Research Center)

Name of the Department	Number of PhD's Awarded	
0	0	

## 3.3.3 - Research Publications in the Journals notified on UGC website during the year

Туре	Department	Number of Publication	Average Impact Factor (if any)	
International	Civil Engineering	3	5.47	
International	Computer Engineering	3	0.84	
International	Electronics and Telecommunication Engineering	3	0.2	
International	Electrical Engineering	1	0.18	
International	Mechanical Engineering	4	2.34	
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# 3.3.4 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
Civil Engineering	50

Computer Engineering	35	
Electronics Telecommunication Engineering	20	
Electrical Engineering	9	
Mechanical Engineering	29	
General Science	1	
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3.3.5 – Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/Web of Science or PubMed/Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
Crow search algorithm with discrete wavelet transform to aid Mumford Shah inpainting model	P M Patil	Evolutio nary Intel ligence	2019	3	TSSMs BSCOER, Pune	3
Pentagonal Shaped Mul ti- Wideband Antenna for Indoor Wireless C ommunicati on	P N Shinde	Internat ional Journal of Computer A pplication s	2019	0	TSSMs BSCOER, Pune	0
Multi-pe rformance optimizati on of abrasive water jet machining of carbon epoxy composite material	A D Dhanwade	Indian Journal of Engineerin g and Materials Sciences	2019	3	TSSMs BSCOER, Pune	2
Fatigue life prediction of commercial dental implant	U M Shirsat	Proceedi ngs of Fatigue, Durability and Fracture Mechanics	2019	1	TSSMs BSCOER, Pune	0

using analytical approach and verifi cation by FEA						
An Innovative Simulation Approach To Improve The Electr ochemical Machining Performanc e	D S Bilgi	Journal of Aerospace Engineerin g Technology	2019	0	TSSMs BSCOER, Pune	0
Combustion and emission c haracteris tics analysis of waste tyre pyrolysis oil	R. N. Pote	SN Applied Sciences	2019	5	TSSMs BSCOER, Pune	5

3.3.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
Segmenta tion and C lassificat ion of Primary Brain Tumor Using Multilayer Perceptron	P M Patil	Internat ional Conference on Computa tional Vision and bio inspired computing Springer, Cham	2019	17	2	TSSMS BSCOER
Multiframe image supe rresolution based on cepstral analysis	P M Patil	Signal,I mage video processing Springer London	2019	17	3	TSSMs BSCOER
Implemen ting adaptive	S N Gujar	Journal of High Speed	2019	2	2	TSSMs BSCOER

dragonfly optimizati on for privacy pr eservation in IoT		Networks				
SELF DRIVING CAR PROTOTYPE	S U Kadam	Journal of Emerging T echnologie s and Innovative Research	2019	З	2	TSSMs BSCOER
Abrasive water jet machining of carbon epoxy composite: Cutting pe rformance, predictive models and optimizati on	A D Dhanwade	Indian Journal of Engineerin g and Materials Sciences (IJEMS)	2019	5	0	TSSMs BSCOER
Experime ntal study on abrasive water jet machining of carbon epoxy composite	A D Dhanwade	Advances in Materials and Processing Technologi es	2020	5	2	TSSMs BSCOER
Signific ance of Or thotropic Material Models to Predict Stress Around Bon e-Implant Interface Using Numerical Simulation	U M Sirsat	BioNanoS cience	2019	4	6	TSSMs BSCOER

## 3.3.7 – Faculty participation in Seminars/Conferences and Symposia during the year :

Number of Faculty	International	National	State	Local
Attended/Semi nars/Workshops	2	14	0	0
Presented papers	144	0	0	0

Resource persons	0	0	0	0	
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#### 3.4 - Extension Activities

3.4.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Preparation of trench, Cleaning of Smashanbhumi,	National Service Scheme (NSS)	22	25
Cleaning of Village	National Service Scheme (NSS)	22	25
Preparing platform for Biogas plant.	National Service Scheme (NSS)	22	25
Preparing platform for Verrmi- Compost in school, Alumni Meet	National Service Scheme (NSS)	22	25
Competitions and games for school children, Cultural Program	National Service Scheme (NSS)	22	25
Collection of water samples for Testing, Valedictory	National Service Scheme (NSS)	22	25
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3.4.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited		
NSS camp at Hatve Khurd, Taluka Bhor, District Pune	Appreciation Letter	Grampanchyat Hatve Khurd, Taluka Bhor, District Pune	25		
<u>View File</u>					

3.4.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Nan	ne of the scheme	Organising unit/Agen cy/collaborating agency	Name of the activity	Number of teachers participated in such activites	Number of students participated in such activites
	wachh Bharat vekshan 2020	Jejuri Nagarparishad ,Jejuri.	To construct Wall By using watse plastic bottle	2	18
	Mock CET Entrance	TSSM and JSPM Group of	Mock CET Entracnce	27	32

Examination for Engineering Aspirants	Institutes	Examination for Engineering Aspirants			
How to Achive MHTCET Exam Score from Takalakar classes	TSSM and JSPM Group of Institutes	MHTCET Score Guidance	24	34	
Swachh Bharat Sarvekshan 2020	National Service Scheme (NSS)	Cleaning of Classrooms	4	26	
Swachh Bharat Sarvekshan 2020	National Service Scheme (NSS)	Rally on Health Awareness and Cleanliness	7	23	
	<u>View File</u>				

## 3.5 - Collaborations

3.5.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
Collaborative research - Paper published in Journal ELSEVIER Experimental study for measuring discharge through compound broad crested weir	Ketaki H. Kulkarni, MIT Pune and Dr. Ganesh A. Hinge, TSSM's BSCOER, Pune	Parent institutes	180
Collaborative research - Paper published in International Journal of Engineering and Advanced Technology (IJEAT) Controlled Ski-jump Spillway Model Design According to IS code	Vivek S. Chavhan, AISSMS COE, Pune and Dr. Ganesh A. Hinge, TSSM's BSCOER, Pune	Parent institutes	180
Collaborative research - Paper published in International Journal of Applied Evolutionary Computation Analysis of Privacy Preservation Techniques in IoT	Ravindra Sadashivrao Apare, JJT University, Rajasthan, India and Dr. Satish Narayanrao Gujar, BSCOER, Pune, India	Parent institutes	180
Collaborative research - Paper published in	Ravindra Sadashivrao Apare, JJT University,	Parent institutes	180

IJournal of High Speed Networks Implementing adaptive dragonfly optimization for privacy preservation in IoT	Rajasthan, India and Dr. Satish Narayanrao Gujar, BSCOER, Pune, India		
Collaborative research - Paper published in IEEE International Conf. Emerging Smart Computing and Informatics - Hybrid image inpainting model using optimized DWT and Reproducing Kernal Hillbert Space for removal of damaged portions of old photograph	Balasaheb H. Patil, AISSMS IOIT, Pune, Kanchan Vaidya, TSSM's BSCOER, Pune	Parent institutes	180
Collaborative research - Paper published in International Conference ICRIET20 Experimental performance of rectangular broad crested weir for measurement of discharge	Ketaki H. Kulkarni, MIT Pune and Dr. Ganesh A. Hinge, TSSM's BSCOER, Pune	Parent institutes	180
Collaborative research - Paper published in International Conference Inscribed Pentagonal UWB Fractal Antenna with Novel Parasitic Band- Notch Structure	"Pratap N. Shinde, TSSM's BSCOER, Pune, India, and Jayashree P. Shinde Sinhgad Academy of Engineering, Pune, India "	Parent institutes	180
Collaborative research - Paper published in International Conference Control of Electrochemical Deep Hole Drilling Process	D.S.Bilgi, TSSM's BSCOER, Pune, D. B. Jadhav, A. V. Kulkarni, V. K. Jain, Bharti Vidyap eeth, Pune, India	Parent institutes	180
Collaborative research - Paper published in International	D.S.Bilgi, TSSM's BSCOER, Pune, A. M. Pawar, S. S. Chavan, Bharti Vidy	Parent institutes	180

Conference Multiphysics Simulation and Experimental Validation of ECM Drilling Process	apeeth,Pune,India						
Collaborative research - Paper published in International Conference Design and Finite Element Analysis of Ultrasonic Transducer	D.S.Bilgi, TSSM's BSCOER, Pune, P. V. Jadhav, Bharti Vidy apeeth, Pune, India	Parent institutes	180				
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3.5.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Industrial Visit	Site Visit	Om Sai Pro perties, Chan drang Builde rsDevelopers Pvt Ltd	29/02/2020	29/02/2020	Students
Industrial Visit	Site Visit	Dimbe Dam Hydropower Plant.Rasta Peth, Pune	24/09/2019	24/09/2019	Students
Industrial Visit	Site Visit	Sewage Treatment Plant ,Matre Bridge,Pune	09/09/2019	09/09/2019	Students
Industrial Visit	Site Visit	Dimbe Dam Hydropower Plant.Rasta Peth, Pune	24/09/2019	24/09/2019	Students
Construction Industry Exposure	Internship- field training	Swaraj Dev elopers,Pune •	15/12/2019	01/01/2020	Akshay Narute
Construction Industry Exposure	Internship- field training	SCON Projects Pvt. Ltd., Samarth House, Survey No.116/3/1,3 /3,3/10.Pune -411058.Mobi	16/12/2019	11/01/2020	Rahul Khandale

		le No96899 66422			
Construction Industry Exposure	Internship- field training	SCON Projects Pvt. Ltd., Samarth House, Survey No.116/3/1,3 /3,3/10.Pune -411058.Mobi le No96899 66422	16/12/2019	11/01/2020	Ashish Dedwal
Construction Industry Exposure	Internship- field training	Icchapurti Global Buildcon Pvt. Ltd., Shop No.6 7, Nutan Maratha Shopping Com plex,Jalgaon -425001.	01/07/2019	31/07/2019	Sanket Yashwant Bari
Construction Industry Exposure	Internship- field training	Dhanasmurti Buildcon Pv. Ltd.,Wadgaon Sheri,Pune-4 11014. Mob. No94233280	15/12/2019	01/01/2020	Raviraj Vikas Nimbalkar
Construction Industry Exposure	Internship- field training	Real Strength Inf rastructure ,F7,Shivanag ari,Left Bhusari Colo ny,Kothrud,P une-411038,M aharashtra. Mob. No.:-98 50974346, E- mail:-realst rengthinfra@ gmail.com	15/12/2019	01/01/2020	Shriyash Surendra Puranik

3.5.3 – MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
N-gen automation	07/08/2019	For enhancing the quality of engineering education being	20

		imparted to the students	
SNJ Academy, Shivaji housing Colony, Pune	02/03/2020	To Conduct training and other activities required for skill development in MEP domain.	75
SKY Wings	02/01/2020	For enhancing the quality of engineering education being imparted to the students	20
Sunrisers	01/10/2019	To Conduct training and other activities required for skill development in MEP domain.	23
Precision Engineering Works, MIDC, Bhosari, Pune	13/09/2019	To Conduct training and other activities required for skill development in MEP domain.	56
Rajarshi Shahu College of Engineering, Tathawade, Pune	11/11/2019	For enhancing the quality of engineering education being imparted to the students	82
Research Approach, Banglore	02/01/2020	To Conduct training and other activities required for skill development in MEP domain.	43
Kas Net	13/01/2020	For enhancing the quality of engineering education being imparted to the students	51
ecoRise	02/02/2020	To Conduct mongoDB and NoSQL training and other activities required for skill development in BackEnd domain.	43
BODH Developers,Plot No.81,Flat	09/12/2019	Site Visit ,Onsite Orientation Program	21

No9, Nandan			
Apartment, Right	,		
Bhusari Colony	,		
,Kothrud, Pune-38.			
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## **CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES**

## 4.1 – Physical Facilities

4.1.1 - Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
14.37	13.9

## 4.1.2 - Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Campus Area	Existing
Class rooms	Existing
Laboratories	Existing
Seminar Halls	Existing
Classrooms with LCD facilities	Existing
Seminar halls with ICT facilities	Existing
Video Centre	Existing
Value of the equipment purchased during the year (rs. in lakhs)	Existing
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Existing
Classrooms with Wi-Fi OR LAN	Existing
Others	Existing
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## 4.2 - Library as a Learning Resource

## 4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or patially)	Version	Year of automation	
AutoLib	Partially	V.1.0.1	2013	

## 4.2.2 - Library Services

Library Service Type	Exis	ting	Newly	Added	То	tal
Text Books	13762	4345888	36	15325	13798	4361213
Reference Books	4080	1819811	0	0	4080	1819811
e-Books	0	0	33000	210000	33000	210000
Journals	0	0	121	366298	121	366298

e- Journals	0	0	2197	1631139	2197	1631139	
CD & Video	1763	17630	0	0	1763	17630	
	No file uploaded.						

4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & Eamp; institutional (Learning Management System (LMS) etc

Name of the Module	Platform on which module is developed	Date of launching e- content
Information Systems And Engineering Economics	Moodle-LMS	15/05/2019
Object Oriented Systems	Moodle-LMS	23/05/2019
Data Base Management System	Moodle-LMS	29/05/2019
System Analysis And Design	Moodle-LMS	19/05/2019
Data Analytics	Moodle-LMS	22/05/2019
Data Structure And Algorithms	Moodle-LMS	18/05/2019
Artificial Intelligence	Moodle-LMS	20/05/2019
Digital Electronics And Logic Design	Moodle-LMS	19/05/2019
Theory Of Computation	Moodle-LMS	22/05/2019
Discrete Mathematics	Moodle-LMS	28/05/2019
	Information Systems And Engineering Economics Object Oriented Systems Data Base Management System System Analysis And Design Data Analytics Data Structure And Algorithms Artificial Intelligence Digital Electronics And Logic Design Theory Of Computation Discrete	Information Moodle-LMS Systems And Engineering Economics  Object Oriented Moodle-LMS Systems  Data Base Moodle-LMS Management System  System Analysis Moodle-LMS And Design  Data Analytics Moodle-LMS  Data Structure Moodle-LMS And Algorithms  Artificial Moodle-LMS Intelligence  Digital Moodle-LMS Electronics And Logic Design  Theory Of Moodle-LMS Computation  Discrete Moodle-LMS

## 4.3 - IT Infrastructure

## 4.3.1 – Technology Upgradation (overall)

Туре	Total Co mputers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departme nts	Available Bandwidt h (MBPS/ GBPS)	Others
Existin g	709	0	709	0	0	18	668	65	0
Added	0	0	0	0	0	0	0	0	0
Total	709	0	709	0	0	18	668	65	0

#### 4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

65 MBPS/ GBPS

## 4.3.3 - Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
Video Conferencing Facility	https://youtu.be/O_LvHs-WD6w
Interactive Smart board	https://youtu.be/0NGE8xcYtzU
Digital Studio for Lecture recording	https://youtu.be/r663pMIhrvA

#### 4.4 - Maintenance of Campus Infrastructure

4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurredon maintenance of physical facilites
76.91	74.38	86.58	83.73

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website, provide link)

The institute has policies for daily maintenance, preventive maintenance and breakdown maintenance. Daily maintenance: Wherever required complete Cleaning, Lubrication, Repair, and Inspect (CLRI) procedure is adopted. Maintenance chart is filled on daily basis which is supervised by the concerned. It is ensured that no equipment/infrastructure faces emergency maintenance. Daily maintenance provides opportunity to avoid emergency situations. Preventive maintenance: As per the schedule, all the preventive maintenance activities are carried out resulting in upkeep of infrastructure and equipment. Also, it helps to ensure availability of infrastructure for ready use. Preventive maintenance is carried out under supervision of maintenance cell. The corresponding records are maintained in designed formats. Before commencement of semester the corresponding cells ensure that no preventive maintenance activity is pending and the infrastructures as well as laboratories are functioning correctly as per standards. Breakdown maintenance: In case of breakdown, alternate arrangement for the required infrastructure and the equipment is made so as to avoid hampering of activities. In case, if the maintenance is beyond the reach of maintenance cell, then the work is outsourced to third party. In case the equipment are beyond repair or have lost the significance from the perspective of utility, they are written-off through the defined mechanism of the institute. Due care is taken to write-off environmentally sensitive material. In any of the cases, the problem is conveyed by the process owner to the maintenance team and accordingly the manpower is deputed to resolve the same. It is expected that the process owner should certify satisfactory condition of infrastructure or that of equipment after maintenance thereby closing the case. Also, the provision of dead-stock verification helps to identify the availability and loss of equipment. The process of dead-stock verification is carried out twice in a year by the designated committee. Utmost care is taken to maintain conducive environment in library. Annually, stock taking is mandatory process for library. The printed periodicals accumulated during the year are bound together so as to prolong their life and avoid loss. Also, after inspection of all the books, the identified books are re-bound. In case of loss of book, the book needs to be replaced by the user. With respect to utility of the infrastructure and all other facilities, planning is carried out before commencement of semester at central level. Barring the common facilities, like, sports complex and library, every department has exclusive infrastructure with them and thus, no hurdle is faced for implementing various activities. Within the department, resource utilization plan is also developed and conveyed to the concerned so as to avoid the inconvenience and loss of academics.

## https://www.tssm.edu.in/storage/PDF/IQAC/2019-20/4.4.2.pdf

## CRITERION V – STUDENT SUPPORT AND PROGRESSION

## 5.1 - Student Support

## 5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees			
Financial Support from institution	0	0	0			
Financial Support from Other Sources						
a) National	Scholarship, Freeship, EBC, Leela Poonawala	1403	67691690			
b)International	0	0	0			
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5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability Date of implemetat enhancement scheme		Number of students enrolled	Agencies involved			
Remedial Coaching - Engineering Mechanics	06/09/2019	32	TSSMs BSCOER			
Remedial Coaching - Basic Electronics Engineering	05/09/2019	18	TSSMs BSCOER			
Barclays Softskill Training	17/12/2019	630	Barclays			
Works shop on Auto cad	02/03/2020	159	TSSMs BSCOER			
Face Placement Traing	17/06/2019	95	FACE			
Python Training	05/06/2019	45	Profound			
Opportunity in Additive Manufacturing	19/09/2019	100	ADM Technology Pvt Ltd			
Heating, Ventilation and air conditioning	17/09/2019	90	SNJ Academy			
Piping Design	23/09/2019	86	Asian Academy			
Remedial Coaching - Engineering Mathematics II	03/09/2019	17	TSSMs BSCOER			
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5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited	Number of benefited	Number of students who	Number of studentsp placed
	Soricino	bonontoa	bononica	Students who	Stadentop placed

		students for competitive examination	students by career counseling activities	have passedin the comp. exam	
2020	Career Counselling Sesssion On Python Programmin	0	10	0	6
2019	Demonstrat ion of CAD, BIM & Sketchup Softwares	0	100	0	24
2019	Carrier Op portunities in Plumbing & Fire Fighting Design Field	0	100	0	31
2019	Introduction to different civil enginering softwares	0	108	0	30
2020	Career in PSU, Govt Sector through Competitve Examination	93	0	1	0
2019	Career Opportunity in Additive Manufacturin g	0	100	0	35
2020	Career Opportunity in PSU, Government Sector	0	93	1	0
2020	Career Opportunity in Geometric Dimensions and Tolerances	0	90	0	21
2020	How to crack AMVI- RTO	0	80	0	13
2019	Career Cou nselling- Expert	0	54	0	10

lecture of Career of tunities electric engineer	por for al				
enginee	îs				
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5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
0	0	0

## 5.2 - Student Progression

5.2.1 - Details of campus placement during the year

	On campus			Off campus		
Nameof organizations visited	Number of students participated	Number of stduents placed	Nameof organizations visited	Number of students participated	Number of stduents placed	
Amazon, Mphasis, Cuelogic, Jaro, Xorient, Majestic Realties	1255	163	TCS, TechM ahindra, Capgemini, Global Step, Talentino	1304	123	
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5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Depratment graduated from	Name of institution joined	Name of programme admitted to
2019	1	BE Computer Engineering	Computer Engineering	Hochschule hof University of Applied Science ,Germany	MS (Software En gineeringfor Industrial a aplications)
2019	1	BE Civil Engineering	Civil Engineering	Rajarambapu Institute of Technology, Sangli	M. Tech (Structures)
2019	1	BE Electronics and Telecomm unication Engineering	Electronics and Telecomm unication Engineering	Coventry University, UK	MS (CAAI)

5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying	
NET	0	
SET	0	
SLET	0	
GATE	0	
GMAT	0	
CAT	0	
GRE	3	
TOFEL	1	
Civil Services	0	
Any Other	1	
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5.2.4 - Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants	
Cultural Jashna -E - Youth	Institute	250	
Annual Sports	Institute	235	
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## 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)

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2019	Second Prize Best Actor, Sarpotdar karndak (I nte- college)	National	Nill	1	7643	Suhas Gaikwad
2019	Second Prize Best Actor, Sarpotdar karndak (I nte- college)	National	Nill	1	7644	Akash Galande
2019	Second Prize, Sarpotdar Karandak ( Inter- College)	National	Nill	1	4041	Sahil Mulla
2019	Second Prize Best Actor,	National	Nill	1	7263	Sameer Anjankar

	Sarpotdar karndak (I nte- college)					
2019	Third Prize, Safe Kids Foundation (Inter- College)	National	Nill	1	4041	Sahil Mulla
2019	First Prize, Vedant 2019 (Inte	National	Nill	1	7643	Suhas Gaikwad
2019	Third Prize, Pune city Zonal Spor tsWrestlin g Free style(70 kg)	National	1	Nill	7042	shivtej sing thigale
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5.3.2 – Activity of Student Council & Expresentation of students on academic & Expresentative bodies/committees of the institution (maximum 500 words)

The institute has active Student Council. Every year, the formation of Student Council is done as per the guidelines set by SPPU. The objective behind formation of Student Council is to give an opportunity and responsibility to the students to organize various activities in the institution to enhance and develop various skills like leadership quality, stage daring, social awareness and a sense of responsibility towards the society. Students also get an opportunity to work in team and get a platform to express their views and showcase their talent and creativity. The Student Council is governed by the faculty members headed by the Principal. The mechanism of formation of Student Council includes the following steps: 1. Notice is circulated amongst the students by Students Welfare Officer regarding submission of application for various posts of Student Council. 2. After receiving the applications for the different posts meeting is conducted by the Principal consisting of Head of Departments Student Welfare Officer providing information of various posts and selection criteria followed by scrutiny of applications received from students for various posts. 3. Notice is displayed by Students Welfare Officer on notice board containing list of shortlisted candidates interviews are scheduled for the same. 4. Student Welfare Officer along with the panel conducts interviews of shortlisted candidates based on their overall academic performance, participation in various curricular extracurricular activities, leadership qualities, social connectivity etc. 5.Based on the interview performance the students are selected and the council is formed. Once the Student Council is formed, it plays a vital role in solving issues at Institute and University level and acts as a mediator between the Institute and students. Every year Student Council organizes various cocurricularand extra-curricular activities in the Institute. Sports Committee in the institute organizes various sports competitions for the students that provides platform for them to participate at University and State level. The Cultural Committee of Student Council also ensures to provide platform for students to participate incultural activities

like annual gathering, Purushottam Karandak, Konkan Karandak. The institute helps to form various departmental chapters, professional chapters in each department. I tprovides platform for students to develop event management skills and team work. The institute has various administrative bodies like entrepreneurship development cell library committeein which students are active members. National Service Scheme (NSS) is active in conducting various social activities like blood donation camp, cleanliness camps at adopted villages, tree plantation and yoga day celebration. In this year 2019-20 after pandemic situation of COIVD-19, NSS has conducted various activities regarding awareness program of Covid -19. Students are prepared facial mask and distributed to needy people. Most to students help to workers such as distributing foods, daily needs to poor person those suffer in pandemic situation. NSS students collected database of Blood donor of around 1000 students who are ready to donate blood and submitted to university.

#### 5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

Institute has registered Alumni Association under Assistant Charity Commissioner, Pune, in the name of "TSSM's Bhivarabai Sawant College of Engineering and Research, Narhe, Pune, Alumni Association", dated 29th February 2016. With registration number MAHA/343/2016/Pune. Institute arranges Alumni meet once in an academic year in which alumni addresses the juniors and updates their information available with organization. The objectives of TSSM's BSCOER Alumni association formation are: Alumni Association is supports institute with some financial ways such as: 1. Membership of alumni association 2. Donation towards development activities - 1 (Printer Scanner) 3.Institutionalization of scholarships 4. Financial contribution towards development of academic facilities 5. Sponsoring the events rewards 6. Donating in kind, books, mementoes. 7. Avail sponsorship to deserving students for higher education and sports. Apart from the above financial aids the Alumni Association helps students to guide, motivate, refers and Promote with Non Financial ways as follows. 1.To avail financial and Non-financial assistance by individuals or by group of students who are associated with Alumni association. 2. For interaction of existing students with Alumni. 3.To encourage the Alumina for the development of the institute. 4. To deliver academic lectures for students on topics of interest 5.To deliver lectures on career guidance 6.To encourage students of the institute for Research and Development. 7. Promotion of Industry Institute interaction cell to bridge the gap between current engineering education and future trends in industries 8.Contribution in laboratory development 9.To support in Organizing industrial visits. 10.Participating in curriculum development 11. Extending help for campus interviews 12. Active role in bringing up MOUs. 13. Acting as brand ambassador of the institute 14. Facilitating sponsored projects for students 15. Facilitating internships for students 16. Sharing experiences with students 17. Sharing information about higher studies 18. Guidance for co-curricular and extra-curricular activities 19. Participation in social welfare activities This way Alumni can help or guide the existing students by financial and non financial way. More than 270 students are presents for the Alumni meet.

#### 5.4.2 – No. of enrolled Alumni:

2632

5.4.3 – Alumni contribution during the year (in Rupees) :

277000

#### 5.4.4 - Meetings/activities organized by Alumni Association :

Alumni Connect - 22 February 2020 - 440 alumni members attended the program.

#### CRITERION VI - GOVERNANCE, LEADERSHIP AND MANAGEMENT

#### 6.1 - Institutional Vision and Leadership

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

Academic Monitoring Committee: AMC is headed by Dean Academics and supported by department level academic coordinators. The representative from each department acting as Departmental Academic Coordinator is the member of AMC. All Teachers are responsible for implementing AMC policy in all academic activities. There are various subcommittees involved to carry out smooth conduction of academic activities like Time Table coordinator , Exam coordinator, Parent Teacher Meet coordinator, Student Feedback coordinator, Guest lecture coordinator and Department MOODLE portal coordinator. Following are the objectives of AMC: 1.To restructure, review, and monitor the academic activities of the graduate programme 2. To ensure that the programme not only remains competitive, but also relevant to the present context so as to enhance the emerging and contemporary issues 3.To take consistent efforts to blend the industry expectation and academic curriculum 4.To introduce innovative and creative ways in imparting knowledge and skill sets to promote academic excellence 5.To ensure overall grooming of entrepreneurial and managerial skill sets of the students Responsibilities: 1. The AMC thoroughly works on designing the educational process 2.It continuously reviews and monitors the process, keeping in view the emerging needs and expectations of the industry 3. The AMC along with the strength of the faculty members continuously works on updating and restructuring the innovative skill sets for promoting academic excellence. IQAC Initiatives: The best practices institutionalized as a result of IQAC initiatives are elaborated below: 1. Laboratory Preparation: Towards the end of June 2019, IQAC through its audit found that there exists need to strengthen the laboratory preparation to achieve the course outcomes. IQAC has recommended to implement a scheme called "Laboratory Preparation". This scheme would ensure correct functioning of all the instruments and setups, availability of standard results of the experiments validated by the corresponding faculty members, availability of required setup as per curriculum fulfilling the need of prerequisite and gaps. It has helped the faculty members to verify the outcomes of the candidates and help them if they are lagging. This has saved faculty's time in explaining each and everything to the candidate and has provided an opportunity to resolve students' problems. Further it resulted in two more advantages, viz., making the students life-long learner by imbibing the habit of self-learning and the second advantage is system becomes more student centric. 2. Faculty Development Program: IQAC has recommended to impart training to the faculty members at institute itself rather than deputing individual or few faculty members at other locations. Also, such a practice will orient all the faculty members towards the objectives of the institute and in turn, towards mission and vision.

#### 6.1.2 - Does the institution have a Management Information System (MIS)?

Yes

#### 6.2 – Strategy Development and Deployment

6.2.1 - Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Strategy Type	Details			
Admission of Students	Admissions in the institute are done			
	centralized admission process (CAP).			

Institute follows guidelines given by State common Entrance Cell (CET) and Directorate Technical Education(DTE) at various stages like allotment ,Sanctioned Intake, Allocation of Seats, Reservations and Eligibility Criteria. Document Verification carried at Facilitation Center , Display of Provisional Final Merit List for various Courses, and Allotment of seats at different Rounds carried by DTE. Admissions in Institutional Quota and vacant seats after CAP are filled following process given by SECTC in institute. After completion of Admission process institute submit the Admission- approval proposal to the Director Technical Education.

#### Industry Interaction / Collaboration

The Principal, IIC in charge and coordinators from different departments are associated with the Industry Institute Interaction Cell (IIIC) guide the activities to enhance academics, research and placement activity. This facilitates strong association/ interaction with industrial, academic and research establishments. MOUs benefits the students to give realistic exposure through industrial visits, sponsored projects, expert lectures, software testing, etc. Based on feedback mechanism of industry requirement through TPO, industries are identified through IIC and communication was initiated on mutual convenience and need to work on specific tasks that include resource sharing, project reviews, expert lectures, sponsored projects, internships, training, and placement.

Human Resource Management

To serve the growth of the students and procurement of staff and job performance rewards adequate human resources are provided. Governing body takes the decisions as per the requirements of institute and staff and executes through the College Development Committee (CDC) under control of Principal and faculty in decentralized and participative environment. The Internal Quality Assurance Cell (IQAC) of institute plans and control the working of Academic Monitoring Cell (AMC), Institute Research Cell (IRC), Industry Institute Interaction Cell (IIIC), Entrepreneurship Development Cell

(EDC), examination cell, anti-ragging cell, alumni cell, National Social Service Cell (NSS), grievance redrsesel cell etc. Library, ICT and Physical The 762 sq. m. library with Auto lib Infrastructure / Instrumentation and reading room of 450 sq.m. acts as a premier Learning Centre for students. The Library has reference books, textbooks, with 4783 titles and 17842 volumes, print journals, periodicals, magazines, e-journals and CDs. It has institutional membership of eshodhsindhu, National Digital Library, ProQuest e-books. The digital library with 10 machines and access to all the e-contents of Springer, Science Direct, ASCE, ASTM and ProQuest e-Books (33650). Annual budget was Rs.1293069/-. The institute has Wi-Fi campus with 65 Mbps internet. The centralized video conferencing, recording is one of the unique features the institute. Research and Development BSCOER practices research through Institutional Research Cell (IRC) through product development and entrepreneurship related activities. BSCOER is the approved research centre to pursue doctorate in Civil Engg. and E TC Engg. The facilities provided are library, digital library, research/selflearning laboratory, high end systems, mathematical and analytical software and plagiarism software. Students are encouraged to participate and supported to organize the various events such as Technical symposium (Techno vision), workshops, seminars/paper presentation and project exhibition through student's association. Institute provides financial support to organize seminars workshops, for innovative projects and patents, travel grants to attend conferences and workshops. Examination and Evaluation Examination and evaluation process of the institute are under the control of affiliating university SPPU examination unit. In semester exam is under supervision of BSCOER Principal through college examination officer. For end semester examination BSCOER CEO and senior supervisor will plan for human resources needed and inform them in advance for their duties and control. SPPU appoints external senior supervisor during the period of examination. The evaluation process is

	outcome based. Continuous assessment system is incorporated in the institute for assessment of practical based on learning outcome and through tests, assignments and quiz. Grievances are addressed by Grievance Redressal Cell.
Teaching and Learning	Teaching learning process through highly qualified and experienced faculty members is student centric and outcome based. Focus is on students learning which get reflected through use of self learning laboratory ICT based learning material aided by Learning Management System-MOODLE, workshop practice, and methodologies like participative learning, experiential learning, e-resources and collaborative learning. Institute incorporates specific attributes like, honesty, hard-work, team-work, social work, and national integrity through various cells. SWOC and close monitoring help for institutional improvement. The best practices successfully implemented by the institution are Mentor-Mentee scheme, Multilevel Monitoring of Students Development of Digital Teaching-Learning Resources.
Curriculum Development	Institute offers various programs as per the syllabus prescribed by Savitribai Phule Pune University (SPPU). Industry-academia gap bridging is attempted by means of add-on courses, expert lectures, industrial visits, study tours, implant training and sponsored projects. Institute conducts value added courses to achieve overall development of the students and inculcate professionalism and also plans and contents beyond curriculum. Institute consistently approaches the stake holders for the inputs on curriculum through feedback and corresponding analyses is conveyed to SPPU and are implemented through enrichment activities at the Institute. SPPU revised the syllabus for first engineering will revise for higher classes successively.

# 6.2.2 – Implementation of e-governance in areas of operations:

E-governace area	Details
Planning and Development	1.E-Samanway E-Samanway Software implemented in the college from year 2016.This software Eases to maintain faculty personal details including

	faculty qualification, experience Project guidance details etc.  2.Microsoft Desktop Education: This License Software is utilized since 2011.Faculty members, students, staff utilizes all the features of software like operating system, word, excel, power point, servers, etc.
Administration	1.Autolib: Autolib-Library Management Software purchased in 2010.This software is utilized for to search, issue and return the books and generating relevant reports.  2.Microsoft Desktop Education: This License Software is utilized since 2011.Faculty members, students, staff utilizes all the features of software like operating system, word, excel, power point, servers, etc. 3.KOHA Library Automation Software: Koha is open source library automation software. It has all the modules for acquisition, serials, members, circulation, cataloging, reports, and tools. 4.AICTE Institute Portal: This portal is used for approval process, PG scholarships, funding for various programs like FDP, STTP Research promotion schemes, MODROB, Student Internship. 5.AISHE Institute Portal: This portal provides the facility to the institute to portray the status of higher education through an annual web- based All India Survey on Higher Education (AISHE) since 2010-11.
Finance and Accounts	1. Tally ERP 9 is accounting software purchased in 2010. It is used for finance and accounting purpose and to generate the relevant reports.  2.Microsoft Desktop Education: This License Software is utilized since 2011.Faculty members, students, staff utilizes all the features of software like operating system, word, excel, power point, servers, etc.
Student Admission and Support	1. MOODLE-In-house It is a Learning Management Software used to enhance teaching learning process. It is used for providing course material in the form of notes ,PPTS, videos question banks and also for continuous assessment of the students. 2.DTE The Directorate of Technical Education in Maharashtra confirms the policies, rules, guidelines and strategies for engineering admission process formulated by the Central and State

	governments. 3.Microsoft Desktop Education: This License Software is utilized since 2011.Faculty members, students, staff utilizes all the features of software like operating system, word, excel, power point, servers, etc.
Examination	1. MOODLE-In-house It is a Learning Management Software used to enhance teaching learning process. It is used for providing course material in the form of notes ,PPTS, videos question banks and also for continuous assessment of the students. 2. OMS Support -Savitribai Phule Pune University, Pune, - Exam Section (SPPU) SPPU Provides support for conduction of online examinations for assessment of students and declares result.

# 6.3 – Faculty Empowerment Strategies

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2019	M. K. Kodmelwar	NA	Computer society of India ,Membership	18750
2020	S.N.Gujar	ICRIET2020	NA	500
2020	A.D.Gujar	ICRIET2020	NA	500
2020	M.K.Kodmelwar	ICRIET2020	NA	500
2020	S.V.Ingale	ICRIET2020	NA	500
2020	M.K.Mokashi	ICRIET2020	NA	500
2020	P.D.Chouksey	ICRIET2020	NA	500
2020	S.B.Karale	ICRIET2020	NA	500
2020	L.M.Bharate	ICRIET2020	NA	500
2020	P.B.Lonkar	ICRIET2020	NA	500
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6.3.2 – Number of professional development / administrative training programmes organized by the College for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2020	Workshop	NA			18	Nill

	on Arduino Programmin g		20/02/2020	22/02/2020		
2019	Workshop on Python Programmin g for Data Science	NA	22/08/2019	23/08/2019	30	Nill
2019	NA	AutoCAD	30/08/2019	30/08/2019	Nill	15
2019	Workshop on Research M ethodology and its aspects	NA	12/09/2019	12/09/2019	28	Nill
2019	Plumbing and Fire Design	NA	17/09/2019	17/09/2019	25	Nill
2019	NA	Cyber Security for Mobile and Desktop	12/11/2019	13/11/2019	Nill	15
2019	Microsoft Excel Training	NA	28/12/2019	28/12/2019	74	Nill
2020	Teaching Methodolog Y	NA	06/01/2020	07/01/2020	25	Nill
2020	FDP Inte llectual Propery Rights	NA	07/01/2020	07/01/2020	40	Nill
2020	NA	Electrical Safety Week	17/01/2020	17/01/2020	Nill	40

6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
Seven Days AICTE Approved FDP	2	10/06/2019	16/06/2019	7
online one week faculty development	1	23/05/2020	29/05/2020	7

program on Moodle learning management system				
one week online faculty development program on Outcome based education:A step towards excellence	4	11/05/2020	15/05/2020	5
online non credit course authorized by IBM and offereed through courseeraon fundamentals of scalable data science	1	26/04/2020	26/04/2020	1
Attended webinar on introduction to video software editing	2	19/07/2020	19/07/2020	1
one day online FOP on computer graphics SE 2019 course	2	07/04/2020	07/04/2020	1
one day online FDP on OOP and CG laboratory SE 2019 course	1	27/05/2020	27/05/2020	1
completed the quiz on NBA Accreditation An Outcome based Education	1	29/06/2020	04/07/2020	6
one week online Certificate Course on DIGITAL TEACHING TECHNIQUES organized by ICT Academy	1	28/05/2020	28/05/2020	1
completed the quiz on NAAC - ASSESSMENT AND ACCREDITATION	1	01/06/2020	05/06/2020	5

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### 6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
0	137	0	70

#### 6.3.5 - Welfare schemes for

Teaching	Non-teaching	Students
Provident Fund Facility for Staff, Group Insurance for all Staff, Medical facility for Staff, Free trainings facility to staff, 100 revenue generated out of consultancy is distributed amongst the concerned team, Institute bears 100 of patent filing fees in case of joint patent with institute, Provision to finance deserving activities of the faculty members, Financing professional memberships of any one professional chapter, Financing the faculty membership who act as faculty advisor of student chapters	Group Insurance for all Staff, Medical facility for Staff, Provision for supporting higher studies at institute of national importance, Incentives for achievements for teaching and non-teaching staff, Free trainings facility to staff	Free Medical Checkup, Earn and Learn, Book Bank

### 6.4 – Financial Management and Resource Mobilization

#### 6.4.1 - Institution conducts internal and external financial audits regularly (with in 100 words each)

Institution believes that it has effective and robust in-house mechanism for financial audit. However, like to have opinion of third party too. Till date institutional financial audit is carried out by Chartered Accountant (CA) by Corporate Office. The observations and comments of CA are taken into considerations and implemented immediately. Similarly financial assistance and remuneration received from SPPU is separately audited by external CA and audited balance sheet is submitted to SPPU for the approval. The funds received from non-governmental organization (Consultancy, Resource sharing) is separately deposited and utilized for said activity. This account is separately audited and report is submitted to respective non-government organization for information.All the departments having departmental association where students contribute for department specific co-curricular and extra-curricular activities. This account is also audited and audited balance sheet is displayed on notice board for information of all students. Funds received from reservation are required to distribute all the students in their account. This account is also verified and audited by government regularly.

6.4.2 – Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government	Funds/ Grnats received in Rs.	Purpose
gerennen.		

funding agencies /individuals		
Student associations	147117	Students Welfare
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#### 6.4.3 - Total corpus fund generated

338.8

## 6.5 - Internal Quality Assurance System

### 6.5.1 – Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No Agency		Yes/No	Authority
Academic	Yes	Narhe Technical Campus	Yes	IQAC
Administrative	Yes	Narhe Technical Campus	Yes	IQAC

#### 6.5.2 - Activities and support from the Parent - Teacher Association (at least three)

1. Student Attendance Discipline: Class teachers Teacher Guardians (Guardian Faculty Members) associate with Parent in implementing student discipline and attendance regulation. Guardian Faculty member regularly monitor attendance of students, absent students parent are informed by same day. Parent thus get informed about attentiveness of student. Parents thus help in maintaining attendance. 2. Activity Planning: Parent meeting is held at least twice in the semester by every department. First meeting is conducted at the start of semester and second meeting is conducted at the middle of semester. During first parent meeting academic activity plan is presented by Head of Department. Parent are also involved in activity design. Parent's suggestions are taken through feedback. In Second meeting review of conducted activity is taken. During this meeting progress of student is reviewed. Implementation of activity plan is also reviewed. Grievances of parents are addressed. 3. Social Activity: As part of social awareness different social initiatives are conducted by college. Parent and teachers are also associated in different social activities. Parents have supported activities like Tree plantation, Cleanliness Drive through direct participation or by providing monetary support. Parent teacher association has nurtured the social welfare aspect of the institute.

#### 6.5.3 – Development programmes for support staff (at least three)

1. Industrial Safety Week 2. Cyber Security for Mobile and Desktop 3. AutoCAD training 4. Workshop on Fire Safety 5. Disaster Management Workshop by NDRF

## 6.5.4 - Post Accreditation initiative(s) (mention at least three)

1. Guest lectures for difficult subjects: In order to support student learning and improve academic practices guest lectures for difficult subjects are conducted. Subject experts for difficult subjects of SE TE from the other educational institutes are invited by institute. Guest lectures from the expert faculty members are conducted to support and enhance students learning on difficult topic. In some cases the expert faculty member conduct hands on session explaining 2. Placement oriented training to students: Placement of student is major concern. Along with academic activities placement oriented training is provided to students to enhance their aptitude skills and problem solving ability. Training placement Cell of college proactively conducts different activities under the guidance of expert consultants. This activity

has helped student in Campus placement. 3. Entrepreneurship through Product based Project development: Entrepreneurship is need of today. Government has provided many different initiatives to support the Entrepreneurship development. So to achieve this final year students are motivated to design and develop product through which they can further convert the same into product. In order to encourage students to become entrepreneur college has arranged the guest lecture by eminent personality from industry and from government institution like MCED (Maharashtra Centre for Entrepreneurship Development).

### 6.5.5 - Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b)Participation in NIRF	No
c)ISO certification	Yes
d)NBA or any other quality audit	No

## 6.5.6 - Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2020	ICRIET-20	30/01/2020	30/01/2020	31/01/2020	194
2019	Workshop on Research Methodology and its aspects	12/09/2019	12/09/2019	12/09/2019	28
2020	FDP Intellectual Propery Rights	01/06/2020	01/06/2020	01/06/2020	40
2019	Plumbing and Fire Design	17/09/2019	17/09/2019	17/09/2019	25
2019	Workshop on Python Programming for Data Science	22/08/2019	22/08/2019	23/08/2019	30
2019	Microsoft Excel Training	28/12/2019	28/12/2019	28/12/2019	74
2020	Workshop on Arduino Programming	20/02/2020	20/02/2020	22/02/2020	18
2020	Teaching Methodology	06/01/2020	06/01/2020	07/01/2020	25
2019	Cyber Security for Mobile and Desktop	12/11/2019	12/11/2019	13/11/2019	15
2019	AutoCAD Training to Lab Assistant	30/08/2019	30/08/2019	30/08/2019	15

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# **CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES**

## 7.1 - Institutional Values and Social Responsibilities

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
Yoga Day Cele britation(Promo tional Activity For Womens health)	21/06/2019	21/06/2019	30	45
Rangoli Competition	14/01/2020	14/01/2020	30	0
Womens Day celebration	14/03/2020	14/03/2020	40	0

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources

18.34

## 7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	1
Provision for lift	Yes	1
Ramp/Rails	Yes	1
Braille Software/facilities	No	0
Rest Rooms	Yes	1
Scribes for examination	Yes	0
Special skill development for differently abled students	No	0
Any other similar facility	Yes	1

## 7.1.4 - Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadva ntages	Number of initiatives taken to engage with and contribute to local	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
	ntages	local community					
2019	Nill	1	11/10/2 019	1	Health check up	Social Awareness	125

						and Blood Donation		
20	19	Nill	1	14/09/2 019	1	Guest lecture on Stress managemen t	Awareness of health	129
20	20	Nill	1	14/01/2 020	1	Tree Pl antation	Awareness of Enviro nment	28
20	20	Nill	1	16/01/2 020	1	Rally on road safety and traffic control	Awareness of Safety	23
20	20	Nill	1	08/02/2 020	1	Guest lecture on Human Rights, Indian Judiciary System and The C onstituti on of India	Awareness for higher education	55
20	20	1	Nill	10/01/2 020	365	Xerox centre	Locatio nal disad vantage	80
20	20	1	Nill	17/06/2 019	365	Industr ial Visit	Locatio nal disad vantage	250
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# 7.1.5 – Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of publication	Follow up(max 100 words)
BSCOER Handbook	17/06/2019	The Institution has a Quality Assurances and standard operating procedure manual for Information of Staff and Students which clearly defines various procedures about academics, Finance, Administration and Overall working of the institute.

# 7.1.6 – Activities conducted for promotion of universal Values and Ethics

	Activity	Duration From	Duration To	Number of participants
- 1				

Yoga day	21/06/2019	21/06/2019	149		
Teachers day	05/09/2019	05/09/2019	246		
Engineers Day	15/09/2019	15/09/2019	197		
Ganesh Chaturthi	02/09/2019	06/09/2019	243		
Gandhi Jayanti	02/10/2019	02/10/2019	48		
Shiv jayanti	19/02/2020	19/02/2020	327		
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7.1.7 - Initiatives taken by the institution to make the campus eco-friendly (at least five)

1) Bio gas Plant 2) Tree plantation 3) E waste management 4) Water recycling plant 5) Rain water Harvesting

#### 7.2 - Best Practices

#### 7.2.1 – Describe at least two institutional best practices

1. Title of the practice Multilevel Monitoring of Students Objectives The major aim of multilevel monitoring is to create conducive environment for the students which facilitates to improve their attitude towards academic, social and ethical values. This is subdivided into following objectives: • To monitor and provide support for improving academic performance • To nurture the conducive environment for their multidimensional development by providing relevant guidance • To mentor the students for their behavioral, professional and personality development • To improve interpersonal connectedness with teachers and peers • To enlighten the students on professional ethics and social awareness • To provide emotional support to individuals in consultation with the parent The context Future of the nation depends on well-qualified and skillful technocrats. In this regard higher education should facilitate the students with adequate skills to impart their efforts towards the growth of the nation. India will arise followed by the support from academic institution and their interaction with industries. The Institute has implemented multilevel monitoring in order to improve academic performance and overall personality of the students in all the dimensions. It enlightens the students on professional ethics, behavioral and social aspects. It also establishes healthy relations between teachers, students and parents. The practice The institute has introduced a "Multilevel Monitoring Scheme" by the involvement of all the concerned authorities in the institute for overall development of the competent engineers. As the college excels in the triad of engagement, the students feel safe, supported, and capable of solving academic and professional challenges. Multilevel Monitoring Scheme is categorized into three parts: • Academic engagement Increasing student's engagement in learning means setting high academic and behavioral standards, implementing flexible teaching methods, and making students feel that learning is relevant. Helping students to reach a high academic and behavioral standard requires learning support for all students. As and when required, academic counseling is provided at multiple levels as GFM, class teacher, GFM coordinator, HOD, Principal and management. GFM provide college tutoring and other learning supports. Efforts are made to imbibe professional ethics and social values amongst the students to make them responsible citizens. TPC'S and TPO specifically focus on employability and developing such graduate attributes to enhance skilled based education. Entrepreneurship development cell help students in establishing startup at an early stage, where student can convert their idea in to highly scalable and viable enterprise. • Interpersonal connectedness: For better connect with, teachers must increase interpersonal connectedness in their classrooms. Connected teachers can identify students' needs and potential, that helps in each student's successes. Also it creates a caring, structured environment with

high and clear expectations. For the same, one teacher is nominated as 'Guardian Faculty Member (GFM)' for batch of students. The GFM regularly monitors the attendance, academic performance and maintains all relevant records of students in a systematic way. Free time of GFM is available to student and parents outside the Class to share their problems. GFM develops family ties by communicating regularly about student's achievements and challenges. This scheme helps break the barrier amongst the students, teachers and release some burden off the parents. • Physical and emotional safety: Promote positive college environment through zone of physical, emotional, and academic safety that involves implementing strategies that encourage students to feel valued and competent and to act with pride and respect for college policies and property. Such environment creates good interpersonal connections of students with their teachers and peers. GFM acts as a mentor to students in emotional and academic support with motivation. The GFM class coordinator helps the students in resolving problems related to campus life and domestic issues. A professional counselor is available on campus for psychological and personal issues like depression, anxiety and loneliness. Identified cases are forwarded to the professional counselor. Tutor is available for providing self-awareness to develop strengths and control weaknesses, develop personal and professional goals. Evidence of success • University rankers and improved academic results • Increased number of participants in technical activities • Increased number of participants in co-curricular, extracurricular and social activities • Students Placement in Multinational Companies • Increased number of Entrepreneur Problems Encountered and Resources Required ? Considering the special needs of psychological counseling of the students, professional counselor was required and appointed. ? Newly appointed faculty members need orientation program for effective implementation of the scheme. Notes: Considering the success of the scheme, it is evident that, teachers can play a vital role in the overall development of the students. Refinement of the existing system may lead to better performance with respect to learning. 1. Title of the practice In-house Development of Digital Teaching-Learning Resources 2. Objectives • The major objective of the practice is to develop digital teaching-learning resources and provide an open platform to make those available through the use of ICT enabled technologies. • To provide a platform for knowledge transformation and live interaction with experts through video conferencing facility • To inculcate habit of independent learning amongst the students through the use of selflearning laboratory • To provide experience of learning rather than reading from books by referring exclusively recorded video sessions prepared by faculty members. • To provide easy interface of the developed digital resources through QR codes. 3. The context The quality of engineering education largely depends on the nature of learning rather than good credits. Sound practical knowledge is essential to become successful engineer, which is missing at present and require to bridge the gap between expected knowledge and the credits. ICT enabled teaching learning methods are instrumental in developing self and independent learning attitude amongst the students. In line with OBE, to enhance the learning ability use of ICT tools like, LMS MOODLE, Self-learning Laboratories, VC and Online Video Recordings of theory and laboratory sessions. 4. The practice Learning Management System - MOODLE, which is free and opensource software used to prepare lecture notes, laboratory manuals, presentations, university question papers with solutions, e-books, tutorials, videos, quiz, etc. by respective subject coordinator. Assignments, mini projects, add value in improving practical and intellectual skills of students. MOODLE is available as a mobile app, which is highly beneficial to students for 24x7 accesses. Communication through WhatsApp, Google groups, text messages by the faculty for information dissemination. Video lectures are integrated as part of traditional courses, serves as a cornerstone of many blended courses, which is main information delivery mechanism in MOOCs. Students can watch at their own place, pause, repeat small sections of the entire videos. Watching

something being done before their eyes over and over again can be beneficial for learning comprehension. For naturally visual learners, a video can help them move from knowing to understanding, and increase their confidence that they are carrying out instructions correctly of faculties. So, institute recorded different videos of faculties while teaching and giving demonstration of practical sessions and it is uploaded on You-tube. Virtual classrooms are the need of the present education system for effectively and efficiently disseminating knowledge. VC (video conference) lectures are now becoming a necessary and important tool and teachers are using it more and more for teaching and learning in their classrooms. The technology facilitates learning by enabling distant or remote learners to learn and collaborate with IITs and NITs irrespective of their location. The technology has become a great tool educators can use to improve their students learning. Sometimes students get bored of the teachers teaching methods and class, which is why you need to break up that monotony with a special guest speaker. Also, institutes that make frequent use of video conferencing for teaching and learning give learners the opportunity to learn from a slew of informative experts and specialists, while eliminating the hassle of inviting a guest speaker to the classroom. Self learning is also important since any learning is effective only when such learning happens from within and not forced due to external circumstances. In other words, self-learning is motivated by a desire from within which makes it useful for learners to actualize the drive and the necessary motivation from within so that such learning is enriching. Apart from this, the luxury of learning at one's own pace and at a time of choosing means that students can pick up from where they left off in addition to learning from any device or location that makes such learning a leisurely experience. So, institute provides Self learning labs ion each department which contains different materials for learning like URL of NPTEL videos, virtual labs, e-books and relevant learning materials. The provision of smart board is also made available at selected locations in each department of the institute. Institute has seminar hall equipped with video conferencing facility for delivering online lectures. 5. Evidence of success • Learning Management System on Moodle • VC lecture photos • Utilization of self-learning lab • YouTube link • QR Codes for Lab Setups 6. Problems Encountered and Resources Required • Faculty need to be trained • Extra efforts require for development of ICT based learning material.

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

https://www.tssm.edu.in/storage/PDF/IQAC/2019-20/7.2.1.pdf

#### 7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

Title: Need based Professional Skill Development The institute has established Professional Skill Development Center (PSDC) which identifies the significant industry with requirement of workforce on specific skillset. PSDC then prepares common agreement (MoU) between institute and the industry by involving respective department and Training and Placement department to ensure skill development of graduates as per industry requirement. The institute and industry involve their experts to train the graduating students on specific skillsets required by industry. Industry also can review the development of students during training program. Institute has affiliated with international certifying organizations based on training skills. Students are insisted to appear for certification examination offered by international certification organization on the respective skills. After successful completion of training program and certification, the industry offers internship to the students who

internship offered by industry. Finally the students are evaluated by industry and offers job opportunities to them. The computer Department conducted workshop on "Rasberry PI Programming Project Building" in association with Dolphin labs. Also established MOU with Trishta Global privet limited to train students on manual software testing and Automation software testing provide internship and employment opportunities in Trishta Global privet limited. The institute is affiliated to international Software Testing qualifier board for global certification in software testing. 08 Students were trained and accepted internship in software testing in year 2019-20. Department of Mechanical Engineering have conducted value added course on CATIA V5 by Design Tech System. The course duration was for 80 hours and total 15 mechanical engineering students have attended the course which was certified by Dassault Systems. Also, a session on career opportunities in "Piping Design" was conducted. Experts from piping design background were the guest of sessions. They have provided the students a detailed understanding of piping design and students got to know about the piping design as career opportunity. Total 86 students have attended the session. To enhance the programming ability of students by real time programming application and to make students aware about the different Aurduino Department of ETC Engineering Organized a Three days workshop on Bluetooth Controlled Robot using Aurduino on 20th to 22nd Feb.2020 in Association with Sky wing Technologies, Pune. The workshop was open for SE,TE and BE students of ETC Department. The civil Engineering department conducted workshop on "Plumbing Fire Fighting Design Field" in which they came across various types of knowledge and idea about the said topic i.e., how the capacity of overhead water tank in residential as well as in commercials should be decided, how underground capacity of reservoir is decided, etc. This training facilitates students to become familiar with the practical work actually carried out on the field.

will undergo skill based training. Internal faculty members and industry

experts review the progress of students during internship. Internship certificates are distributed to students who are successfully completing

#### Provide the weblink of the institution

https://www.tssm.edu.in/storage/PDF/IQAC/2019-20/7.3.1.pdf

# 8. Future Plans of Actions for Next Academic Year

By identifying the need of training and placement of the students, it is planned to focus more on increasing the industry institute interaction. It will bridge the gap between the academic curriculum and Industry practices. The bridging will be achieved through identifying discipline wise core industries, which will offer placements with good salary packages. The students' internship programme in identified industries will enhance the hands-on skillsets of our students. Eligible students will be provided required additional skills and knowledge via value added programme / courses through external agencies/internal faculty members. To give the insight of principles of operations, logics, applications of various machines or equipment used in industries, faculties will be motivated to prepare the video lectures in well-established setup of digital content development cell. The incubation centre has been established in the institute through which we plan to increase the number of entrepreneurs by motivating and supporting the aspirants. Faculties will be encouraged to prepare and submit the research proposals to various funding agencies for fetching research funding. The added outcome of which will be in terms of quality research publications and patents.