



Yearly Status Report - 2018-2019

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.khatril@gmail.com			
3. Website Address					
Web-link of the AQAR: (Previous Academic Year)		https://tssm.edu.in/naac-ssr			
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/IOAC/2018-19/1.1.1.pdf			
5. Accrediation Details					
Cycle	Grade	CGPA	Year of Accrediation	Validity	
				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 IQAC	Date & Duration		Number of participants/ beneficiaries		
Expert lecture on IPR-Vortex connector	10-Mar-2018 1		34		

Expert lecture on Requirement of filing a copyright application IPR in India	08-Sep-2018 1	36
PCB Making Workshop	21-Sep-2018 10	40
Multi-Criteria Decision Making Methods and Optimization Techniques (MDMMOT- 2018)(Two days National Workshop)	28-Dec-2018 2	60
Two days state level workshop on recent challenges on electric and hybrid vehicles.	03-Jan-2019 2	30
FDP on Java Programming	10-Dec-2018 6	21
FDP on Cyber Sucrity	06-May-2019 6	53
Experiment Explore and Enhance	03-Dec-2018 5	15
Electrical Safety Week	07-Mar-2019 1	35
ICRIET-19	15-Feb-2019 2	162
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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/Department/ Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Civil Department/ Prof. A. P. Khangan	ASPIRE	BCUD	2018 730	180000
Mechanical Engineering/ Prof. S. V. Pawar	ASPIRE	BCUD	2018 730	150000
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9. Whether composition of IQAC as per latest NAAC guidelines:

Yes

Upload latest notification of formation of IQAC

[View File](#)

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	View File
11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	No

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

- Focus on enhancement of quality of course material
- Industry institute interaction using concept of one faculty one industry relation.
- System for record keeping and maintaining the documents.
- Skill development and training program for students to increase the placements.
- Training program for non teaching to enhance personal skills

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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 enhance the quality of course file.	Due to the improved quality of course file the result has improved.
Competitive exam and aptitude training to the students for increasing placement of the students for Government sectors.	Coaching for competitive exams was given to the students and with interview technique which increased the placement and job opportunity for the students in Government sectors.
To enhance the technical skill of staff members.	Due to this student's placement, job opportunity and the count of industry sponsored project has increased.
To enhance the Industry Institute Interaction.	Due to the Industry Institute Interaction the placement of the students was increased.
To increase the number of students internship training.	The internship training count of students has increased.
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14. Whether AQAR was placed before statutory body ?	Yes
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Name of Statutory Body	Meeting Date
College Development Committee	05-Oct-2019

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	Yes
Date of Visit	12-Jul-2019
16. Whether institutional data submitted to AISHE:	Yes
Year of Submission	2019
Date of Submission	06-Feb-2019
17. Does the Institution have Management Information System ?	Yes
If yes, give a brief description and a list of modules currently operational (maximum 500 words)	<p>The institute has Management Information System called eSamanway which is developed inhouse. This system eases the maintenance of faculty personal details including faculty qualification, experience, Project guidance details, etc. The system has student information module which contains the academic and personal information about the students. This module turns out to be extremely useful for the Guardian Faculty Member (GFM) Scheme for tracking student attendance and academic progress as well as for the result analysis. Following modules are available in eSamanway: 1. Course Information System 2. Placement Information System 3. Student Information System 4. Faculty Information System. The eSamanway MIS is augmented by various eGovernance tools 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.</p>

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

1.1.2 – Certificate/ Diploma Courses introduced during the academic year

Certificate	Diploma Courses	Dates of Introduction	Duration	Focus on employ ability/entrepreneurship	Skill Development
PCB designing and making	Nil	15/01/2019	10	Employability	Skill Development
Drafting tools	Nil	04/02/2019	15	Employability	Skill Development
Auto CAD 2013	Nil	09/08/2018	10	Employability	Skill Development
JAVA foundation	Nil	18/03/2019	15	Employability	Skill Development
Auto CAD	Nil	12/01/2019	5	Employability	Skill Development
Hecras	Nil	12/07/2018	9	Employability	Skill

Raspberry Pi Programming and Project Building	Nil	20/01/2019	5	Employability	Development Skill Development
Software Testing	Nil	04/06/2018	16	Employability	Skill Development
PLC	Nil	07/07/2018	10	Employability	Skill Development

1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction
No Data Entered/Not Applicable !!!		
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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
No Data Entered/Not Applicable !!!		

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

	Certificate	Diploma Course
Number of Students	832	Nil

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
REVIT Structure	12/07/2018	46
Stadd -Pro	12/07/2018	39
Entrepreneurship	07/01/2019	15
Leadership and personality development	24/09/2018	20
Mobile making	21/08/2018	22
Network administration	12/03/2019	24
Product Life Cycle Management (PLM)	14/01/2019	68
Computer aided process planning	10/08/2018	48
Basic MATLAB	05/02/2019	63
Eplan software	05/07/2018	76
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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
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BE	Civil Engineering	258
BE	Computer Engineering	85
BE	E&TC Engineering	101
BE	Electrical Engineering	12
BE	Mechanical Engineering	224
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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
<p>Feedback Process in Institute: The institute has a well-defined, effective, transparent, efficient and appropriate feedback process. Institute assures effective execution of the feedback system. IQAC and AMC defines the feedback forms including aspects like content delivery, curriculum, curricular and extra-curricular activities, placement activities and mentoring. After designing these forms are uploaded on MOODLE. The notification is sent to stakeholders including students, faculty, alumni, parent and industry person about the feedback. The stakeholders fill the feedback in online mode through moodle. Every department analyses the feedback received from stakeholders and it is reviewed by AMC and HoD at department level. Necessary action is taken at department level on the feedback received by stakeholders and an action taken report is prepared. The action taken reports of all departments are uploaded on institute website. The information about the feedback is given to IQAC for further action. During this feedback process institute takes feedback from all stakeholders periodically viz. 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 - 1. Provides the platform to the stakeholders in identifying a greater role in the teaching -learning process, 2. Develops a sense of responsibility and belonging to the institution among the stakeholders, 3. Provides opportunities to modify and rearrange the course contents based on students' constructive suggestions 4. Helps the teachers modify and improve their teaching methodologies, 5. Establishes a transparent communication channel between the students and the teacher, and 6. Maintains the functioning of teaching-learning process in the best possible way.</p>

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
BE	Civil Engineering	126	54	54

BE	Computer Engineering	63	53	53
BE	Electronics and Telecommunication Engineering	63	35	35
BE	Mechanical Engineering	126	64	64
BE	Electrical Engineering	60	29	29
ME	Construction Management	24	24	24
ME	Computer Engineering	24	7	7
ME	Signal Processing	24	3	3
ME	Design Engineering	24	1	1
ME	Power System	24	11	11
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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	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2018	1967	86	125	20	Nil

2.3 – Teaching - Learning Process

2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning 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	Number of smart classrooms	E-resources and techniques used
145	145	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 institute has a student mentoring system called Guardian Faculty Member (GFM) scheme. Under this scheme, every batch of 20 to 25 students is assigned a guardian faculty, generally denoted as GFM. The GFM acts as a local guardian to the students, most of which 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 maintains a portfolio of every student which contains the progress and achievements of every student related to regular academics and competitions and participation in technical, social, cultural and sports activities. During every activity, may it be curricular, co-

curricular or extra-curricular, the GFM 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 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
2056	145	1:14

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
145	145	Nil	31	15

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
2018	Dr. Ganesh Arunrao Hinge	Principal	Life Fellowship of Indian Water Resources Society
2018	Kishore Gandhare	Assistant Professor	Life Fellowship of Indian Water Resources Society
2018	Dr. Satish Narayanrao Gujar	Professor	Patent titled: IVA System Intelligent vehicle alert System For U-Turn and Seize Notification (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 semester-end/ year- end examination
BE	664919110	I/2018-19	29/12/2018	12/02/2019
BE	664919110	III/2018-19	13/12/2018	12/02/2019
BE	664919110	V/2018-19	12/12/2018	12/02/2019
BE	664919110	VII/2018-19	11/12/2018	01/02/2019
BE	664919110	II/2018-19	28/05/2019	05/10/2019

BE	664919110	IV/2018-19	29/05/2019	09/10/2019
BE	664919110	VI/2018-19	28/05/2019	09/10/2019
BE	664919110	VIII/2018-19	27/05/2019	09/10/2019
ME	664921010	ME I/2018-19	27/12/2018	18/03/2019
ME	664921010	ME III/2018-19	22/12/2018	18/03/2019
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2.5.2 – Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)

For every learning to check the outcome , there is requirement of accessing the students. So that we can understand the weakness and strong part of students.

Institute has kept various methods to judge the students like tests assignments, group discussions, MOCK Oral, practical, presentations, reviews etc. The students will goes through this various techniques and teacher will understand how to improve the quality of students. The unit tests are conducted for all subjects after completing the required syllabus. The test results are displayed and students examined. The results are discussed with students personally and given a suggestion on how to present, the required contents. The improvement is checked in the next tests. The assignments are given to students

on different topics , so that can write in his own language after understanding. By understanding the need of students the number of tests are conducted in Multiple Choice Question format. The various MOCK tests are conducted to understand the their knowledge about the topic. The students perceptive and intellectual ability is checked. The method will provide the information to teacher about the thorough understanding of topics by students.

The judged students are given the marks according to his ability. These performance will encourage the students to achieve the good marks and knowledge about the topics in next tests. Similarly for understanding about current technology and advancements the seminars and project topics are chosen. The ability of students are judged by their presentation skill, contents, delivery and question answer sessions. These techniques will help the students to face confidently the university oral practical and theory exams.

2.5.3 – Academic calendar prepared and adhered for conduct of Examination and other related matters (250 words)

Every semester institute prepares the academic calendar for proper conduction of academic activity. To prepare academic calendar institute refers the university published calendar every semester. In the preparation of academic calendar the principal and dean academics academic monitoring committee plays important role. The prepared academic calendar is discussed with all Head of Departments and if any changes are required are updated and final academic calendar is prepared. The all department also prepares their own department academic calendar by referring the institute level academic calendar. Every department having the Department Academic Coordinator for smooth execution of academics at department level with the help of HOD and staff. The academic calendar is made available to the students at the beginning of each semester. The monitoring and execution of activities included in the academic calendar as per formed followed through out the semester. The audits are conducted at college level by dean academics and department academic coordinator. The audit report contains about the teaching, unit test conduction, Course file, assessment, teacher feedback by students, academic progress, and curricular activities. The audit findings are discussed with the respective HOD and through the HOD the improvements are done at department level with help of department academic coordinator. In the next audit previous lacunas are checked about their improvements. Separate counseling is provided to students for the

academic improvements and it is monitored. At department level various activities shown in the calendar are conducted and their report are prepared and maintained at department level.

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/IOAC/2018-19/2.6.1.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	131	105	80.15
664924510	BE	Computer Engineering	124	121	97.58
664937210	BE	Electronics & Telecommunication Engineering	37	35	94.59
664929310	BE	Electrical Engineering	62	62	100
664961210	BE	Mechanical Engineering	217	191	88.02

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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/IOAC/2018-19/2.7.1.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	0.9	0.9
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	0.7	0.7
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad,	0.85	0.85

		Maharashtra		
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	0.9	0.9
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	0.55	0.55
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	0.7	0.7
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	0.9	0.9
Minor Projects	365	Bhairavnath Sugar Works Ltd. Osmanabad, Maharashtra	0.85	0.85
Projects sponsored by the University	730	ASPIRE (Assistance by SPPU for Project-based Innovative Research)	1.8	0.9
Projects sponsored by the University	730	ASPIRE (Assistance by SPPU for Project-based Innovative Research)	1.5	0.75
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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
Multi criteria Decision Making and Optimization Technique	Mechanical Engineering	28/12/2018
PCB Making Workshop	Electronics and Telecommunication Engineering	21/09/2018
Patent publish	Computer Engineering	10/08/2018
Paper publications and patent file	Civil Engineering	03/07/2018
Patent file	Electrical Engineering	17/09/2018
Patent publish and grant	Electrical Engineering	08/01/2019

Bluetooth control robot using Arduino	Electronics and Telecommunication Engineering	20/02/2019
Patent grant	Computer Engineering	26/11/2018
Patent publish	Mechanical Engineering	12/01/2019
Paper publications and patent file	Mechanical Engineering	16/02/2019

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

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
No Data Entered/Not Applicable !!!				
No file uploaded.				

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

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
No Data Entered/Not Applicable !!!					
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3.3 – Research Publications and Awards

3.3.1 – Incentive to the teachers who receive recognition/awards

State	National	International
1	3	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	Nil

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

Type	Department	Number of Publication	Average Impact Factor (if any)
International	Civil Engineering	9	6.35
International	Computer Engineering	20	5.87
International	Electrical Engineering	8	3.78
International	Electronics and Telecommunication Engineering	8	1.27
International	Mechanical Engineering	4	0.94
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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	27
Computer Engineering	21

Electronics Telecommunication Engineering	10
Electrical Engineering	8
Mechanical Engineering	26
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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
Study on carbon epoxy composite surfaces machined by abrasive water jet machining	A. D. Dhanawade, Shailendra Kumar	Journal of Composite Materials	2018	3	TSSMs BSCOER, Pune	3
Multi-performance optimization of abrasive water jet machining of carbon epoxy composite material	A. D. Dhanawade, Shailendra Kumar	International Journal of Engineering and Material Sciences (IJEMS)	2018	2	TSSMs BSCOER, Pune	2
Review For Face Detection Methods Used In ANN	Ashvini E. Shivdas, Neha .Agashe, Arti S.Jaibhai	International Journal Of Current Engineering And Scientific Research (IJCESR)	2018	0	TSSMs BSCOER, Pune	Nil
Review on Visual Information Extraction and Representation for Content Based Image Retrieval	V. G. Kottawar	International Journal of INTELLIGENT SYSTEMS AND APPLICATIONS (IJISA)	2018	0	TSSMs BSCOER, Pune	Nil

Estimation of software development using Function Point	M. K. Kodmelwar	Sciences and Engineering	2018	0	TSSMs BSCOER, Pune	Nil
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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
AN INNOVATIVE SIMULATION APPROACH TO IMPROVE THE ELECTROCHEMICAL MACHINING PERFORMANCE	D S Bilgi	Journal of Aerospace Engineering Technology	2018	5	Nil	TSSMs BSCOER
Multi-performance optimization of abrasive water jet machining of carbon epoxy composite material	A D Dhanwade	Indian Journal of Engineering and Materials Sciences (IJEMS)	2018	5	2	TSSMs BSCOER
Transformerless Buck-Boost DC-DC Converter	S G Kanade, A P Kinge	2018 IEEE Global Conference on Wireless Computing and Networking	2018	2	2	TSSMs BSCOER
Crow search algorithm with discrete wavelet transform to aid Mumford Shah inpainting	P M Patil	Evolutionary Intelligence	2018	17	1	TSSMs BSCOER

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

Number of Faculty	International	National	State	Local
Presented papers	92	Nil	Nil	Nil

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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
Cleaning of Classrooms	National Service Scheme (NSS)	6	25
Rally on Health Awareness and Cleanliness	National Service Scheme (NSS)	4	25
Guest Lecture on Different Govt. Schemes	National Service Scheme (NSS)	4	25
Cleaning of surrounding area of School and Temple	National Service Scheme (NSS)	5	25
Guest Lecture on History of Village	National Service Scheme (NSS)	3	25
Repairing of Old Computer in School	National Service Scheme (NSS)	4	25
Guest Lecture on Bio-Diversity	National Service Scheme (NSS)	3	25
Survey of Village	National Service Scheme (NSS)	5	25
Guest Lecture on Traditional Musical Instruments and Languages	National Service Scheme (NSS)	4	25
Quiz competition for school children	National Service Scheme (NSS)	6	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 Bhukum, Tal. Mulshi, Dist. Pune	Appreciation Letter	Grampanchayat Bhukum, Tal. Mulshi, Dist. Pune	25

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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

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activities	Number of students participated in such activities
Education Awareness Program	National Service Scheme (NSS)	Survey of Village	5	23
Education Awareness Program	National Service Scheme (NSS)	Guest Lecture on Bio-Diversity	6	25
Education Awareness Program	National Service Scheme (NSS)	Repairing of Old Computer in School	6	22
Education Awareness Program	National Service Scheme (NSS)	Guest Lecture on History of Village	6	22
Swachh Bharat Sarvekshan 2019	National Service Scheme (NSS)	Cleaning of surrounding area of School and Temple	5	21
Education Awareness Program	National Service Scheme (NSS)	Guest Lecture on Different Govt. Schemes	5	24
Swachh Bharat Sarvekshan 2019	National Service Scheme (NSS)	Rally on Health Awareness and Cleanliness	6	25
Swachh Bharat Sarvekshan 2019	National Service Scheme (NSS)	Cleaning of Classrooms	5	23
Mock CET Entrance Examination for Engineering Aspirants	TSSMs BSCOER	Mock CET Entrance Examination for Engineering Aspirants	30	34
How to Achieve MHTCET Exam Score from Takalakar classes	TSSMs BSCOER	MHTCET Score Guidance	25	40

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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 2018 IEEE Global Conference on	Ravindra Sadashivrao Apare, JJT University, Rajasthan, India and Dr. Satish	Parent institutes	180

Wireless Computing and Networking (GCWCN) Research Issues in Privacy Preservation in IoT	Narayanrao Gujar, BSCOER, Pune, India		
Collaborative research - Paper published in International Conference on IoT, Next Generation Networks Cloud Computing 2018 (ICINC-2018) Survey on Privacy Preservation in Internet of Things	Ravindra Sadashivrao Apare, JJT University, Rajasthan, India and Dr. Satish Narayanrao Gujar, BSCOER, Pune, India	Parent institutes	180
Collaborative research - Paper published in International conference A new technique 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 Multi-performance optimization of abrasive water jet machining of carbon epoxy composite material	A. D. Dhanawade, TSSM's BSCOER, Pune and S. Kumar, NIT Surat	Parent institutes	180
Collaborative research - Paper published in International Journal An Innovative Simulation Approach to Improve the Electrochemical Machining Performance	D.S.Bilgi, TSSM's BSCOER, Pune, Sachin S. Chavan, S. T. Chavan, Avinash M. Pawar, Bharti Vidyapeeth, 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	Duration From	Duration To	Participant
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		/research lab with contact details			
Internship	Implant Training	Kelkar Auto Parts Pvt. Ltd	22/12/2018	31/12/2018	Students
Internship	Implant Training	Paradise Engg Works	18/12/2018	06/01/2019	Students
Internship	Implant Training	Associate Robotics	13/12/2018	13/01/2019	Students
Internship	Implant Training	Suryakant Automobiles	15/12/2018	05/01/2019	Students
Internship	Implant Training	Bharat Forge Ltd Pune	09/08/2018	30/03/2019	Students
Internship	Implant Training	Mackrish Electronics Pune	01/08/2018	17/01/2019	Students
Internship	Implant Training	Uni Fab Industries	17/12/2018	15/01/2019	Students
Internship	Implant Training	Kirloskar Brothers Ltd	19/12/2018	08/01/2019	Students
Internship	Implant Training	Vitthal Cooperative Lt	01/01/2019	15/01/2019	Students
Internship	Implant Training	Phavi Engineers	15/12/2018	30/12/2018	Students
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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
Mane Industries, Pune	16/02/2018	To Conduct training and other activities required for skill development in MEP domain.	43
Techno CAD CAM Solutions Pvt. Ltd. Pune	06/03/2018	For enhancing the quality of engineering education being imparted to the students	51
JNC Technologies, Pune	06/03/2018	Workshop on Microcontroller Applications	50
Thorat Industries, Pune	11/03/2018	To Conduct mongoDB and NoSQL	43

		training and other activities required for skill development in BackEnd domain	
Seinumero Nirman Pvt Ltd. Pune	07/04/2018	For enhancing the quality of engineering education being imparted to the students	20
Phadtare Fabtech Pvt Ltd Pune	09/04/2018	For enhancing the quality of engineering education being imparted to the students	82
Sunrisers Energy Solutions Pvt. Ltd.	09/04/2018	Guest Lecture on Renewable Energy	67
Budhale Industries, Kolhapur	08/05/2018	To Conduct training and other activities required for skill development in MEP domain	75
Palo Alto Networks Cyber Security Academy	02/07/2018	Training on quality control, industrial visit	90
Red-Hat Academy	26/10/2018	To Conduct training and other activities required for skill development in MEP domain	40
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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
12.81	12.39

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Others	Existing
Classrooms with Wi-Fi OR LAN	Existing
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added
Value of the equipment purchased	Newly Added

during the year (rs. in lakhs)	
Video Centre	Existing
Seminar halls with ICT facilities	Existing
Campus Area	Existing
Class rooms	Existing
Laboratories	Existing
Seminar Halls	Existing
Classrooms with LCD facilities	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 partially)	Version	Year of automation
AutoLib	Partially	V.1.0.1	2013

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
	Text Books	13509	4255567	25	90321	13534
Reference Books	4080	1819811	Nil	Nil	4080	1819811
e-Books	Nil	Nil	27000	182900	27000	182900
Journals	Nil	Nil	121	399506	121	399506
e-Journals	Nil	Nil	2193	1173656	2193	1173656
CD & Video	1164	11640	599	5990	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 & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
P.B.Lonkar	High Performance Computing	Moodle-LMS	22/05/2018
S. N. Gujar	Object Oriented Programming	Moodle-LMS	25/05/2018
S B. Karale	System Programming and Operating System	Moodle-LMS	13/12/2018
A. D. Gujar	Computer Graphics Lab	Moodle-LMS	14/12/2018
S. V. Ingale	Cloud Computing	Moodle-LMS	12/12/2018

A. R. Teke	Theory of Computation	Moodle-LMS	28/05/2018
V. N. Naikwadi	Web Technology	Moodle-LMS	09/12/2018
P. D. Chouksey	Digital Electronics Logic Design	Moodle-LMS	24/05/2018
S. A. Pawar	Software Modeling and Design	Moodle-LMS	14/12/2018
P.R.Patil	Software Testing and Quality Assurance	Moodle-LMS	28/05/2018
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4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/GBPS)	Others
Existing	692	0	692	0	0	18	651	65	0
Added	17	0	17	0	0	0	17	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 incurred on maintenance of physical facilities
55.35	53.53	64.16	62.05

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/2018-19/4.4.2.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/Lila Poonawala foundation	1556	80804110
b) International	0	Nil	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 enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved

Remedial Coaching - Engineering Mechanics	06/02/2019	22	TSSMs BSCOER
Remedial Coaching - Basic Electrical Engineering	05/02/2019	25	TSSMs BSCOER
Remedial Coaching - Engineering Chemistry	04/02/2019	25	TSSMs BSCOER
Remedial Coaching - Engineering Mathematics I	04/02/2019	25	TSSMs BSCOER
Remedial Coaching - Engineering Chemistry	04/09/2018	17	TSSMs BSCOER
Remedial Coaching - Engineering Mechanics	06/09/2018	29	TSSMs BSCOER
Remedial Coaching - Basic Electrical Engineering	05/09/2018	24	TSSMs BSCOER
Remedial Coaching - Engineering Mathematics II	03/09/2018	22	TSSMs BSCOER
Python Training	05/06/2019	45	Profound
Barclays Softskill Training	21/01/2019	620	Barclays
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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 students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passed in the comp. exam	Number of students placed
2019	Career Counselling Session On Software Testing	Nil	14	Nil	4
2018	Guest lecture on Geotechnical Engineering (Retaining Wall Design)	Nil	145	Nil	5
2018	Guest Lecture on Disaster & management	Nil	150	Nil	4

2018	Career Guidance for Preparation for NICMAR	150	Nill	1	3
2019	Demo session on different design courses	Nill	122	Nill	17
2019	Expert lecture on Competitive examination	60	Nill	3	Nill
2019	Career counseling by mr. Sachin Chitapure	Nill	52	Nill	22
2018	Guidance for GATE exam by alumni-Akshay Palkar	85	Nill	2	Nill
2019	Career counseling by Mr. U. K. Shinde	Nill	55	Nill	24
2019	Career counselling session on data science	Nill	109	Nill	42

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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
Nill	Nill	Nill

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Name of organizations visited	Number of students participated	Number of students placed	Name of organizations visited	Number of students participated	Number of students placed
Xoriant, Paramatrix, Amazon, Asset Analyti, Cuelogic	1154	123	TCS, Wipro, Infosys, Bitwise	768	279

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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
2018	1	BE Civil Engineering	Civil Engineering	Walchand College of Engineering, Sangli.	MTech (Environmental Engineering)
2018	1	BE Civil Engineering	Civil Engineering	MIT , World Peace University, Pune.	MBA (Human Resource)
2018	1	BE Civil Engineering	Civil Engineering	TSSM's Bhivarabai Sawant College of Engineering & Research, Narhe, Pune-41	M.E. (Construction Managment)
2018	1	BE Mechanical Engineering	Mechanical Engineering	Stevens Institute of Technology	MS in Industrial Engineering
2018	1	BE Mechanical Engineering	Mechanical Engineering	TSSM's Bhivarabai Sawant College of Engineering & Research, Narhe, Pune-41	ME Design Engineering

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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	Nil
SET	Nil
SLET	Nil
GATE	2
GMAT	Nil
CAT	Nil
GRE	2
TOFEL	3
Civil Services	Nil
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
Box Cricket	Institute	156
Cultural Jashna -E - Youth	Institute	250
Annual Sports	Institute	220
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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	Best Play and First Prize, Raj Sanman Karndak (State Level)	National	Nil	1	6732	Shrayau Deshmukh
2019	Runner Up, Lokmanya Tilak Karndak (Inter-College)	National	Nil	1	5450	Akshay Jadhav
2018	Second Prize, Sarpotdar Karandak (Inter-College)	National	Nil	1	5766	Omkar Yadav
2019	Winner, Rajveer Trophy	National	1	Nil	1455	Sourabh Tambhakhe
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5.3.2 – Activity of Student Council & representation of students on academic & administrative 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 cocurricular and 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 institute helps to form various departmental chapters, professional chapters in each department. It provides platform for students to develop event management skills and team work. The institute has various administrative bodies like entrepreneurship development cell library committee in 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. The Cultural Committee of Student Council also ensures to provide platform for students to participate in cultural activities like annual gathering, Purushottam Karandak, Konkan Karandak. Every year the institute organizes a National level technical symposium namely Technovision, where students presents their technical skills in the events like paper presentation, project exhibition, Robo Race, circuit designing, technical quiz and many more. The institute provides support to organize various social activities like Green Pune Clean Pune, traffic awareness programs, PUC camp, Blood donation camp to enhance student social responsibilities.

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: 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 Apart from the above Non-financial aids the Alumni Association is also supporting

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. This way Alumni can help or guide the existing students
by financial and non financial way. More than 300 students are presents for the
Alumni meet.

5.4.2 – No. of enrolled Alumni:

2078

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

151500

5.4.4 – Meetings/activities organized by Alumni Association :

1. Alumni connect - 29 December 2018 - 400 alumni members attended

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: 1.1 Preamble: The institute has constituted academic monitoring committee to facilitate students with a wide range of student-focused support systems and learning environments that enable them to complete their academic activities successfully. 1.2 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 1.3 Roles 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. 1.4 Committee Hierarchy: AMC is headed by Academic 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 coordinators are involved in policy making process. Class teachers Teacher Guardians (Guardian Faculty Members) are pillars 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. Budget Preparation: Budget for the the institution is prepared before start of each academic year.It involves following sections:Salary,Administrative expenses,Training and Development,Laboratory Consumables,Library,Travel,Fees Paid to University/ Board/ Government/AICTE, Repairs and Maintenance, Scholarships/ Concessions/ Fellowships/Honorarium etc,Depreciation etc. Organization designs its programs and activities on the basis of budget. It is based on organization goals and major objectives. The policies and programs are largely depend on state government. On the basis of guidelines given by the management each head of the

department prepares department budget. Allocation is discussed with The head of the institution and then send for the final approval. All the departments send budget to the finance and account section. Apart from the funds received by the institute through fees collection, funds are mobilized as per the policy defined by the institute as follows: 1.Fund mobilization for co-curricular and extra-curricular activities through university schemes. 2.Fund mobilization for student projects and student oriented mega activities through corporate CSR schemes and sponsorships from private and public organizations. 3.Fund mobilization to support needy students through university schemes like "Earn and Learn",donations by philanthropists, scholarships and free ships from government schemes and NGOs. 4."Dr. Punjabrao Deshmukh Vastigruh Nirvah Bhatta scheme" for student accommodation 5.Financial contribution of alumni for institutional development.

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 are done through centralized admission process (CAP) at various stages following the process of allotment as per Candidature Type, Sanctioned Intake and Supernumerary Seats for various Courses, Allocation of Seats, Reservations and Eligibility Criteria by Government of Maharashtra, State Common Entrance Test Cell. Document Verification is done at College Facilitation Centers Admissions in Institutional Quota and vacant seats after CAP are filled following process given by Director Technical Education (DTE). After completion of Admission process institute submit the Admission-approval proposal to the DTE and the Admission Regulating Authority.
Industry Interaction / Collaboration	The Industry Institute Interaction Cell (IIIC) Incharge guide the activities strategically through online survey, enhance and improve academics, research and placement activity. This facilitates strong association with industrial, academic and research establishments. There are active MOUs, which benefits the students to give realistic exposure through industrial visits, sponsored projects, expert lectures, 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, expert

lectures, sponsored projects, publications in association with industrial experts, industrial visits, internships, training, and placement.

Human Resource Management

To serve overall growth of the institute adequate human resources are provided. Governing body takes the decisions as per the requirements and executes through the College Development Committee (CDC) and faculty members in decentralized and participative environment. The Internal Quality Assurance Cell (IQAC) controls Academic Monitoring Cell (AMC), Institute Research Cell (IRC), Industry Institute Interaction Cell (IIIC), Entrepreneurship Development Cell (EDC), examination cell, anti-ragging cell, etc. Heads of the department work in coordination with the AMC. IRC in-charge gives the inputs of various programs/events of research activities. Office administration is done through office superintendent.

Library, ICT and Physical Infrastructure / Instrumentation

The 693 square meters fully automated central library with Autolib- library management system with barcode technology and reading room acts as a premier Learning Resource Centre for students. The Library has well stacked collection of reference books, textbooks, handbooks with 4651 titles and 17589 volumes, 110 print journals , periodicals, magazines also e-journals and CDs. The library has institutional membership of e-shodhsindhu, National Digital Library, ProQuest e-books and British Library. The digital has 10 independent machines and provides access to all the e-contents of Springer, Science Direct (Elsevier), ASCE, ASTM and ProQuest e-Books. The annual budget was Rs 1690558.11.

Research and Development

BSCOER practices research and is facilitated through Institutional Research Cell (IRC) to promote research, product development and entrepreneurship related activities. BSCOER is the approved research centre to pursue doctorate in Civil Engg. and E TC Engg. and at present three candidates are pursuing research. The Institution has to its credit four patents and 13 are filed. The grants of Rs 11.5 lakhs was sanctioned from Board of College and University Development (BCUD) up till. The institution is also

actively involved in extension activities to address various societal issues through NSS.

Examination and Evaluation

Examination and evaluation process of the institute are under the control of affiliating university SPPU examination unit. In institute examination process and applicable part of evaluation process is under supervision of BSCOER Principal through college examination officer. For end semester examination BSCOER CEO (will act as custodian) will receive the question paper online, print and handover to examination block supervisor along with blank answer sheets. SPPU appoints external senior supervisor during the period of examination. CEO sends the answer sheets at prescribed CAP centre. Malpractice cases are forwarded to university. SPPU generates the result sheets and announce the result.

Teaching and Learning

Student in the institute use ICT tools in a dynamic environment. The institute attempts for change of student understanding by using concept lab, museum and self learning facilities. MOODLE platform provides the student the complete repository of learning material and provides tool for continuous internal online quiz/assignment/test evaluation and records . The best practices successfully implemented by the institution are Mentor-Mentee scheme, Multilevel Monitoring Development of Digital Teaching-Learning Resources. Academic monitoring committee (AMC) decides the various policies and academic formats for proper implementation and through audits of academics and improve based on interaction and feedback with parents, alumni.

Curriculum Development

Institute is affiliated to Savitribai Phule Pune University (SPPU) and follows the prescribed curriculum and evaluation pattern for the outcomes of the learning experience. University revise the curriculum and evaluation pattern periodically to add the gap if any and to upgrade the quality considering the feedback from major stakeholders and reduces the gap of industry institute and also follows the mandate of the AICTE. Faculty members of the institute are actively involved

in various academic and evaluation activities of curriculum development. The exposure to the industry is provided through industrial visits, expert lectures, value addition courses, in-plants training, sponsored projects.

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

E-governance area	Details
<p>Planning and Development</p>	<p>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.</p>
<p>Administration</p>	<p>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.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. 4. 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.</p>
<p>Finance and Accounts</p>	<p>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.</p>
<p>Student Admission and Support</p>	<p>1. MOODLE-In-house It is a Learning Management Software used to enhance</p>

	<p>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.</p>
Examination	<p>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.</p>

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
2018	Sourabh Kulkarni	Ecological and Energy Efficient RAC	NA	1000
2018	Mandar Mokashi	Two days Conclave on Incubation Innovation and Linkages	NA	500
2018	Rutuja Shinde	FDP on Data Analytics	NA	1000
2018	V. A. Gajdhane	STTP Intelligent Soft Computing Techniques	NA	600
2018	A. N. Kshirsagar	STTP Intelligent Soft Computing Techniques	NA	600

2018	A. N. Kshirsagar	SPPU Subject Workshop: Embedded RTOS	NA	450
2018	V.V.Mahindrakar	Advances in Material, micro machining and management practices	NA	500
2018	V. M. Bhedi	Two Days workshop at YCE Nagpur	NA	3000
2018	R. S. Kognole	Effective Teaching Methodology in Fluid Mechanics I (20-21 Dec. 2018) at Sihngad College of Engineering Wadgaon Pune	NA	1000
2018	A. P. Khangnan	Effective Teaching Methodology in Fluid Mechanics I (20-21 Dec. 2018) at Sihngad College of Engineering Wadgaon Pune	NA	1000

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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)
2018	NA	Advanced Microsoft Excel	24/08/2018	24/08/2018	Nil	18
2018	NA	PCB Making Workshop	21/11/2018	23/11/2018	Nil	18
2018	Experiment Explore and Enhance	NA	03/12/2018	08/12/2018	15	Nil
2018	FDP on Java Programming	NA	10/12/2018	15/12/2018	21	Nil

2018	Multi-Criteria Decision Making Methods and Optimization Techniques (MDMMOT-2018) (Two days National Workshop)	NA	28/12/2018	29/12/2018	60	Nil
2019	Two days state level workshop on recent challenges on electric and hybrid vehicles.	NA	03/01/2019	04/01/2019	30	Nil
2019	NA	Industrial Safety Week	07/03/2019	07/03/2019	Nil	35
2019	One week FDP on Cyber Security	NA	06/05/2019	11/05/2019	53	Nil
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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
Faculty Orientation Workshop by SPPU: Mobile Communication	1	13/12/2018	14/12/2018	2
STTP Intelligent Soft Computing Techniques	2	10/12/2018	14/12/2018	5
Ecological and Energy Efficient RAC	1	07/06/2018	09/06/2018	3
Advances in Material, micro machining and	1	26/11/2018	30/11/2018	5

management practices				
FDP on Data Analytics	1	22/06/2018	23/06/2018	2
FDP on Java Fundamentals and programming	2	19/11/2018	23/11/2018	5
Two days FDP on Introduction to Mobile App Development	2	11/06/2018	12/06/2018	2
Two days FDP on introduction to R programming	1	29/08/2018	30/08/2018	2
FDP on Laboratory Practice 3	1	18/12/2018	19/12/2018	2
SPPU Subject Workshop: Embedded RTOS	1	12/07/2018	12/07/2018	1
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6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
Nil	145	Nil	90

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
<p>Provident Fund Facility for Staff, Group Insurance for all Staff, Medical facility for Staff, Free trainings facility to staff, 100 percent revenue generated out of consultancy is distributed amongst the concerned team, Institute bears 100 percent 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</p>	<p>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</p>	<p>Free Medical Checkup, Earn and learn, Book bank</p>

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. Apart from the funds received by the institute through fees collection, funds are mobilized as per the policy defined by the institute as follows: 1.Fund mobilization for co-curricular and extra-curricular activities through university schemes. 2.Fund mobilization for student projects and student oriented mega activities and sponsorships from private and public organizations. 3.Fund mobilization to support needy students through university schemes like "Earn and Learn", donations by philanthropists, scholarships and free ships from government schemes and NGOs. 4.Fund generation through Internal Revenue Generation (IRG) for laboratory strengthening 5."Dr. Punjabrao Deshmukh Vastigruh Nirvah Bhatta scheme" for student accommodation 6.Financial contribution of alumni for institutional development 7.Societal contributions and donations for institutional development Forthcoming part highlights the procedure adopted for fund mobilization and utilization. 1.The concerned individual/section/department of the institute raises the fund requirement beyond the allocated budget due to additional, un-planned/urgent activity. 2.The demand is noted by the Principal and is forwarded to Fund Mobilization Committee (FMC) which scrutinizes the requirements and prepares the proposal for submission to appropriate agencies. 3.The committee along with the fund seeker takes the follow-up of the agency to which proposal is submitted. If required, presentation is given before the funding agency. 4.On receiving the funds, as per the directives of the funding agency, the funds are handed over to the seeker and its utilization is monitored closely. 5.In case of funded activities, where procurement is involved, standard purchase procedure of the institute is followed. 6.Institute assumes its responsibility for appropriate utilization of released funds either in single installment or multiple. Also, as per the guidelines of funding agency, submits the audited reports along with activity report to the funding agency through seeker. 7.The fund utilization also gets audited in institutional audit. 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 funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
Student Associations of the institute	223691	Students Welfare
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6.4.3 – Total corpus fund generated

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	Agency appointed by Principal	Yes	IQAC
Administrative	Yes	Agency appointed by Principal	Yes	IQAC

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

1. Student Performance Grievance redressal System: Class teachers Teacher Guardians (Guardian Faculty Members) associate with Parent in implementing student Performance grievance redressal through online feedback from students. The feedback from the online portal Moodle is evaluated and also the parent's suggestions are involved to improve the student performance. Also student grievances are addressed by faculty members in support with the parents. 2. Parent Meet: 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's suggestions are taken through feedback. Focus is given on student's academic progress individually. Progress of individual student is discussed with parent individually by Guardian faculty members. Grievances of parents are also addressed. 3. Value Education: As part of personality development and social wellness, different initiatives are conducted by college. Parent and teachers are also associate in Value Educational activities. Social and Ethical value education related Guest lectures are conducted by college. Spiritual person or Priests are invited to deliver the life values and ethical practices to be followed in the life. This has helped student awareness for wellness about society and the parents.

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

1. Advanced Microsoft Excel 2. PCB Making Workshop 3. Industrial Safety Week

6.5.4 – Post Accreditation initiative(s) (mention at least three)

1. Expert 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. Skill enhancement 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. The activity thus helped student in gaining campus placement. 3. Product development through project: Final year student's project plays key role in their career. When selecting the project for final year emphasis is given to prepare a product. Students are encouraged to develop the product through final year project. This initiative is helpful to build entrepreneurship skills of student. Product idea

is either given by some enterprise or student themselves put their ideas. This activity has percolated research and development culture in the institute.

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
2019	ICRIET19	15/02/2019	15/02/2019	16/12/2019	162
2018	Multi-Criteria Decision Making Methods and Optimization Techniques (MDMMOT-2018) (Two days National Workshop)	28/12/2018	28/12/2018	29/12/2018	60
2019	Two days state level workshop on recent challenges on electric and hybrid vehicles.	03/01/2019	03/01/2019	04/01/2019	30
2018	FDP on Java Programming	10/12/2018	10/12/2018	15/12/2018	21
2019	FDP on Cyber Sucrity	06/05/2019	06/05/2019	11/05/2019	53
2018	Experiment Explore and Enhance	03/12/2018	03/12/2018	07/12/2018	15
2019	Electrical Safety Week	07/03/2019	07/03/2019	07/03/2019	35
2018	Advanced Microsoft Excel	24/08/2018	24/08/2018	24/08/2018	18
2018	PCB Making Workshop	21/09/2018	21/09/2018	01/10/2018	40
2018	Expert lecture on Requirement	08/09/2018	08/09/2018	08/09/2018	36

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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
Program for womens safety	13/10/2018	13/10/2018	45	Nil
Rangoli Competition	07/02/2019	07/02/2019	30	Nil
Womens Day celebration	08/03/2019	08/03/2019	35	Nil

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

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2019	Nil	1	04/01/2	1	Rally		40

			019		on health check up	Awareness of health	
2019	Nil	1	06/01/2019	1	MS office training and competition	Awareness of Technology	120
2019	Nil	1	09/01/2019	1	Guest lecture on Government Scheme	Social Awareness	75
2019	Nil	1	10/01/2019	1	Guest Lecture on Entrepreneurship	Awareness of Entrepreneurship	50
2019	Nil	1	14/01/2019	1	Tree Plantation	Awareness of environment	38
2018	1	Nil	18/06/2018	365	Industrial visits	local advantage	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	18/06/2018	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
YOGA day	21/06/2018	21/06/2018	135
Teachers Day	05/09/2018	05/09/2018	326
Engineers Day	15/09/2018	15/09/2018	223
Ganesh Chaturthi	13/09/2018	17/09/2018	239
Gandhi Jayanti	02/10/2018	02/10/2018	59
Shiv jayanti	19/02/2019	19/02/2019	297
Mahatma phule Jayanti	11/04/2019	11/04/2019	62

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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 self-learning 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 open-source 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 in 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/IOAC/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 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 internship offered by industry. Finally the students are evaluated by industry and offers job opportunities to them. The computer department conducted 'Workshop on Raspberry Pi programming and project building' in association with Dolphin Labs. Also established MoU with Tristha Global Privet limited to train

students on Manual Software Testing and Automation Software Testing, provide internship and employment opportunities in Tristha Global Privet Limited. The institute is affiliated to International Software Testing Qualification Board for global certification in Software Testing. 09 students were trained and completed internship in Software Testing in year 2018-19. 04 students from this batch are successfully availed ISTQB Certified Software Tester Certification.

Students are also evaluated by Tristha Global Privet Limited and offered placement as Associate Software Tester with package of 2.3 Lakhs per annum. Department of Mechanical Engineering have conducted national level workshop on "Multi-criteria Decision Making and Optimization Technique". The objective of this workshop was to equip participants with multi-criteria decision making techniques and optimization techniques. Participants got overall idea about recent trends in optimization techniques. Also, mechanical department have organized a one week free Auto-CAD 2013 training program for the students in collaboration with CADD Center Pune. The training was conducted. The objectives of this training program were to introduce the importance of design software in the field of mechanical engineering using 2D drawing of machine elements. Total 40 students have attended the training program. Civil engineering department also offers internship to the students under BAI. BAI is the only all India apex representative body of civil engineering construction companies. BAI was founded in 1941 under the guidance and blessings of Brig. C.V.S. Jackson of Military Engineering Services, Poona, now known as Pune, who suggested that builders working under his command, form a body for finding solutions to various problems. Our department signed MOU with BAI and every year they are offering and giving valuable internship to our students.

Provide the weblink of the institution

<https://www.tssm.edu.in/storage/PDF/IOAC/2019-20/7.3.1.pdf>

8.Future Plans of Actions for Next Academic Year

Identifying the need of training and placement of the students it is proposed to increase the Industry Institute Interaction that will bridge the gap between University curriculum and Industry. The bridging will be achieved through increasing number of internship training programs, increasing number of Industry sponsored projects, increasing number of interaction sessions with Industry people (both theory and hand-on). For the same every faculty member will try to build the relations with at least one Industry person. Also, faculty members will be encouraged to go for some advanced training programs in the current trends/software in Industry. Students will be made aware and motivated about the competitive exams and the related Government jobs. The required training agencies/ faculty members will be identified and informed to the students for the same. The technical ability of the students will be increased through the learning material provided by the faculty members through the course file. This will indirectly help the students to cope up with the current trends in Industry and in-turn increase the placements.