

# **SELF STUDY REPORT**

**FOR**

**1<sup>st</sup> CYCLE OF ACCREDITATION**

**TSSM'S BHIVARABAI SAWANT COLLEGE OF  
ENGINEERING AND RESEARCH**

S. NO. 12/1/2 AND 12/2/2, NARHE, TAL. HAVELI, DIST. PUNE  
411041

[www.tssm.edu.in/main\\_index.php](http://www.tssm.edu.in/main_index.php)

Submitted To

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

**(Draft)**

# 1. EXECUTIVE SUMMARY

---

## 1.1 INTRODUCTION

TSSM's Bhivarabai Sawant College of Engineering and Research, established in 2010, is run by a charitable trust 'The Shetkari Shikshan Mandal' (TSSM), a sister concern of Jayawant Shikshan Prasarak Mandal, (JSPM), Pune. TSSM trust is registered under Bombay Public Trust Act 1950 and Societies Registration Act 1860. The College is approved by All India Council for Technical Education (AICTE), New Delhi, recognized by Directorate of Technical Education (DTE), Maharashtra State and affiliated to Savitribai Phule Pune University. Prof. Dr. T. J. Sawant, President TSSM, is a renowned educationist and entrepreneur. He strongly believes that "Education is a journey from Information to Knowledge and from Knowledge to Wisdom". He is also Founder Secretary of JSPM which is established in the year 1998 and is known as a leading education group in India. In a short span of seven years, the trust has expanded to the extent that it includes faculties like Engineering, Management, Pharmacy, Diploma, Computer Application and Pre-Primary, Primary, Secondary School in and around Pune in five campuses. Bhivarabai Sawant College of Engineering and Research is located in a lush green campus. We endeavor to "Empower Creativity through Technical Excellence" among our students. This helps a lot for all-round development of students. Presently the Institute is offering five undergraduate courses, five post graduate courses and a Ph. D. program in Civil Engineering in the first shift and four diploma level courses in second shift. The students are encouraged to focus on their strengths and to develop self confidence. Under the dynamic leadership of Prof. Dr. T. J. Sawant, the institute is progressing by keeping pace with the ever changing technology.

### Vision

To develop globally competent engineers for techno-economic development of society.

### Mission

To provide, nurture and maintain an environment of academic excellence, research and entrepreneurship for aspiring engineers to meet global challenges ethically.

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

### Institutional Strength

- Sound establishment by a visionary educationist
- Highly motivated and dedicated faculty and staff members
- Institute location encompasses industries from various sectors
- State of the art infrastructure and pollution free green campus
- Ample opportunities and support for all-round development of students

### Institutional Weakness

- Skill development opportunities are not fully explored
- Limited placements in core industries
- Less number of students opt for higher studies

### **Institutional Opportunity**

- Clustering Industry, Institute and Innovation
- Promoting Interdisciplinary and appropriate technology projects
- Initiating exchange programs for faculty and students with foreign universities.
- To come up as smart college campus

### **Institutional Challenge**

- Development of sustainable technologies
- Igniting minds to empower curiosity
- Controlling the negative impact of social media on students
- To attract students of high merit

## **1.3 CRITERIA WISE SUMMARY**

### **Curricular Aspects**

Institute offers various programs wherein the syllabus prescribed by Savitribai Phule Pune University (SPPU) is followed. Faculty members of the institute are actively involved in various university level activities such as, subject chairman, curriculum design and development, curriculum implementation workshops and examination work.

Available limited flexibility is used optimally for the benefit of students. Change of branch at second year level and option of electives at final year helps the candidate to pursue interest. Industry-academia gap bridging is attempted by means of add-on courses offered to students.

Curriculum includes subjects integrating cross cutting issues relevant to gender, environment and sustainability, human values and professional ethics. Value added courses like soft skills and communication skill are also conducted in order to achieve overall development of the students and inculcate professionalism amongst them. Along with all the provisions for effective delivery, institute consciously plans and ensures discussion of content beyond curriculum. Therefore expert lectures and exposure to industry through industrial visits, study tours, implant training and real time / sponsored projects from the industry are arranged.

Institute consistently approaches the stake holders viz. alumni, employers, industry, parents and students for the inputs on curriculum through feedback and corresponding analysis is conveyed to SPPU. Appropriate suggestions of the stakeholders are implemented through number of enrichment activities and programs at the Institute.

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

The teaching learning process in the institute is student centric and outcome based and considers need of diverse students. Learning levels of the students are identified and are taken into consideration for designing the learning material and evaluation process. Focus is on students learning which get reflected through use of self-learning laboratory, ICT based learning material aided by Learning Management System–MOODLE, workshop practice, and methodologies like participative learning, experiential learning, and collaborative learning.

Institute incorporates various innovative teaching-learning practices, viz., adopting industrial practices in laboratories, self-learning and assessment, use of e-resources, development of specific attributes like, honesty, hard-work, team-work, social work, and national integrity through various cells. SWOC and close monitoring help for institutional improvement. In-house studio is of extreme use for developing student and faculties for skill based activities.

The institute is proud of its highly qualified and experienced faculty members who act as a valuable resource for training the students for the specified programs.

The evaluation process is outcome based employing various direct and indirect assessment tools. Continuous assessment system is incorporated in the institute for assessment of practicals based on learning outcome. Online tests are conducted with the help of MOODLE which makes more time available with faculty to resolve students' problems. Transparency is maintained in the evaluation process which boosts confidence of faculty as well as students. Grievances, if any, are addressed by Grievance Redressal Cell in time bound, transparent and efficient manner.

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

The Institute has a structured Institutional Research Cell (IRC) to promote research and development related activities. The committee meets twice in an academic year to discuss the issues related to research. The recommendation of the committee helps to improve research activities. Faculty members are working on research projects funded by government and non government agencies like Board of College and University Development (BCUD), sugar industries and governing body.

Each department has setup a 'self-learning laboratory' for enhancing research activities. To build research awareness among students, various research events are organized such as Technical symposium (Technovision), Paper presentation and Project exhibition. Skill development workshops are organized for students. Students are encouraged to participate in various workshops, symposia, seminars, conferences to inculcate research culture. Research articles are being displayed on notice board time to time. Student research clubs are formed by the students. Each department has formed student chapters such as SAE BAJA in Mechanical, IEEE & CSI in Computer, IEEE & IETE in E&TC Department. Efforts are being made to collaborate with industry for laboratory developments and student projects. Reputed researchers are invited for expert lecture. Travel grants are provided to faculties to attend conferences and workshops. Institute provides financial support to organize Seminars/Workshops. Financial support is provided for innovative projects and patents.

The institution is also actively involved in extension activities to address various societal issues. The college has NSS unit which renders social and community services. Besides blood donation camps the institution has organized other Social awareness programs like save girl child, save trees, follow traffic rules, Green Pune & Clean Pune campaign, Tree plantation, free health checkup camp, free PUC checkup, visit to orphanage, cell phone awareness for senior citizens and computer literacy program for school children in rural area.

## **Infrastructure and Learning Resources**

Adequate infrastructural facilities are provided for instructional, administrative and circulation areas. The centralized video conferencing and recording facility is one of the unique features of our institute. The interactive expert lectures are delivered from the studio at central location. The instructional area includes 30 classrooms, 63 laboratories, 20 tutorial rooms, 8 seminar halls, 2 workshops, 1 drawing hall, 2 computer centers, 1 research lab, 1 language lab, central library and reading room. 24x7 water supply, power back-up, ambulance, ATM and security, common room for boys and girls, space for outdoor and indoor games are available in the campus. To cater to the needs of outstation students separate hostels and mess facilities are available along with cafeteria and canteen.

Central library has collection of 17803 books (text books, reference books, IS standards, handbooks, rare books), 107 print journals, 2196 e-journals, 13 periodicals and 936 CDs. The library has institutional membership of e-shodh sindhu, National Digital Library, ProQuest e-books (30000+) and British Library. All the e-contents are made available in digital library. The best library users (student and faculty) are declared every month and felicitated.

The institute has 651 high end desktop computers available exclusively for students. The institute has high speed IBM server. The lease line bandwidth is of 65 Mbps with cyberoam firewall. The Wi-Fi campus allows students to access internet through the campus. As per the suggestions by stakeholders, the institution reviews and upgrades its IT facilities namely hardware, software and networking.

To maintain and upkeep the campus, institute has maintenance cell with technical and skilled manpower, adequate budget provision for maintenance, housekeeping facilities and centralized supervision.

## **Student Support and Progression**

The institute undertakes student focused academic, co-curricular and extracurricular activities, to provide them rich learning experience and thereby ensure students' progression to higher studies and employment. The College extends its support to the socially and financially weak students, especially SC, ST, OBC, EBC and the differently-abled student communities adhering to Government norms. Full concession in term and tuition fees and special assistance is given to economically weak students by Management.

The Training and Placement cell motivates the departments to collaborate and form linkage with reputed agencies which provide job specific training that include technical, aptitude, group discussion and interview skills. The activities pertaining to skill development are planned which lead to placement at length. Every faculty member is interacting with industries to explore the opportunities with respect to expert lectures, internship, sponsored projects, industrial visit and placement.

The co-curricular and extra-curricular activities organized by Institute and Student council assure the holistic development of the students. The soft skills, communication and organizational skills offered by the professional tutor prepare the students for employment and provide them with job opportunities through the campus drives arranged by training and placement cell.

The grievances and requests of students and ladies faculty are addressed by the students Grievance Cell and women's Grievance cell respectively. The Anti-Ragging Cell publicizes its stand against ragging in

campus to curb ragging. In spite of being a Coeducation College, sexual harassment is unheard within the campus. A professional counselor is appointed to address the issues of students at various levels.

Alumni Association in the Institute maintains a good relationship with the students to keep track of students' progression into higher studies and employment. The alumni take active part in skill development of students and also give suggestions for curriculum up gradation. Alumni act as brand ambassadors of university at large and the institute in specific.

Mentoring sessions are arranged to encourage students for higher education. Ample study material is provided for competitive examinations like GATE, UPSC, MPSC and PSU. Encouragement for students' participation in various competitions at various levels has brought laurels to the individuals and the institution.

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

TSSM's BSCOER has effective organizational structure comprising of technocrats headed by the president of the Trust who is an Electrical Engineering is having vision of imparting quality education. Various cells, bodies and committees comprising of Principal, Department Heads and faculty members assigned with various responsibilities and duties contribute towards the execution of governance in tune with the vision admission. The members of various committees are actively involved in the decision making process related to academic and administrative matters giving opportunities for participative management.

The perspective and strategic plan of the institution includes periodic up gradation of infrastructural resources as per stakeholders feedback, faculty development for inculcating research culture and skill based education, enhancing the teaching learning process through improved interaction with industries and collaborative learning. Through EDC, the institute is also focusing on providing support to budding entrepreneurs as well as motivating students to take up entrepreneurship.

E-governance is implemented in various areas of operations like administration, examination, Finance and Accounts, Student Admission and Support. The institute focuses on outcome based education and reforms and suggestions made by various committees are implemented for the same after review. The institution provides various facilities to faculty members such as leave for pursuing higher studies, financial assistance to attend conferences, STTP and workshops, group insurance, and laboratory facilities for faculty research activities. Teaching staff contributes towards fetching funds from various agencies through research projects. All the funds are monitored through periodic internal and external financial audits.

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

The Institute has recognized the distinct aspects of education from gender perspective namely understanding gender education and means of sensitization and spreading awareness regarding gender rights, equity and equality. Efforts are taken to build moral value based education system that inculcates ethics and sense of responsibility of every action. To inculcate universal values among students, national festivals and anniversaries are celebrated in the institute. Institute has insurance policy for students, Anti-Ragging and Women Harassment Cell, fire safety, CCTV cameras, counseling through GFM and professional counselor.

The institute has conducted energy audit. Measures to reduce energy consumption were implemented. The E-waste generated is given to the authorized dealer. Students are encouraged to reuse the components from scrap in their projects. A sewage treatment plant of 500000 LPD capacity and a biogas plant of 25 kg daily feeding capacity converts canteen kitchen waste into fuel are installed.

Rain water harvesting is carried out through recharge well. Environmental awareness among students, faculty and society is inculcated through events like 'Green Pune Clean Pune'. Institute promotes use of public transport, Plastic free campus and paperless office.

Availability of screen reading software, lift, ramp, railings, scribe for examination, mobility devices for differently-abled persons. Institute has locational advantage such as eco-friendly, pollution free, silent and pleasant campus close to National Highway (NH-4).

Code of conduct handbook is available for students, teachers, governing body, principal, officials and supporting staff. Core values of the institute are displayed in campus and on website.

Two best practices successfully implemented by the institution are-

#### **1. Multilevel Monitoring of Students-**

The goal of the activity is to monitor academic progress and behavioral aspects of every student to identify weak areas and work out remedies for overall growth of the student.

#### **2. Development of Digital Teaching-Learning Resources-**

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. Also to provide a platform for knowledge transformation and live interaction with experts through video conferencing facility.

## 2. PROFILE

### 2.1 BASIC INFORMATION

| Name and Address of the College |                                                                                    |
|---------------------------------|------------------------------------------------------------------------------------|
| Name                            | TSSM'S BHIVARABAI SAWANT COLLEGE OF ENGINEERING AND RESEARCH                       |
| Address                         | S. No. 12/1/2 and 12/2/2, Narhe, Tal. Haveli, Dist. Pune                           |
| City                            | Pune                                                                               |
| State                           | Maharashtra                                                                        |
| Pin                             | 411041                                                                             |
| Website                         | <a href="http://www.tssm.edu.in/main_index.php">www.tssm.edu.in/main_index.php</a> |

| Contacts for Communication |                      |                         |            |              |                                       |
|----------------------------|----------------------|-------------------------|------------|--------------|---------------------------------------|
| Designation                | Name                 | Telephone with STD Code | Mobile     | Fax          | Email                                 |
| Associate Professor        | Sanjay Ganesh Kanade | 020-24608501            | 8605462913 | 020-24608506 | programcoordinator_bscoer@tssm.edu.in |
| Principal                  | Ganesh Arunrao Hinge | 020-24608500            | 9764560690 | 020-24608777 | principal@tssm.edu.in                 |

| Status of the Institution |                |
|---------------------------|----------------|
| Institution Status        | Self Financing |

| Type of Institution |              |
|---------------------|--------------|
| By Gender           | Co-education |
| By Shift            | Regular      |

| Recognized Minority institution            |    |
|--------------------------------------------|----|
| If it is a recognized minority institution | No |



**Establishment Details**

Date of establishment of the college

13-07-2010

**University to which the college is affiliated/ or which governs the college (if it is a constituent college)**

**State****University name****Document**

Maharashtra

Savitribai Phule Pune University

[View Document](#)**Details of UGC recognition****Under Section****Date****View Document**

2f of UGC

12B of UGC

**Details of recognition/approval by stationary/regulatory bodies like AICTE, NCTE, MCI, DCI, PCI, RCI etc (other than UGC)**

**Statutory Regulatory Authority****Recognition/Approval details Institution/Department programme****Day, Month and year (dd-mm-yyyy)****Validity in months****Remarks**

AICTE

[View Document](#)

04-04-2018

12

**Details of autonomy**

Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?

No

**Recognitions**

Is the College recognized by UGC as a College with Potential for Excellence (CPE)?

No

Is the College recognized for its performance by any other governmental agency?

No

| Location and Area of Campus |                                                          |           |                      |                          |
|-----------------------------|----------------------------------------------------------|-----------|----------------------|--------------------------|
| Campus Type                 | Address                                                  | Location* | Campus Area in Acres | Built up Area in sq.mts. |
| Main campus area            | S. No. 12/1/2 and 12/2/2, Narhe, Tal. Haveli, Dist. Pune | Urban     | 2.5                  | 17065                    |

## 2.2 ACADEMIC INFORMATION

| Details of Programmes Offered by the College (Give Data for Current Academic year) |                                                   |                    |                                   |                       |                     |                         |
|------------------------------------------------------------------------------------|---------------------------------------------------|--------------------|-----------------------------------|-----------------------|---------------------|-------------------------|
| Programme Level                                                                    | Name of Programme/Course                          | Duration in Months | Entry Qualification               | Medium of Instruction | Sanctioned Strength | No.of Students Admitted |
| UG                                                                                 | BE,Mechanical Engineering                         | 48                 | HSc                               | English               | 120                 | 64                      |
| UG                                                                                 | BE,Mechanical Engineering Direct Second Year      | 36                 | Diploma in Mechanical Engineering | English               | 120                 | 63                      |
| UG                                                                                 | BE,Civil Engineering                              | 48                 | HSc                               | English               | 120                 | 54                      |
| UG                                                                                 | BE,Electrical Engineering                         | 48                 | HSc                               | English               | 60                  | 29                      |
| UG                                                                                 | BE,Computer Engineering                           | 48                 | HSc                               | English               | 60                  | 53                      |
| UG                                                                                 | BE,Computer Engineering Direct Second Year        | 36                 | Diploma in Computer Engineering   | English               | 60                  | 56                      |
| UG                                                                                 | BE,Electronics And Telecommunications Engineering | 48                 | HSc                               | English               | 60                  | 35                      |
| PG                                                                                 | ME,Mechanical                                     | 24                 | BE Mechanical                     | English               | 24                  | 1                       |

|                 | Engineering                                       |    | Engineering                |         |    |    |
|-----------------|---------------------------------------------------|----|----------------------------|---------|----|----|
| PG              | ME,Civil Engineering                              | 24 | BE Civil Engineering       | English | 24 | 24 |
| PG              | ME,Electrical Engineering                         | 24 | BE Electrical Engineering  | English | 24 | 11 |
| PG              | ME,Computer Engineering                           | 24 | BE Computer Engineering    | English | 24 | 7  |
| PG              | ME,Electronics And Telecommunications Engineering | 24 | BE Electronics Engineering | English | 24 | 3  |
| Doctoral (Ph.D) | PhD or DPhil,Civil Engineering                    | 36 | ME Civil Engineering       | English | 8  | 3  |

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

| Teaching Faculty                                                |           |        |        |       |                     |        |        |       |                     |        |        |       |
|-----------------------------------------------------------------|-----------|--------|--------|-------|---------------------|--------|--------|-------|---------------------|--------|--------|-------|
|                                                                 | Professor |        |        |       | Associate Professor |        |        |       | Assistant Professor |        |        |       |
|                                                                 | Male      | Female | Others | Total | Male                | Female | Others | Total | Male                | Female | Others | Total |
| Sanctioned by the UGC /University State Government              | 17        |        |        |       | 30                  |        |        |       | 85                  |        |        |       |
| Recruited                                                       | 14        | 1      | 0      | 15    | 14                  | 1      | 0      | 15    | 50                  | 35     | 0      | 85    |
| Yet to Recruit                                                  | 2         |        |        |       | 15                  |        |        |       | 0                   |        |        |       |
| Sanctioned by the Management/Society or Other Authorized Bodies | 0         |        |        |       | 0                   |        |        |       | 22                  |        |        |       |
| Recruited                                                       | 0         | 0      | 0      | 0     | 0                   | 0      | 0      | 0     | 13                  | 9      | 0      | 22    |
| Yet to Recruit                                                  | 0         |        |        |       | 0                   |        |        |       | 0                   |        |        |       |

| Non-Teaching Staff                                              |      |        |        |       |
|-----------------------------------------------------------------|------|--------|--------|-------|
|                                                                 | Male | Female | Others | Total |
| Sanctioned by the UGC /University State Government              |      |        |        | 0     |
| Recruited                                                       | 0    | 0      | 0      | 0     |
| Yet to Recruit                                                  |      |        |        | 0     |
| Sanctioned by the Management/Society or Other Authorized Bodies |      |        |        | 33    |
| Recruited                                                       | 27   | 6      | 0      | 33    |
| Yet to Recruit                                                  |      |        |        | 0     |

| Technical Staff                                                 |      |        |        |       |
|-----------------------------------------------------------------|------|--------|--------|-------|
|                                                                 | Male | Female | Others | Total |
| Sanctioned by the UGC /University State Government              |      |        |        | 0     |
| Recruited                                                       | 0    | 0      | 0      | 0     |
| Yet to Recruit                                                  |      |        |        | 0     |
| Sanctioned by the Management/Society or Other Authorized Bodies |      |        |        | 49    |
| Recruited                                                       | 35   | 14     | 0      | 49    |
| Yet to Recruit                                                  |      |        |        | 0     |

### Qualification Details of the Teaching Staff

| Permanent Teachers    |           |        |        |                     |        |        |                     |        |        |       |
|-----------------------|-----------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|-------|
| Highest Qualification | Professor |        |        | Associate Professor |        |        | Assistant Professor |        |        |       |
|                       | Male      | Female | Others | Male                | Female | Others | Male                | Female | Others | Total |
| D.sc/D.Litt.          | 0         | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      | 0     |
| Ph.D.                 | 14        | 1      | 0      | 1                   | 1      | 0      | 1                   | 0      | 0      | 18    |
| M.Phil.               | 0         | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      | 0     |
| PG                    | 0         | 0      | 0      | 13                  | 0      | 0      | 62                  | 44     | 0      | 119   |

| Temporary Teachers    |           |        |        |                     |        |        |                     |        |        |       |
|-----------------------|-----------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|-------|
| Highest Qualification | Professor |        |        | Associate Professor |        |        | Assistant Professor |        |        |       |
|                       | Male      | Female | Others | Male                | Female | Others | Male                | Female | Others | Total |
| D.sc/D.Litt.          | 0         | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      | 0     |
| Ph.D.                 | 0         | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      | 0     |
| M.Phil.               | 0         | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      | 0     |
| PG                    | 0         | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      | 0     |

| Part Time Teachers    |           |        |        |                     |        |        |                     |        |        |       |
|-----------------------|-----------|--------|--------|---------------------|--------|--------|---------------------|--------|--------|-------|
| Highest Qualification | Professor |        |        | Associate Professor |        |        | Assistant Professor |        |        |       |
|                       | Male      | Female | Others | Male                | Female | Others | Male                | Female | Others | Total |
| D.sc/D.Litt.          | 0         | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      | 0     |
| Ph.D.                 | 0         | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      | 0     |
| M.Phil.               | 0         | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      | 0     |
| PG                    | 0         | 0      | 0      | 0                   | 0      | 0      | 0                   | 0      | 0      | 0     |

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

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

| Programme       |        | From the State<br>Where College<br>is Located | From Other<br>States of India | NRI Students | Foreign<br>Students | Total |
|-----------------|--------|-----------------------------------------------|-------------------------------|--------------|---------------------|-------|
| Doctoral (Ph.D) | Male   | 3                                             | 0                             | 0            | 0                   | 3     |
|                 | Female | 0                                             | 0                             | 0            | 0                   | 0     |
|                 | Others | 0                                             | 0                             | 0            | 0                   | 0     |
| Diploma         | Male   | 459                                           | 1                             | 0            | 0                   | 460   |
|                 | Female | 120                                           | 0                             | 0            | 0                   | 120   |
|                 | Others | 0                                             | 0                             | 0            | 0                   | 0     |
| UG              | Male   | 1489                                          | 15                            | 0            | 0                   | 1504  |
|                 | Female | 581                                           | 8                             | 0            | 0                   | 589   |
|                 | Others | 0                                             | 0                             | 0            | 0                   | 0     |
| PG              | Male   | 46                                            | 1                             | 0            | 0                   | 47    |
|                 | Female | 40                                            | 0                             | 0            | 0                   | 40    |
|                 | Others | 0                                             | 0                             | 0            | 0                   | 0     |

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

| Programme |        | Year 1 | Year 2 | Year 3 | Year 4 |
|-----------|--------|--------|--------|--------|--------|
| SC        | Male   | 59     | 62     | 38     | 33     |
|           | Female | 16     | 18     | 11     | 7      |
|           | Others | 0      | 0      | 0      | 0      |
| ST        | Male   | 0      | 2      | 0      | 1      |
|           | Female | 1      | 1      | 1      | 0      |
|           | Others | 0      | 0      | 0      | 0      |
| OBC       | Male   | 79     | 98     | 97     | 86     |
|           | Female | 30     | 21     | 23     | 33     |
|           | Others | 0      | 0      | 0      | 0      |
| General   | Male   | 414    | 381    | 388    | 416    |
|           | Female | 113    | 96     | 101    | 195    |
|           | Others | 0      | 0      | 0      | 0      |
| Others    | Male   | 49     | 55     | 61     | 58     |
|           | Female | 15     | 14     | 7      | 11     |
|           | Others | 0      | 0      | 0      | 0      |
| Total     |        | 776    | 748    | 727    | 840    |

### 3. Extended Profile

#### 3.1 Program

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

Response: 490

| File Description                        | Document                      |
|-----------------------------------------|-------------------------------|
| Institutional Data in Prescribed Format | <a href="#">View Document</a> |

Number of programs offered year-wise for last five years

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 13      | 13      | 13      | 12      | 11      |

#### 3.2 Students

Number of students year-wise during the last five years

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 2174    | 2066    | 2311    | 1917    | 1470    |

| File Description                        | Document                      |
|-----------------------------------------|-------------------------------|
| Institutional Data in Prescribed Format | <a href="#">View Document</a> |

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 288     | 312     | 312     | 312     | 278     |

| File Description                        | Document                      |
|-----------------------------------------|-------------------------------|
| Institutional data in prescribed format | <a href="#">View Document</a> |

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 565     | 657     | 652     | 322     | 266     |



| File Description                        | Document                      |
|-----------------------------------------|-------------------------------|
| Institutional Data in Prescribed Format | <a href="#">View Document</a> |

### 3.3 Teachers

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

| 2017-18                                 | 2016-17                       | 2015-16 | 2014-15 | 2013-14 |
|-----------------------------------------|-------------------------------|---------|---------|---------|
| 147                                     | 172                           | 162     | 158     | 128     |
| File Description                        | Document                      |         |         |         |
| Institutional Data in Prescribed Format | <a href="#">View Document</a> |         |         |         |

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

| 2017-18                                 | 2016-17                       | 2015-16 | 2014-15 | 2013-14 |
|-----------------------------------------|-------------------------------|---------|---------|---------|
| 147                                     | 172                           | 162     | 158     | 128     |
| File Description                        | Document                      |         |         |         |
| Institutional data in prescribed format | <a href="#">View Document</a> |         |         |         |

### 3.4 Institution

#### Total number of classrooms and seminar halls

**Response: 38**

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 543.43  | 441.41  | 708.84  | 724.66  | 614.23  |

#### Number of computers

**Response: 551**

## 4. Quality Indicator Framework(QIF)

### Criterion 1 - Curricular Aspects

#### 1.1 Curricular Planning and Implementation

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

##### Response:

- Institute prepares quality plan through Internal Quality Assurance Cell (IQAC) and Academic Monitoring Committee (AMC). IQAC sets the targets and the benchmarks for the academic year.
- AMC prepares academic calendar in line with academic calendar of Savitribai Phule Pune University (SPPU) which is approved by Principal for implementation.
- Accordingly departmental AMC coordinator prepares the academic calendar of department comprising department specific co-curricular and extra-curricular activities which is verified and approved by Head of the Department (HOD).
- Institutional preparation is ensured at three levels viz., faculty, laboratory and departmental preparation.
- Considering the experience, expertise and choice given by faculty members, theory and practical load is distributed and same is communicated to faculty members. The faculty members are instructed to prepare their course file as defined by AMC, so that the learning material is made available for students through Learning Management System (LMS)-MOODLE before commencement of semester.
- Based on load distribution, departmental time table coordinator prepares time table and the same is verified and approved by HOD. All necessary formats are made available to faculty members for record keeping.
- The course files are verified by AMC for correctness and completeness before commencement of semester.
- All the students are enrolled for respective courses on MOODLE and access is provided to them.
- During the semester, day to day lecture/practical monitoring is carried out by departmental AMC coordinator. Teaching plan implementation is monitored weekly by HOD and fortnightly by Dean Academics. The deviation, if any, is corrected. Based on data available, students are categorized into academically weak and strong category and are imparted training accordingly. Students are assessed continuously 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.
- Institute motivates faculty and ensures the 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.

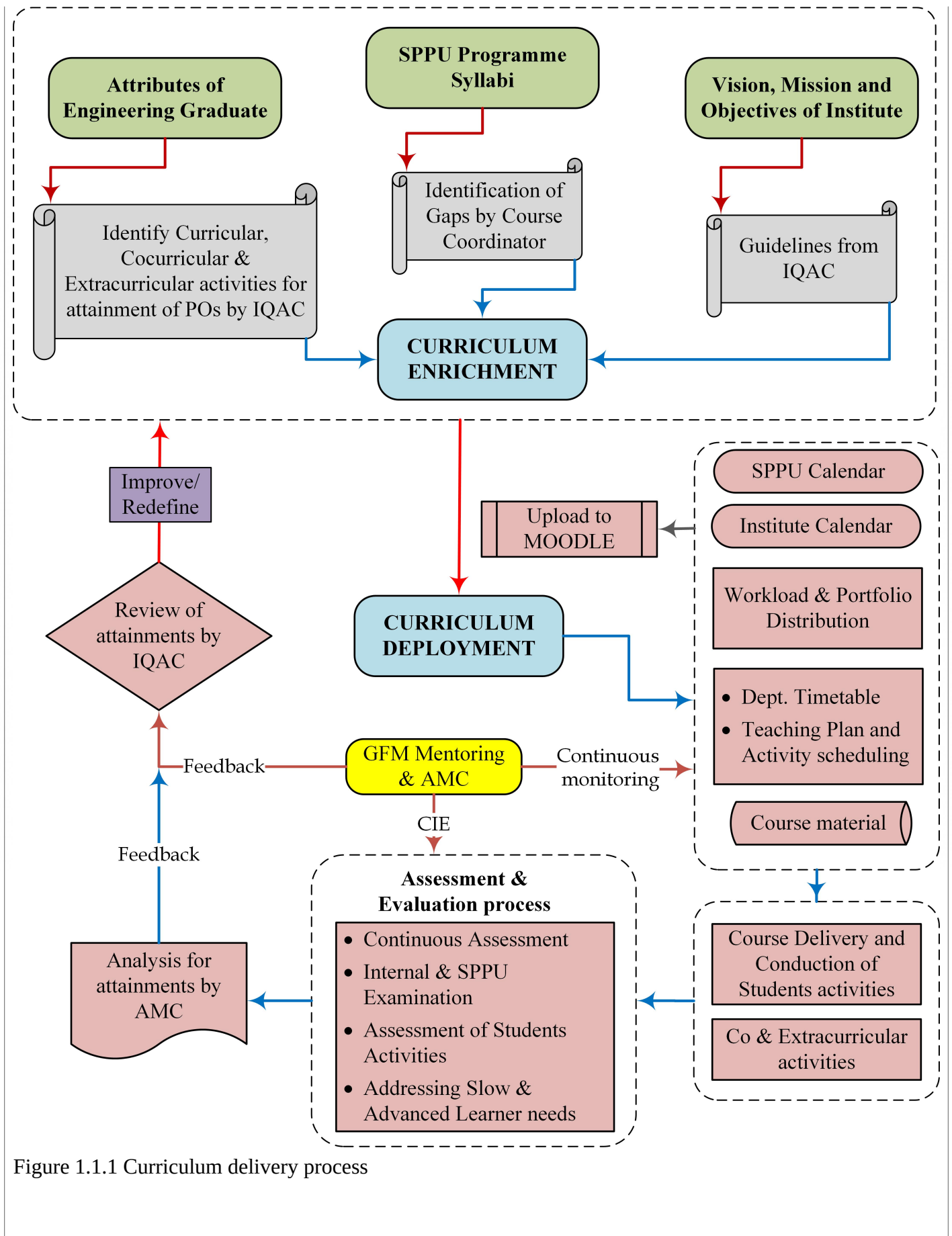


Figure 1.1.1 Curriculum delivery process

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

Response: 0

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 0       | 0       | 0       | 0       | 0       |

| File Description                            | Document                      |
|---------------------------------------------|-------------------------------|
| Details of the certificate/Diploma programs | <a href="#">View Document</a> |

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

Response: 0

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 0       | 0       | 0       | 0       | 0       |

| File Description                                       | Document                      |
|--------------------------------------------------------|-------------------------------|
| Details of participation of teachers in various bodies | <a href="#">View Document</a> |

## 1.2 Academic Flexibility

### 1.2.1 Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years

Response: 83.67

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

| Response: 410                                      |                               |
|----------------------------------------------------|-------------------------------|
| File Description                                   | Document                      |
| Minutes of relevant Academic Council/BOS meetings. | <a href="#">View Document</a> |
| Details of the new courses introduced              | <a href="#">View Document</a> |

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

Response: 92.31

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

Response: 12

| File Description                                   | Document                      |
|----------------------------------------------------|-------------------------------|
| Name of the programs in which CBCS is implemented  | <a href="#">View Document</a> |
| Minutes of relevant Academic Council/BOS meetings. | <a href="#">View Document</a> |

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

Response: 17.27

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 718     | 584     | 324     | 212     | 0       |

| File Description                                                                            | Document                      |
|---------------------------------------------------------------------------------------------|-------------------------------|
| Details of the students enrolled in Subjects related to certificate/Diploma/Add-on programs | <a href="#">View Document</a> |
| Any additional information                                                                  | <a href="#">View Document</a> |

## 1.3 Curriculum Enrichment

### 1.3.1 Institution integrates cross- cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum

#### Response:

One of the fastest changing and demanding fields is environmental sustainability. The curriculum includes courses related to renewable energy, waste management and water conservation technologies. Furthermore, institute makes efforts to attract students toward green culture by organizing curriculum based awareness programs. Curriculum also includes aspects focusing on eco-friendly design.

Values play a vital role in human life. The assignments designed for various subjects demand to have a look at core values like engineering development for societal benefit, extending support to locals through technical activities and contributing towards societal development.

Engineers need to be aware of ethics as they make choices during their professional practice of engineering. Our institute includes discussion of ethics in curriculum of SPPU to i) foster an increased awareness of ethical behavior, ii) present engineering case studies that illustrate ethical (or unethical) decisions.

The cultural stereotypical perceptions of having different abilities among gender are overcome by the institute through adaptation of assignments irrespective of gender. While imparting the training, no gender discrimination is observed. The opportunities offered to the students overcome the barrier of the gender as reflected from the results. To augment the academic activities addressing gender issue, co-curricular activities and extra-curricular activities are given due importance. These platforms ensure student participation as team member or team leader irrespective of gender.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any Additional Information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

**Response:** 20

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

| Response: 20                                                              |                               |
|---------------------------------------------------------------------------|-------------------------------|
| File Description                                                          | Document                      |
| Details of the value-added courses imparting transferable and life skills | <a href="#">View Document</a> |
| Brochure or any other document relating to value added courses.           | <a href="#">View Document</a> |
| Any additional information                                                | <a href="#">View Document</a> |

| <b>1.3.3 Percentage of students undertaking field projects / internships</b> |                               |
|------------------------------------------------------------------------------|-------------------------------|
| <b>Response:</b> 34.27                                                       |                               |
| 1.3.3.1 Number of students undertaking field projects or internships         |                               |
| Response: 745                                                                |                               |
| File Description                                                             | Document                      |
| List of students enrolled                                                    | <a href="#">View Document</a> |
| Institutional data in prescribed format                                      | <a href="#">View Document</a> |
| Any additional information                                                   | <a href="#">View Document</a> |

## 1.4 Feedback System

|                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>1.4.1 Structured feedback received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni and 5) Parents for design and review of syllabus-Semester wise/ year-wise</b></p> <p><b>A. Any 4 of the above</b></p> <p><b>B. Any 3 of the above</b></p> <p><b>C. Any 2 of the above</b></p> <p><b>D. Any 1 of the above</b></p> <p><b>Response:</b> A. Any 4 of the above</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| File Description                                                                                                                            | Document                      |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Any additional information                                                                                                                  | <a href="#">View Document</a> |
| Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management | <a href="#">View Document</a> |
| URL for stakeholder feedback report                                                                                                         | <a href="#">View Document</a> |

#### 1.4.2 Feedback processes of the institution may be classified as follows:

**A. Feedback collected, analysed and action taken and feedback available on website**

**B. Feedback collected, analysed and action has been taken**

**C. Feedback collected and analysed**

**D. Feedback collected**

**Response:** A. Feedback collected, analysed and action taken and feedback available on website

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |
| URL for feedback report    | <a href="#">View Document</a> |



## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

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

**Response:** 0.99

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 27      | 25      | 22      | 19      | 8       |

#### File Description

#### Document

List of students (other states and countries)

[View Document](#)

Institutional data in prescribed format

[View Document](#)

Any additional information

[View Document](#)

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

**Response:** 56.97

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 474     | 408     | 419     | 450     | 385     |

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 720     | 780     | 780     | 780     | 696     |

#### File Description

#### Document

Institutional data in prescribed format

[View Document](#)

Any additional information

[View Document](#)

**2.1.3 Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years****Response:** 78.56

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 249     | 271     | 238     | 229     | 194     |

| File Description                        | Document                      |
|-----------------------------------------|-------------------------------|
| Institutional data in prescribed format | <a href="#">View Document</a> |
| Any additional information              | <a href="#">View Document</a> |

**2.2 Catering to Student Diversity****2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners****Response:**

All UG and PG admission are regulated by Pravesh Niyantran Samiti (PNS) Government of Maharashtra.

Every year before the commencement of the semester institute arranges orientation program for newly admitted students. The students are tracked from their previous academic performance to their current academic journey. Institute identify needs to address the diversified essentials of every student on the basis of grasping and social background. AMC develops pre-defined format by which the Guardian Faculty Member (GFM) assesses the small group of students and categorize them into advanced, average, and slow learners. Standard teaching material is prepared from average learner point of view.

This data analysis is referred by all GFMs of FE classes and passed on subsequently to GFMs/Mentors of next term. For higher classes individual departments carry out activities for advanced and slow learners.

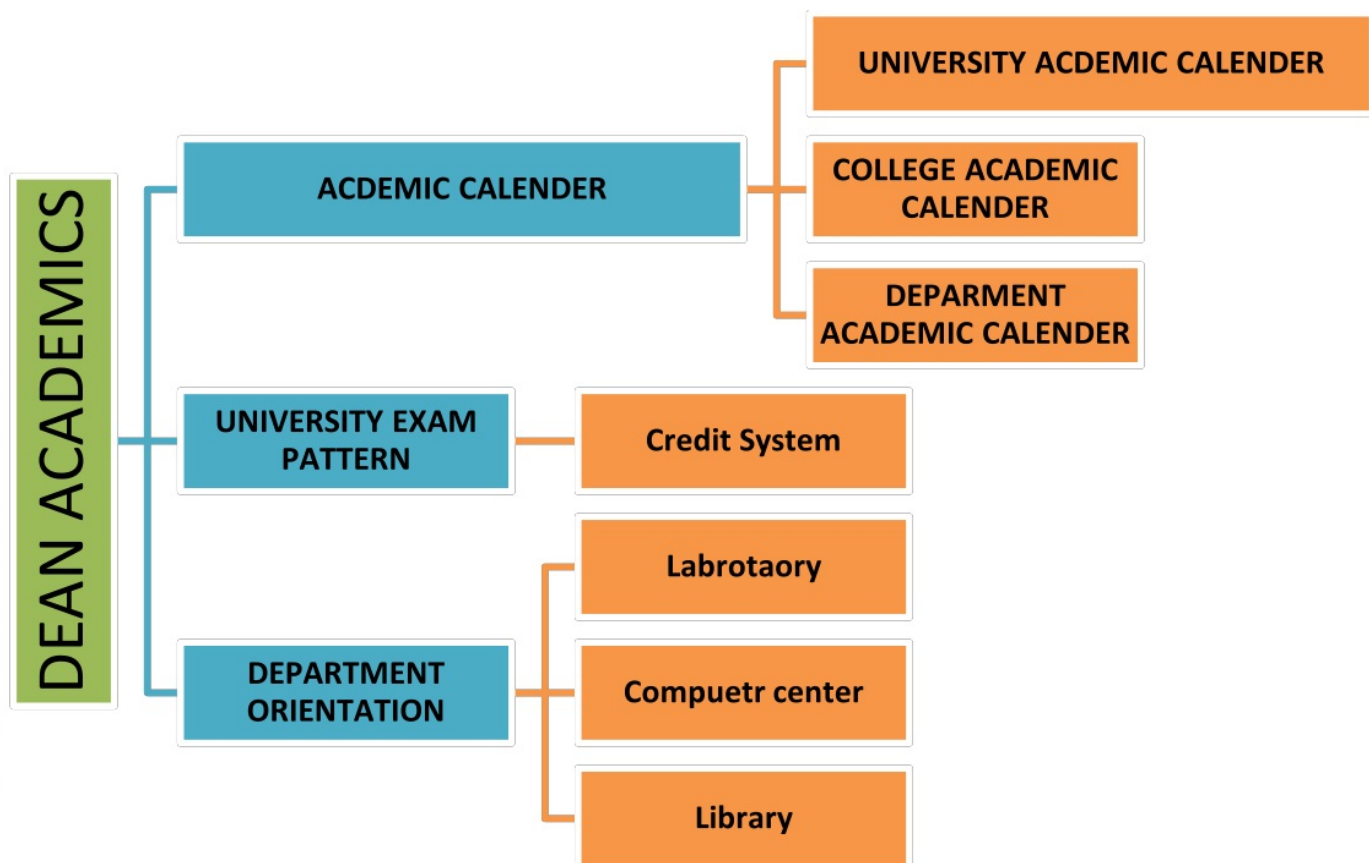


Figure 2.2.1a Dean academics orientation program

**Action plan for improvement in slow learners:**

| Needs of Slow Learners           | Remedial action taken                                                                                                                                                                        |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Language improvement             | <ul style="list-style-type: none"> <li>◦ Animated videos.</li> <li>◦ Group Discussion.</li> <li>◦ Transcripts of NPTEL videos.</li> <li>◦ 10 min discussion after college hours .</li> </ul> |
| Improvement in logical abilities | <ul style="list-style-type: none"> <li>◦ Prerequisite lecture.</li> <li>◦ Prerequisite test.</li> </ul>                                                                                      |
| Improvement in grasping power    | <ul style="list-style-type: none"> <li>◦ QA session in lecture.</li> </ul>                                                                                                                   |

**Promotional and motivational support for advanced learner**

- Extra self-learning material is made available in self-learning lab.
- They can test their ideas through mini-projects where faculties provide guidance and support. Faculties get these students involved in their R & D projects wherever possible.

- Additionally, in order to match with the current demands of the stake holders, add-on courses beyond the curriculum are identified, designed and developed and offered.
- Students are motivated for civil service examination such as MPSC and UPSC.
- For the awareness of Entrepreneurship, at institute EDC cell has been developed.

NAAC

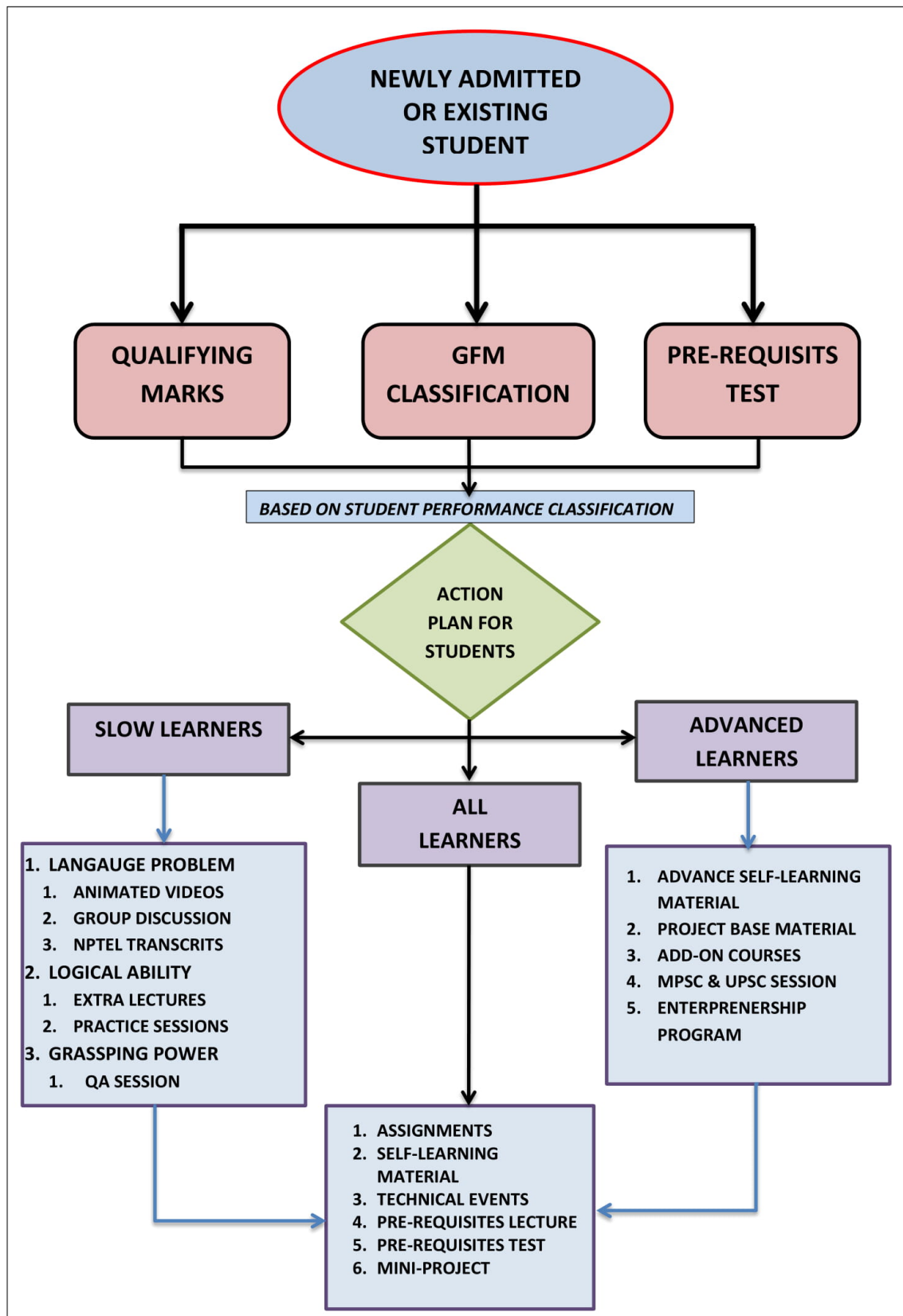


Figure Figure 2.2.1b Process of classification of students and action plan

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

### 2.2.2 Student - Full time teacher ratio

**Response:** 14.79

### 2.2.3 Percentage of differently abled students (Divyangjan) on rolls

**Response:** 0

#### 2.2.3.1 Number of differently abled students on rolls

| File Description                        | Document                      |
|-----------------------------------------|-------------------------------|
| Institutional data in prescribed format | <a href="#">View Document</a> |

## 2.3 Teaching- Learning Process

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

**Response:**

In the institute, the teaching-learning process is designed by considering the student at the centre and various activities are planned and organized accordingly. MOODLE is used in the institute as an effective learning management system which provides scope for the students to undergo self-learning, participative learning and collaborative learning to provide solutions to practical problems. The faculty ensure that students' participation in chat room & Social Media ensures and provides opportunity to all for expressing their views about given problem of the situation. The faculty member can conclude upon the discussion providing appropriate solution and appreciating participants approach.

The faculty analyses the developed curriculum and tries to find out appropriate methods to deliver the content. For the identified topics, the faculty members make the students learn by experimentation instead of relying simply on classroom teaching-learning process. Learning by doing, undertaking and implementing case studies, resolving problems through Project Based Learning (PBL) are some of the approaches adopted by the faculty members to ensure student learning and course outcome achievement.

Theory taught in the class is verified and validated through experimentation thereby boosting the student confidence to achieve higher level of learning.

The faculty members play multiple roles like, GFM, guide, facilitator, mentor, evaluator, and counsellor. The faculty members prepare guided self-study material, viz., specific video clippings, hand written notes, and tutorials which can be used for independent study. The faculty assigns specific tasks, such as, mini-projects, open book tests, and laboratory assignments, among group of students. This inculcates

independent thinking as well as team work spirit amongst the students. Extended learning opportunities are provided to students by encouraging them to participate in activities such as projects beyond curriculum, student presentations, and participation in technical activities. Students are supported for such activities in extended time.

Model making, circuit designing, electrical equipment repair, and code debugging types of activities are conducted in the institute for imparting real life experience. Students can express their gained skills through wall magazine and newsletter. To inculcate the habit of reading and life-long learning amongst students, in every department, time slot is allocated under the supervision of the faculty for utilizing the library effectively. Special activities of library like, discussions on books, research papers, and displays on new arrivals provide opportunities to the students to explore the current knowledge domain through book bank facility and follow-up by GFM makes the learner to refer the standard material.

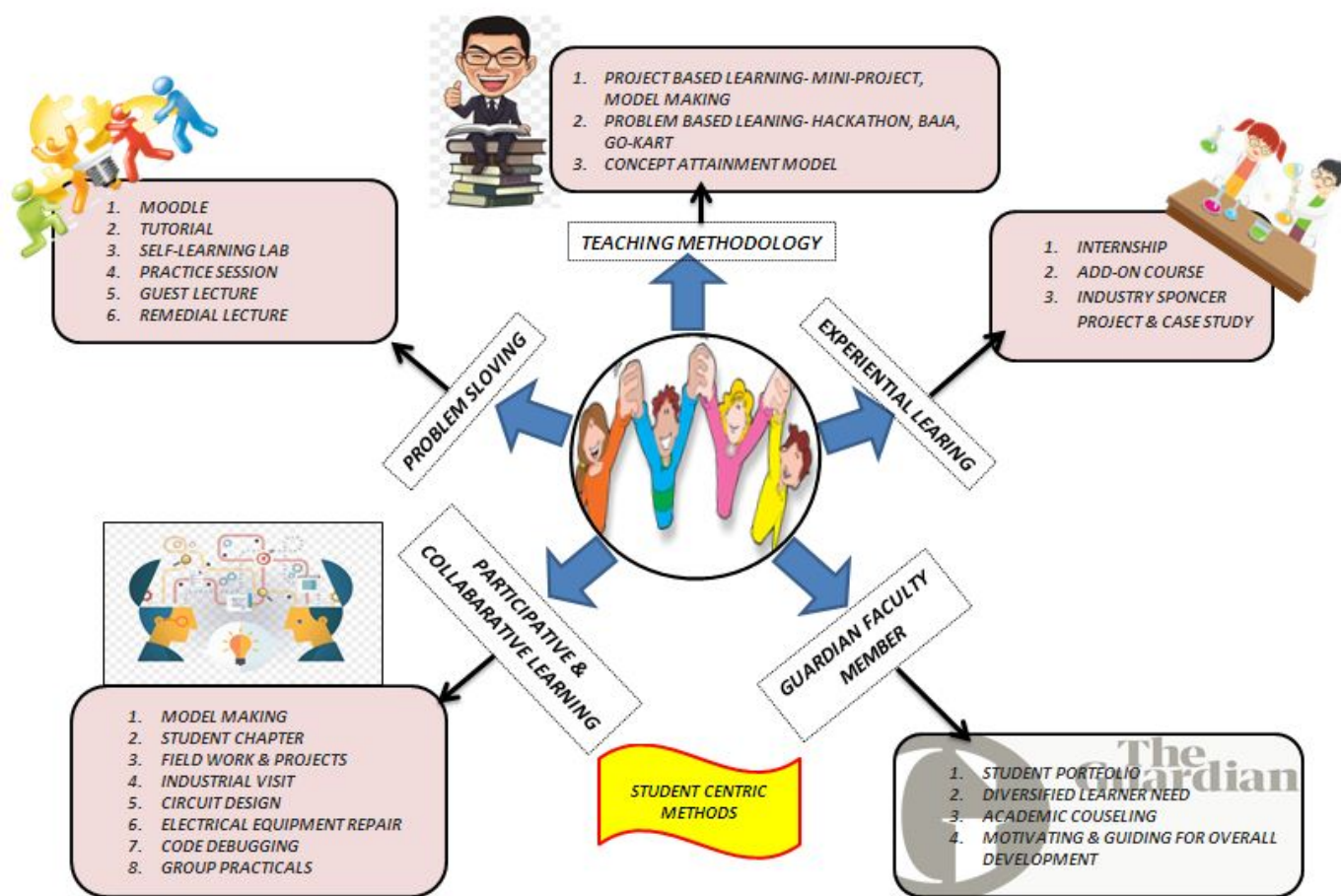


Figure 2.3.1 Student centric methods

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

### 2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems



(LMS), E-learning resources etc.

**Response:** 100

2.3.2.1 Number of teachers using ICT

Response: 147

| File Description                                                           | Document                      |
|----------------------------------------------------------------------------|-------------------------------|
| List of teachers (using ICT for teaching)                                  | <a href="#">View Document</a> |
| Any additional information                                                 | <a href="#">View Document</a> |
| Provide link for webpage describing the " LMS/ Academic management system" | <a href="#">View Document</a> |

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

**Response:** 21.31

2.3.3.1 Number of mentors

Response: 102

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |

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

**Response:**

With the help of following different practices institute has made innovation and creativity in teaching –learning methods

#### **1. Usage of Smart Board:**

Smart board is One of the best ICT tool used for better Understanding of topic & intellectual teaching-learning activity

#### **2. Self-learning laboratory:**

For exploring transformational learning environments Self-learning laboratory is designed. To understand concepts in detail the topic wise video lectures from NPTEL as well as YouTube channels are provided. For optimizing /simulating the situation virtual laboratories are used.

#### **3. Using e-resources:**



In the classroom to deal with abstract concepts faculty members as well as students use e-Resources like science direct, ASCE (American Society for Civil Engineers), Springer. The high broadband Wi-Fi availability in the campus aids the e-resource to use it everywhere. Assignments are given to the students which helps them to bog down to greater details.

#### **4. Establishing various cells:**

Through various cells development of specific characteristics amongst the students is achieved. Through these cells Honesty, team-work, hard-work, national integrity, social work and development are developed purposefully through specific activities amongst students.

#### **5. Effective system performance through closed monitoring:**

To achieve set targets academic plan is implemented and monitored by Academic monitoring committee (AMC) at the institute and departmental level. If required committee takes corrective actions by taking information about the status of academic activities at any given moment through established mechanism. Due to such a strong monitoring system final year result improved.

#### **6. Field Training:-**

It helps the students to find out real problem on field, discuss and try to find out solution (Seminar.. ?)

#### **7. Model Wall:-**

We are displaying the models of different components respective to a particular topic from scrap material.

#### **8. e-Yantra:-**

e-Yantra teaches Robotics and Embedded System in an effective manner by providing training to faculty members and hands on projects is imperative in producing successful innovators and entrepreneurs. Creating the infrastructure both in the form of labs and trained teachers provides the competitive advantage to institute in attracting talented students.

#### **9. Self-analysis through SWOC:**

Yearly, at departmental and institute level SWOC is carried out. To quote its use, institutional strength like faculty and infrastructure is utilized to train the candidate efficiently and effectively.

The area of weakness is underlined to have strong linkages with stake holders. The opportunity to become symbiotic with industries need to explore. The higher rate of technological changes needs to be incorporated in the curriculum which may pose challenge in time to come.

#### **10. Use of audio visual recording resources:**

To carry out teaching analysis lectures delivered by faculty are recorded also it records student presentations and mock interviews to improve their performance.

#### **11. Skill building through model competitions:**

By organizing model making competitions technical skill building is promoted. The hurdles like, economy, environment, time, energy, efforts, are shown in the problem definition. Also, these competitions develop innovative skill building amongst faculty as well as students. The skills for probable employer/sponsored are developed in students.

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |

## 2.4 Teacher Profile and Quality

### 2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

**Response:** 100

| File Description                                              | Document                      |
|---------------------------------------------------------------|-------------------------------|
| Year wise full time teachers and sanctioned posts for 5 years | <a href="#">View Document</a> |
| List of the faculty members authenticated by the Head of HEI  | <a href="#">View Document</a> |

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

**Response:** 6.56

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 11      | 7       | 12      | 12      | 8       |

| File Description                                                                           | Document                      |
|--------------------------------------------------------------------------------------------|-------------------------------|
| List of number of full time teachers with PhD and number of full time teachers for 5 years | <a href="#">View Document</a> |
| Any additional information                                                                 | <a href="#">View Document</a> |

### 2.4.3 Teaching experience per full time teacher in number of years

**Response:** 6.71

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

Response: 986

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |

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

Response: 5.22

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 8       | 0       | 0       | 0       | 0       |

| File Description                                 | Document                      |
|--------------------------------------------------|-------------------------------|
| Institutional data in prescribed format          | <a href="#">View Document</a> |
| e-copies of award letters (scanned or soft copy) | <a href="#">View Document</a> |

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

Response: 9.54

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 17      | 14      | 15      | 16      | 11      |

| File Description                                                                                | Document                      |
|-------------------------------------------------------------------------------------------------|-------------------------------|
| List of full time teachers from other state and state from which qualifying degree was obtained | <a href="#">View Document</a> |
| Any additional information                                                                      | <a href="#">View Document</a> |

## 2.5 Evaluation Process and Reforms

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

**Response:**

Traditional continuous internal evaluation system has been modified from teacher centered to student centric outcome based system. This modified process of continuous evaluation is employed through various direct tools like assignments, online multiple choice questions, chapter tests, practical performance Mock orals and in-sem examination. Whereas various indirect tools has been used like quiz, discussions, competitions. For assessing pre-defined learning outcome appropriate tools are employed. Faculty is supposed to guide the student to achieve the expected outcomes. Such type of assessment of practical ensures achievement in terms of program specific outcome and program outcomes along with achievement in the course outcome. By adopting such crystal clear practices we can bring transparency in assessment and boosts confidence in students.

The online Examinations of university has relieved the faculty to certain extent from assessment work thereby making more time available to resolve student's problems. These online phase examinations of university help student to carry out their SWOC analysis, due to which student can focus more on weak part.

Assessment helps the students to understand their capabilities with respect to better alternatives, innovative solutions, effective communication and dealing with real- time problems.

By adaptation tool like overall feedback which provides opportunity to assess the students indirectly at individual level. Based on program specific outcomes and program outcomes titles of seminars and projects are finalized. Throughout the year, reviews for projects are carried out periodically and for final review, assessment by third party plays a major role. The suggestion given by third party are taken into consideration for further improvement.

For successive progress of student during course, tools like student profile are used which ultimately helps the institute to understand requirement of specific training. Finally it will helps in strengthening the candidate through identified training in required domain.

Training and placement cell provides analyzed results of selected candidates to IQAC for quality enhancement. This report finally assesses and evaluates the institution progress.

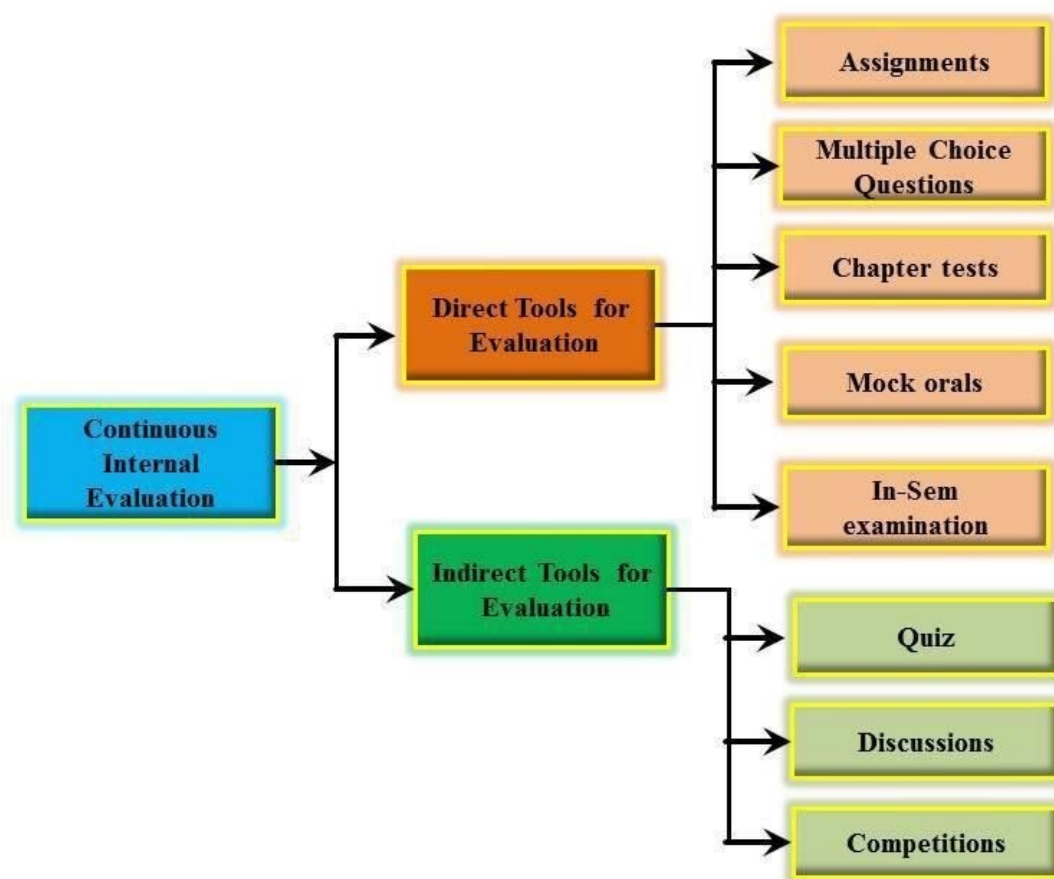


Figure 2.5.1 Reforms in continuous internal evaluation

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

#### Response:

For building faith in the system transparency in the assessment is of prime importance. For internal assessment the mechanism adopted to ensure transparency is enlisted below:

1. Auto-generated question papers and online assessment of the students wherein there is no intervention by any of the individuals and the results are also available to the students directly.
2. Assessment of various curricular and co-curricular activities like projects seminars, mini-projects by third party brings transparency in the process.
3. Immediate declaration of assessment to the students gives the justification of assessment and

highlights the transparency.

4. The qualitative and quantitative perfection of judgmental assessment is possible due to assessment of the activities based on outcome.

5. The assessment quality is verified by AMC as per the specified policies and declared to the students in advance.

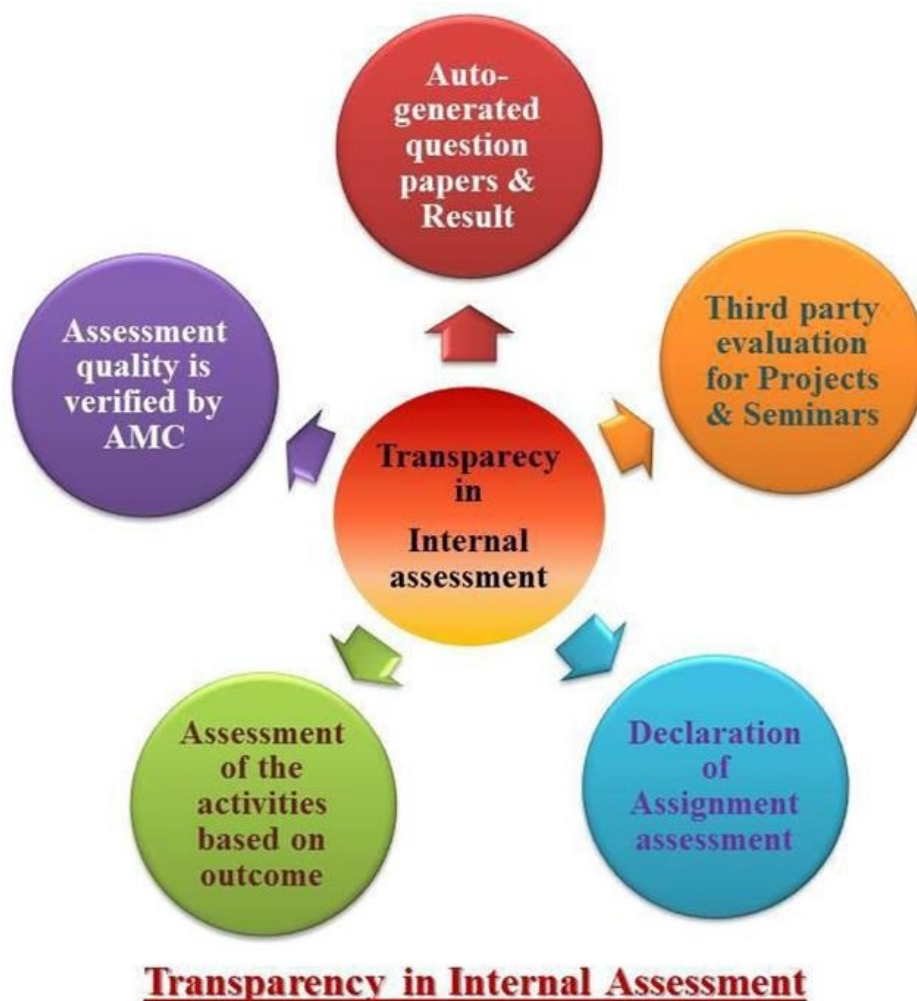


Figure 2.5.2.1 Transparency in internal assessment

The robustness of mechanism helps to achieve consistently good result which is highlighted from the result of the institute, especially, final year result. Following part constitutes the robustness of the mechanism:

1. To help the assessor to set the assignment properly, the expected level of the outcome is specified and declared to the assessor in advance.
2. Assessment method and assessment scheme is declared to the students well in advance.
3. This declaration method avoids situation that the assignment is assessed in expected domain either by one or the other faculty.
4. The practical's are assessed after comparing results with the experiments conducted by faculty under specified conditions in advance. In required cases, rather than process, the outcome is

focused for assessment.

The assessment of assignments results in course outcome achievement thus can be used as a quality tool. Considering this, the frequency of assessment is decided as listed below:

1. After completion of two units, unit-wise assignment and online test is floated.
2. Practical assessment: weekly
3. Seminar and project: weekly (minor)/monthly (major)
4. Mid-term test: once in a semester (particularly for FE and SE)
5. Preliminary test: once in a semester
6. Internship and in-plant training: once in a year (particularly for TE)
7. Feedback: at willingness of students, monthly
8. Other assessment: as per the plan declared by the faculty member.



Figure 2.5.2.2 Frequency of assessment

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

**Response:**



As per the Savitribai Phule Pune University (SPPU) examination statute, examination cell is constituted at the institute level. Grievance Redressal Cell (GRC) is constituted by the Principal, which includes Chief Examination Officer (CEO) and senior faculty members and takes care of the grievances regarding the evaluation process.

The students can approach GRC with grievances like incorrect examination seat number, late result, reserved result, rechecking, revaluation, photocopy of answer sheet. GRC provide guidelines to the students in resolving problems amicably.

All these types of grievances are forwarded within the stipulated time to the SPPU. The SPPU classifies different types of grievances and forms respective committees. All the committee members are selected from the affiliated colleges on random basis to exercise transparency. In due course of time, these grievances are resolved by the committees and the decisions are communicated to the institute by the SPPU. The decisions are informed to the students through examination section of the institute.

In case of online examinations, if any technical problem related to system occurs, CEO of the institute, in consent with the SPPU, resolves the issues.

The grievances related to internal evaluation (for example term work assessment, mid-term examination, assignments, laboratory evaluations) of the institute are timely resolved by the GRC as per the guidelines laid down by IQAC.

The claim of student related to continuous assessment is admitted to the department through GFM. The department constitutes a committee for enquiry, which verifies all the documents and the procedure adopted related with assessment. The claims of the candidate against the assessment are validated, if prima-fascia, the claims are found to be correct then both the parties are called for meeting and clarification. In the meeting, if the claims are settled in accordance to the claims of the student, then the assessment is corrected and improved results are declared. The concerned faculty is made to undergo the training for assessment with due notice to be conscious during the assessment. The process is completed in span of a week. If the claim is not found to be right, then the candidate is explained thoroughly about the assessment by another subject expert as per his assessment and the pre-defined guidelines. Further, the reassessed results are declared and brought to the notice of the concerned.

If the claims are not settled at department level, then the case is forwarded to **IQAC** for quality check which calls the experts from other institutes and resolves the case.



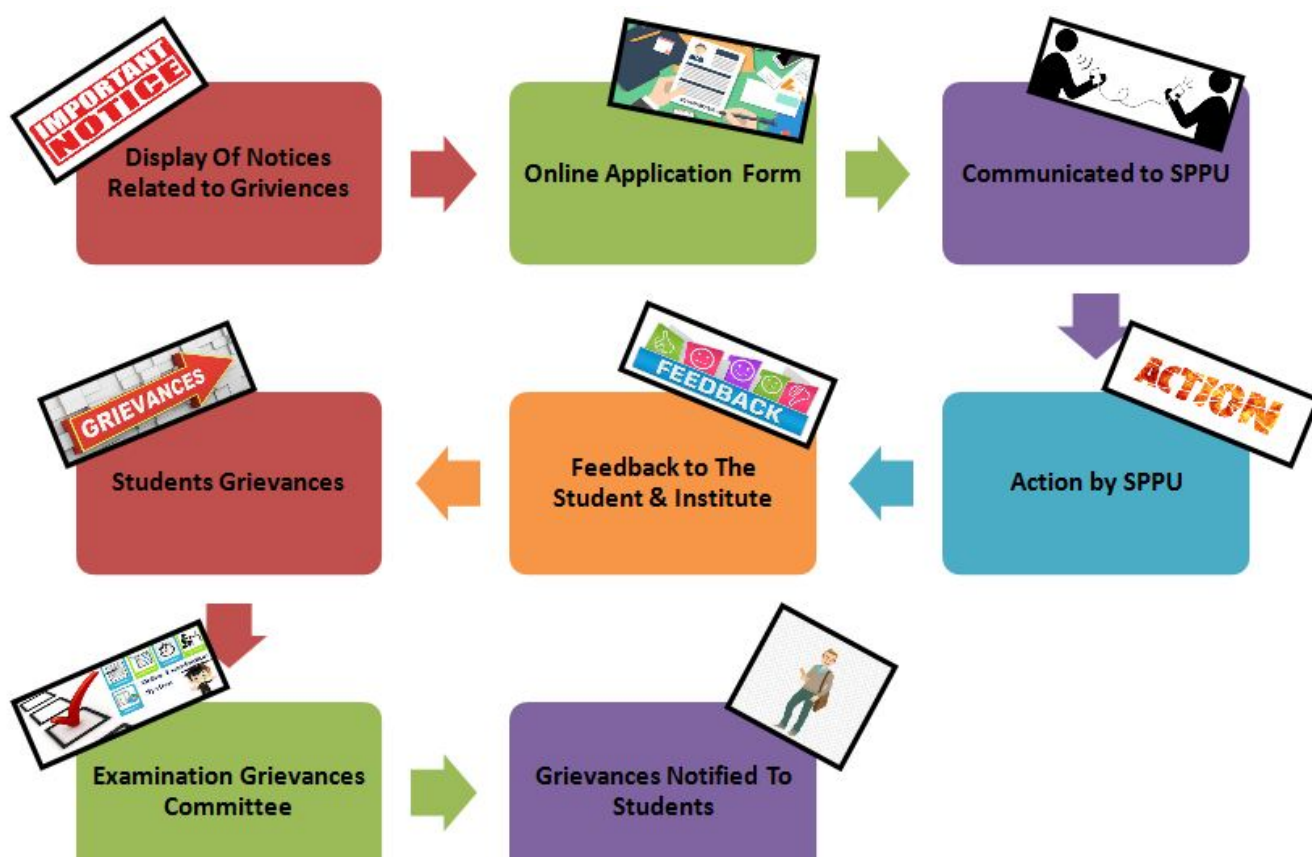


Figure 2.5.3 Mechanism to deal with examination related grievances

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

##### Response:

Academic Monitoring Committee plays the important role in monitoring and conducting academic activities smoothly. In the beginning of every semester for the preparation of academic calendar the institute refers the University academic calendar. Adhering to the institute academic calendar each department prepares their department academic calendar.

At the beginning of the semester the students are communicated about the internal assessment processes as well as the subjects, exam pattern and respective teaching faculty for creating awareness of their academics to improve teaching learning. Departmental AMC ensures that these activities are reflected in departmental academic calendar .

Academic assessments of each department are periodically audited by AMC to ensure the smooth execution of academic and assessment activities. Findings of audit are communicated to the respective head of the department for the necessary action.

The respective head of department discusses the findings with the departmental AMC, GFM coordinator and class teacher. Additional time slot is allocated and duly communicated to the respective faculty and students well in advance. The departmental AMC monitors the scheduled activity executed as per plan. The respective subject teacher completes the assessment activity as per plan and declares the result. To avoid the delayed assessment in future, necessary care would be taken.

In some specific cases, if the student is lagging behind the deadline, then the student is given counseling to finish the assigned task within the stipulated time. Still if the student is not able to complete the assigned task on time, it is informed to the parents through GFM to guide and counsel the students for completing the task, by this the parents are also involved for the smooth execution of the academic process.

Recognition of students achievements are done by institute by prizes and certificates through departmental student association, also published in departmental news bulletin and wall magazine.

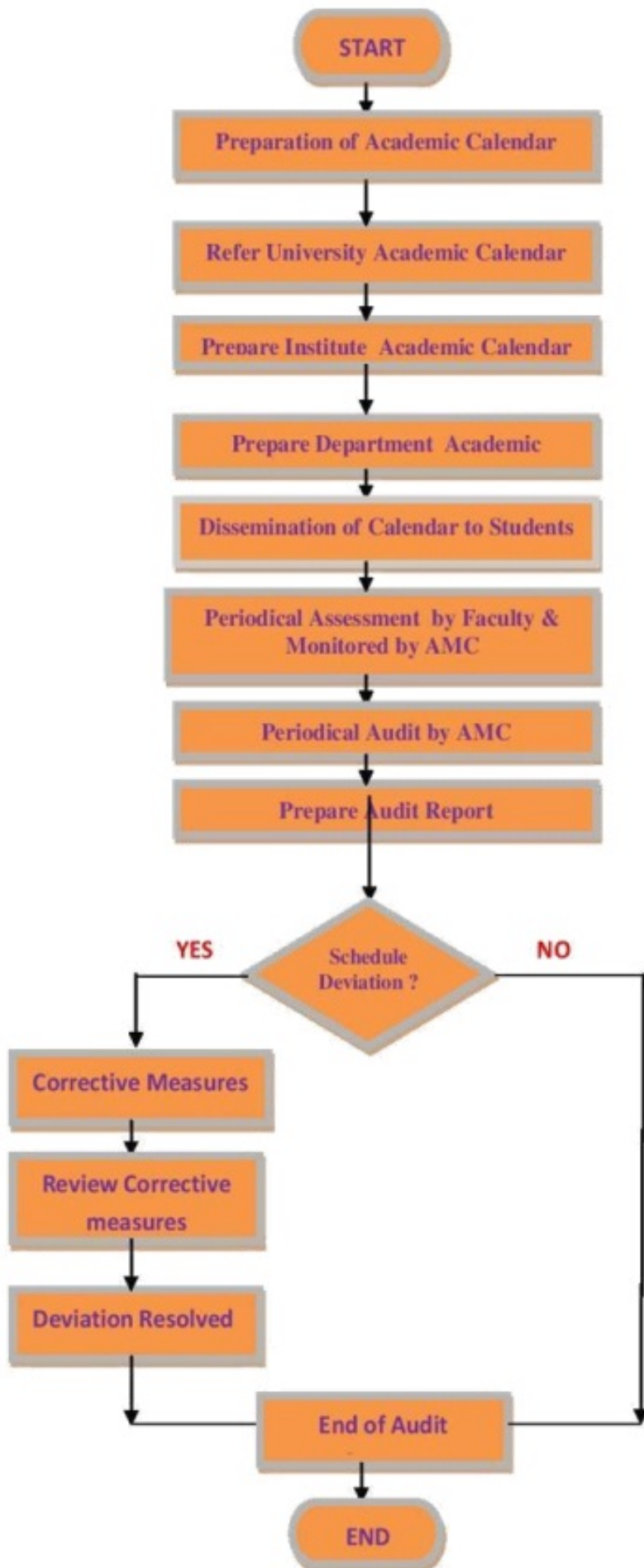


Figure 2.5.4 Diagram showing adherence of the institute to academic calendar for conduct of CIE

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Link for Additional Information | <a href="#">View Document</a> |

## 2.6 Student Performance and Learning Outcomes

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

#### Response:

Institute has sound clear Program outcomes (PO), program specific outcomes (PSO) and course outcomes (CO) for all programs.

Teachers are familiar with POs, PSOs of the programs as they are involved in PO PSO formation process. Vision and mission of the college is discussed in meetings. Head of the department and teachers discuss POs and frame PSOs of the programs which are in line with Graduate Attributes and Vision, Mission of the Institute.

POs and PSOs are displayed for teachers and students at following locations:

1. Institute web site
2. HOD cabins
3. Notice Boards
4. Department laboratories
5. Department Library

Principal delivers address to all newly admit first year students and their parents in the induction program. During this address institute vision, mission and program objectives are stated.

Every course teacher discusses expected course outcomes with students at the beginning of each semester.

The MOODLE is also used to convey the COs, PSOs and POs to the students and faculty members. Every subject teacher keeps the copy of POs, PSOs and COs in their course files.

| File Description                              | Document                      |
|-----------------------------------------------|-------------------------------|
| COs for all courses (exemplars from Glossary) | <a href="#">View Document</a> |
| Link for Additional Information               | <a href="#">View Document</a> |

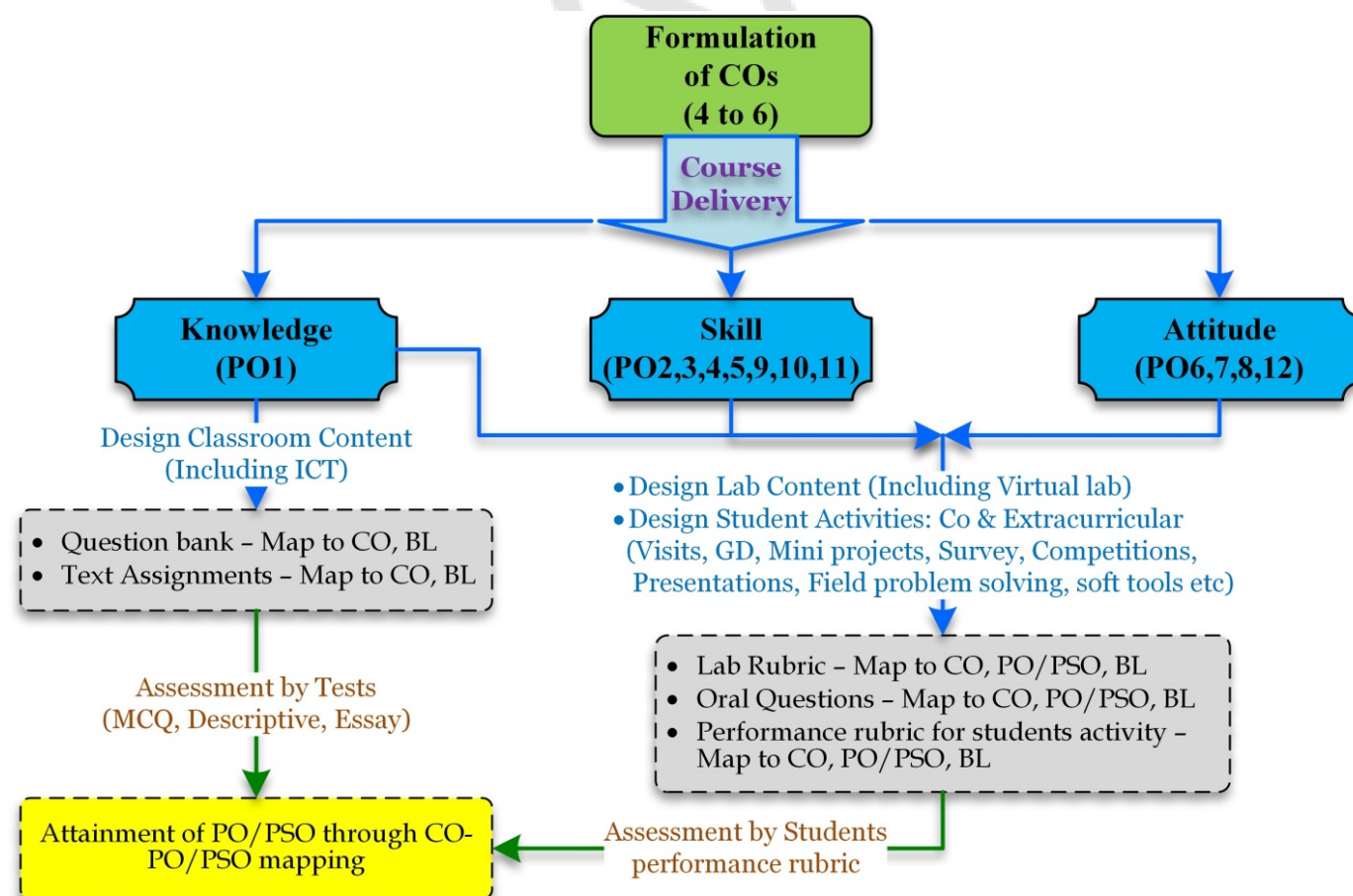
### 2.6.2 Attainment of program outcomes, program specific outcomes and course outcomes are

**evaluated by the institution****Response:**

Following flow chart illustrates strategic approach for assessment of attainment of program outcomes, program specific outcomes and course outcomes each Course Outcome (CO) is mapped with POs/PSOs.

The course coordinator defines the policy for attainment of each CO through tests, mini-project, lab work and students activities to be performed by students. All questions of internal tests are mapped with COs. Being affiliated institute 60% weightage is for external tests and 40% for internal test. The performance of students in projects, lab work and student's activities are mapped with COs. Through direct tools like test, projects, performance rubric and student's portfolio, the attainment of COs is evaluated at mid semester and end semester.

Through mapped COs, the attainment of POs/PSOs is evaluated. The indirect tools like course end survey, exit survey are employed to get perception of self-evaluation. For getting overall attainment of POs/PSOs, the weightage for attainment through test is 50%, weightage for attainment through student's activity is 40% and that for indirect tools through various surveys and feedback is 10%. The assessment process resulting in attainments is evaluated by course coordinator and program coordinator are conveyed to students and parents. Based on the level of attainments, the action plan for improvement is suggested in next cycle.



| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Link for Additional Information | <a href="#">View Document</a> |

### 2.6.3 Average pass percentage of Students

**Response:** 79.82

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 451

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

Response: 565

| File Description                        | Document                      |
|-----------------------------------------|-------------------------------|
| Institutional data in prescribed format | <a href="#">View Document</a> |
| Any additional information              | <a href="#">View Document</a> |

## 2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

**Response:**

## Criterion 3 - Research, Innovations and Extension

### 3.1 Resource Mobilization for Research

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

**Response:** 19.5

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 4.04    | 2.07    | 7.14    | 5.10    | 1.15    |

| File Description                                                                      | Document                      |
|---------------------------------------------------------------------------------------|-------------------------------|
| List of project and grant details                                                     | <a href="#">View Document</a> |
| e-copies of the grant award letters for research projects sponsored by non-government | <a href="#">View Document</a> |
| Any additional information                                                            | <a href="#">View Document</a> |

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

**Response:** 4.08

3.1.2.1 Number of teachers recognised as research guides

Response: 6

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |

**3.1.3 Number of research projects per teacher funded, by government and non-government agencies, during the last five year**

**Response:** 0.42

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

Response: 24



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

Response: 286

| File Description                        | Document                      |
|-----------------------------------------|-------------------------------|
| Supporting document from Funding Agency | <a href="#">View Document</a> |
| Any additional information              | <a href="#">View Document</a> |
| Funding agency website URL              | <a href="#">View Document</a> |

## 3.2 Innovation Ecosystem

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

#### Response:

The growth and sustainability of the system depends on the eco-system. Understanding this biological concept, institute has designed a system for establishment, growth, and sustenance of innovation culture in the institute. Through analysis, the strength and expertise of the institute are identified to be utilized for the cause of innovation. Attempts are made to publicize the strength and expertise among the stakeholders so as to extend its benefits and create conducive environment for innovation.

#### Institutional Research Cell

To strengthen the research activity, Institutional Research Cell (IRC) is framed which plays a vital role by training the faculty members and students in the research domain., Workshops, seminars, lectures, are organized in line with IRC policies organized regularly. Visit of interested faculty members and students to R & D organizations, are arranged. As a proof of capacity building and utilization of the resources, student along with faculty members undertake innovative mini-projects/major projects. Departmental student chapters and professional chapters further help the students to take-up the activity. The achievements get reflected in various state and national level competitions. The feedback of the experts at such platforms help the innovators to hand boosts their moral.

#### Incubation Center

The knowledge and expertise available with the institute is made available to the aspirants through incubation center, wherein, the policies are frame to provide technical and commercial support for the first generation entrepreneurs. Due care is taken by the incubator to make the availability of technical expertise, resources, and finance through its channel. The know-how of the institute in domain of legal requirements with the competent authorities to start the venture is also extended.

#### Other Initiatives

Initiatives like, supporting the students to develop innovative products, undertake interdisciplinary projects, involving students in R & D projects of faculty members, making the students participate in



national competitions, resolving the problems floated by companies and solving social problems through technical solutions, lead to creation and transfer of knowledge. In addition to the incubation center the institute special effort for transfer of knowledge by encouraging students to participate in various technical activities like BAJA, GoKart, SUPRA, Hackathon, Project competitions, etc. by providing financial assistance. The laboratories, workshop, library, internet is provided to the students in the extended timing. Students are felicitated at the appropriate platforms for their achievements. The successful alumni entrepreneurs are invited to interact with students and guide them to take the right direction for entrepreneurship through alumni connect program.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

**Response:** 27

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 9       | 5       | 6       | 6       | 1       |

| File Description                                   | Document                      |
|----------------------------------------------------|-------------------------------|
| Report of the event                                | <a href="#">View Document</a> |
| List of workshops/seminars during the last 5 years | <a href="#">View Document</a> |
| Any additional information                         | <a href="#">View Document</a> |

## 3.3 Research Publications and Awards

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

**Response:** Yes

| File Description                        | Document                      |
|-----------------------------------------|-------------------------------|
| Institutional data in prescribed format | <a href="#">View Document</a> |
| Any additional information              | <a href="#">View Document</a> |

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

| File Description                   | Document                      |
|------------------------------------|-------------------------------|
| e- copies of the letters of awards | <a href="#">View Document</a> |
| Any additional information         | <a href="#">View Document</a> |

**3.3.3 Number of Ph.D.s awarded per teacher during the last five years****Response:** 3.17**3.3.3.1 How many Ph.Ds awarded within last five years**

Response: 19

**3.3.3.2 Number of teachers recognized as guides during the last five years**

Response: 6

| File Description                                                                                   | Document                      |
|----------------------------------------------------------------------------------------------------|-------------------------------|
| URL to the research page on HEI web site                                                           | <a href="#">View Document</a> |
| List of PhD scholars and their details like name of the guide , title of thesis, year of award etc | <a href="#">View Document</a> |
| Any additional information                                                                         | <a href="#">View Document</a> |

**3.3.4 Number of research papers per teacher in the Journals notified on UGC website during the last five years****Response:** 2.41**3.3.4.1 Number of research papers in the Journals notified on UGC website during the last five years**

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 72      | 58      | 86      | 101     | 53      |

| File Description                                                                   | Document                      |
|------------------------------------------------------------------------------------|-------------------------------|
| List of research papers by title, author, department, name and year of publication | <a href="#">View Document</a> |
| Any additional information                                                         | <a href="#">View Document</a> |

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

**Response:** 0.75

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 35      | 10      | 29      | 25      | 16      |

| File Description                                            | Document                      |
|-------------------------------------------------------------|-------------------------------|
| List books and chapters in edited volumes / books published | <a href="#">View Document</a> |
| Any additional information                                  | <a href="#">View Document</a> |

## 3.4 Extension Activities

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

**Response:**

The institute postulate social responsibility and has policies to fulfill them. The faculty members and students of the institute participate actively to resolve social issues within window. This helps to imbibe the social values amongst the students leading to their holistic development. To sensitize the students, institute organizes various events like, exhibiting societal problems in campus, and organizing discussions on the same. In this domain, the NSS unit of the institute plays a major role. Also, all the academic departments contribute towards the cause. Attempts are being made to exhibit the applicability of the competency and skill imparted to the students towards resolving social issues through regular academics as well as co-curricular and extra-curricular activities.

To extend the actual benefits to the society, institute has adopted Haatve and Khopi villages of Pune district to resolve the societal problems through technical solutions such as “Save Girl Child”, “Swatch BharatAbhiyan”, “Digital India”, and application of appropriate technology. To make the activities effective and participative, stake holders are taken into confidence. Indeed, head-masters, teachers, gram-

sevak, and sarpanch fortunately support the activities positively. This practical approach has positive impact on students as well as community. Student gain the skills like, involvement in society, communication, self-discipline and sense of responsibility, team work and leadership, problem identification and proposing probable solutions, working with various agencies, while understanding the local needs providing global solutions.

These institutional activities create a spiral eco-system for betterment of the adopted villages. Villagers understand the importance of involvement of engineers and technocrats in uplifting their lives. Improvement like, availability of potable water, urge of the children for better education, role of individual and local government in up-keeping the surroundings, saving environment, taking healthcare, of women in particular, through technical solutions are some of the examples highlighting the impact of the extension activities undertaken by the institute. Details of the activities undertaken during last five years are mentioned in the following table.



Figure 3.4.1 BSCOER extension activities

The faculty members and students also organize and execute various events and activities to add value in the neighborhood community through departmental student associations like for cleanliness, free health checkups, PUC checkup, and donations to drought affected farmers. Institutes also take efforts to increase awareness about technical education by establishing student help desks in various locations over Maharashtra. Faculty members also deliver sessions in various locations around Pune and all over Maharashtra to aware parents and students about opportunities available in technical education. The institute provides platform for engineering aspirants by organizing Mock engineering entrance examination to increase their confidence and performance. This activity provides pre-analysis to students to take remedial measures so as to increase their entrance examination overall performance.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

**Response: 20**

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 7       | 5       | 4       | 2       | 2       |

| File Description                                          | Document                      |
|-----------------------------------------------------------|-------------------------------|
| Number of awards for extension activities in last 5 years | <a href="#">View Document</a> |
| e-copy of the award letters                               | <a href="#">View Document</a> |
| Any additional information                                | <a href="#">View Document</a> |

### 3.4.3 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

**Response: 103**

3.4.3.1 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 27      | 26      | 19      | 15      | 16      |

| File Description                                                                                        | Document                      |
|---------------------------------------------------------------------------------------------------------|-------------------------------|
| Reports of the event organized                                                                          | <a href="#">View Document</a> |
| Number of extension and outreach programs conducted with industry,community etc for the last five years | <a href="#">View Document</a> |
| Any additional information                                                                              | <a href="#">View Document</a> |

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

**Response:** 58.41

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 1497    | 1450    | 1120    | 996     | 773     |

| File Description                                                                          | Document                      |
|-------------------------------------------------------------------------------------------|-------------------------------|
| Report of the event                                                                       | <a href="#">View Document</a> |
| Average percentage of students participating in extension activities with Govt or NGO etc | <a href="#">View Document</a> |
| Any additional information                                                                | <a href="#">View Document</a> |

## 3.5 Collaboration

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

**Response:** 242

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 68      | 70      | 32      | 51      | 21      |

| File Description                                             | Document                      |
|--------------------------------------------------------------|-------------------------------|
| Number of Collaborative activities for research, faculty etc | <a href="#">View Document</a> |
| Copies of collaboration                                      | <a href="#">View Document</a> |
| Any additional information                                   | <a href="#">View Document</a> |

**3.5.2 Number of functional MoUs with institutions of National/ International importance, Other Institutions, Industries, Corporate houses etc., during the last five years (only functional MoUs with ongoing activities to be considered)**

**Response:** 29

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 15      | 8       | 3       | 2       | 1       |

| File Description                                                                                                                      | Document                      |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| e-copies of the MoUs with institution/ industry/ corporate house                                                                      | <a href="#">View Document</a> |
| Details of functional MoUs with institutions of national, international importance, other universities etc during the last five years | <a href="#">View Document</a> |
| Any additional information                                                                                                            | <a href="#">View Document</a> |



## Criterion 4 - Infrastructure and Learning Resources

### 4.1 Physical Facilities

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

**Response:**

Effectiveness of the teaching-learning process is always augmented by the infrastructure. Institute has taken due care to make the infrastructure availability as per the norms. Adequate classrooms are available hence offering the additional coaching to the students through the measures like practice sessions, remedial classes, extra lectures, and expert lectures can be managed. Also it is possible for the learner to practice the things even beyond the schedule. The classrooms are well equipped with ICT facilities which aid the faculty members to adopt appropriate teaching methodology without shifting the location to laboratory or other places. The practices like use of online resources are quite possible in classroom itself as the provision of Wi-Fi exists there. The structure of the classroom provide opportunity to the faculty and the students to carry out the activities like, presentations, small role plays, demonstrations and group discussions.

The need of training the candidates in small group is well identified and is fulfilled through the infrastructure by providing separate tutorial rooms. Tutorial rooms are equipped with wifi and LCD facility is provided as per need.

Considering the sanctioned intake and the norms, the laboratories are designed and developed in such a way that, laboratories will be available to the faculty and students in addition to the requirement of regular academics. The spare capacity and facilities of the laboratories are utilized by the students and faculty members to undertake practice, skill development, project work and innovative work of their choice.

To gain the confidence and to have validation of the processes and products designed during theory and practical classes, it is required to have the fabrication of the corresponding items. The need is fulfilled by providing the facility of workshop for all. Due care is taken to accommodate all the candidates through infrastructure and proper scheduling.

Being an engineering college, the IT infrastructure is provided in all the departments, exclusively. Thus, availability of computing facility doesn't pose any challenge. The institute has computer to student ratio 3.95. All the computers are in LAN and thus huge computational facility is available for those who want to utilize it. In addition to the availability of computer laboratories in each department, a central computing center is also made available which students can utilize for curricular, co-curricular, and extra-curricular activities. Due care is taken to keep the IT infrastructure updated and its smooth functioning is ensured through central administration with the help of powerful server maintained specifically in server room.

For engineers, language of communication is drawing. Skill building in this domain is fulfilled with the help of available drawing hall.

Institute has developed a library into two domains: the traditional library hosting printed books, reading hall, reference section and repository. The second modern part of the library developed employing the digital content provides easy access to the user for e-resources.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

##### Response:

The institute focuses on overall development of the students through co-curricular and extra-curricular activities. Outdoor physical sports contribute significantly in such development. Qualities, like, sporting spirit, leadership, team spirit, and competitiveness can be inculcated amongst the students through such sports activities.

Institute takes due care to provide adequate facilities for the same. The institute has an open ground with provisions for sports like cricket, football, volleyball, kabaddi, and kho-kho. An exclusive basketball court is available for students. All available facilities are used by the students at all the times other than scheduled academic activities.

Indoor games like, carom, chess and table-tennis can also contribute towards developing specific attributes such as planning and intellectual thinking amongst the students. Adequate facilities for such games are provided.

Inter-departmental sports and games competitions are frequently held in the institute. The winners in such competitions are awarded with certificates and due publicity is given to them for encouragement.

A well-equipped gymnasium with all necessary equipment is available in the institute. Students use these facilities in morning as well as evening sessions. Separate utilization schedule for girls is given.

For physical and mental health, Yoga is promoted and practiced in the institute. A Yoga center is available to the students where they can practice Yoga during their free time. World Yoga Day is organized in the institute to increase awareness amongst the students.

The institute also believes that cultural activities are an integral part of overall development of a person. Such facilities are organized throughout the year. Every year, a theme is given for cultural activities based on problems addressed by the nation, such as, "Save a Girl Child", "Farmers Prosperity through Engineering Innovations", Environmental awareness, human values. Lush Green lawn is available for the students for conduction of such type of activities. A separate auditorium is available in the institute. This auditorium is having audio-visual facility for practice and performances. Power back-up is provided to the entire infrastructure in the institute through a Diesel generator. Apart from this, college organizes various cultural events under the ambit of "Jashn-E-youth". Students are also encouraged to participate in various cultural events organized at university level, intra and intercollege events viz. Purushottam Karandak, Konkan Karandak and University Karandak.

The institute encourages the students to participate in various colleges, zonal, inter zonal, state and national level sports activities. In these activities students have participated and won different prizes. Institute annually organizes a state level kabaddi championship called "TSSM Chashak". The institute also provides support for students to use the outside resources such as badminton court, running track etc.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

**Response:** 100

##### 4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 38

| File Description                                                   | Document                      |
|--------------------------------------------------------------------|-------------------------------|
| Number of classrooms and seminar halls with ICT enabled facilities | <a href="#">View Document</a> |
| Link for additional information which is optional                  | <a href="#">View Document</a> |

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

**Response:** 1.86

##### 4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year-wise during the last five years (INR in Lakhs)

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 12.13   | 10.42   | 6.05    | 14.91   | 11.17   |

| File Description                                                          | Document                      |
|---------------------------------------------------------------------------|-------------------------------|
| Details of budget allocation, excluding salary during the last five years | <a href="#">View Document</a> |
| Audited utilization statements                                            | <a href="#">View Document</a> |

## 4.2 Library as a Learning Resource

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

#### Response:

Main objective of the central library is to support the vision of the institute and to provide seamless access of information to the students and faculty members of the institute in networked environment. The library is fully automated using library management software 'AutoLib (V.1.0.1)' since 2013. Now Institute library migrate from AutoLib to Koha library management software which is very useful to student & Teachers .

**AutoLib** – is popular and advanced integrated library automation management software. AutoLib is fully integrated, versatile, user-friendly, cost-effective and multi-user software. It is WEB enabled for Intranet and Internet environments, incorporating latest tools and techniques and adheres to international standards.

AutoLib is equipped with different modules like Acquisitions, Cataloguing, Circulation, Serials and OPAC. Acquisitions module is used for ordering, receiving, and invoicing materials from institute vendors. Cataloguing module is used for classifying and indexing of library resources. Circulation module facilitates lending of books to users and receiving them back. This module is used for all types of counter transactions such as: Issue, Renewal, Return, Recall, Reservation, Reservation Cancel, Reminders, Overdue receipt, No-due certificate, Overdue reports and Statistical reports for all specified counter transactions. Serials module simplifies tracking of magazine and newspaper holding of the library. OPAC module facilitates easy access of available resources to the users. This module is designed to search all available databases using important fields and print the search results in any desired format/order. This module has Simple search and advanced search facility to search the database using important fields such as Accession Number, Call Number, Author, Title, Edition, Year, Publisher, Subject, Keywords, Department and Availability.

The institute simultaneously start to using Koha web based multilingual open source software. It is full featured MARC based integrated library system to fulfill the functional requirement of libraries. Koha has state of the art web based interface, enhanced content and substance, provides faceted navigation, provisions keyword searching, up-gradation and development through user contribution and provides Rich Site Summary (RSS) feeds that make it unique integrated library software in the world.

#### Features of koha:-

- Union catalog facility
- Customizable search
- Circulation and borrower management
- Full acquisitions system including budgets and pricing information (including supplier and currency conversion)
- Simple acquisitions system for the smaller library
- Serials system for magazines or newspaper

- Reporting.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

##### Response:

Libraries are the storehouse of knowledge as they maintain the books and other knowledge resources available in hard copies and soft copies. However, with the advent of digital technology and Internet connectivity, the library scenario is changing fast. Digital Libraries have the ability to enhance access to information and knowledge.

They also Bridge barriers of time and space. institution have also good collection of rare books Students and Faculties can access 40 rare books through offline and online as reference material for enrichment of their knowledge The rare books having large variety of title such as inspiring Stories, biographies. Also previous ME Dissertation / Thesis made available to students for their projects and presentations works and Institute has number of handbooks for different branches of engineering (under graduate and post graduate) are available for student and faculty members for reference.

| Sr. No.              | Number of books | Number publishers | of Number Authors | of Number of copies | Year of publishing |    |
|----------------------|-----------------|-------------------|-------------------|---------------------|--------------------|----|
|                      |                 |                   |                   |                     | From               | To |
| Rare books           | 40              | 40                | 40                | 40                  | 1986               | 20 |
| Dissertation/ Thesis | 258             | 258               | 258               | 258                 | 2015               | 20 |
| Standards            | 305             | 07                | -                 | 305                 | 1961               | 20 |
| Handbooks            | 33              | 33                | 50                | 58                  | 2000               | 20 |

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

**4.2.3 Does the institution have the following:**

- 1.e-journals
- 2.e-ShodhSindhu
- 3.Shodhganga Membership
- 4.e-books
- 5.Databases

**A. Any 4 of the above**

**B. Any 3 of the above**

**C. Any 2 of the above**

**D. Any 1 of the above**

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

| File Description                                                                 | Document                      |
|----------------------------------------------------------------------------------|-------------------------------|
| Details of subscriptions like e-journals,e-ShodhSindhu,Shodhganga Membership etc | <a href="#">View Document</a> |
| Any additional information                                                       | <a href="#">View Document</a> |

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

**Response:** 29.44

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 31.70   | 29.35   | 14.48   | 54.89   | 16.78   |

| File Description                                                                            | Document                      |
|---------------------------------------------------------------------------------------------|-------------------------------|
| Details of annual expenditure for purchase of books and journals during the last five years | <a href="#">View Document</a> |
| Audited statements of accounts                                                              | <a href="#">View Document</a> |

**4.2.5 Availability of remote access to e-resources of the library****Response:** Yes**4.2.6 Percentage per day usage of library by teachers and students****Response:** 28.26**4.2.6.1 Average number of teachers and students using library per day over last one year****Response:** 656

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |

**4.3 IT Infrastructure****4.3.1 Institution frequently updates its IT facilities including Wi-Fi****Response:**

Upload a description of IT facilities including Wi-Fi with date of updating and nature of updation.

The institution frequently reviews and upgrades its IT facility and has latest computing facilities which includes – hardware, software and networking. Keeping in view the increasing demand and frequently changing technology, the institution plans to acquire more number of computers and related infrastructure with upgraded IT facility. Suggestions and recommendations from all stakeholders are considered to facilitate gradation in infrastructure to promote excellent teaching-learning environment at the institution.

The installation and maintenance is carried out with the help of expert and dedicated system administration team of the institute. For IT infrastructure up gradation, the institute follows the following strategies.

The up gradation is carried out periodically as and when it is necessary. For example, whenever the curriculum suggested by the University changes, or when the new technology is introduced in the market and is recommended to be taught to the students. The old or beyond repairable computers are utilized for hardware laboratory assignments and demonstration purpose. Also updation of the following components is done periodically.

**INTERNET Facility**

The institute adopts best practices for scalable and sustainable implementation of all IT services. It provides computing and networking services such as desktops, laptops, The institute has a 65 Mbps leased line from Teleglobal Communications Pvt. Ltd. Wi-Fi Connectivity with wireless access point (Brovis)

**LAN Facility:**

To provide seamless connectivity to receive and transmission of data as well as optimal and remote access of computing resources, the institute provides Ethernet with broadband Internet facilities in all departments and office buildings. The LAN is operating with a speed of 100 Mbps with 100 BaseTX twisted pair Fast Ethernet using UTP Cat 6 cabling.

Interactive smart boards for ICT based teaching and learning process

Application softwares for laboratory assignments and project development.

Antivirus softwares to keep the computers virus free.

Apart from all these, the institute has Microsoft's Campus agreement yearly subscription by which the softwares like Operating system, Microsoft office, Visual studio, and Dot Net framework are updated on yearly basis and open source softwares are updated as per the requirement of the subject. Also the institute has ORACLE ACADEMY INSTITUTION MEMBERSHIP through which the students can use many useful software packages provided by Oracle Corporation.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

#### 4.3.2 Student - Computer ratio

**Response:** 3.95

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |

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

**>=50 MBPS**

**35-50 MBPS**

**20-35 MBPS**

**5-20 MBPS**

**Response:** >=50 MBPS

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |



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

| File Description                                                                  | Document                      |
|-----------------------------------------------------------------------------------|-------------------------------|
| Facilities for e-content development such as Media Centre, Recording facility,LCS | <a href="#">View Document</a> |
| Link to photographs                                                               | <a href="#">View Document</a> |

**4.4 Maintenance of Campus Infrastructure****4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years****Response:** 17.2

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 97.78   | 77.43   | 59.84   | 165.55  | 117.78  |

| File Description                                                                             | Document                      |
|----------------------------------------------------------------------------------------------|-------------------------------|
| Details about assigned budget and expenditure on physical facilities and academic facilities | <a href="#">View Document</a> |
| Audited statements of accounts.                                                              | <a href="#">View Document</a> |

**4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.****Response:**

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.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

## Criterion 5 - Student Support and Progression

### 5.1 Student Support

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

**Response:** 60.38

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 1536    | 1393    | 1348    | 1048    | 747     |

| File Description                                                                                                             | Document                      |
|------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Upload self attested letter with the list of students sanctioned scholarships                                                | <a href="#">View Document</a> |
| Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years | <a href="#">View Document</a> |
| Any additional information                                                                                                   | <a href="#">View Document</a> |

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

**Response:** 7.92

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 18      | 14      | 15      | 410     | 236     |

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |

#### 5.1.3 Number of capability enhancement and development schemes –

1. For competitive examinations
2. Career counselling
3. Soft skill development
4. Remedial coaching
5. Language lab
6. Bridge courses
7. Yoga and meditation
8. Personal Counselling

A. 7 or more of the above

B. Any 6 of the above

C. Any 5 of the above

D. Any 4 of the above

**Response:** A. 7 or more of the above

| File Description                                          | Document                      |
|-----------------------------------------------------------|-------------------------------|
| Details of capability enhancement and development schemes | <a href="#">View Document</a> |
| Any additional information                                | <a href="#">View Document</a> |
| Link to Institutional website                             | <a href="#">View Document</a> |

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

**Response:** 52.09

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 2025    | 987     | 1051    | 933     | 373     |

| File Description                                                                                                        | Document                      |
|-------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Number of students benefited by guidance for competitive examinations and career counselling during the last five years | <a href="#">View Document</a> |
| Any additional information                                                                                              | <a href="#">View Document</a> |

**5.1.5 Average percentage of students benefited by Vocational Education and Training (VET) during the last five years****Response:** 0**5.1.5.1 Number of students attending VET year-wise during the last five years**

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 0       | 0       | 0       | 0       | 0       |

| File Description                         | Document                      |
|------------------------------------------|-------------------------------|
| Details of the students benefited by VET | <a href="#">View Document</a> |

**5.1.6 The institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases****Response:** Yes

| File Description                                                                                                             | Document                      |
|------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee | <a href="#">View Document</a> |
| Details of student grievances including sexual harassment and ragging cases                                                  | <a href="#">View Document</a> |

**5.2 Student Progression****5.2.1 Average percentage of placement of outgoing students during the last five years****Response:** 55.3**5.2.1.1 Number of outgoing students placed year-wise during the last five years**

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 228     | 384     | 392     | 180     | 164     |

| File Description                                        | Document                      |
|---------------------------------------------------------|-------------------------------|
| Self attested list of students placed                   | <a href="#">View Document</a> |
| Details of student placement during the last five years | <a href="#">View Document</a> |
| Any additional information                              | <a href="#">View Document</a> |

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

**Response:** 4.25

5.2.2.1 Number of outgoing students progressing to higher education

Response: 24

| File Description                                   | Document                      |
|----------------------------------------------------|-------------------------------|
| Upload supporting data for student/alumni          | <a href="#">View Document</a> |
| Details of student progression to higher education | <a href="#">View Document</a> |

### 5.2.3 Average percentage of students qualifying in State/ National/ International level examinations during the last five years (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

**Response:** 4.86

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 6       | 13      | 11      | 7       | 1       |

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 258     | 352     | 166     | 76      | 41      |

| File Description                                                                                              | Document                      |
|---------------------------------------------------------------------------------------------------------------|-------------------------------|
| Upload supporting data for the same                                                                           | <a href="#">View Document</a> |
| Number of students qualifying in state/ national/ international level examinations during the last five years | <a href="#">View Document</a> |

### 5.3 Student Participation and Activities

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

**Response:** 18

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 3       | 6       | 5       | 3       | 1       |

| File Description                                                                                                                             | Document                      |
|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years | <a href="#">View Document</a> |
| e-copies of award letters and certificates                                                                                                   | <a href="#">View Document</a> |
| Any additional information                                                                                                                   | <a href="#">View Document</a> |

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

**Response:**

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.

Figure 5.3.2.1 depicts the mechanism of formation of student welfare council.

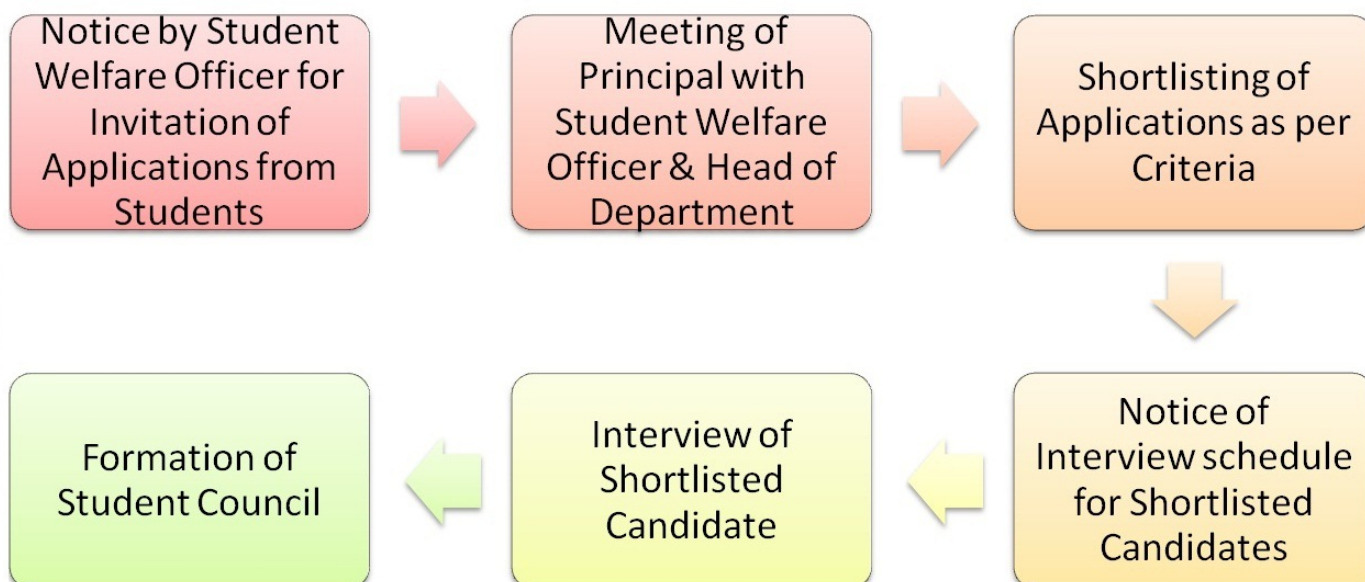


Figure 5.3.2.1 Mechanism for Formation of Student Council

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 co-curricular 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 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.

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.

Figure 5.3.2.2 shows students' representation in various activities through student council.

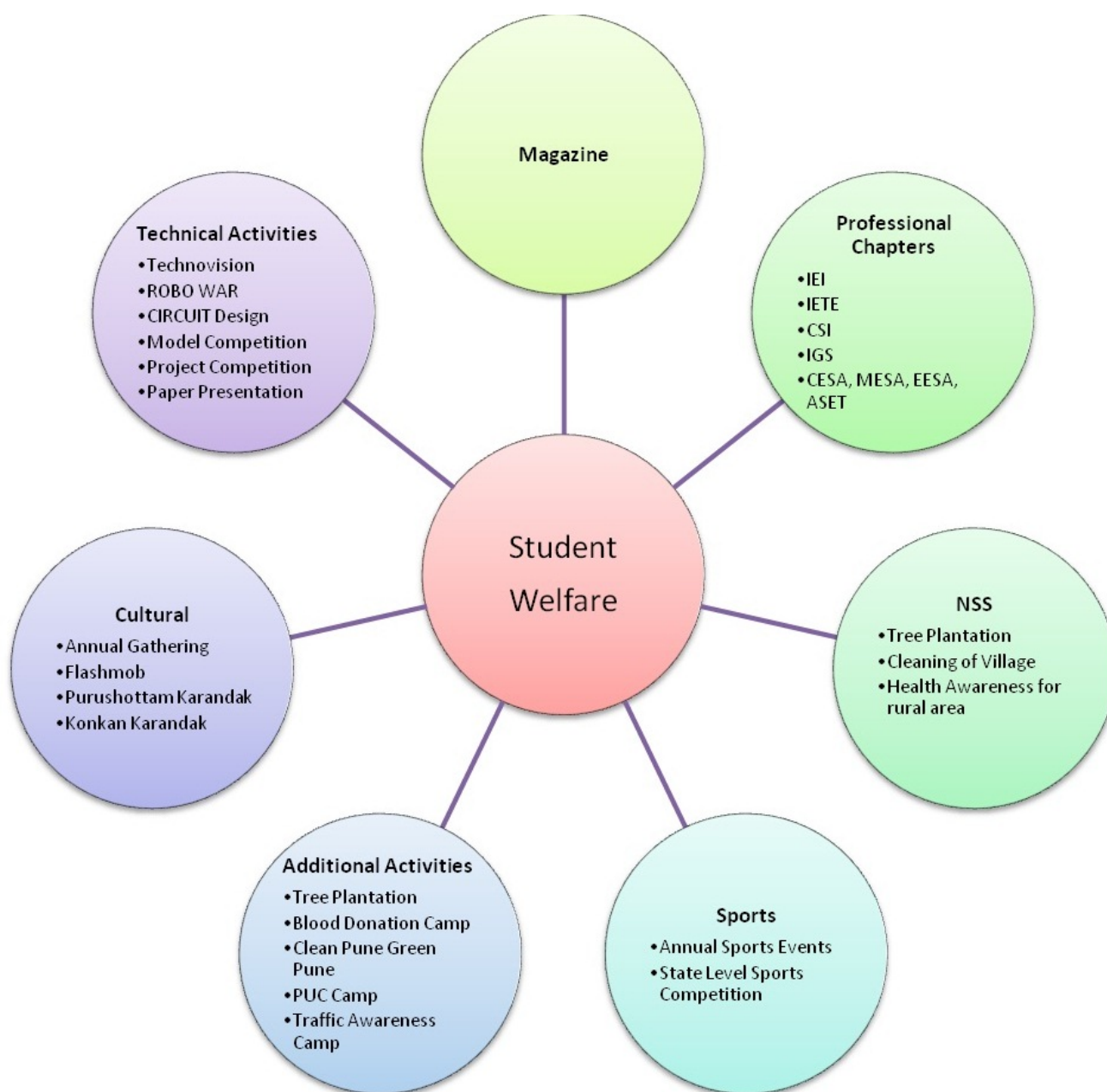


Figure 5.3.2.2 Students' representation in various activities

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

**Response: 10.4**

5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year-wise

during the last five years

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 9       | 14      | 14      | 5       | 10      |

| File Description                                                           | Document                      |
|----------------------------------------------------------------------------|-------------------------------|
| Report of the event                                                        | <a href="#">View Document</a> |
| Number of sports and cultural activities / competitions organised per year | <a href="#">View Document</a> |
| Any additional information                                                 | <a href="#">View Document</a> |

## 5.4 Alumni Engagement

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

#### Response:

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.

Encloser: - Link for Non-Financial Contribution - <http://tssm.edu.in/pdf/C5/5.4.1.pdf>

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Link for Additional Information | <a href="#">View Document</a> |

#### 5.4.2 Alumni contribution during the last five years(INR in Lakhs)

? 5 Lakhs

4 Lakhs - 5 Lakhs

3 Lakhs - 4 Lakhs

1 Lakh - 3 Lakhs

**Response:** ? 5 Lakhs

| File Description                      | Document                      |
|---------------------------------------|-------------------------------|
| Any additional information            | <a href="#">View Document</a> |
| Alumni association audited statements | <a href="#">View Document</a> |

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

**Response:** 4

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 1       | 1       | 1       | 1       | 0       |

| File Description                                                                      | Document                      |
|---------------------------------------------------------------------------------------|-------------------------------|
| Number of Alumni Association / Chapters meetings conducted during the last five years | <a href="#">View Document</a> |
| Any additional information                                                            | <a href="#">View Document</a> |
| Report of the event                                                                   | <a href="#">View Document</a> |

## Criterion 6 - Governance, Leadership and Management

### 6.1 Institutional Vision and Leadership

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

**Response:**

**Vision:**

To develop globally competent engineers for techno-economic development of society.

**Mission:**

To provide, nurture and maintain an environment of academic excellence, research and entrepreneurship for aspiring engineers to meet global challenges ethically.

The institute is in favor of adopting effective, efficient and contemporary practices to achieve the vision. The achievement of vision through mission and objectives is put before the stake holders effectively thereby making the roles and responsibilities of every stake holder clear to them. To accomplish the task, modular, structured approach is employed by the institute. The leadership ensures availability of required support to the stake holders for executing their duties. Decentralization and operational transparency are the features of the institute. Participative management gives boost to the institute's operation. Institute sets the benchmarks for various processes and contents at par with global standards. In consultation with stake holders, leader sets the target in line with vision and mission through the closed loop mechanism, the effectiveness and efficiency of the operations is ensured. Institute evaluates itself twice in a year to check its progress and movement towards vision. The progress is made public by the leader to highlight the strength of which advantage can be derived. Institute keeps itself abreast of the development in educational, industrial, and social changes so as to fulfill the corresponding needs. The information about these changes is collected through contributions of various cells, committees, and stake holders of the institute.

The institute has a perspective plan for its development in accordance with its vision. Keeping in mind previous experiences, stakeholders' suggestions and the changing scenario in the field of engineering, the perspective plan has been designed for the next five years by our institute which includes major objectives, such as, accreditation by national and international bodies, introducing recognized research center for all branches, permanent affiliation to Savitribai Phule Pune University, autonomy of the institute, establishing center of excellence and foreign collaborations for higher studies and student placement. Better industry institute relationship through MOU which will enhance the activities of Entrepreneurship Development Cell. The institute has incubation center extending required help to prospective entrepreneurs.

Institute understands that along with better management practices and better leadership, faculty members play a vital role in institutional achievements. As stated earlier, through participative management, the faculties are contributing in various decision making bodies of the institute, such as, College Development

Committee (CDC), Internal Quality Assurance Cell (IQAC), Academic Monitoring Cell (AMC), Grievance Redressal Cell (GRC), faculty recruitment, laboratory development and purchase, signing MoU with academic, research and industrial institutions, liasoning with various agencies, such as, affiliating university, Directorate of Technical Education (DTE), Maharashtra and All India Council for Technical Education (AICTE), New Delhi.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

### 6.1.2 The institution practices decentralization and participative management

#### Response:

#### 1.1 Preamble:

The Institute believes that thrust of quality education which can be fulfilled through effective knowledge transformation relevant to the curriculum by introducing innovative and creative ways of teaching, timely evaluation and analysis of performance, consistent efforts to meet industry expectations and continuous monitoring and review of academic processes. In this regard 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. The AMC design, review and advice on all matters relating to the contents and educational process, keeping the global perspective in view. The prime purpose of AMC is to provide a strategic foundation for the Academic Plan of the institute.

#### 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. Hierarchical structure of AMC is depicted in Figure 6.1.2.

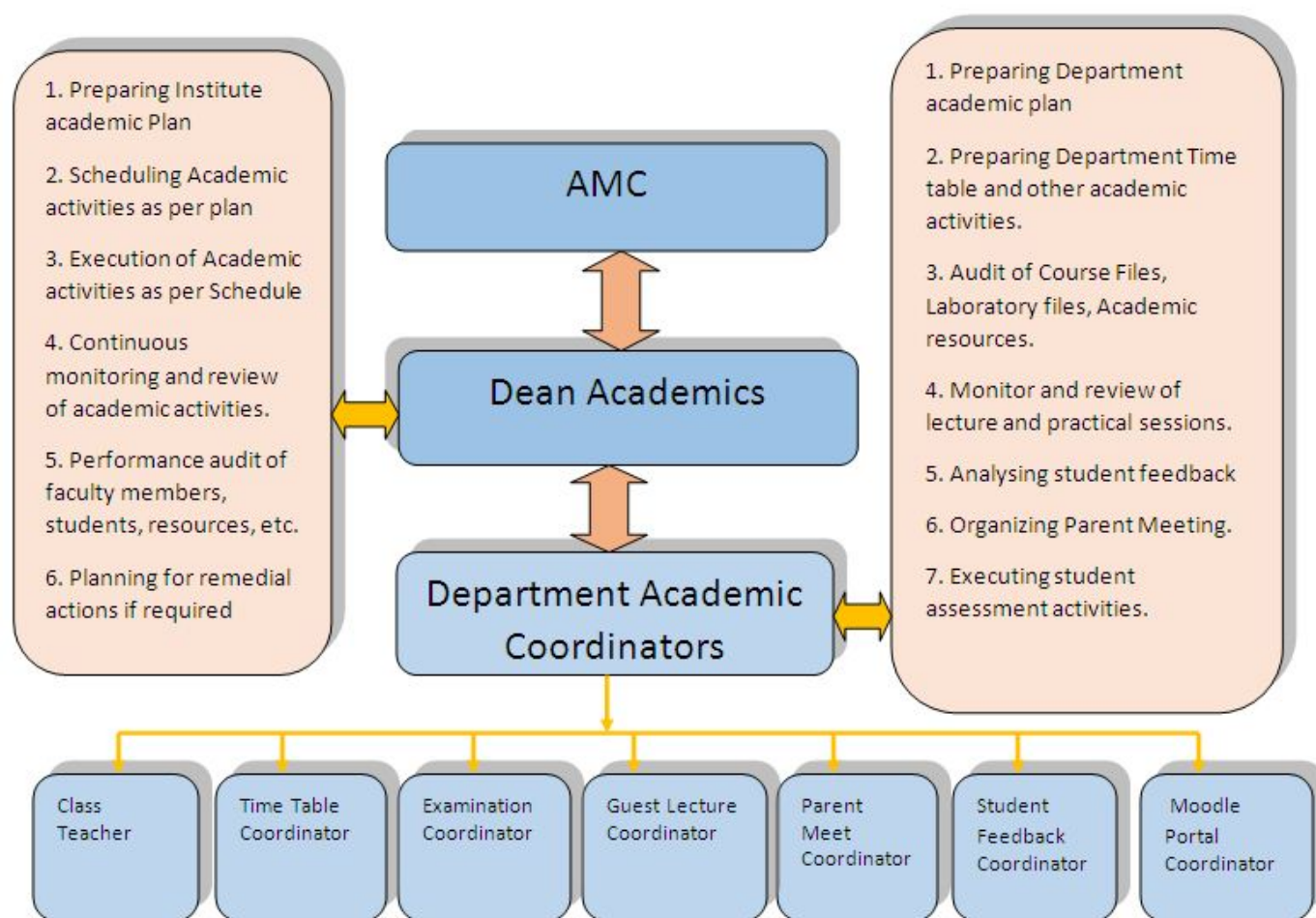


Figure 6.1.2 Hierarchical structure of AMC

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

## 6.2 Strategy Development and Deployment



**6.2.1 Perspective/Strategic plan and Deployment documents are available in the institution****Response:**

As per the perspective plan of the institute to enhance industry-institute interaction for improving academics, research and placement activity is important. The Industry Institute Interaction Cell (IIIC) is formed at the institute level which facilitates interaction between various organizations. Based on the departmental strengths and needs, it was planned to identify the potential organizations for signing Memorandum of Understanding (MoU) for mutual gain. IIIC has carried out online survey of various organizations to understand their scope of working, strength, and requirements. Accordingly, the requirements are consolidated and conveyed to the department. Also, training and placement department, through its feedback mechanism, identified the requirements of organizations which were submitted to the department again. After receiving the requirements from IIIC and T & P, the department decided to work in a given domain to fulfill them. This decision was unanimous in the department. There onwards, specific organizations were targeted and communication was initiated with them. After deliberations and common consensus, decision about working on specific tasks were decided, that includes resource sharing, project reviews, sponsored projects, internships, training, and placement. Based on mutual convenience and need, one by one activity was implemented. The availability of variety of equipment, instrument and software found to be of use to industries for carrying out the experiments whereas on the other hand the precision machineries and the expertise with the industry boosted the learning activities of the students, particularly, in domain of carrying out the projects. Some of the development and experimentation work of the industries was given to students as project activity. This activity was jointly guided and monitored by the representatives from industry and institute ensuring requirement fulfillment at both the ends. The interaction of industry personnel with the students and faculty members helps to enrich the learning experience. Also, such interactions were helpful to depute the students in industries for internships which in turn, may provide placement to the students. Looking at the faculty engagement and their availability for employability skill enhancement, it was decided to have tie-up with industries in this domain. To cite the examples, Zensar ESD (Employability Skill Development) program and Barclay's Skill Development Program played vital role through MoU.

| File Description                                       | Document                      |
|--------------------------------------------------------|-------------------------------|
| Any additional information                             | <a href="#">View Document</a> |
| Link for Additional Information                        | <a href="#">View Document</a> |
| Strategic Plan and deployment documents on the website | <a href="#">View Document</a> |

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

The organization chart of the institute is arranged in hierarchical structure. Where the top most authority is

Governing body who takes the major decisions based on the requirements for the benefit of institute. The College Development Committee (CDC) executes the decision at institute level with the help of principal and other faculty members. All the decisions are carried in participative environment. The college has various cells for all the activities to be carried out. The cells are working in consultation with Internal Quality Assurance Cell (IQAC). Other cells of institute like Academic Monitoring Cell (AMC), Institute Research Cell (IRC), Industry Institute Interaction Cell (IIC), Entrepreneurship Development Cell (EDC), examination cell, anti-ragging cell, alumni cell, National Social Service Cell (NSS), grievance redressal cell etc. which are functioning at institute level. Heads of the departments work in coordination with the AMC cell and with the help of teaching and nonteaching staff, the tasks are executed. IRC head arranges various programs for research activities in the institute. Office administration is done through office superintendent. The maintenance cell, establishment section, student section, account section and stores section operate under office superintendent. Audits are done by different cells for improvement in the execution. Each cell has its policies and rules. The employees are benefitted with staff welfare schemes. Decentralization and participative management are achieved by this type of hierarchical structure.

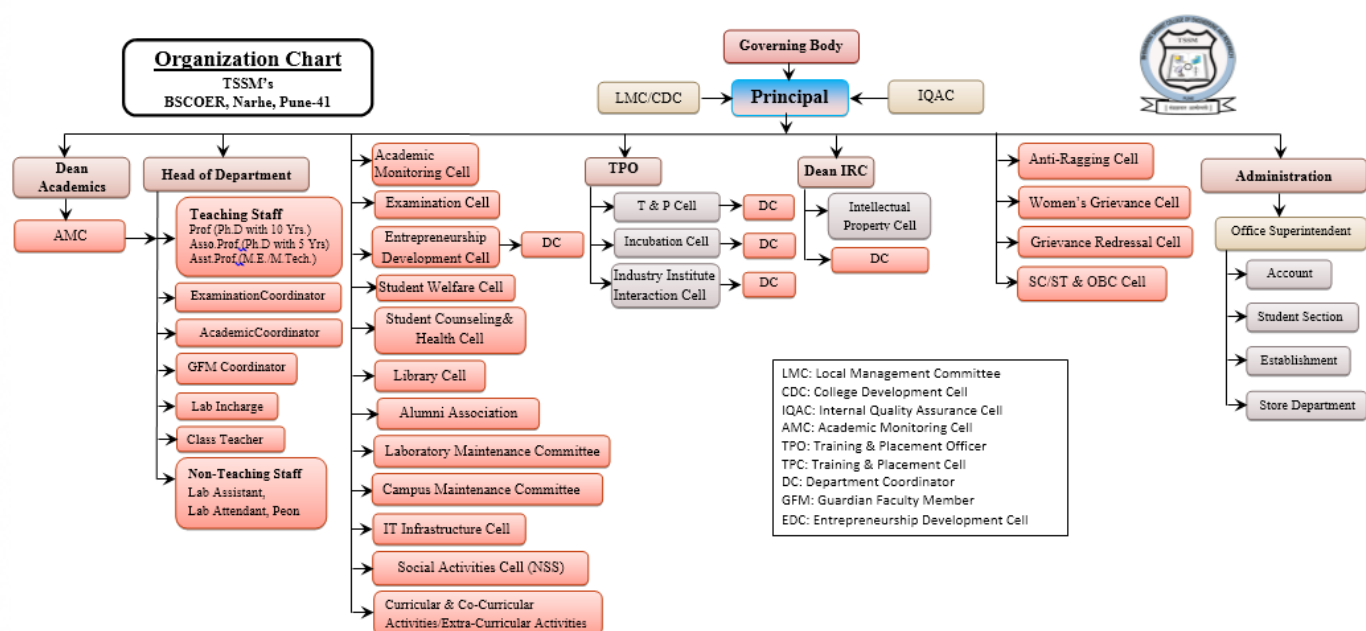


Figure 6.2.2 Organizational Structure

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

### 6.2.3 Implementation of e-governance in areas of operation

1. Planning and Development
2. Administration
3. Finance and Accounts
4. Student Admission and Support
5. Examination

**A. All 5 of the above**

**B. Any 4 of the above**

**C. Any 3 of the above**

**D. Any 2 of the above**

**Response:** A. All 5 of the above

| File Description                                                                                            | Document                      |
|-------------------------------------------------------------------------------------------------------------|-------------------------------|
| Screen shots of user interfaces                                                                             | <a href="#">View Document</a> |
| ERP Document                                                                                                | <a href="#">View Document</a> |
| Details of implementation of e-governance in areas of operation Planning and Development,Administration etc | <a href="#">View Document</a> |
| Any additional information                                                                                  | <a href="#">View Document</a> |

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

**Response:**

Various committees/bodies/cells are formed by the Institute for the overall development of the institute. Role and responsibilities of each of above cells are defined meticulously. Respective cells conduct meeting regularly to transact co-curricular and extra curricular activities. Minutes of meeting are made available to all concerned for the successful execution of the resolutions. Following committees/cells are formed by the institute.

To fulfill the program outcomes like, team spirit and leadership, engineer and society, life-long learning, it is required to look beyond the curricular activities. The committee takes into account the required activities to fulfill the stated program outcomes through co-curricular and extra-curricular activities. Such co-curricular and extra-curricular activities are organized by individual departments through student associations. The recommendation of the committee was approved by the LMC and GB and accordingly, institute organizes event under the banner "Technovision".

This annual technical festival provides opportunity to the students to learn and exhibit their hidden talent and potential. Through this event, the mega team of organizers learns and exhibits many of the attributes such as, planning, hard work, team spirit, leadership, finance management, manpower management, resource management, coordination, communication, selection of appropriate activities addressing social issues. Each activity of the event is planned, organized and executed by group of students thereby providing opportunity to large number of students to learn leadership skills. The effectiveness of the students along with the faculty committee in preparing the event report and settling the account also exhibits the success of the event.

| Sr. No.                         | Committee | Role                          |
|---------------------------------|-----------|-------------------------------|
| <b>File Description</b>         |           | <b>Document</b>               |
| Any additional information      |           | <a href="#">View Document</a> |
| Link for Additional Information |           | <a href="#">View Document</a> |

### 6.3 Faculty Empowerment Strategies

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

##### Response:

Following is the list of Welfare Schemes available in our institute:

- Provident Fund Facility for Staff
- Group Insurance for all Staff
- Medical facility for Staff
- Transport Facility to 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
- Accommodation facility for non-teaching staff
- 100% revenue generated out of consultancy is distributed amongst the concerned team
- Institute bears 100% of patent filing fees in case of joint patent with institute
- Provision to finance deserving activities of the faculty members
- Financing professional memberships of any one professional chapter
- Financing the faculty membership who act as faculty advisor of student chapters

|                                 |  |                               |
|---------------------------------|--|-------------------------------|
| <b>File Description</b>         |  | <b>Document</b>               |
| Any additional information      |  | <a href="#">View Document</a> |
| Link for Additional Information |  | <a href="#">View Document</a> |

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

**Response:** 33.76

6.3.2.1 Number of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies year-wise during the last five years

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 76      | 43      | 70      | 39      | 31      |

| File Description                                                                                                    | Document                      |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Details of teachers provided with financial support to attend conferences, workshops etc during the last five years | <a href="#">View Document</a> |
| Any additional information                                                                                          | <a href="#">View Document</a> |

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

**Response: 5**

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 5       | 9       | 4       | 4       | 3       |

| File Description                                                                                                                        | Document                      |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Reports of the Human Resource Development Centres (UGC ASC or other relevant centres).                                                  | <a href="#">View Document</a> |
| Reports of Academic Staff College or similar centers                                                                                    | <a href="#">View Document</a> |
| Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff | <a href="#">View Document</a> |

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

**Response: 37.28**

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 33      | 68      | 141     | 27      | 26      |

| File Description                                                                           | Document                      |
|--------------------------------------------------------------------------------------------|-------------------------------|
| Reports of the Human Resource Development Centres (UGC ASC or other relevant centers).     | <a href="#">View Document</a> |
| IQAC report summary                                                                        | <a href="#">View Document</a> |
| Details of teachers attending professional development programs during the last five years | <a href="#">View Document</a> |
| Any additional information                                                                 | <a href="#">View Document</a> |

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

#### Response:

Performance appraisal system is developed and implemented as per the guidelines of the UGC where all the aspects required to evaluate the faculty performance like Teaching learning, co-curricular and extra-curricular activities and research component are incorporated appropriately. Recently, the Academic Performance Index (API) is introduced in online fashion which has brought efficiency and transparency in the process. Based on the API, institute decides the corresponding line of action such as, rewards to the faculty members, recognition to the faculty members, training to the faculty members in identified domain or the notices for improvement as per the case. It is observed that, since introduction of API, the faculty got the definite direction to work with target. Also, the faculty members on their own seek guidance and training as per their need to fulfill their tasks effectively and efficiently. By the end of the year, faculty members are supposed to fill the API and provide the appropriate proofs for their claims. The claim made by the faculty members are verified by the Head of Department (HOD) and put up observations. Further, the faculty claims and HOD's evaluation are evaluated by the Principal and finally the remarks are given for management considerations.

Similar online performance appraisal system is in existence to evaluate the performance of non-teaching staff of the institute. The performance of non-teaching staff is evaluated against their defined portfolio. The staff member provides the data online about performance which is verified by the concerned superior. Also, the superior provides the remarks about performance of the staff member. Finally, the performance of staff is evaluated by the Principal.

Thus the system of online performance evaluation provides effectiveness, efficiency, and transparency in the process.



| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |

## 6.4 Financial Management and Resource Mobilization

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

#### Response:

Institution believes that it has effective and robust in-house mechanism for financial audit. However, like to have opinion of third party too. Till date institutional financial audit is carried out by Chartered Accountant (CA) by Corporate Office.

The observations and comments of CA are taken into considerations and implemented immediately. Similarly financial assistance and remuneration received from SPPU is separately audited by external CA and audited balance sheet is submitted to SPPU for the approval.

The funds received from non-governmental organization (Consultancy, Resource sharing) is separately deposited and utilized for said activity. This account is separately audited and report is submitted to respective non-government organization for information.

All the departments having departmental association where students contribute for department specific co-curricular and extra-curricular activities. This account is also audited and audited balance sheet is displayed on notice board for information of all students.

Funds received from reservation are required to distribute all the students in their account. This account is also verified and audited by government regularly.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

Response: 17.1

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 4.76    | 4.38    | 4.63    | 2.74    | 0.59    |

| File Description                                                                         | Document                      |
|------------------------------------------------------------------------------------------|-------------------------------|
| Details of Funds / Grants received from non-government bodies during the last five years | <a href="#">View Document</a> |
| Annual statements of accounts                                                            | <a href="#">View Document</a> |

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

##### Response:

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. Fund generation through Internal Revenue Generation (IRG) for laboratory strengthening
5. “Dr. Punjabrao Deshmukh Vastigruh Nirvah Bhatta scheme” for student accommodation
6. Mobilizing resource for infrastructure development through UGC, AICTE, and MHRD schemes
7. Financial contribution of alumni for institutional development
8. Societal contributions and donations for institutional development
9. Raising funds for R & D activities through corresponding agencies

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.



| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

## 6.5 Internal Quality Assurance System

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

#### Response:

The best practices institutionalized as a result of IQAC initiatives are elaborated below:

- 1. Laboratory Preparation:** Towards the end of June 2016, IQAC through its audit found that there exists need to strengthen the laboratory preparation to achieve the course outcomes. Some of the lacunae that were observed from quality perspective are, availability of standards in the laboratory, implementation of industrial practices and availability of standard experimental results. To overcome this, IQAC has recommended to implement a scheme called "Laboratory Preparation". This scheme would ensure correct functioning of all the instruments and setups, availability of standard results of the experiments validated by the corresponding faculty members, availability of required setup as per curriculum fulfilling the need of pre-requisite and gaps, if any. Also, in case of requirement, due care is taken to fulfill the need of value added courses or add-on courses. Also, the scheme demands to have the operational procedures displayed near setups/along with setups so that it becomes guide for the students for conducting the experiments on their own. This will provide opportunity to the students to conduct the experiments of his choice under supervision of faculty. This practice has boosted students' confidence to undertake new practicals. Also, it has helped the faculty members to verify the outcomes of the candidates and help them if they are lagging. This has saved faculty's time in explaining each and everything to the candidate and has provided an opportunity to resolve students' problems. Further it resulted in two more advantages, viz., making the students life-long learner by imbibing the habit of self-learning and the second advantage is system becomes more student centric. The claim of having adopted the outcome based education system is also supported through the activity. The spirit of team work and knowledge sharing is also flourished through the activity. Students started sharing the experience gained through practical with each other.
- 2. Faculty Development Program:** The quality of training imparted depends on the skill and competency of the faculty members. The faculty members must be aware of contemporary requirements. However, the schedule of the institute and the university related work makes faculty schedule very tight. Taking into account these two factors, IQAC has recommended to impart training to the faculty members at institute itself rather than deputing individual or few faculty members at other locations. Also, such a practice will orient all the faculty members towards the objectives of the institute and in turn, towards mission and vision. Institute has developed courses on teaching methodologies, educational administration, student interaction and research and development. Identifying appropriate time slot and need of the institute, these courses are offered to the faculty members in workshop mode which ensures learning and implementation. To cite an

example, training is imparted to the faculty members for developing digital learning material for students which first year students are using optimally.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

##### Response:

Taking into account the need of society and learner, Internal Quality Assurance Cell (IQAC) has decided to bring-in reforms in teaching learning process. To cite the examples, following are the cases:

- Enhancement of course file:** The effectiveness of teaching-learning process is contributed by faculty preparation for the given set of students. The aspect of student capabilities, their learning styles, and faculty preparation for these result in good academics. Thus, IQAC has recommended developing enhanced course file accommodating learning requirement of diversified students. While developing the course file, IQAC expects that, it should address the need of self-learning of the students, need of the students with read and write style, observe and learn, and experience and learn. The index of the course file offered to the faculty members for preparation reflects the need fulfillment. The items like, tier assignments, work book, case studies, video links, reflect coverage of all categories of teaching and learning tools. The important part of the course file is teaching learning and assessment plan. This plan conveys information to the students about teaching method being adopted by the faculty member to deal with given topic, the reference material for the students, activities undertaken by the faculty members to teach, activities expected from students during teaching to learn and finally, it conveys information about the assessment methodology and tool being adopted by the faculty members. This information available in advance provides opportunities to all the stake holders, viz., laboratory in-charge, department, institute, and the students to prepare themselves well in advance so as to achieve the expected outcome without hurdles.
- Use of interactive digital teaching learning material:** As per the recommendation of IQAC, institute has decided to switch over from traditional teaching learning process to student centric system. However, this switchover demands changes in many of the domains, one of which is availability of corresponding teaching learning material. The major challenge to make this teaching learning material available was staff training to develop the corresponding material. The required training is imparted to the faculty members by the training team of the parent organization. Also, the required infrastructure for developing such teaching learning material is made available at the institute. This infrastructure includes hardware, like, high end multimedia ready PCs, software like, Raptivity, high end DSLR cameras and high end video cameras. With the help of developed infrastructure, training imparted and the support extended, faculty members have designed and developed excellent highly interactive teaching learning material suitable for student centric system. The adaptation of these materials has exhibited improved interest of faculty members and

students with respect to their roles. Students are observed to be involved highly in learning process and are demanding more such tools which reflect the success of the teaching learning material adaptation.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

### 6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year

**Response:** 8.2

6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 7       | 13      | 5       | 11      | 5       |

| File Description                                                             | Document                      |
|------------------------------------------------------------------------------|-------------------------------|
| Number of quality initiatives by IQAC per year for promoting quality culture | <a href="#">View Document</a> |
| Any additional information                                                   | <a href="#">View Document</a> |
| IQAC link                                                                    | <a href="#">View Document</a> |

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

- 1.Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback collected, analysed and used for improvements
- 2.Academic Administrative Audit (AAA) and initiation of follow up action
- 3.Participation in NIRF
- 4.ISO Certification
- 5.NBA or any other quality audit

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

**D. Any 1 of the above****Response:** A. Any 4 of the above

| File Description                                            | Document                      |
|-------------------------------------------------------------|-------------------------------|
| e-copies of the accreditations and certifications           | <a href="#">View Document</a> |
| Details of Quality assurance initiatives of the institution | <a href="#">View Document</a> |
| Annual reports of institution                               | <a href="#">View Document</a> |

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

## 1. Academic improvement:

| Particulars                   | 2013-14                                 | 2014-15                                                                  | 2015-16                                                                                                                                  | 2016-17                                               | 2017-18                                 |
|-------------------------------|-----------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------|
| Evaluation reforms            | Fully internal barring university exams | Involvement of third party student evaluation along with university exam | Introduction of co-guides from industries for project related activities and evaluation                                                  | Credit based system is introduced for first year      | Evaluation on outcome                   |
| Teaching learning approach    | Traditional teaching learning approach  |                                                                          |                                                                                                                                          | Student centric approach                              | Focus on learning                       |
| Teaching learning methodology | Traditional                             |                                                                          | Adaptation of methodologies like, project based learning, experience learning, training model, concept through learning through practice | Adaptation of improved methodology, learning by doing |                                         |
| Learning support              | Traditional                             |                                                                          | Focus on group through GFM activity                                                                                                      |                                                       | Additional through L MOODLE             |
| Teacher student contact hours | As per norms of university              |                                                                          | Additional four hours per week as compared to university norms                                                                           |                                                       | Availability teacher support through MO |

## 1. Administrative improvement

| Particulars         | 2013-14     | 2014-15 | 2015-16                                     | 2016-17                          | 2017-18    |
|---------------------|-------------|---------|---------------------------------------------|----------------------------------|------------|
| Faculty performance | Traditional |         | Addition of Curricular and extra-curricular | Additional weightage to research | Online app |
| Academic monitoring | Through HOD |         | Through AMC                                 | Online through MOODLE            |            |

|                             |                                |                               |              |
|-----------------------------|--------------------------------|-------------------------------|--------------|
| Governance                  | Traditional                    | Semi Automation               | E-Governance |
| Purchase                    | Traditional at institute level | Central Purchase process      | E-tendering  |
| Maintenance                 | Traditional                    | Centrally                     |              |
| Infrastructural improvement | As per the norms               | As per industry requirement   |              |
|                             |                                |                               |              |
| <b>File Description</b>     |                                | <b>Document</b>               |              |
| Any additional information  |                                | <a href="#">View Document</a> |              |

NAAC

## Criterion 7 - Institutional Values and Best Practices

### 7.1 Institutional Values and Social Responsibilities

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

**Response:** 19

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 5       | 5       | 4       | 3       | 2       |

| File Description                                                      | Document                      |
|-----------------------------------------------------------------------|-------------------------------|
| Report of the event                                                   | <a href="#">View Document</a> |
| List of gender equity promotion programs organized by the institution | <a href="#">View Document</a> |

#### 7.1.2

##### 1. Institution shows gender sensitivity in providing facilities such as:

1. Safety and Security
2. Counselling
3. Common Room

**Response:**

The Institute has recognized the distinct aspects of education from gender perspective namely understanding gender education and its outreach and means/methods of sensitization and spreading awareness regarding gender rights, equity and equality, to build moral value based education system that inculcates right ethics and morals based on righteousness of conduct and sense of responsibility of every action.

Every year Institute renew insurance policy for girls and boys. Under this insurance if Mother/Father/legalparents faced an accidental death or disability (Hand, Leg, Eye) and if parents will not be able to do service, Business then to avoid students education loss insurance will take care of His/her Education (College Education Fees, Hostel Fees, Books Fees, Exam Fees, Uniform Fees).

In case of emergency Institute has its own independent Ambulance Facility in the campus.

Anti-Ragging committee and Women grievance cell exist in the institute to resolve students' grievances.

Institute and hostel buildings are having Fire safety equipments and the firefighting equipment's are maintained regularly.

The institute is having separate boys and girls hostel in the premises for which hostel rectors are responsible for ensuring safety and security of the students. To monitor in time and out time separate biometric attendance machine is installed on the gate which communicate the status on their parents mobile. Girls have to take the permission on gate pass from rector to go outside more than scheduled time. Ladies and gents security guards are working 24X7.

Institute campus including main gate, corridors, examination section, and entry of all buildings, canteen, library and hostels are monitored by CCTV cameras.

Transport facility is available from all corners of Pune for day scholar and on weekends for hostilities. First aid box containing medicines for fever and cold, pain killer, bandage, antiseptic liquid, pain reliever is available at suitable places in institute.

**Counseling:** Through Guardian Faculty Member (GFM) Institute provides academic, co-curricular and extra curricular activity counseling of the students regularly. Professional counselor of the institute delivers common counseling sessions to all the students. For handling crucial cases professional counselor is available in the institute, who carry out the counseling as per the need.

**Common Room:** As per the AICTE norms institute is having separate girl's common room, and boy's common room. In case of medical emergency separate sick room is available along with all necessary facilities.

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |

### 7.1.3 Alternate Energy initiatives such as:

#### 1. Percentage of annual power requirement of the Institution met by the renewable energy sources

**Response:** 18.34

#### 7.1.3.1 Annual power requirement met by the renewable energy sources (in KWH)

**Response:** 76200

#### 7.1.3.2 Total annual power requirement (in KWH)

**Response:** 415454



| File Description                                                                | Document                      |
|---------------------------------------------------------------------------------|-------------------------------|
| Details of power requirement of the Institution met by renewable energy sources | <a href="#">View Document</a> |
| Any additional information                                                      | <a href="#">View Document</a> |
| Link for Additional Information                                                 | <a href="#">View Document</a> |

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

**Response:** 7.94

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

Response: 19200

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 241713

| File Description                                             | Document                      |
|--------------------------------------------------------------|-------------------------------|
| Details of lighting power requirements met through LED bulbs | <a href="#">View Document</a> |
| Any additional information                                   | <a href="#">View Document</a> |

#### 7.1.5 Waste Management steps including:

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

**Response:**

##### **Solid Waste:**

Institute is having contract with M/s A-One company, Pune, as external agency for solid waste. Remaining solid waste is collected in common pit for environment friendly disposal. Biogas plant of 2m<sup>3</sup> capacity is available in the institute for canteen (kitchen) solid waste management. It consumes 25kg of kitchen waste and generating 3.5kg of gas daily. The effective benefit from biogas plant is Rs. 2200/- per month. Institute takes initiative to segregate solid waste into different buckets viz. plastic pens, refills, water bottles, natural waste, stationary papers. In ladies toilet separate sanitary waste vending machine is available.

Solid waste generated in workshop is sold out to M/s A-one company Pune, for recycling purpose.



**Liquid Waste:**

There is no hazardous liquid waste generated in the institute. Adequate exhaust fan provisions are made in the laboratories like Basic Chemistry and Environmental Engineering to drive out acid fumes and diluted/neutralized chemicals are and then discharged. Used oils/coolant in workshop and different departmental machines are collected and disposed off separately.

Waste water is collected from each building through drainage lines up to the Sewage Treatment Plant (STP) of 500kLD provided in the campus and recycled water is use for gardening purpose. Also hard water generated from water treatment (RO) plant is used for gardening purpose. Septic tanks are provided for each building to treat the effluent generated from water closets (WC).

Thus, institute is trying to maintain eco-friendly and healthy environment.

**E-waste Management:**

Electronic and computer accessories which are write-off by respective department sold to licensed vendor "National Traders, Handewadi, Hadapsar". Efforts are taken to ensure national e-waste policy implemented by vendor during write off. Awareness of E-waste hazards is created in institute by displaying charts.

The non-working computer spare parts, electronic scrap components and other nonworking equipments are used for practical purpose in order to explain configuration/inside view to the students which they used to study in their theory lectures.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

**7.1.6 Rain water harvesting structures and utilization in the campus****Response:**

Institute is aware about the technique that, rain water harvesting (RWH) is one of the most effective methods of water management and water conservation. From all roof tops of campus building; rain water is collected through separate pipeline which connects to recharge pit, provided for infiltrating/recharging water into the ground water table. This infiltration through recharge pit is increasing water level of bore wells making more quantity of water available for utilization. Also water will be available from bore well throughout the year. The institute has implemented rainwater harvesting, which has saved significant amount of water expenses in borrowing water through tankers.

This conserved water by RWH is utilized for drinking and domestic purpose in institute campus and also for gardening purpose through drip irrigation for trees and sprinkler irrigation for lawn in campus.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

### 7.1.7 Green Practices

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

#### Response:

Institute takes initiative for creating environmental consciousness among faculty members, staff and students. Environment in the institute is clean and green providing conducive atmosphere (silent zone) for academic activities. Environmental awareness amongst students and society is inculcated through events like 'Green Pune Clean Pune'. Institute celebrates 'World Environment Day' on 5th June every year. Institute also conducts green audit through external agency.

Initiatives taken by the institute to make the campus eco-friendly-

1. **Use of Bicycles:** Institute observes bicycle day to create awareness for avoiding noise and air pollution. Use of bicycles helps in maintaining the physical fitness of staff and students so as to increase the efficiency of work. It also reduces the fuel consumption of nation, thus it reduces the foreign exchange to be spent on importing fuel.
2. **Use of public Transport:** Institute provides transport facility to students and faculty as per their need to reduce the usage of individual's vehicles, which indirectly reduce noise and air pollution. Carpooling is encouraged for conveyance of faculty for attending college also common activities like university work, DTE work and visiting corporate office. In all the departments, faculty shares individual vehicles for day to day travelling. Apart from this public transport facility is made available near the institute premises.
3. **Pedestrian Friendly Roads:** All the buildings are properly connected with well-planned pedestrian friendly roads. From the institute entrance gate a special anti-skid pavement block road is provided for pedestrian to reach office building without any traffic hindrance. Road side plantation is done for pedestrian roads.
4. **Plastic Free Campus:** Institute is encouraging the policy of minimizing the use of plastic in college premises. Plastic cup used for serving tea is completely banned in college canteen.
5. **Paperless Office:** Efforts are made through MOODLE in which all study material of all subjects is provided to the students in soft copy thereby supporting minimum use of paper. We are also conducting practice of online examination using MOODLE which reduces use of paper. Internet facility is provided to all for paperless working.

**Green Landscaping with trees and plants:** Institute has developed lush green campus by implementing green landscaping, tree plantation all around the infrastructures. Around 500 trees are planted by students

and well maintained through NSS activities. Lawn of nearly half acre is provided near the entrance which creates pleasant view of institute.

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Any additional information      | <a href="#">View Document</a> |
| Link for Additional Information | <a href="#">View Document</a> |

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

**Response:** 2.63

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 17.07   | 13.71   | 10.32   | 18.48   | 13.05   |

| File Description                                                                            | Document                      |
|---------------------------------------------------------------------------------------------|-------------------------------|
| Green audit report                                                                          | <a href="#">View Document</a> |
| Details of expenditure on green initiatives and waste management during the last five years | <a href="#">View Document</a> |

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

1. Physical facilities
2. Provision for lift
3. Ramp / Rails
4. Braille Software/facilities
5. Rest Rooms
6. Scribes for examination
7. Special skill development for differently abled students
8. Any other similar facility (Specify)

**A. 7 and more of the above**

**B. At least 6 of the above**

**C. At least 4 of the above**

**D. At least 2 of the above****Response:** A. 7 and more of the above

| File Description                                       | Document                      |
|--------------------------------------------------------|-------------------------------|
| Resources available in the institution for Divyangjan  | <a href="#">View Document</a> |
| Any additional information                             | <a href="#">View Document</a> |
| link to photos and videos of facilities for Divyangjan | <a href="#">View Document</a> |

**7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years****Response:** 28

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 7       | 7       | 7       | 4       | 3       |

| File Description                                                                  | Document                      |
|-----------------------------------------------------------------------------------|-------------------------------|
| Number of Specific initiatives to address locational advantages and disadvantages | <a href="#">View Document</a> |
| Any additional information                                                        | <a href="#">View Document</a> |

**7.1.11 Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)****Response:** 12

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

| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|---------|---------|---------|---------|---------|
| 3       | 3       | 4       | 1       | 1       |

| File Description    | Document                      |
|---------------------|-------------------------------|
| Report of the event | <a href="#">View Document</a> |

**7.1.12**

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

**Response:** Yes

| File Description                                                                                                             | Document                      |
|------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Any additional information                                                                                                   | <a href="#">View Document</a> |
| URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics | <a href="#">View Document</a> |

**7.1.13 Display of core values in the institution and on its website**

**Response:** Yes

| File Description                                 | Document                      |
|--------------------------------------------------|-------------------------------|
| Any additional information                       | <a href="#">View Document</a> |
| Provide URL of website that displays core values | <a href="#">View Document</a> |

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

**Response:** Yes

| File Description                                                                                | Document                      |
|-------------------------------------------------------------------------------------------------|-------------------------------|
| Details of activities organized to increase consciousness about national identities and symbols | <a href="#">View Document</a> |
| Any additional information                                                                      | <a href="#">View Document</a> |

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

**Response:** Yes

| File Description                                                                         | Document                      |
|------------------------------------------------------------------------------------------|-------------------------------|
| Any additional information                                                               | <a href="#">View Document</a> |
| Provide link to Courses on Human Values and professional ethics on Institutional website | <a href="#">View Document</a> |

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

**Response:** Yes

| File Description                                                                            | Document                      |
|---------------------------------------------------------------------------------------------|-------------------------------|
| Any additional information                                                                  | <a href="#">View Document</a> |
| Provide URL of supporting documents to prove institution functions as per professional code | <a href="#">View Document</a> |

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

**Response:** 42

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
| 10      | 9       | 11      | 8       | 4       |

| File Description                                               | Document                      |
|----------------------------------------------------------------|-------------------------------|
| List of activities conducted for promotion of universal values | <a href="#">View Document</a> |
| Any additional information                                     | <a href="#">View Document</a> |

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

**Response:**

Institution organizes every year various National Festivals and Birth Anniversaries of the great Indian personalities as follows:

**Republic Day and Independence Day:** Every year institute celebrates Republic Day and Independence Day with great pomp where all staff and students from Diploma, Engineering and School gather at one campus along with the Office Bearers. We dedicate these days to all those brave leaders and freedom fighters who gave freedom to our country. The program starts with Flag Hosting at the hands of Chief Guest usually a personality from Social Political Background followed by National Anthem. March Past, Patriotic songs, and various acts and skills are presented to the gathering by the school students.

**Mahatma Gandhi Jayanti:** Mahatma Gandhi is referred to as National Father who devoted his whole life preaching Truth and following Ahimsa. The NSS volunteers organizes the mass pledge in institute in accordance with the Prime Minister's urge for 'Swaachh Bharat Abhiyaan', Also they willingly come on the grounds with the brooms and do sweeping and cleaning on the institute grounds. Also the events like tree plantation have been done.

**Shiv Jayanti:** "Shiv Jayanti", the birth anniversary of "Chhatrapati Shivaji Maharaj", is being celebrated with traditional fervour in the institute. Shivaji was born in Shivneri Fort in Junnar which is 100 km east of Mumbai. Shivaji Maharaj a great Maratha warrior and administrator, is indeed a source of inspiration to all Indians. Institute celebrates Shivaji Maharaj Jayanti every year on February 19 where rally's organized and acts are displayed to commemorate our respect towards Maharaj. The "Shiv Jayanti" celebrated to encourage the students about the sacrifice for nation & the management policies used in that era.

**Teachers Day:** The birth date of the second President of India, Dr. Sarvepalli Radhakrishnan, 5 September 1888, a great teacher and a staunch believer of education, known for his contribution towards the education system in India has been celebrated as Teacher's Day since 1962. The program begins with the Sanskrit Prayer; program coordinator provides brief introduction and significance of celebrating Teacher's Day. The chief guest addresses the gathering and empathizes the role of teachers in everyone's life. On this day, teachers are got appreciation from management and higher authorities also felicitation of teachers done by the students.

**Ganesh Chaturthi:** Ganesh Chaturthi is the national festival celebrates "Lord Ganesha" as the God of New Beginnings and the Remover of Obstacles as well as the god of wisdom and intelligence. Our institute too celebrates Ganesh Chaturthi for the duration of five days with full fervour. On the last day of the festival, there's Satya Narayan Pooja & Mahaprasad. The immersion ceremony called 'Visarjan' is magnificent with students dancing on beats of dhol-tasha pathak and walking towards to immerse the figurines.

Along with this institute used to organized programs on the birth/death anniversaries of great indian personalities like Dr. B R. Ambedkar the writer of Constitution of India, Sir Vishveshwarayya an eminent engineer, on Engineer's Day, etc. and national festivals like Dasara, Diwali, etc.

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |



**7.1.19 The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions****Response:****Transparency**

Every policy run by institute is transparent. Considering financial policy, for every academic year budget has sanctioned for individual program and same is displayed. Purchasing is done through a proper channel and after verifying at least two quotations. The budget provision is made for technical event like Technovision, Guest Lecture, Industrial visits etc. and also for cultural activities like Kala rudra, flash mob etc. Institute also provide budget for inter institute sports and cultural activities like MIT Summet, Reliance foundation Trophy, Purushottam Karandak, Sarpotdar Karandak etc. All the funds are utilized by students. Considering student section institute tuition fees, Stationary fees and any other fees related to academics for every student is to be paid at Jayawant Multistate Credit Co-operative Society, Narhe strictly and challan for fees are clearly indicating its particulars.

Academic policy includes academic calendar, load distribution, time table, portfolio allotment, continuous assessment scheme, academic monitoring committee; yearly academic annual report is maintained and discussed. Academic calendar is prepared and displayed before commencement of term. The Academic transparency is maintained through MOODLE system. Faculty's share assignments, Lab Manuals, MCQs and Question banks with the students through MOODLE. Every Student having MOODLE Login ID and by using this student can get their academic performance (Attendance, Unit test Marks). The defaulter list is displayed on the notice board periodically. Continuous assessment was done and communicated to the student. Term work marks are also displayed on Notice Board. Feedback from students, alumni, Stake holders are taken regularly, which is used for effective mechanism of the institute.

Institute and Departmental Organization Charts are available before commencement of academic year for administrative purpose. Administrative policy includes management interaction with faculty or concern peoples for implementing every policy decision e.g. faculty development programs, seminars, annual gathering and social awareness activities in addition to this HR manual is also available. De-centralization is properly maintained from higher authority to staff members. Every department administration includes audited student associations.

Auxiliary functions like safety and security provisions are made for the students in campus by appointing security persons, first aid kit and ambulance facility are available in college. Professional counselors are appointed to solve the personal problems of students. Guardian Faculty Member is solving student academic related issues. Also Free parking facility is providing for students, staff and visitors in the institute. Institute's infrastructure like playground is utilized for social, sports and cultural programs.

In addition to above the Institution have 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.



| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |

## 7.2 Best Practices

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

#### Response:

#### 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 sub divided 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 the institute 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 to the students at multiple levels in order of 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:**

To connect with the students, teachers must increase interpersonal connectedness in their classrooms. Connected teachers are welcoming, able to identify student's need and potential, respectful of student input, and engaged in each student's success. These teachers are supportive and create a caring, structured environment with high and clear expectations.

For achieving interpersonal connectedness, one teacher is nominated as 'Guardian Faculty Member (GFM)' for each batch of students. The GFM regularly monitors the attendance and academic performance and maintains all the relevant records of students in a systematic way. GFM is available to student and parents outside the class to share their problems. GFM develops family ties by communicating regularly with families about student's achievements and challenges. This scheme helps break the barrier amongst the students, teachers and parents and release some burden off the parents.

- **Physical and emotional safety:**

By creating a zone of physical, emotional and academic safety promotes a positive college environment. Creating this safety zone involves implementing strategies that encourage students to feel valued and competent and to act with pride and respect for college policies and property. In such an environment, students have fewer behavioral problems and find it easier to create interpersonal connections with their teachers and peers.

GFM as a mentor to students and offers them emotional and academic support along 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 guiding students regarding time management, stress management, psychological and personal issues like depression, anxiety and loneliness. Identified cases are forwarded to the professional counselor for counseling. Additionally, students can also contact the counselor independently and anonymously for one on one counseling. Tutor is for providing self-awareness to develop strengths and control weaknesses. Also build the students for personal and professional goals with short term and long term plans.

### **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.

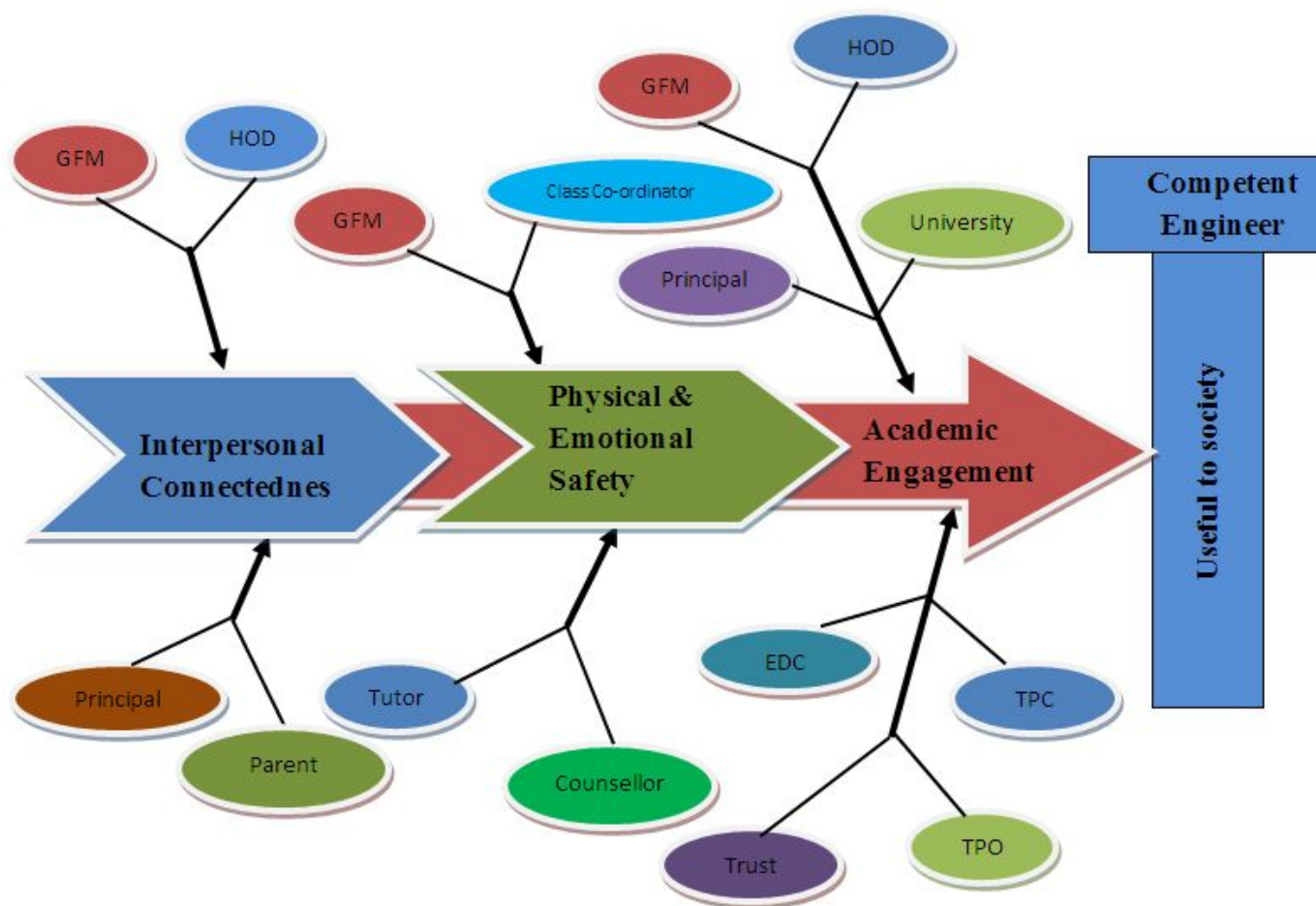


Figure 7.2.1a Multilevel Monitoring of Students

## 2. Title of the practice

In-house Development of Digital Teaching-Learning Resources

### 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 interaction with renowned professors and researchers of national importance to understand the critical issues of application area via. virtual classrooms

### The context

The improvement in the quality of engineering education largely depends on the nature and quality of learning rather than good credits. Sound knowledge of theory and practical is essential for any successful engineering graduate which is missing in the present education. It is therefore essential 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 which can significantly augment the conventional teaching learning process.

In-line with outcome based education, to enhance the learning ability and inculcate the engineering knowledge, it is necessary to change the attitude towards academics by using advanced ICT tools like, Learning Management System – MOODLE, Self-learning Laboratories, VC Lectures and Online Video Recordings of theory and laboratory sessions.

### The practice

Learning Management System – MOODLE, which is free and open-source software used in the institute. Learning material such as lecture notes, laboratory manuals, presentations, university question papers with solutions, e-books, tutorials, videos and quizzes, etc. is made available on MOODLE portal by respective subject coordinator. Some task in the form of assignments, mini projects, quizzes are given to students so as to add value in improving their practical as well as intellectual skills. Quizzes are conducted to evaluate and identify the level of the student which helps the subject teacher to guide them appropriately. MOODLE is available as a mobile app (application), which is highly beneficial for students to have 24x7 accesses to the learning material. Other communication media such as WhatsApp, Google groups, text messages are also used by the faculty members for faster communication and information dissemination. Feedback system developed on MOODLE can help students to give feedback about faculty member and head of department which helps in academic auditing of staff.

Video lectures have become an important part of the higher education. It is integrated as part of traditional courses, serves as a cornerstone of many blended courses, and is often the main information delivery mechanism in MOOCs. With videos, students can go at their own pace. They can pause, repeat small sections of the entire videos, and they can return to it at a later time if they forget any of the key tips. Being able to watch 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 YouTube.

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 student's learning. Sometimes students get bored of the teacher's 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. This will in turn boost the confidence and enhance the learning ability of the students.

### **Evidence of success**

- Learning Management System on Moodle
- Staff and students login
- VC lecture photos and attendance
- Utilization of self-learning lab
- Use of YouTube link

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

- New faculty need to be trained
- Extra efforts required for development of ICT based learning material

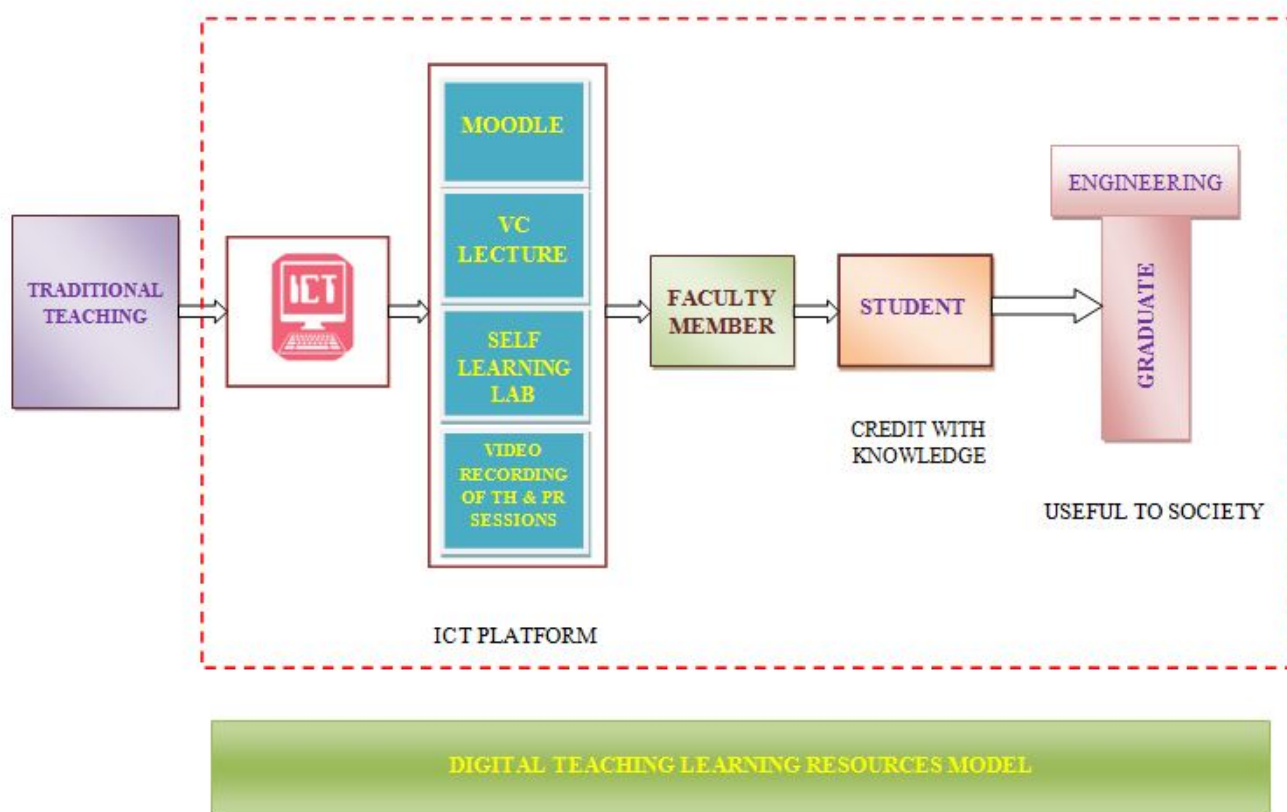


Figure 7.2.1b In-house Development of Digital Teaching-Learning Resources

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Link for Additional Information | <a href="#">View Document</a> |

### 7.3 Institutional Distinctiveness

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

##### Response:

##### Title: Need based Professional Skill Development

The institute is always aiming to focus on the importance of effective training and workforce development programs as part of a broader policy to increase the competitiveness of institute graduates. The continuous technological changes and increasing global competition have created great opportunities for the fresh graduates, only there is need of development of new and more productive workforce as per the requirement of industry and job prospects. Institute is planning and conducting several long term training for the graduates based on industry requirement.

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 has 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 2017-18. 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 INR 2.6 Lakhs per annum.



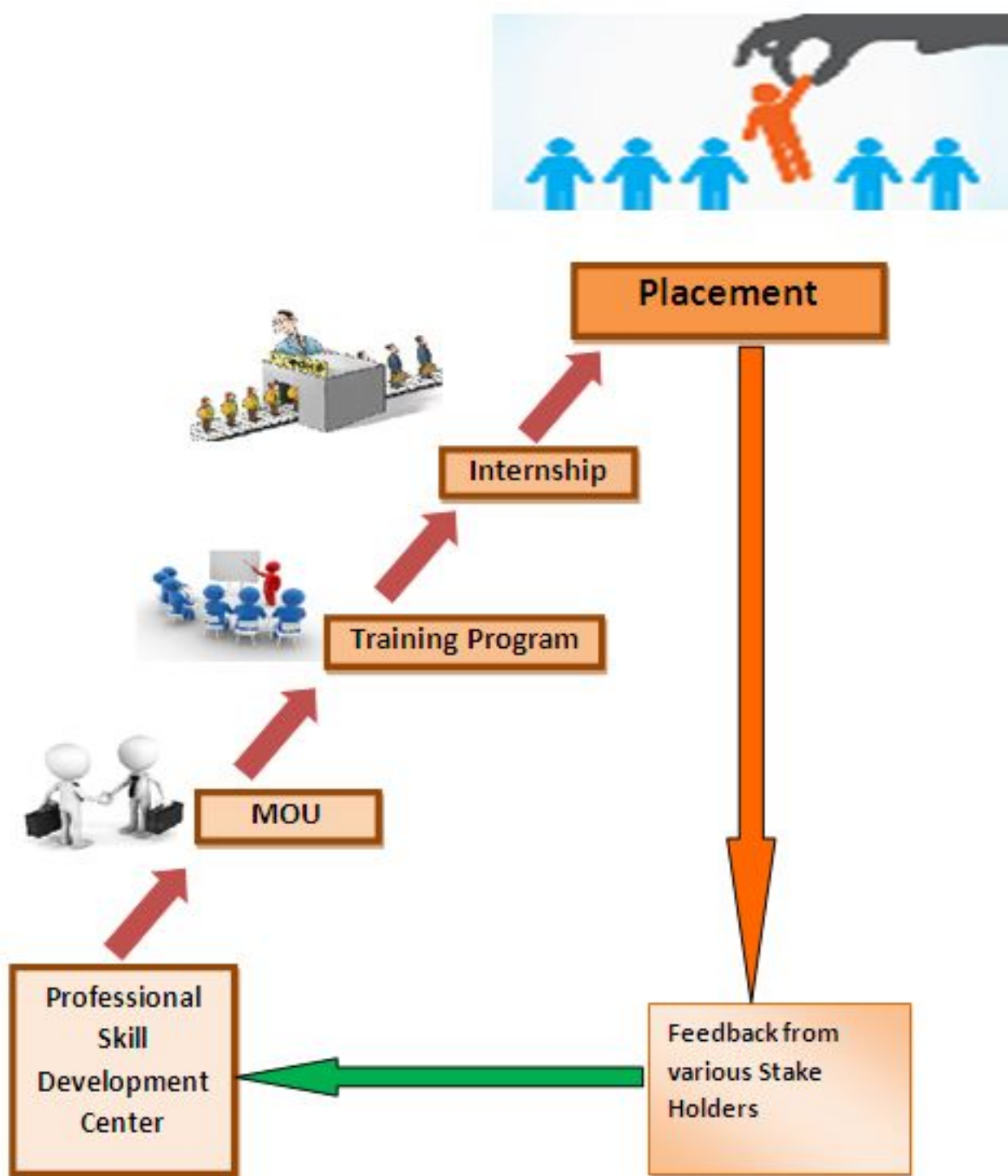


Figure 7.3 Need based Professional Skill Development

| File Description                | Document                      |
|---------------------------------|-------------------------------|
| Link for Additional Information | <a href="#">View Document</a> |



## 5. CONCLUSION

---

### Additional Information :

The Institute has state of the art infrastructure, well qualified, experienced and skilled faculty members. The institute has policy to promote faculty and staff members for quality improvement. In line with student centric policy of the institute, we focus on enhanced teaching learning process with emphasis on extra and co-curricular activities for holistic development of students. The unique features of the institute are evident from the following initiatives:

- In-house facility for internship / short training.
- Excellent academic track record of students in university examinations.
- The institute has signed MOUs with industries, research organizations and foreign university like University of Bandung, Indonesia.
- The institute provides facilities for hands on through campus agreements of licensed softwares like, Creo, Master Cam, Ansys, Primavera, Microsoft all softwares of Bentley Institute.
- Video conferencing and smart board facility for enhancing teaching learning process.
- The institute has taken a step towards green initiative by installing Water Treatment Plant, Sewage Treatment Plant, Bio Gas plant, Rain water harvesting and solar system.

### Concluding Remarks :

The vision and mission of the institute are precisely defined considering the techno economic development of society. The institute aims at developing an ecosystem to nurture academic excellence, research and entrepreneurship. To ensure all-round development of the student, appropriate platform is provided in terms of self learning laboratory, student chapters, industrial visits, project exhibitions, NSS, sports and art circle.

All the affairs of the institute are governed by the policies formulated by the Governing Body, College Development Committee (Formerly LMC), Internal Quality Assurance Cell, Academic Monitoring Committee and various institute level committees. The Institute has adopted policy of decentralization of work to maintain harmony among the concerned. The decision making process at the Institute level is initiated by the Principal and is finalized after brainstorming sessions with HODs, Administrative Head, Section in-charges and coordinators of various committees.

The overall governance and implementation of student centric policies lead to multidimensional development of the student. It plays a vital role to emerge students with flying colors such as university rankers, good performing employee in public and privets sector and entrepreneurs. Students also opt for higher studies at reputed institutes in India and abroad.