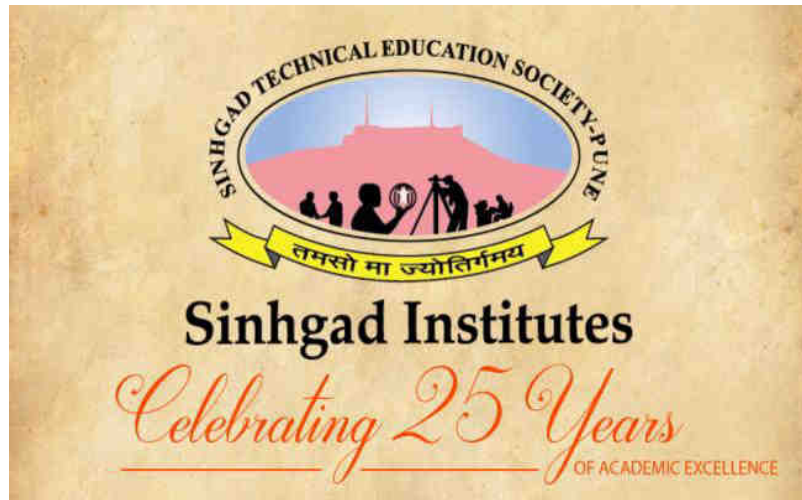# Annual Quality Assurance Report

AQAR (First) AY 2016-17

SINHGAD TECHNICAL EDUCATION SOCIETY'S

SINHGAD INSTITUTE OF TECHNOLOGY, LONAVALA

Submitted to

National Assessment and Accreditation Council

Bengaluru

Annual Quality Assurance Report (First)
Of Academic year 2016-17

Submitted to

National Assessment and Accreditation Council

Bengaluru

By

SINHGAD TECHNICAL EDUCATION SOCIETY'S

SINHGAD INSTITUTE OF TECHNOLOGY

Lonavala, Maharashtra

Gat No.309/310, Off. Mumbai – Pune Expressway,

Kusgaon (Bk), Lonavala – 410401, Tal – Maval, Dist – Pune, Maharashtra

e-mail: principal_sit@sinhgad.edu Website: www.sinhgad.edu

SINHGAD TECHNICAL EDUCATION SOCIETY'S

SINHGAD INSTITUTE OF TECHNOLOGY

(Affiliated to Savitribai Phule Pune University & Approved by AICTE)

Sinhgad Institutes   Gat No. 309/310, Kusgaon (BK.), Off Mumbai - Pune Express way, Lonavala, Dist Pune - 410 401.

PROF. M. N. NAVALE	**DR. (MRS.) SUNANDA M. NAVALE**	**DR. M. S. GAIKWAD**
M E (Elect.) MIE, MBA	B A, MPM, Ph D	M E, Ph D (Electronics Engg.)
Founder President	**Founder Secretary**	**Principal**

To,

The Director,

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

P. O. Box. No. 1075, Opp: NLSIU, Nagarbhavi,

Bengaluru - 560 072 India

capuaqar@gmail.com

Sub: Submission of first AQAR 2016-17

Res/Sir,

Greetings from Sinhgad Institute of Technology, Lonavala, Please find enclosed herewith, our Institute's first Annual Quality Assurance Report for the academic year August 2016 to Sept 2017. Our Track ID is MHCOGN26095. We are accredited with 'B++' grade during the NAAC peer committee visit in August 2016.

File name: http://w.w.w.MHCOGN26095-Sinhgad Institute of Technology Lonavala.doc

Kindly acknowledge the same.

Thanking You.

10th Oct 2017

Dr. M.S.Gaikwad

PRINCIPAL
Principal
SINHGAD INSTITUTE OF TECHNOLOGY
Kusgaon (Bk.), Lonavala-410 401.

Contents

PREFACE

Sinhgad Institute of Technology, Lonavala is pleased to present this **Annual Quality Assurance Report** (AQAR) to the National Assessment and Accreditation Council (NAAC), Bengaluru.

Sinhgad Institute of Technology (SIT) Lonavala was established in the year 2004. The Institute is recognised by All India Council for Technical Education (AICTE) New Delhi and Directorate of Technical Education (DTE) Government of Maharashtra. It is affiliated to Savitribai Phule Pune University (SPPU), Pune. The Institute is located at Lonavala, a popular hill station between two metros, Mumbai and Pune.

The institute runs five undergraduate courses and five postgraduate courses. Undergraduate courses include Mechanical Engineering, Electronics & Telecommunication Engineering, Computer Engineering, Information Technology, and Electrical Engineering. Post-graduate courses include Mechanical Engineering (Design Engineering), Electronics & Telecommunication Engineering (VLSI & Embedded Systems), Computer Engineering (Computer Engineering), Computer Engineering (Computer Networks), Electrical Engineering (Electrical Power Systems).

The faculty strives hard to impart knowledge to the students in order to enhance their competency. The institute has state of the art laboratories which are upgraded in tune with the updation of syllabus by SPPU Pune. The institute is fully residential which provides favourable environment and enormous learning opportunities for students. It fosters their research mindset and character building for a bright future so as to emerge as tomorrow's nation builders. Students are exposed to modern instruments and test facilities with well-equipped learning resources.

SIT believes in developing research culture in departments and supports innovative ideas from faculty and students. The extensive STPs are conducted to enhance the skills set and employability. Conduction of industrial visits, technical exhibitions and participation in various competitions are helpful to students in bridging the gap between industry and academia. Institute believes that it is contributing to engineering education; submission of this **Annual Quality Assurance Report** (AQAR) is a step towards assurance for quality in engineering education. While preparing this report we could very learn the status of our quality assurance program and we could analyse the gap between our planning and the goals achieved. This also helps to set the goal for coming academic year and efforts to be taken to satisfy that targets. We also understand that in current situation, Quality education to the students and faculty empowerment is the only way to sustain for long future.

Furthermore, institute is willing to assess its educational system and academic culture. In addition to it, it is essential for professional institute to receive stakeholder's perception towards teaching-learning process and supporting entities. Thus submission of this **Annual Quality Assurance Report** (AQAR) is a step towards self introspection leading to further development of the institute towards excellence.

Dr. M. S. Gaikwad

Principal

NAAC   Committee at Institute

Sr.No.	Name of Staff Member	Designation	Designation for Steering Committee
1.	Dr. M. S. Gaikwad	Principal	Chairman
2.	Dr. D. D. Chaudhary	Vice-Principal and Professor in E&TC Deptt.	IQAC Coordinator
3.	Dr. V. V. Shinde	Associate Professor & HOD Mechanical Engineering	NAAC Coordinator
4.	Mr. N.A.Lakal	Asst. Professor & Dean R & D	Member
5.	Dr. S. D. Babar	Professor & HOD Computer Engineering	Member
6.	Mr. V. V. Deotare	Associate Professor & HOD E& Tc Engineering	Member
7.	Dr.T.J.Parvat	Professor & HOD Information Technology	Member
8.	Dr. A.A.Kalge	Associate Professor & HOD Electrical Engineering	Member
9.	Dr. P. S. Patil	Associate Professor & HOD Engineering Sciences	Member
10.	Mr. Y. D. Jadhav	Training & Placement Officer	Member

Composition of the IQAC

Sr. No.	Name of the Member	Designation
1	Dr. M.S. Gaikwad, Principal	Chairman
2	Prof. M.G. Bhat, Dean Engineering (STES)	Management
3.	Prof. S.B. Pharkute Member AMC	Representative
4.	Dr. S.N. Merchant, IIT, Pavai, Mumbai	Member
5	Dr. Dilip S. More ADYPCOE Pune	Member
6.	Mr.Kaustubh Bhadbhade, Persistent, Pune	Member
7.	Dr. V.V. Shinde, HOD (Mech)	Member
8.	Dr. S.D. Babar, HOD (Comp)	Member
9.	Mr. V.V. Deotare, HOD (E&TC)	Member
10.	Mr. N.A. Dhawas, HOD (I.T.)	Member
11.	Dr. A.A. Kalage, HOD (Elect.)	Member
12.	Dr. P. S. Patil, HOD (App.Sci. Deptt)	Member
13	Mr. N.V. Lakal, Dean R & D	Member
14	Mr. Yogesh Jadhav, T & P Officer	Member
15	Mr. V.H. Magar NSS Prog. Officer	Member
16	Dr. Bhosekar Gaurav Faculty (App.Sci. Deptt)	Member
17	Mrs. Gitika Narang, Faculty Comp Deptt	Member
18	Mr. G.V. Lohar, Faculty E&TC Deptt.	Member
19	Ms. S.B. Ware Faculty IT Deptt	Member
20	Mr. M.N.Kalgunde, Faculty Elect. Deptt.	Member
21	Mr. Pravin Pandit, Librarian	Member
22	Mrs. Kiran Mankar Office Admin. Staff	Member
23	Mr. Girish G Deshmukh	Nominee of Parents
24	Mr. Vipul Madani	Nominee of Alumni
25	Mr Rachit kaul, Miss Muskan Dusad Mr. Kunal Kishore , Mr. Krishna Bajulage	Student's Representative
26	Dr. D.D. Chaudhary, Vice-Principal	Coordinator

A. Minutes of First IQAC Meeting held on 13th Jan 2017

- Dr.D.D.Chaudhary as a coordinator of IQAC, initiated the session by giving a warm welcome to IQAC panel.
- Felicitation of delegates was done by Principal sir and other office bearers.
- Dr.M.S.Gaikwad, Principal, has delivered welcome speech, mentioning NBA 2013 and NACC 2016 and also programs like Academic Monitoring Committee, Parent meet, Local guardian scheme, Teacher training program, VAP, STP, Lab innovation, IIT spoken tutorial, Campus Connect Programs (Microsoft, Zensar, google,etc), Techtonic, Mutation, Aavishkhar and PGCON etc.
- Dr.Vikas Shinde briefly introduced the NAAC peer team committee comments about various programs carried out in the institute as well as the shortfalls marked by the peer team of NAAC.
- Discussion starts with all the office bearers for the IQAC to attain its sole purpose.
- Various suggestions were given by members like,

  - Meeting should be held quarterly.
  - Specialized training programs for teachers like, STTP, TTT and so on.
  - Quality Publications must be increase.
  - Feedback system must be improved: Inclusiveness of all stake holders.
  - Student mentorship must be enhanced.

- Mr.Bhadbhade from Persistent, talks about measurable criteria of the overall process and quality review at regular interval of time along with the priority setting.

- Mr.Khedkar talks about the setting up of "Yojana Aayog" which could help students entrepreneurs to asses various subsidy or helping hand from government.

- Mr.Sanket Ghorpade talks about awareness of research among students to produce good quality of projects also he suggested that more value addition programs should be decided according to industry requirements. He also suggested about necessity of seven days workshop on any technology to digest that completely. Mr.Sanket also suggested arranging Hackthon like contest. He is also was ready to support for giving inputs for Hackthon.
- Mr. Yogesh Jadhav T&P officer, brief about the current status of industry interaction in terms of MoUs and currently in working scenario and also discuss about swot analysis of current batch.
- Prof.S.B.Pharkute said that TPO should look into higher studies opportunities.
- Dr.S.N.Merchant, mentioned to focus on short term goals and also specified that placement is the main quality of institute but also the quality of students should be observed.
- Committee also emphasis on setting up mentorship program in which senior students will guide to junior students.

- Committee also suggested to have some courses in line with reference of Alumni and Industry Experts.
- Student representative, Mr.Kunal Kishore from E & TC department mentioned the need of motivation from faculties periodically. He emphasised on gap between industry requirement and university curriculum.

- Dr.D.D.Chaudhary request to panel to discuss for the action plan which can be executed in the year 2017-18.

- Bhatt Sir mentioned his views in following points:
    - Institute should promote quality assurance program
    - Formats for different parameters should be ready by next IQAC meeting.

- Dr.M.S.Gaikawd, Thanks to panel and mentioned following points :

    - Committed in doing work in excellence in terms of academy and other activities too.
    - Assured before the next meeting all required format would be ready.
    - Student Mentorship program will be implemented by next week.
    - A new policy for motivating students will be defined under which every day students will be motivated by faculty for 4-5 minutes.
    - For defining road map of the year he mentioned the need of more meetings of IQAC.
    - Ready to send information related to faculty strength, number of Ph.D. faculty, their publications and their overall contribution in the Institute to Dr. S N Merchant to give his expert comment.

- At the end, Dr.D.D.Chaudhary Sir, concludes the meeting by giving vote of thanks to panel and summarize meeting in following points
    - He said with collaboration of stakeholder's formats and rode-map of the year will be defined very soon.
    - More focus will be given to industry interaction, as well as on entrepreneurship.
    - He appreciated and Thanks to all members for sharing valuable suggestions for quality improvement.
    - At, last he requested to all be together to achieve target of NAAC A++ grade.

The meeting ended with vote of thanks.

Dr. D.D. Chaudhary,
Coordinator IQAC

First meeting on 13th Jan 2017

B.   Minutes of Second IQAC Meeting held on 15ᵗʰ July 2017

Following Points were discussed in the meeting:

- Dr.D.D.Chaudhary as a coordinator of IQAC, initiated the session by giving a warm welcome to IQAC panel. He took the overview of last minutes meeting and highlighted some points to initiate the discussion.

- Dr.M.S.Gaikwad, Principal, delivered the welcome speech, mentioning about the quarterly meeting. He announced about silver Jubilee program of the STES and suggestions were requested on celebration of this great occasion. He has mentioned the implementation of some suggestions given by members in the last IQAC meeting such as, Student Mentorship program, Feedback from stake holders, and research culture in staff and students.

- Dr.V.V.Shinde presented the brief report about the last year's activities such as Student Mentorship, the project quality outlines, participation of students in certain National Events, promotion to higher studies, formats and assessment about Train the Trainer program. Project based learning was taken into consideration. The involvement of the stakeholders, particularly for the roles of the Industry, Students, Parents and Alumni were discussed. The GATE, CAT and GRE scores were also highlighted. Sustainability program and the research development were taken to be as challenge for the same.

- Discussion started with all the office bearers for the IQAC to attain its sole purpose.
- Prof. M.G. Bhat, Dean Engineering (STES) mentioned his views in following points:
  - Activities are not Quantified, Efforts taken for higher studies/ Entrepreneurship / Faculty Qualification improvement.
  - Lack of data related to Research Projects/Publications.
  - Actions taken after stakeholders feedback
  - Campus Connect should be in more detail, number of MoU and how many are actually running.
  - Data should be available to all IQAC members at the time of meeting.
  - Appreciated activities related to PBL and advised to make Lonavala Campus as a role model of PBL Campus.

- Dr. S.N. Merchant sir, mentioned the following points
  - Appreciated Bhatt Sir's views and mentioned to focus on Quantification.
  - Faculty's Research publication data should be updated.
  - Focus on Research Student reading group to encourage speaks out, once in a week two students should speak about innovations/research.
  - He also mentioned that the results of GATE, GRE must be shared properly and what happens with those students like what are they pursuing in future should be known.
  - Teachers should be involved in teaching for GATE/GRE exams.

- Mr. Kaustubh Bhadbhade, Ex. Persistent, discussed following points
  - Mostly MoUs remains on paper, they must be effective.
  - Students should be involved from of drafting of MoU till its execution.
  - B.E projects are completion centric where as it should be learning centric.
  - Critical feedback is the need of hour.
  - Post classes time should be utilized.
  - Peer to Peer Competition (Verbal/Technical competition)
  - Allot at least 03 Students to each company.

- Dr. Dilip S. More from ADYPCOE Pune mentioned following points
  - For good quality projects Idea generation session should be conducted for students as well as for faculty.
  - Schemes should be effectively communicated to students
  - Entrepreneurship sessions should be conducted.
  - Campus should be Kaizen oriented (Continuous Improvements)
  - Set targets and try to achieve

- Prof. S.B. Pharkute Member AMC, presented his views on following points:
  - Formats of feedback should be finalized and should be discussed before using.
  - Mapping of PO's and PEO's should be done.
  - Status of signed MoUs.
  - Lack of data related to University Rankers, Comparison of Current year result with last year result.
  - For silver jubilee, he suggested to call Top Alumni/Industrialist.
  - Project Exhibition with more industrial involvement may be arranged.

- Mr. Girish Dekhmukh, Parent representative mentioned about parent teacher relationship. He said that teachers should have a regular interaction with parents. He also mentioned about lack of Practical knowledge among the students.

- Mr. Yogesh Jadhav, the T&P officer, shared the AMCAT results that showed the Aptitude and the Technical knowledge of the students. New clubs that are running by the students were given the light of the hour. Shadow placement, QALR test, the GD training were also shared. Placement records were shared and the betterment of the future placements was discussed. He mentioned we are having 292 offers in hand and 52 have got selected.

- Mr. Vipul Madhani Alumni Representative, shared his views on following points:
  - Quality of final year projects should be improved.
  - Categorization of students should be done from second year on the basis of their interest in Entrepreneurship/Higher studies/Placement.

- Student Representative Mr. Rachit Kaul expressed his views about including innovation into the education. Despite of having VAPs and STPs, the requirement of internships was discussed. Bridging the gap between the Industry and the Academics was made the prime concern.

- Student Representative Miss. Muskan, gave her point on the technicality and about the clubs that are trying to achieve the same goal for the implementation of better technology.
- Student representative Mr. Kunal Kishore mentioned students are lazy in performing the group activities, they may be motivated.

- Mr. N.V. Lakal, Dean R & D updated panel about , R& D programs running in Institute 40 faculty Research Group, ISRO proposal and AICTE proposal submitted.

- Mr. V.H. Magar, NSS Prog. Officer told to panel how Institute is working through NSS for solving technical problems of rural area people.

- Dr. S.D. Babar, HOD (Comp), shared about the infrastructure developments that are on place in the campus this year. With better quality computers and good quality labs, college is also working on a big central library.

- Mr. N.A. Dhawas, HOD (IT), discussed about the various Students clubs and group activities that are working for the betterment of college on different aspects.

- Mr. V.V. Deotare, HOD (ENTC), spoke about the industry-academic relation. The programs that are being initiated to work on the overall development of the students.

- Dr. A.A. Kalage, HOD (Elect), shared the Green Audit program and the power analyser system that is being as a great resource for the college.

- At the end, Dr. M.S. Gaikwad concludes the meeting by giving the vote of thanks to panel and mentioned following points-
    - Proper communication would be made between the parents and the teachers.
    - Committed work would be done in excellence in terms of academics and other activities too.
    - Student Mentorship program and the MOUs with the companies would be made sooner.
    - Formats for feedback will be followed.
    - Comparative and Quantitative report will be present in next IQAC meeting.

- The meeting ended with vote of thanks by Dr. D.D.Chaudhary.

Dr. D.D. Chaudhary,
Coordinator IQAC

Second meeting on 15th July 2017

Annual Quality Assurance Report

Part – A

AQAR for the year

<div style="border:1px solid">2016-17</div>

1. Details of the Institution

1.1 Name of the Institution

<div style="border:1px solid">Sinhgad Institute of Technology, Lonavala</div>

1.2 Address Line 1

<div style="border:1px solid">Gat No. 309/310,</div>

Address Line 2

<div style="border:1px solid">Off Mumbai – Pune, Expressway.</div>

City/Town

<div style="border:1px solid">Kusgaon (Bk.), Lonavala, Pune</div>

State

<div style="border:1px solid">Maharashtra</div>

Pin Code

<div style="border:1px solid">410401</div>

Institution e-mail address

<div style="border:1px solid">principal_sit@sinhgad.edu</div>

Contact Nos.

<div style="border:1px solid">02114-304353/356</div>

Name of the Head of the Institution:

<div style="border:1px solid">Dr. M. S. Gaikwad</div>

Tel. No. with STD Code:

<div style="border:1px solid">02114-304353/356</div>

Mobile:

<div style="border:1px solid">+919552569864</div>

Name of the IQAC Co-ordinator:

<div style="border:1px solid">Dr. Dilip D. Chaudhary</div>

Mobile:

<div style="border:1px solid">+91-9372810161</div>

IQAC e-mail address:

iqac.sit@sinhgad.edu
dchaudhary.sit@sinhgad.edu

1.3 **NAAC Track ID**

MHCOGN26095

1.4 **NAAC Executive Committee No. & Date:**

EC(SC)/17/A&A/47.1 dated 16 Sept 2016

1.5 Website address:

www.sinhgad.edu

Web-link of the AQAR:

http://w.w.w.MHCOGN26095-Sinhgad Institute of Technology Lonavala.doc

1.6 Accreditation Details

Sr. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1st Cycle	B++	2.81	2016-17	5 Years
2	2nd Cycle	-	-	-	-
3	3rd Cycle	-	-	-	-
4	4th Cycle	-	-	-	-

1.7 Date of Establishment of IQAC:

13/01/2017

1.8 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC ((*for example AQAR 2010-11submitted to NAAC on 12-10-2011*)
  i. AQAR -   NA

1.9 Institutional Status

University   State [√]   Central [ ]   Deemed [ ]   Private [ ]

Affiliated College   [√] Yes   [ ] No

Constituent College   [ ] Yes   [√] No

Autonomous college of UGC   [ ] Yes   [√] No

Regulatory Agency approved Institution [√] Yes   [ ] No

(eg. AICTE, BCI, MCI, PCI, NCI)

Type of Institution   Co-education [√]   Men [ ]   Women [ ]

                 Urban [ ]   Rural [√]   Tribal [ ]

Financial Status   Grant-in-aid [ ]   UGC 2(f) [ ]   UGC 12B [ ]

                 Grant-in-aid + Self Financing [ ]   Totally Self-financing [√]

1.10 Type of Faculty/Programme

Arts [ ]   Science [ ]   Commerce [ ]   Law [ ]   PEI (Phys Edu) [ ]

TEI (Edu) [ ]   Engineering [√]   Health Science [ ]   Management [ ]

Others   (Specify) | .NIL |

1.11 Name of the Affiliating University *(for the Colleges)* | Savitribai Phule Pune University, Pune. |

1.12 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT/ICMR etc

Autonomy by State/Central Govt. / University | No |

University with Potential for Excellence | No | UGC-CPE | No |

DST Star Scheme	No	UGC-CE	No
UGC-Special Assistance Programme	No	DST-FIST	No
UGC-Innovative PG programmes	No	any other (*Specify*)	No
UGC-COP Programmes	No		

2. IQAC Composition and Activities

2.1 No. of Teachers   05

2.2 No. of Administrative/Technical staff   11

2.3 No. of students   01

2.4 No. of Management representatives   02

2.5 No. of Alumni   01

2. 6 No. of any other stakeholder and
         community representatives   03

2.7 No. of Employers/ Industrialists   02

2.8 No. of other External Experts   02

2.9 Total No. of members   27

2.10 No. of IQAC meetings held   06

2.11 No. of meetings with various stakeholders: No. [6]   Faculty [3]

Non-Teaching Staff [1]   Alumni [2]   Others [0]

2.12 Has IQAC received any funding from UGC during the year?   Yes [ ]   No [√]

If yes, mention the amount [0]

2.13 Seminars and Conferences (only quality related)

(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

Total Nos. [36]   International [0]   National [3]   State [10]   Institution Level [23]

(ii) Themes

Sr. No.	Theme	Events
1	Research	Conference (2 Events)
		Workshops (14 Events)
		PhD Consortium (1 Events)
		Paper presentation
		STP-IV (Applicable to all students)
2	Staff Development	Teaching: FDP, TTT, STTP (7 Events)
		Non-Teaching: PBL
3	Curriculum Development	Syllabus Revision
		VAP
		STP-V (Applicable to all students)
		Open Elective
		Seminar (4 Events)
4	Student Mentoring and Support	TG/LG Scheme (Applicable to all students)
		EDC
		NSS
		Competitive Exam Coaching: GATE
5	Innovations and Best Practices	STP (I to V)
		PBL
		Environmental Consciousness

2.14: Significant Activities and contributions made by IQAC

- Organization of HR Meet
- ISRO Internship (2 Students)
- Forty students participated in corporate training
- Two FDPs are conducted (Technical Training)
- Twelve Industrial visits had organised having more than 100 students in each
- Three Industrial clubs are active

2.15 Plan of Action by IQAC/Outcome

Plan of Action	Achievements
1. To organize the meetings with all stake holders.	1. Two meetings with all members of IQAC, Four meetings with Teaching, and one meeting with nonteaching was organized.
2. To develop E-content on course curriculum.	2. Videos lectures based University syllabus using K point platform are developed by internal faculty. Various teaching methods like Multimedia Learning Techniques, Web based teaching and E-learning (NPTEL) were followed by the Faculty.
3. To insure improvement in Student Training Program and related activities.	3. STP Contents were modified and Training to newly added faculty is given.
4. To promote the R & D activities institute level.	4. Research groups in every department are formed and work was initialized.
5. To Promote Entrepreneurship development programme.	5. EDC cell is activated, MOU with NEN signed. Guest lecture by MCED officer was organized and MOU is in Process.
6. To Promote Environmental awareness programme.	6. Plantation in the campus is done.

2.15 Whether the AQAR was placed in statutory body   Yes [√] No [ ]

Management [√]   Syndicate [ ]   any other body [ ]

Provide the details of the action taken

First version of AQAR was sent for discussion and guidance in the statutory body, and with the corrections suggested by all concerned stake holders final report has been modified.

Part – B

Criterion – I

1. Curricular Aspects

1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD	--	--	--	--
PG	**4**	**--**	**4**	**--**
UG	**5**	**--**	**5**	**--**
PG Diploma	--	--	--	--
Advanced Diploma	--	--	--	--
Diploma	--	--	--	--
Certificate	--	--	--	--
Others	--	--	--	--
Total	**9**	**--**	**9**	**--**

Interdisciplinary	--	--	--	--
Innovative	--	--	--	--

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options: CBCS + Core + Elective option

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	9
Trimester	NA
Annual	NA

1.3 Feedback from stakeholders*   Alumni √   Parents √   Employers √ Students √
   (On all aspects)

   Mode of feedback   :   Online √ Manual √ Co-operating schools (for PEI)

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.
   - Syllabus is revised after every 5 years by the university itself.
     1. Syllabus of Third Year Engineering is revised in 2016-17
1.5 Any new Department/Centre introduced during the year. If yes, give details.
   - CHES (Center for Hydrogen Energy Studies)
   - Project Centre
   - Skill development Centre

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of
permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
217	189	19	7	02

2.2 No. of permanent faculty with Ph.D.

16

2.3 No. of Faculty Positions
Recruited (R) and Vacant (V)
during the year

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
164	+27	60	-41	29	-22	02	00	251	-34

2.4 No. of Guest and Visiting faculty and Temporary faculty

Nil	Nil	Nil

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	50	79	6
Presented papers	70	111	1
Resource Persons	7	3	8

2.6 Innovative processes adopted by the institution in Teaching and Learning:

i. **PROJECT/PROBLEM BASED LEARNING (PBL):**
Project/Problem based learning is an effective method which is implemented in our institute to aid the conventional teaching practices. In this method the group of students is formed and given a problem relating to any of the topic from the syllabus. The group has to study the problem and give the solution to the problem. While working on the problem students get the theoretical knowledge behind the topic as well as by applying that theory they try to make any model, case study or sort of this, thus the skill to solve the problem practically is developed inside them.

ii. **K-point Presentation and preparation of capsules**
In this the topic wise audio visual power point presentations are prepared by the staff for their respective subjects and the same are shared with the students so that they will be able to get the topics which they have missed during their absence in class.

iii. **NPTEL video lectures**
These video lectures are provided to students to clear the idea about the topic they missed during their absence in class and also as an aid for effective teaching.

iv. **Think, Pair and share**
In this before explaining any topic to the students, the teacher develops the atmosphere about that topic by asking some question about the topic known to students in their day to day life. Then pairs are made for students and they are asked to share their ideas regarding the question asked previously. Thus before starting the actual topic, the atmosphere gets developed in the class room.

v. Classroom Teamwork

Activities are given to the students which they need to complete in group. During this they get familiar to teamwork and sharing of their ideas is done.

vi. Various teaching methods like Multimedia Learning Techniques, Web based teaching; Practical Learning and E-learning are followed by the Faculty.

vii. Teaching aids such as OHPs/LCDs are used.

This helps in visualizing the phenomena and learning the topic effectively.

viii. Design experiments are given to students apart from the curriculum and syllabus.

This helps for their final year project.

ix. Use of GD, Role Play, Poster Presentation, etc., as part of class room teaching is adopted.

x. Focus on student centered teaching is practiced by the Faculty members.

2.7   Total No. of actual teaching days during this academic year

| 158 |

2.8   Examination/ Evaluation Reforms initiated by the Institution (For example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

| Open Book Examination, Online Multiple Choice Questions, Double Valuation, Photocopy |

2.9   No. of faculty members involved (as member of Board of Study/Faculty/Curriculum Development workshop) in curriculum

    i.   Restructuring | 4 |

    ii.   Revision | 4 |

    iii.   Syllabus development | 26 |

2.10 Average percentage of attendance of students

| 70% |

2.11 Course/Programme wise distribution of pass percentage:

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
Mechanical	357	162	119	24	0	85.43
E&TC	241	75	55	09	05	91
Computer	237	139	74	9	0	93.67
IT	65	23	19	3	00	69.23
Electrical	78	36	24	8	0	87.17

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

Internal quality Assurance Cell of our institute is having management representative and along with Principal and Heads of all respective departments. The online feedback from all the students is taken and based on various attributes of teaching –learning and report is prepared. An IQAC committee member evaluates this feedback reports and gives the suggestions to faculty accordingly. In addition to on line feedback, Principal, Vice Principal, HODs also take direct feedback from students. Conduction of daily lectures is also monitored by authorities. Teaching plan and subject notes are checked by concern academic coordinators and randomly by Principal.

Monthly Attendance is displayed on notice board and special attention is given on low attendance students. Parents of such students are informed accordingly time to time. Results of University exam, Prelim exams and class tests are analysed by departments and corrective measures are taken, so as to improve teaching learning process and outcome. Appreciation letter are given to faculty having good performance and letter of improvement is given to those faculty who are not performing up to the expectation. In addition IQAC also suggests various VAPs, STTPs and FDPs to bridge the gap between the industry and academia.

2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	39
UGC – Faculty Improvement Programme	35
HRD programmes	3
Orientation programmes	123
Faculty exchange programme	10
Staff training conducted by the university	41
Staff training conducted by other institutions	80
Summer / Winter schools, Workshops, etc.	48
Others	76

2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	161	0	11	0
Technical Staff	35	0	04	0

Criterion – III

3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution
   i. To promote the R & D activities, institute level policy is framed out through which funds are provided for research activities of students and faculties, as well as research proposals are sent to various funding agencies.
   ii. Formed research groups in every department.
   iii. Lab Innovation scheme is implemented.
   iv. Industry sponsored projects are proposed.

3.2   Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	1	5	0	00
Outlay in Rs. Lakhs	1.5	8.55	0	00

3.3   Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	12	00	00	00
Outlay in Rs. Lakhs	--	--	--	--

3.4   Details on research publications

	International	National	Others
Peer Review Journals	31	--	--
Non-Peer Review Journals	27	--	--
e-Journals	--	--	--
Conference proceedings	34	106	--

3.5 Details on Impact factor of publications:

Range [1-30]   Average [1-25]   h-index [1-16]   Nos. in SCOPUS [7]

3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned	Received
Major projects	Two	BCUD	8,55,000/-	4,27,500/-
Minor Projects	--	--	--	--
Interdisciplinary Projects	--	--	--	--
Industry sponsored	--	--	--	--
Projects sponsored by the University/ College	Till completion of PhD	KPIT Technologies, Pune	--	--
Students research projects *(other than compulsory by the University)*	--	--	--	--
Any other(Specify)	One	BCUD	4,00,000/-	1,50,000/-
Total			12,55,000/-	5,77,500/-

3.7 No. of books published   i) With ISBN No. | 17 | Chapters in Edited Books | 2 |

ii) Without ISBN No. | Nil |

3.8 No. of University Departments receiving funds from

UGC-SAP | NA | CAS | NA | DST-FIST | NA |

DPE | NA | DBT Scheme/funds | NA |

3.9 For colleges   Autonomy | NA | CPE | NA | DBT Star Scheme | NA |

INSPIRE | NA | CE | NA | Any Other (specify) | NA |

3.10 Revenue generated through consultancy | 1,25,000/- |

3.11 No. of conferences

organized by the Institution

Level	International	National	State	University	College
Number	--	3	--	--	--
Sponsoring agencies	-	Self	-	-	-

3.12 No. of faculty served as experts, chairpersons or resource persons | 39 |

3.13 No. of collaborations   International | 0 | National | 1 | Any other | 1 |

3.14 No. of linkages created during this year | 8 |

3.15 Total budget for research for current year in lakhs: 14.5 lakhs

From funding agency | 4.5 | From Management of University/College | 10 |

Total | 14.5 |

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	--
	Granted	--
International	Applied	--
	Granted	--
Commercialised	Applied	--
	Granted	--

3.17 No. of research awards/ recognitions received by faculty and research fellows of the institute in the year

Total	International	National	State	University	Dist	College
8	5	1	0	2	0	0

3.18 No. of faculty from the Institution
  who are Ph. D. Guides
  and students registered under them

3

4

3.19 No. of Ph.D. awarded by faculty from the Institution   0

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF   0   SRF   0   Project Fellows   1   Any other   0

3.21 No. of students Participated in NSS events:

University level   25   State level   34

National level   3   International level   0

3.22 No. of students participated in NCC events:

University level   0   State level   0

National level   0   International level   0

3.23 No. of Awards won in NSS:

University level   0   State level   0

National level   0   International level   0

3.24 No. of Awards won in NCC:

University level   0   State level   0

National level   0   International level   0

3.25 No. of Extension activities organized

University forum   2   College forum   19

NCC   0   NSS   8   Any other   0

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

The college is fully residential & placed in the rural area. It has been therefore necessary to create all kind of facilities in the campus. It was also visualized that curriculum doesn't focus on specific project- based skill sets, which industry demands. The students also need to be involved into cultural and sports activity. The following activities have been exercised in this campus.

- Tree Plantation
- Rain Marathon
- Visit to Snehwan Pune and contributed to the children's growth by providing necessities for day to day nourishment from every aspect.
- Rural School Visit for computer training
- Distribution of Books and food to students

Also with all these following activities are conducted under NSS

Sr. No.	Program	Purpose
1	International white cane day contribution for blinds.	Creating awareness in the society about blinds
2	Poster Presentation and competition on social awareness organized on the occasion of Lal Bahadur Shastri and Gandhi Jayanti.	To support Swachh Bharat Abhiyan
3	Road safety Abhiyan at Varsoli Toll plaza.	Creating awareness in the society regarding traffic rules like, Seat Belt wearing, Don't Drink and Drive
4	Street play organized on Rajmata Jijau Jayanti and Swami Vivekananda Jayanti.	It is organized to create awareness in the society, Women empowerment, Use of social media, Swachha Bharat
5	Maharashtra Youth Training program at Balewadi, Pune.	Youth Development Organized by Govt. of Maharashtra
6	National Integration camp at Allahabad, Uttarpradesh.	Organized by Nehru Yuva Kendra
7	Help for Police During Elections as special police force.	For smooth conduction of elections
8	Special winter camp at Kadadhe Taluka Maval.	To develop villages

CODE WARS

Python 101

Hunt Them Down

| Participants during World Yoga Day | Mr.Nitin Jawalkar interaction with students |

Mr.Nitin Jawalkar and Mr.Rohit Jadhav

| Participants | Mr.N.A.Dhawas HOD,IT Dept. |

| Dr.S.D.Babar HOD,Computer Engg.Department | Mr. S. Yede [Poilice Inspecter, Lonavala] |

Criterion – IV
4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	64633	-	Self	64633
Class rooms	38	-	Self	38
Laboratories	54	-	Self	54
Seminar Halls	5	-	Self	5
No. of important equipment purchased ($\geq$ 1-0 lakh) during the current year.	-	6	Self	6
Value of the equipment purchased during the year (Rs. in Lakhs)	-	688461	Self	688461
Others	-	-	-	-

4.2 Computerization of administration and library

Web **OPAC** (Online Public Access Catalogue) facility is made available through Auto Library Management Software to know the bibliographical details about the collection. One separate node is made available in the Central Library for **OPAC** facility. And as it is a Web **OPAC**, user from any location can search the library collection. Search by giving Title, Author, and domain can be carried out.

Electronic Resource Management package for e-journals
The library subscribes to IEEE All-Society Periodicals package. In addition to that, link to scholarly open access journals/database is also available on the Library webpage.
A well-equipped Digital Library with 10 nodes having internet connectivity is housed in the Central Library for access to e-publications. As the access facility to e-journals is multi-user and IP address-based, students can access the e-publications from anywhere in the campus.

Library Automation:
All the active book collection is updated in the Auto Library Management Software database and the Web OPAC is available for the users. The issue and return of books has been activated with the Auto Library Management Software.

<u>Administration</u>

- Dedicated server for downloading several open source software like Adobe, Android OS, Corel Draw, Browsers, Java, TC and Turbo C++ etc.
- Online Access to ERP resource for knowing progressive performance of students.
- The computers provided to students are in adequate quantity.
- The Institute has a digital library.
- Also there are Wi-Fi access points available on campus.
- 24 x 7 hours internet access.

4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	19165	7432204	226	214403	19393	7668394
Reference Books	4445	-	15	-	4459	-
e-Books	200	-	57	-	257	-
Journals	30	37016	28	428288	58	107542
e-Journals	2 (IEEE, Sci. Direct)	428288	2 (IEEE, Sci. Direct)	1498926	2 (IEEE, Sci. Direct)	1498926
Digital Database	-	-	8 TB data	Free of cost from IIT Powai	8 TB data	Free of cost from IIT Powai
CD & Video	870	-	32	-	902	-
Others (specify)	-	-	-	-	-	-

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Depart-ments	Others
Existing	741	18	30Mbps	1	1	4	741	-
Added	-	-	-	-	-	-	-	-
Total	741	18	30Mbps	1	1	4	741	-

4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)
- Two Days short term training program (STTP) conducted on "Statistica using Data Mining" on 23rd and 24th September 2016 by Mr. Rajat Shrivastava which was BCUD sponsored.
- Five days state level faculty development program conducted for Big data Analytics by academicians Prof. Bhushan Jadhav and Prof. Arun Kulkarni
- Two day's workshop conducted on 'Touch and Augmented reality' by Mr. Prakhar Sharma, Corporate Trainer from Infizeal Technologies on 24th and 25th February 2017.
- The Seminar on "Salesforce Cloud Computing" was conducted by ACES which is the Association of Computer Engineering
- Guest lecture on "Contribution of ETL Mechanism for processing of data from OLTP to OLAP" by Mr. Kranthi Kumar Singamaneni, IBM India Pvt. Ltd. on July 07, 2016
- Expert talk on providing early Project Guidance by own Alumni Mr.Sanket Ghorpade of Manage Code Cultivate for BE students.
- Expert Lecture on "Fundamentals of Android application development on 16th January, 2017 by Mr. Mithilesh Izardar who is currently working in Entraltech Pvt. Ltd.Expert talk on elaborating "Digital Transformation" by Swati Kashyap & Manish Deshpande from NIIT Ltd on on 16th January, 2017

- Expert talk on explaining importance of Technical Research by Prof. Kund Erik Skouby from Aalborg University, Dr. Antonis Michalas from University of Westminister, London, UK on February 18, 2017
- World Entrepreneurs Day Celebration organized on Saturday September 24, 2016 by Microsoft Campus Club
- Training to non – teaching staff members on computer maintenance and networking
- One Day Workshop on "Microsoft Window's Excel to Excel Your Skills" is organized by EnTC department under IEEE Student's forum on 15th October 2016.

4.6 Amount spent on maintenance in lakhs:

i) ICT

| 00.30 |

ii) Campus Infrastructure and facilities

| 63.55 |

iii) Equipments

| 02.05 |

iv) Others

| 34.025 |

Total:

| 100.16 |

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services:
   Institute has enhanced following support services to students,
   i. New MoUs were signed with industries to strengthen the Industry-Institute Interactions.
   ii. Specially designed Induction programme was conducted for first year engineering students who are new to engineering domain.
   iii. Every department conducts an induction program for second year students to give them a warm welcome at department.
   iv. College website and Governing Education Management System (GEMS) is used to provide the links that are web-based and intranet resources.
   v. Mentoring scheme is implemented to have a face to face interaction with individual students.
   vi. Student training programs are exercised for each branch.
   vii. Organizing coaching classes for competitive exams (GATE)
   viii. VAP are being exercised to bridge the curriculum gap.
   ix. A major statistical assessment platform to assess employability in the form of Aspiring Minds Computer Adaptive Test (AMCAT) is undertaken which is well accepted by top Multi-National Companies (MNC's).
   x. Institute has well established Microsoft Campus Club, IBM center of Excellence and Persistent Center of Excellence to support strong industry interaction.
   xi. Remedial classes were arranged for weak students after each internal or university result analysis.

Inauguration of induction by the Guest of Honor Dr. R. G. Ratnavat

Lamp Lighting by the Alumni Samruddha Shete

Parent interaction with local gaurdian , respective subject teachers and HOD.

5.2 Efforts made by the institution for tracking the progression

i. TG (Teacher Guardian) Scheme: All the departments follow TG scheme. The TGs conduct meeting with their respective student batches once in a week and discuss about the policies of the college, take a review of attendance, problems faced by students as well as boost the students to improve their performance.

ii. Monitoring and evaluating results of internal and University examinations: This is done regularly to track the progression of students and actions are taken depending on the results.

iii. Online Students Feedback: Feedback system helps in judging the efforts taken by the faculties and for rectifying the problems. This helps in self-improvement of the faculties.

iv. Carrying out continuous assessment for practical subjects: By doing continuous assessment the performance of the students is monitored and disciplinary actions are taken to the defaulters.

v. Encouraging lab innovations: Lab innovation scheme is to boost the students to work on their innovative ideas which can help them for final year project as well as overall development.

vi. T&P Cell: Training and placement cell monitors the performance of the students and gives the inputs to improve the placements.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
2909	90	--	--

(b) No. of students outside the state

439

(c) No. of international students

0

Men

No	%
2452	81

Women

No	%
547	19

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
470	66	07	209	00	752	407	79	05	164	00	655

Demand ratio = 100%   Dropout % = 2%

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

i. GATE Coaching Classes
ii. Foreign language classes (German, Japanese Language)
iii. Expert lectures and seminars are conducted on regular basis for students

No. of students beneficiaries

277

5.5 No. of students qualified in these examinations

NET	00	SET/SLET	00	GATE	39	CAT	5
IAS/IPS etc	00	State PSC	00	UPSC	00	Others	20

5.6 Details of student counselling and career guidance

   i.   STP (Student Training Program): STP involves provision of special training over wide spectrum of attributes an engineer is supposed to possess. The whole training is sub divided in to five phases in five semesters. Curricula for these STP phases have been designed quite thoughtfully and are reviewed and revised suitably from time to time.
   ii. TG (Teacher Guardian) Scheme: All the departments follow TG scheme. The TGs conduct meeting with their respective student batches once in a week and discuss about the policies of the college, take a review of attendance, problems faced by students as well as boost the students to improve their performance.
   iii. Coaching classes for competitive exams: Coaching for competitive exams (GATE) is being conducted in the institute so that the students can get its benefit in the campus itself.
   iv. EDC (Entrepreneurship Development Cell): To improve employability and aid the placement activity, students are guided regarding entrepreneurship and boosted to become an entrepreneur through EDC.

No. of students benefitted   2510

Guest Lecture on "Higher Studies Guidance"	Interaction with students during invited talk.

5.7 Details of campus placement

On campus			Off Campus
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
153	628	344	--

5.8 Details of gender sensitization programmes

    Institutional Women Grievances cell is in place under which following women empowerment activities are conducted.

- Rain marathons are arranged with themes like ― "Run for Women Safety" and "Save girl child."
- The committee of Women's Grievance cell- Internal Complaint Committee (WGC-ICC) had arranged a seminar on "Menstruation in Women" which was delivered by Dr. Kalyani (MBBS intern-Pune). It was organized on February 08, 2017.
- The committee had also invited Mrs. Uma Mehta (President Lions Club- Lonavala) and Mrs. Rekha Pav (Secretary Lions Club- Lonavala) for inaugurating workshop on 'People united Against Sexual Harassment-PUSH' on February 27, 2017. More than 450 students participated in it.

"Guidance From Dr.M.S.Gaikwad(Principal) during PUSH	"Mrs. Uma Mehta Delivering Talk"
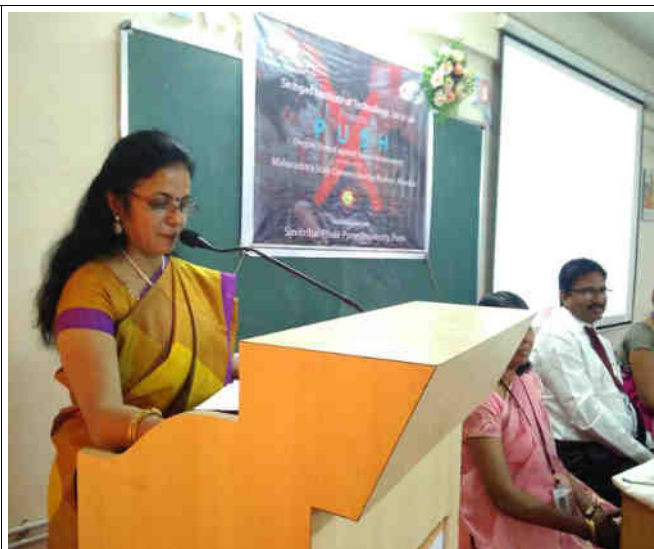
5.9 Students Activities

   5.9.1   No. of students participated in Sports, Games and other events

State/ University level   2   National level   1   International level   0

No. of students participated in cultural events

State/ University level   7   National level   0   International level   0

   5.9.2   No. of medals /awards won by students in Sports, Games and other events

Sports: State/ University level   1   National level   0   International level   0

Cultural: State/ University level   2   National level   0   International level   0

5.10 Scholarships and Financial Support

Schemes	Number of students	Amount
Financial support from institution	NA	NA
Financial support from government	2078	13,03,22,203
Financial support from other sources	NA	NA
Number of students who received International/ National recognitions	NA	NA

5.11   Student organised / initiatives

Fairs   : State/ University level   3   National level   2   International level   0

Exhibition: State/ University level   4   National level   0   International level   0

5.12   No. of social initiatives undertaken by the students   8

5.13   Major grievances of students (if any) redressed: 0

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

VISION

"उत्तमपुरूषान् उत्तमाभियंतृन् निर्मातुं कटीबध्दाःवयम"

"We are committed to produce not only good engineers but good human beings, also."

MISSION

We believe in and work for holistic development of students and teachers. We strive to achieve this by imbibing a unique value system, transparent work culture, excellent academic and physical environment conducive to learning, creativity and technology transfer.

6.2 Does the institution has a management Information System

A Governing Educational Management System (GEMS) is maintained at institute level. Paperless governance is carried out through GEMS online, the ERP platform.

GEMS used for online management of,

- Infrastructure
- Staff Profiles and Service Records
- Staff attendance biometric and leave approval
- Student Profiles
- At the departmental level it is used for faculty load distribution, time table management, planning of resources, faculty members upload their course material on GEMS that can be accessed easily by students.

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

The institute is affiliated to Savitribai Phule Pune University (SPPU). Board of studies (BoS) is a body in the University to formulate the curriculum. The department has representation in BoS. Faculty members from this institute are nominated on the committee of faculty coordinators at the University. These members of BoS/ CoS use the inputs collected by the institute and contribute in curriculum development for quality improvement.

Inputs are obtained by following means-

- Interaction with the industry through R and D cell.
- Interaction with parents through Parent Teacher Association
- Interaction with Alumni
- Interaction with academicians through workshops
- Comparative study of curriculum of various universities through Open sources

According to the feedbacks taken from the stakeholders following programs are designed to cope up with the industry needs.

- STP
- VAP

6.3.2 Teaching and Learning

Inputs from Student feedback, Alumni and Industries are considered for improving the teaching-learning. Quality improvement strategies adopted by the institution for Teaching and Learning

Semester Pre-commencement Preparations-
- Departmental Academic Calendar
- Teaching Plan
- Course learning Objectives and Course Outcomes
- Lecture notes
- A further useful resource is provided in the form of Audio Lectures on the K-Point Platform. These lectures are accessible to all the students and teachers in the institute.
- Updating the library with appropriate books as suggested by the faculty.
- Modifying the laboratories to cater for the needs of revised syllabus and new technology.
- Use of GEMS platform

This platform is developed as a resource to the students. Course related entire materials, attendance of students, test performance of students are uploaded here by the faculty.

Monitoring students' performance through
- Internal Unit Test-I and II
- Improvement tests
- Mock Tests and practicals
- Assignments, tutorials and seminars, projects

Monitoring the teaching process through
- Online feedback from students (once in semester)
- Oral feedback from students by Head of Department
- Academic audit by peer committee
- Audit of completed syllabus
- Result analysis for internal as well as external (University) examinations.

Addressing issues of individual student
- Remedial classes for slow learners
- Personal guidance to students approaching with difficulties
- Mentoring of students through Teacher-Guardians

Addressing issues related to course
- Extra lectures are allocated in the time table for courses of difficult nature.
- Teaching methodology workshops are conducted in the form of orientation programs.
- Expert lectures are conducted on topics related to the course, but, outside the syllabus to bridge the curriculum gap.

Addressing issues of faculty
- Course assignment as per Competency.
- Mentoring and guidance to faculty members provided by senior/competent faculty.
- Train The Trainers (TTT) and Faculty Development Program (FDP) programs are organized for faculty by the institute and University respectively for different courses.

6.3.3 Examination and Evaluation

- Two internal unit tests are conducted per semester. A preliminary examination is conducted at the end of semester. Improvement tests are also conducted after result analysis for poor performers.
- E-Exam portal is used for addressing mock practice of online examinations.
- Remedial classes are conducted for slow learners.
- Standard question banks and model answers are prepared by the faculty members and distributed to the students.
- Timely assessment of tests is done and the result is displayed.
- Term work evaluation is done on continuous basis. Students are made aware of their term work performance on early basis so that they get an opportunity to improve their credentials.
- External theory examination and practical/oral examinations are conducted by SPPU schedule and rules.
- The Faculty members contribute in the examination work like- setting question paper, being invigilators for theory examination, senior super visors, examiners, moderators etc.

6.3.4 Research and Development

The institute has collaborations with reputed industries, national and international institutions and universities. The institute also believes in research culture and supports innovative ideas from faculty and students.

- Several faculty members take advantage of this facility and enhance their career by obtaining doctorates, publishing technical papers, books etc.
- Well-equipped Research Labs are developed for the funded projects and for the PG programs to improve quality of the research.
- The institute motivates the faculty to undertake research activities through post graduate studies and doctoral studies. It motivates them to publish research papers. For this, an incentive such as financial assistance for research paper presentation etc. is provided.
- Potential research collaborators are identified and MoUs are established.

6.3.5 Library, ICT and physical infrastructure / instrumentation

ICT
- The department regularly updates ICT facilities for classrooms, tutorial rooms and Laboratories. Presently, Department has all class rooms that are equipped with LCD system, Wi-Fi facility and wired internet/ network facility.
- The department regularly enhances the Power backup facility for laboratories.
- Special attention is provided in enhancing Internet connectivity. In year 2016-17, the Internet speed is enhanced from 30Mbps to 40 Mbps.
- Internet security assured with updated firewall worth Rs. 9,75,000/-
- The department has FTP Server for resource access and is regularly increasing the usage of GEMS by the faculty and Student community; Lecture notes, assignments, question banks, quiz are uploaded. The GEMS platform itself is revised to enhance user friendliness.

Library
- Central Library committee gives guidelines for improving the quality of library resource.
- Suggestions from Library committee and IQAC suggestions are used for improvement in quality of library resource.
- Automation in Library management is increased.
- New books/journals are purchased every year to update the library.
- Each Department has its own Departmental Library facility that includes text books, project and seminar reports and papers published.

Physical Infrastructure
Physical infrastructure is always monitored to address the needs courses or the intake capacity of the institute.

6.3.6 Human Resource Management
While recruiting and retaining the HR, the institute adheres to the quality improvement strategy.
- For professional development of the HR, the institute delegates the faculty and staff to undergo development programs outside the institute, provides technical resources and financial assistance to undertake such development programs.
- The institute organizes HR development programmes for skill up gradation and training of faculty, staff and students.
- Faculty are felicitated for their academic achievements.
- For compensation and benefits of the students and the staff, welfare scheme exist in the institute.
- The institute uses performance evaluation methods for the HR. At the end of every academic year, Performance evaluation of the staff is done by online appraisal system provided on GEMS.
- Weekly department meetings with the heads are conducted to ensure healthy relations and communication among the members.
- Occasionally, meetings of faculty, staff and students with the top management are conducted.

6.3.7 Faculty and Staff recruitment
- Periodic staff recruitment is done with the procedures and norms of UGC and SPPU. Recruitment is done on the basis of field knowledge and interaction skills.
- In case a need arises to recruit a faculty on temporary basis, the selection is done judging the course knowledge and lecturing/ interaction skills from the demonstration lecture conducted by the candidate and Technical interview of the candidate.
- Qualified and experienced faculty are identified and appointed as guest faculty or adjunct faculty.
- Higher administrative post and attractive packages are offered to eminent faculty.
- The institute provides freedom of work, opportunity to excel in the individual's domain area and functional office infrastructure.

6.3.8 Industry Interaction / Collaboration
- Eminent speakers from industry and service sector are invited for interaction with the students and faculty.
- The Entrepreneurship Development Cell (EDC) orients students to start their own business ventures.
- Industry Internship programs, industry designed certification courses and Industrial training during vacation are organized for the students as well as for staff by Training and Placement cell.
- Bright students of department are allotted some of the industry projects.
- Alumni placed in the reputed industries are invited for informal dialogue with the students.
- Study tours are conducted for students to visit industries.

6.3.9 Admission of Students
Admission of the students is done through a central process conducted by a state government body DTE (Directorate of Technical education) where students choose an institute as per their choice. The institute maintains this repute by adopting following strategies-
- Maintaining good results in University examinations by means of quality trends in teaching learning
- Providing quality infrastructure and facilities
- Maintaining good training and placement records.
- Maintaining Ragging-free environment

- Institute has maintained lush green picturesque campus that easily attracts student community.
- Ample hostel facility for girls and boys is provided on the campus.
- Various sports facilities are available to students like 25-acre sports complex with grounds for football, cricket, basketball, athletic track, swimming pool, gymnasium, etc.
- The institute conducts admission process awareness programmes, counselling sessions for prospective students.

6.4 Welfare schemes

Teaching	- Group insurance scheme - Accidental insurance - Staff quarters - Free medical treatment - Registration fee for FDP programs - Maternity leaves are provided as per the government and university rules - Employee Provident Fund (EPF) with 100% gratuity for all staff
Non-teaching	- Group insurance scheme - Accidental insurance - Staff quarters - Free medical treatment - Maternity leaves are provided as per the government and university rules - Employee Provident Fund (EPF) with 100% gratuity for all staff
Students	- Teacher guardian scheme - Students' welfare Cell - Women's grievance cell - Training & Placement activities - Sports facilities and cultural festival - Alumni activities - Social activities - Earn & learn scheme - Scholarship

6.5 Total corpus fund generated   NA

6.6 Whether annual financial audit has been done   Yes √   No ☐

6.7 Whether Academic and Administrative Audit (AAA) have been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	AICTE/NAAC	Yes	HOD/Principal
Administrative	Yes	AICTE/NAAC	Yes	HOD/Principal

6.8 Does the University/ Autonomous College declare results within 30 days?

For UG Programmes   Yes ☐   No √

For PG Programmes   Yes ☐   No √

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

    i. Unit by unit preparation and practice, self-simplified internal test questions, self-learning sessions, and tutorial benefits are given to such students.
    ii. Faculties provide model solutions of university question papers.
    iii. Conduction of mock practical for practice
    iv. Online e-Exam portal is available for students for online examination practice.
    v. Personalized guidance is being provided to students to reduce the risk of dropout.
    vi. The slow learners are motivated to attend extra lectures after college working hours.
    vii. The failed students are encouraged to attend remedial classes.

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?
    NA

6.11 Activities and support from the Alumni Association
    i. Institute collects feedback from the employers in the prescribed format during campus interviews, formal meetings and from alumni during alumni meets conducted
    ii. The feedback helps in designing the training modules prepared by T & P cell for the current students. Alumni give suggestions on curriculum development as well as infrastructure facilities.
    iii. Online suggestions are taken from graduates. These suggestions are reviewed by IQAC/AMC. Adequate measures are taken depending on committee recommendations to improve the performance.

6.12 Activities and support from the Parent – Teacher Association
    i. Parents Teachers meetings twice in a year
    ii. Phone calling by TGs regarding student's performance
    iii. Feedback system

6.13 Development programmes for support staff

    i. TAP (Teachers Awareness Program)
    ii. TTT (Train The Trainer)
    iii. PBL (Project Based Learning)
    iv. STTP (Short Term Training Program)
    v. Workshop
    vi. FDP/ FOP (Faculty Development/Orientation Program)
    vii. Guest Lecture
    viii. Seminar

6.14 Initiatives taken by the institution to make the campus eco-friendly

    i. Tree Plantation
    ii. Fort cultivation
    iii. Street plays (Supporting Clean India)
    iv. Winter Camp (For developing awareness regarding various environmental issues)

Criterion – VII

7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the department. Give details:

Department has glorious history for technical innovations which has been proven for academic year 16-17 too.

- Aayush Sinha, a student of Second Year has done over 10 Projects in the field of Web Devlopment and Server Side Management. He has been also selected as an intern (Web Developer) in BikeStretBoys, Pune as well as in Off Step, Delhi (Web developer)
- Aayush Sinha and Sudarshan Amirineni developed a Website for the Mechanical Department for a National Conference. (www.ncime.in)
- Mr Himanshu Singh, has be selected as internship in Finomena Pvt Ltd, Bangalore.
- Parth Rassiwala, Sudarshan Amirineni has been selected as an intern (Web Developer) inDigitalIndian, Kolkata.
- Sudarshan Amirineni is an EC-Council Certified Ethical Hacker.
- Mr Himanshu Singh the student of third year developed an App for training and placement cell.
- Mr Himanshu Singh and our department team has been shortlisted for the Grand Finale of Smart India Hackathon 2017.

Brief Information :
Smart India Hackathon is World's Biggest Hackathon jointly organized by MHRD & AICTE. It is about coding together to solve real world problems.

- In social sector too a team of our teachers Ms. Deepali Patil and Mr. Sachin Wandre had organized a unique program of cloth benefaction (Donation).

Brief Information:
It was a quite time consuming activity wherein staff and student co-ordinators collected cloths from all over campus. They were washed and ironed by the students themselves. Then the team went around 10 kms far from Lonavala. They visited the villages of Fanasrai and

Vanati which are located at a high altitude near Rajmachi in Khandala where they donated the cloths to tribal people.

Cloth collection and packing

Village Vanati

Village Fanasrai

Team of Students and Staff

Students coordinator

- Green Audit of fully grown trees in the campus as well as Energy Audit is carried out.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

1. Feedback of last year programs are taken from all stake holders
2. Content modification is done based on feedback
3. Training sessions are conducted for teachers for effective implementation

- HR meet conducted for final year students along with Alumni where Industry Culture and requirements in the recruitment process have been discussed.
- Up gradation of Computer laboratories with latest configuration 64 bits machines.
- Up gradation of Firewall to provide high amount of Internet Security.
- New MOU's signed during year 16-17 to strengthen Industry institute interaction are Zensar technologies, Pune and Persistant Systems, Pune.
- Also a industrial visit to PSPL, Pune was arranged to provide industry inputs to Students.
- More than 500 trees planted in order to keep up the resolution of Green revolution.
- Student Training Programs(STP's I to IV) and Value Addition Programs(VAP's) are conducted throughout the year.
- Department had organized STTP on "Data Mining Using Statistica" on 23rd to 24th Sep, 2016 which was sponsored by BCUD, SPPU, Pune.
- Faculty development program during December 13-17, 2016 was organized to address emerging trends in IT.

	Event inauguration by Dr.M.S.Gaikwad
Student Evaluation by Dr.M.S.Gaikwad	VAP coordinator Mr.S.G.Shaikh

| Business Club Coordinators | Business Competition Presentation |

7.3   Give two Best Practices of the institution *(please see the format in the NAAC Self-study Manuals)*

I. Project Based Learning Environment
II.Comprehensive Student Training Program

I.   **Project Based Learning Environment (PBL)**
Goal: For achieving effective learning by students.
The Context: Learning happens only when one performs tasks on his own.
The Process:
i. Students are encouraged to pick up a project in small groups in the representative list of areas prepared by the department or by him. They are required to go through a structured process of analyzing the problem, solution development and implementation.
ii. Student projects are then evaluated on the basis of merit.
iii. Necessary feedback is given to students

Institute has developed various schemes such as Lab innovations, VAP and IIIC which promote learning through projects.

The Outcome: PBL shows improvement in understanding and confidence about core concepts among students. It also helps in achieving skills required for the professional practice.

Comprehensive Student Training Program (STP)
Goal: Development of core engineering aptitude among students.
Context: STP involves the provision of special training over a wide spectrum of attributes an engineer is supposed to possess. The whole training is subdivided into five phases in five semesters. Curricula for these STP phases have been designed quite thoughtfully and are reviewed and revised suitably from time to time.

7.4 Contribution to environmental awareness / protection

❖ Tree Plantation
❖ Fort Cultivation
❖ Street plays (Supporting Clean India)

❖ Winter Camp (For developing awareness regarding various environmental issues)
❖ Rain marathon.

The environment is everybody's concern today. Student bodies and teachers together organize various activities so as to sensitize students and staff towards environmental conservation. Few activities are Swachh Bharat Abhiyaan, Special NSS campaign in rural areas in which villagers are informed about importance of Cleanliness, Rainwater harvesting, and Women education. Besides this, institute organizes various activities like tree plantation, public awareness and competitions to generate environmental awareness among students.

7.5 Whether environmental audit was conducted?   Yes | √ | No | |

7.6 Any other relevant information the institution wishes to add. (SWOC Analysis)

SWOC analysis is mandatory for improving strength, overcoming weakness, to avail the opportunities and to face the challenges. Keeping this view at department level, we do SWOC analysis with the help of our stakeholders through written and oral feedback mechanisms. SWOC of the department can be considered as following.

❖ **Strengths**
- Enthusiastic and self-motivated Staff.
- Well maintained labs to support curriculum
- Learning environment is a blend of traditional teaching and Project Based Learning and Activity Based Learning.
- Classrooms equipped with good quality LCD projectors, screen, and ambiance.
- MoU with the industries for research and development as well as to support the curriculum.
- Research publication and books by faculties.
- Student oriented and student operated clubs to support overall development of students.

❖ **Weaknesses**
- Consultancy work need to be improved
- Lack of center for Ph.D program
- Lack of Industry sponsored projects
- R and D needs to be strengthened.

❖ **Opportunities**
- Scope for strengthening the industry institution inter action for better placements of students.
- To achieve university rankers.
- Interdisciplinary approach in research & industrial training.
- To develop research centre.
- Scope for more placement and Industry projects
- To increase the students participate in various activities like inter college competitions .
- The existence of Microsoft Campus club. Zero Club, Business club, EDC cell, Google Club for promoting the technology.

❖ **Challenges**
- To cope up with international / global challenges in terms of academic quality.
- Admission challenge due to geographic location.
- Low ranks and diversity of incoming students.
- Induction and retention of senior faculty.
- Rapid changes in technology
- Improving student communication skills.
- Provide placements to all the Students.

8. Plans of the Institution for next year

Planning for A.Y. 2017-18	
Sr. No.	**Details**
1	To make Research collaborations (VJTI/IIT) -03
2	SETU-05
3	Consultancy- 2.5 lakhs
4	To register for Patents- 05 IPR policy
5	Good Governance & Leadership Activities- 02
6	To increase PHD guides- 03
7	Research Fellowship- 05
8	To make MoU with MCED/DIC- 02
9	To Promote of higher education
10	NPTEL Certifications- Staff: 25 Students: 100
11	Conference:05 and Workshops:05, STTP:05
12	Start-ups 10
13	MHRD Programme: 01
14	FDP: 10 Workshop: 10 STTP: 05
15	Scopus Indexed Journal papers: 15

Name   Dr. D. D. Chaudhary   **Name Dr. M.S. Gaikwad**

Signature of the Coordinator, IQAC   *Signature of the Chairperson, IQAC*

_____***_____

Annexure I   :   Academic Calendars

Sinhgad Institutes

Sinhgad Institute of Technology Lonavala
Tentative Academic Calendar for 2016-17 Sem. - I.
(For Second Year)

Week No.	Dates	Teaching Days	Programs
1st	15/06/16 to 17/06/16	3	**Commencement of Teaching** and Registration of students.
2nd	20/06/16 to 24/06/16	5	
3rd	27/06/16 to 01/07/16	5	
4Th	04/07/16 to 08/07/16	4	**Ramazan Id on 6th July.**
5Th	11/07/16 to 15/07/16	5	
6th	18/07/16 to 22/07/16	5	
7Th	25/07/16 to 29/07/16	5	Unit Test-I (30 Marks / 1hour /2 Units)
8th	01/08/16 to 05/08/16	5	Midterm submission week
9th	08/08/16 to 12/08/16	5	
10th	15/08/16 to 19/08/16	4	**Independence Day on 15th Aug.**
11th	22/08/16 to 26/08/16	5	Unit Test-II (30 Marks / 1hour /2 Units)
12th	29/08/16 to 02/09/16	5	Remedial classes
13th	05/09/16 to 09/09/16	4	**Ganesh Chaturthi on 5th Sept.**
14th	12/09/16 to 16/09/16	4	**Bakri Id on 13th Sept.**
15th	19/09/16 to 23/09/16	5	End of Teaching on 23rd Sept.
16th	26/09/16 to 30/09/16	5	On-line exams as per university norms
17th	03/10/16 to 07/10/16	5	MOCK Practicals/ Orals & Final submissions
	10/10/16 to 28/10/16		Tentative dates for university practical exam.
	07/11/16 to 26/11/16		Tentative dates for university theory exam.
	05/12/16 to 10/12/16		Selections for cultural events of 'SPANDAN'
	15th Dec 2016		College reopens for next sem. (Sem. II)
	Total no. of days	**79**	

1. AMCAT Test = 2nd and 3rd week of July.
2. Employability Test -I = 4th week of June.   Employability Test-II = 2nd week of August

- The attendance of students will be displayed on 2nd day of every month.
- Students are advised to note the registration process and life skill / Technical skill activities notified separately by respective departments.
- Refer strategy and time tables for Unit Test/ Re-test notified separately at department level.

(Dr. M.S. Gaikwad)
PRINCIPAL
SINHGAD INSTITUTE OF TECHNOLOGY
Kusgaon (Bk.), Lonavala-410401

Sinhgad Institute of Technology Lonavala
Tentative Academic Calendar for 2016-17 Sem. - I.
(For Third Year)

Sinhgad Institutes

Week No.	Dates	Teaching Days	Programs
1st	15/06/16 to 17/06/16	3	**Commencement of Teaching** and Registration of students.
2nd	20/06/16 to 24/06/16	5	
3rd	27/06/16 to 01/07/16	5	
4Th	04/07/16 to 08/07/16	4	**Ramazan Id on 6th July.**
5Th	11/07/16 to 15/07/16	5	
6th	18/07/16 to 22/07/16	5	
7Th	25/07/16 to 29/07/16	5	Unit Test-I (30 Marks / 1hour /2 Units)
8th	01/08/16 to 05/08/16	5	Midterm submission week
9th	08/08/16 to 12/08/16	5	Unit Test-II (30 Marks / 1hour /2 Units)
10th	15/08/16 to 19/08/16	4	**Independence Day on 15th Aug.**
11th	22/08/16 to 26/08/16	5	In-sem exams as per university norms
12th	29/08/16 to 02/09/16	5	Remedial classes
13th	05/09/16 to 09/09/16	4	**Ganesh Chaturthi on 5th Sept.**
14th	12/09/16 to 16/09/16	4	**Bakri Id on 13th Sept.**
15th	19/09/16 to 23/09/16	5	End of Teaching on 23rd Sept.
16th	26/09/16 to 30/09/16	5	Prelim exam.
17th	03/10/16 to 07/10/16	5	MOCK Practicals/Orals & Final submissions
	10/10/16 to 28/10/16		Tentative dates for university practical exam.
	07/11/16 to 26/11/16		Tentative dates for university theory exam.
	05/12/16 to 10/12/16		Selections for cultural events of 'SPANDAN'
	15th Dec 2016		College reopens for next sem. (Sem. II)
	Total no. of days	79	

1. AMCAT Test on 2nd and 3rd week of July.
2. QA/LR Test on 2nd week of July and 1st week of August.
3. Employability Test -I = 3rd week of August.   Employability Test -II = 1st week of Sept.

- The attendance of students will be displayed on 2nd day of every month.
- Students are advised to note the registration process and soft skill / Technical skill activities notified separately by respective departments.
- Refer strategy and time tables for Unit Test/ Re-test notified separately at department level.

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Sinhgad Institutes

Sinhgad Institute of Technology Lonavala
Tentative Academic Calendar for 2016-17 Sem. - I.
(For Final Year)

Week No.	Dates	Teaching Days	Programs
1st	15/06/16 to 17/06/16	3	**Commencement of Teaching** and Registration of students.
2nd	20/06/16 to 24/06/16	5	
3rd	27/06/16 to 01/07/16	5	
4th	04/07/16 to 08/07/16	4	**Ramazan Id on 6th July.**
5th	11/07/16 to 15/07/16	5	
6th	18/07/16 to 22/07/16	5	
7th	25/07/16 to 29/07/16	5	Unit Test-I (30 Marks / 1hour /2 Units)
8th	01/08/16 to 05/08/16	5	Midterm submission week
9th	08/08/16 to 12/08/16	5	Unit Test-II (30 Marks / 1hour /2 Units)
10th	15/08/16 to 19/08/16	4	**Independence Day on 15th Aug.**
11th	22/08/16 to 26/08/16	5	In-sem exams as per university norms
12th	29/08/16 to 02/09/16	5	
13th	05/09/16 to 09/09/16	4	**Ganesh Chaturthi on 5th Sept.**
14th	12/09/16 to 16/09/16	4	**Bakri Id on 13th Sept.**
15th	19/09/16 to 23/09/16	5	End of Teaching on 23rd Sept.
16th	26/09/16 to 30/09/16	5	Prelim exam.
17th	03/10/16 to 07/10/16	5	MOCK Practicals/Orals & Final submissions
	10/10/16 to 28/10/16		Tentative dates for university practical exam.
	07/11/16 to 26/11/16		Tentative dates for university theory exam.
	05/12/16 to 10/12/16		Selections for cultural events of 'SPANDAN'
	15th Dec 2016		College reopens for next sem. (Sem. II)
	Total no. of days	**79**	

1. QA/LR Test on 4th week of June to 1st week of July.
2. Employability Test -I = 1st week of July.   Employability Test - II = 4th week of July.
   Employability Test -III = 5th week of July.   Employability Test -VI = 1st week of August.
3. VAP = 1st week of Sept to 4th week of Sept.

- The attendance of students will be displayed on 2nd day of every month.
- Students are advised to note the registration process and soft skill / Technical skill Activities notified separately by respective departments.
- Refer strategy and time tables for Unit Test/ Re-test notified separately at department level.

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SINHGAD TECHNICAL EDUCATION SOCIETY'S

SINHGAD INSTITUTE OF TECHNOLOGY

Kusgaon (Bk), Lonavala-410401.

Tentative Academic Calendar 2016-17 / SEMESTER – II

Sr. No.	Particulars	Date & Day
1.	Commencement of Teaching TE / BE	15th December 2016
2.	Commencement of Teaching FE / SE	22nd December 2016
3.	Cultural Program (Surabhi 2017)	04th January 2017
4.	Unit Test I for FE / SE (30 Marks / Units: 1,2)	23rd to 28th January 2017
5.	Declaration of Result of Unit Test	30th January 2017
6.	SPPU On line Phase I – FE / SE	30th January to 04th February 2017
7.	Neon and Techtonic - 2017	9th to 13th February 2017
8.	Mid Term Submission	15th to 17th February 2017
9.	Unit Test II for FE / SE (30 Marks / Units: 3, 4)	27th Feb to 03rd Mar 2017
10.	Unit Test I for TE / BE (30 Marks / Units: 1, 2 & 3)	27th Feb to 03rd Mar 2017
11.	SPPU On line Phase II – FE / SE	06th to 11th March 2017
12.	SPPU In-Sem Exam TE / BE (30 Marks Units: 1 to 3)	07th to 11th March 2017
13.	Conclusion of Teaching	31st March 2017
14.	Prelim Exam for TE / BE (70 Marks / All 6 units)	03rd to 07th April 2017
	Declaration of Result of Prelim Exam	09th April 2017
15.	Mock Practical & Final Submission	10th to 14th April 2017
16.	Issue of Term Grant Certificate to All Clear Students in Prelim Exam & Mock Practical	14th April 2017
17.	University Examinations: a. Practical/Oral	15th to 27th April 2017
	b. Theory	02nd to 29th May 2017
18.	Start of next Academic Year	12th June 2017

For STP and T&P activities students should refer departmental Notice boards.

Holidays as per Circular from Savitribai Phule Pune University and STES orders.

Dr. M. S. Gaikwad
Principal
(Dr. M. S. Gaikwad)

ANNEXURE II

FEEDBACK FORM THE STAKEHOLDERS:

The experts from industry are involved during the process of curriculum development at the university level. The institute has a feedback mechanism to record the views of the stakeholders regarding curriculum and syllabus.

The feedbacks are taken in the online and offline mode through informal discussions, surveys and suggestions alumni, parents, industry/employer, and academicians. Also, the institute has an online student feedback system in which all students can post their opinion about the course contents.

In addition, Teacher Guardian (TG) meetings are conducted on regular basis to obtain feedback from the students regarding curriculum as well as other development activities. Following tables show sample survey conducted by one of the department.

1. Feedback from the Industry

Table 1.1Feedbacks from the Industry

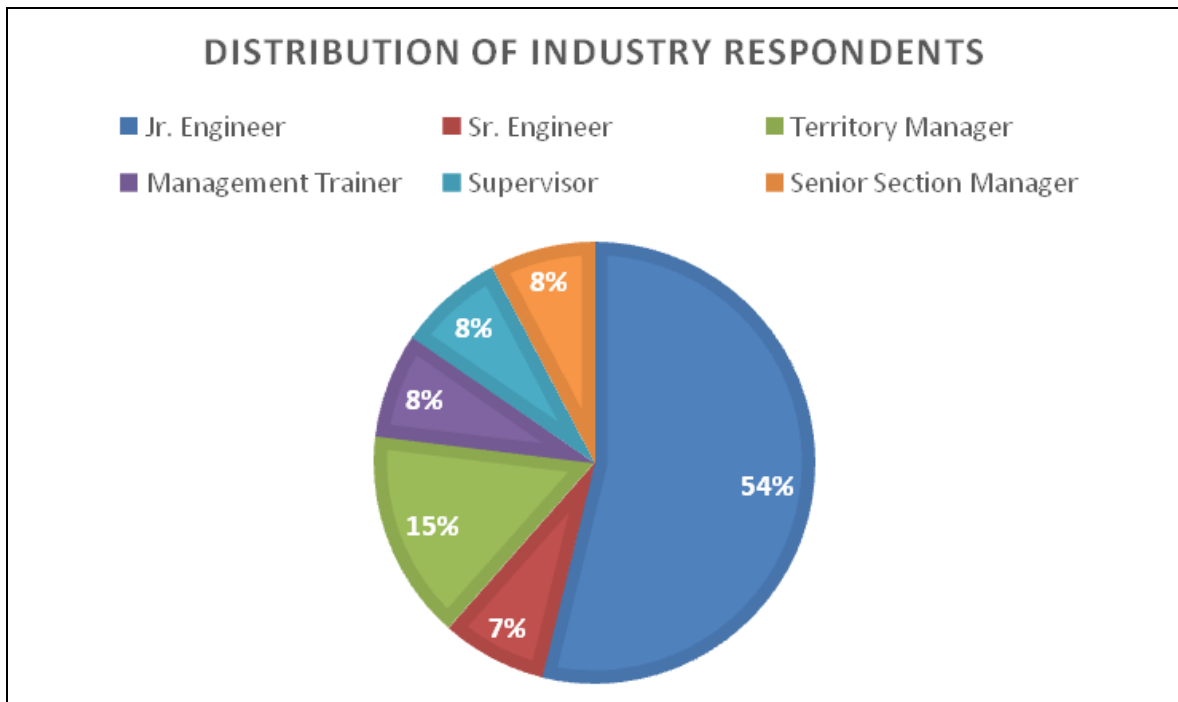| PEO	Program Educational Objectives	Excellent	Average	Poor	Remark
I	Preparation	11	2	-	1. Need to add more updated knowledge 2. Focus needed on applied mathematics and its application
II	Core competence	11	2	-	1. Focus on personality development. 2. Research lab setup can be done.
III	Breadth	11	2	-	Focus on interdisciplinary programme
IV	Professionalism	6	7	-	1. Arrange the training program on ethical attitude in student 2. Improve the professional attitude to lead in the industry. 3. More interaction needed with the industrial person.
V	Learning Environment	9	4	-	1. Must focus on practical knowledge with theoretical basics.

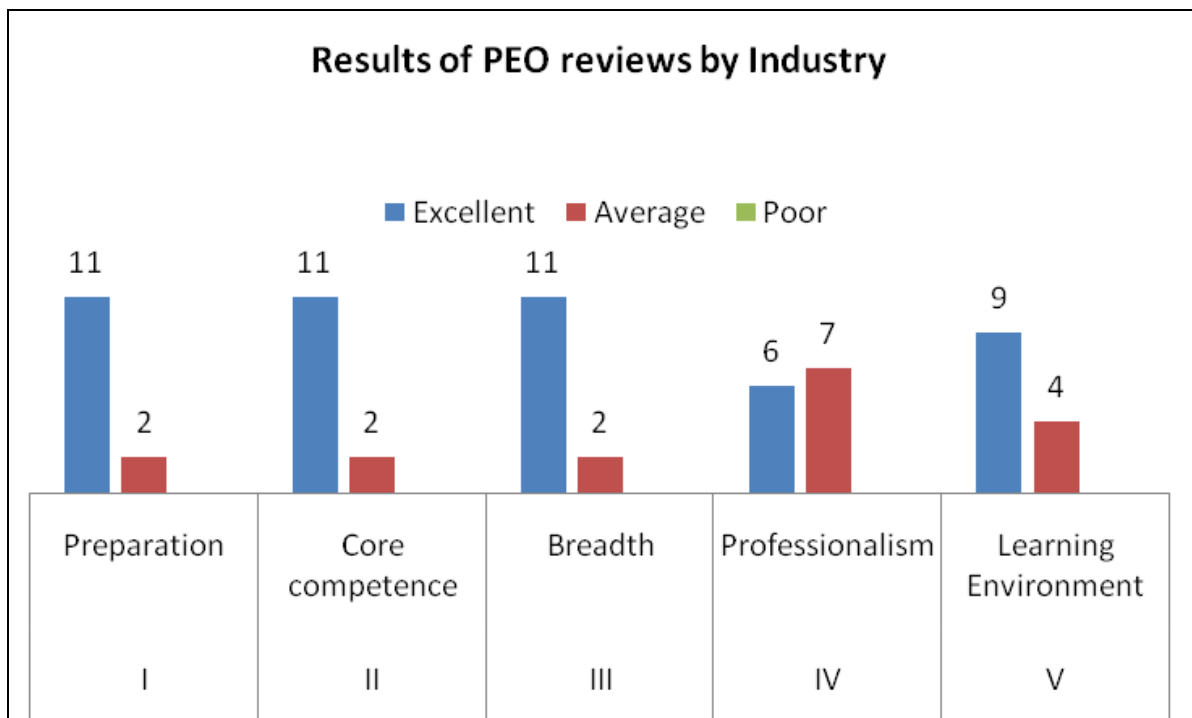**Figure 1.1 Distribution of the Industry respondents**

Figure 1.2 Results of PEO reviews by industry

2. Feedback from the Academicians

Table 1.2 Feedbacks from the Academicians

Sr. No.	Program Educational Objectives	Excellent	Average	Poor	Remark
I	Preparation	65	2	0	Project-based learning is required. Knowledge, abilities, values and attitudes that a student in your program is expected to have within that area/field.
II	Core competence	64	3	0	Industrial training is required, professional attitude and ethics are important.
III	Breadth	61	6	0	Students should be able to write a research paper.
IV	Professionalism	60	7	0	Should allow students to attend industrial training. Students completing the Engineering program should practice design skills.
V	Learning Environment	62	5	0	Increasing applied knowledge. Projects should be given from industries in the early stages; industrial training is required.

Following pie chart shows nature of respondents in this survey.
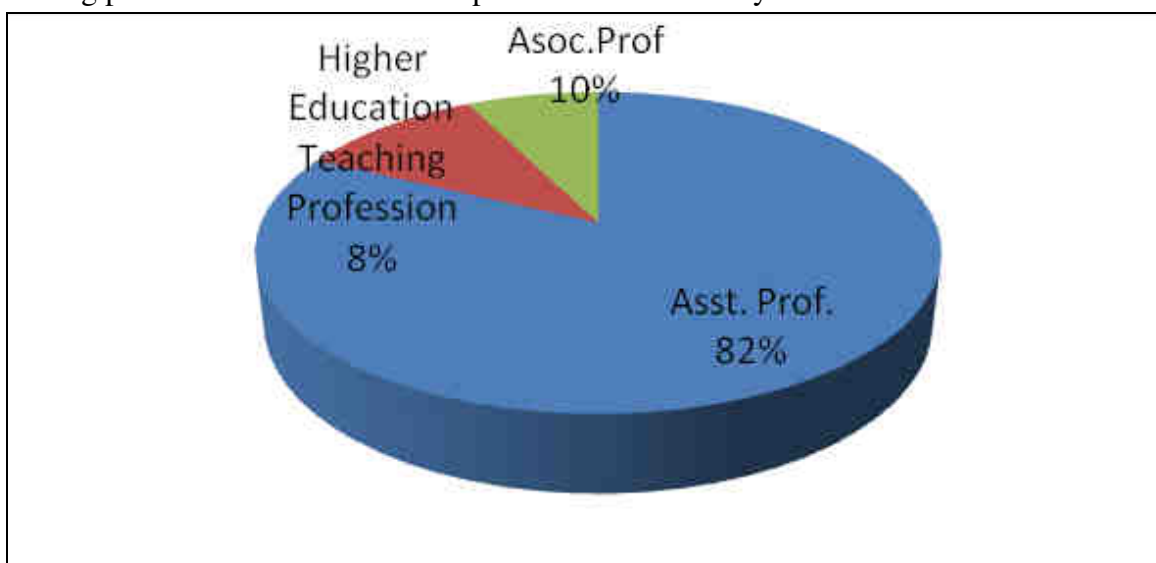
Figure 1.3Distributions of the Academicians
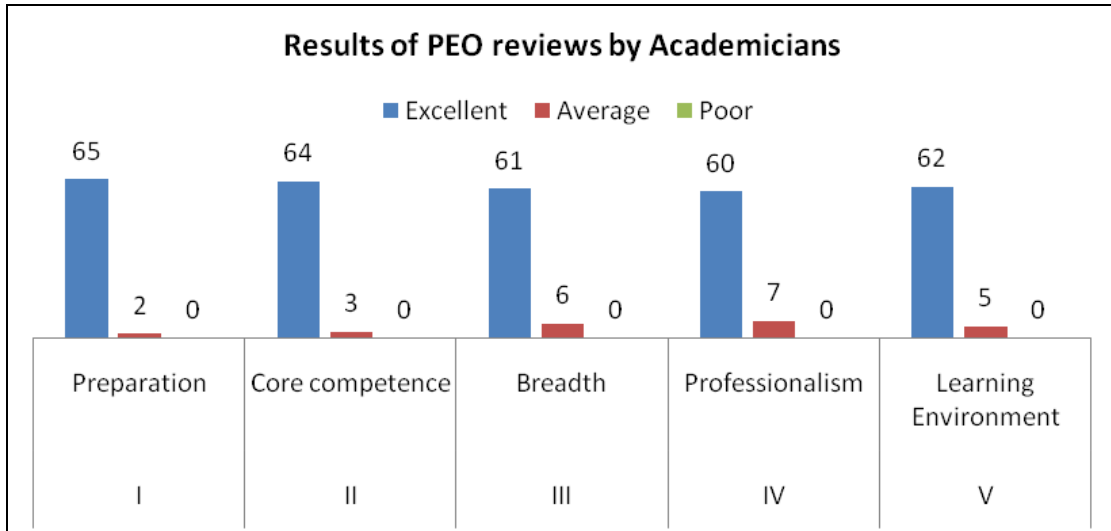
Figure 1.4 PEO reviews feedback by Academicians

These suggestions are discussed in the 'Board of Studies' meeting, and the required amendments are incorporated in the curriculum and syllabus. These inputs are also used to design enrichment programmes.

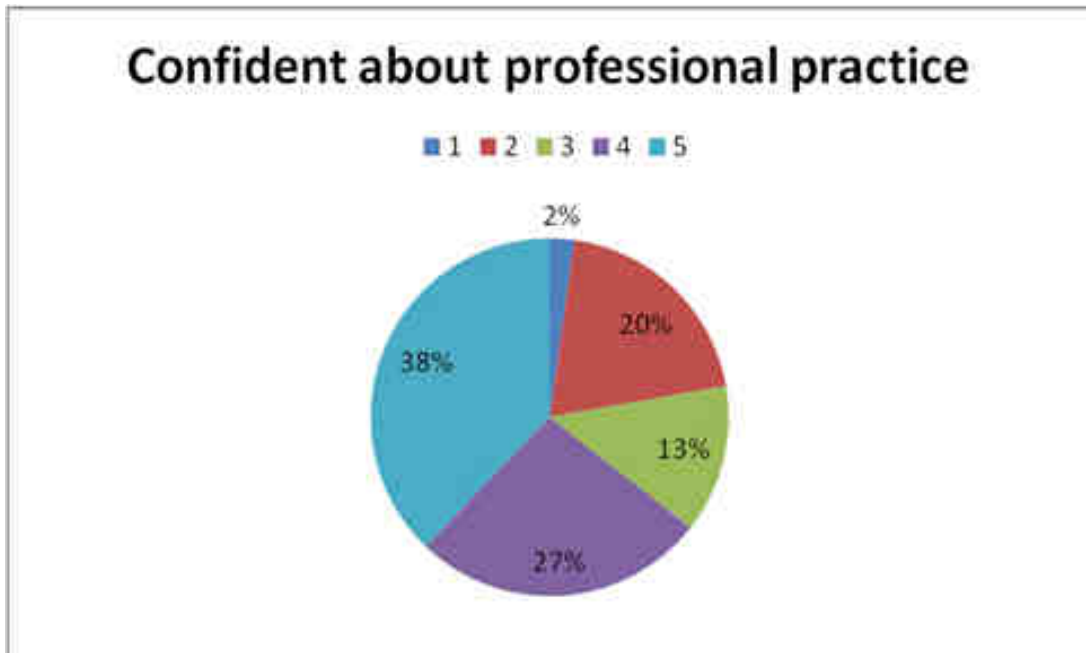3. **Feedback received in Exit Survey form Final Year Students**

 Opinions of Students from question number 1 to 5 are categorized as

1- Disagree, 2- Strongly Disagree, 3- Mixed Feelings 4- Agree, 5- Strongly Agree

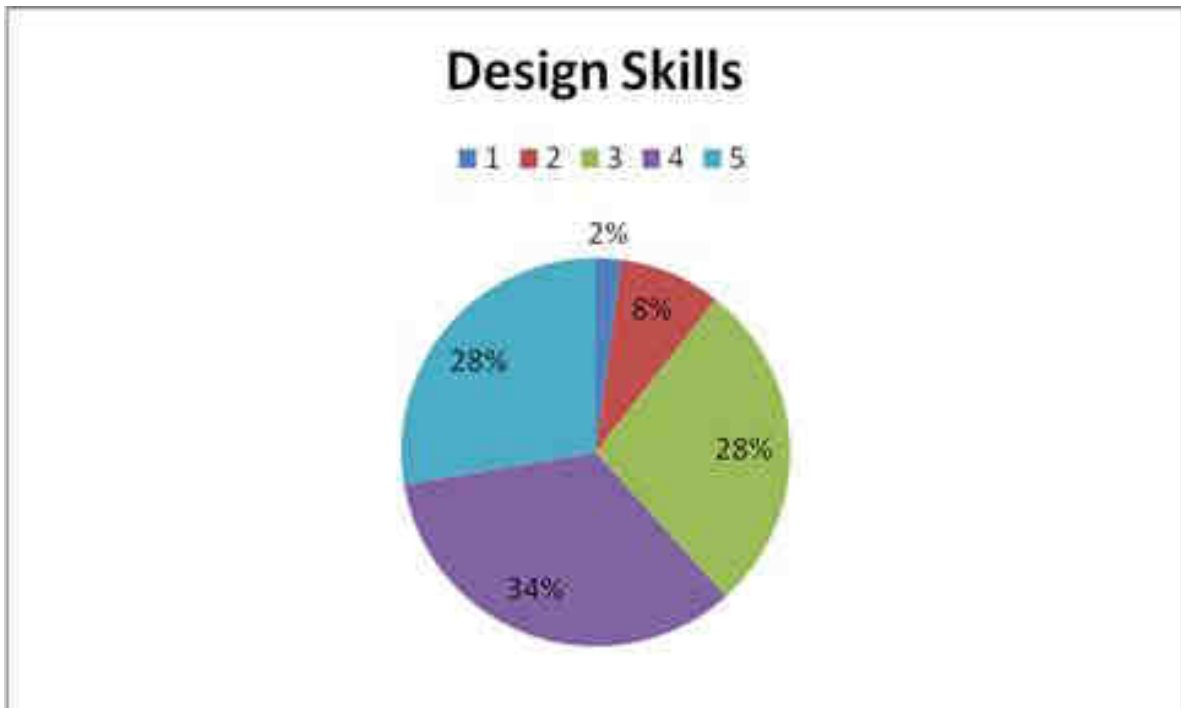1. **I am ready to join my professional practice after graduation**

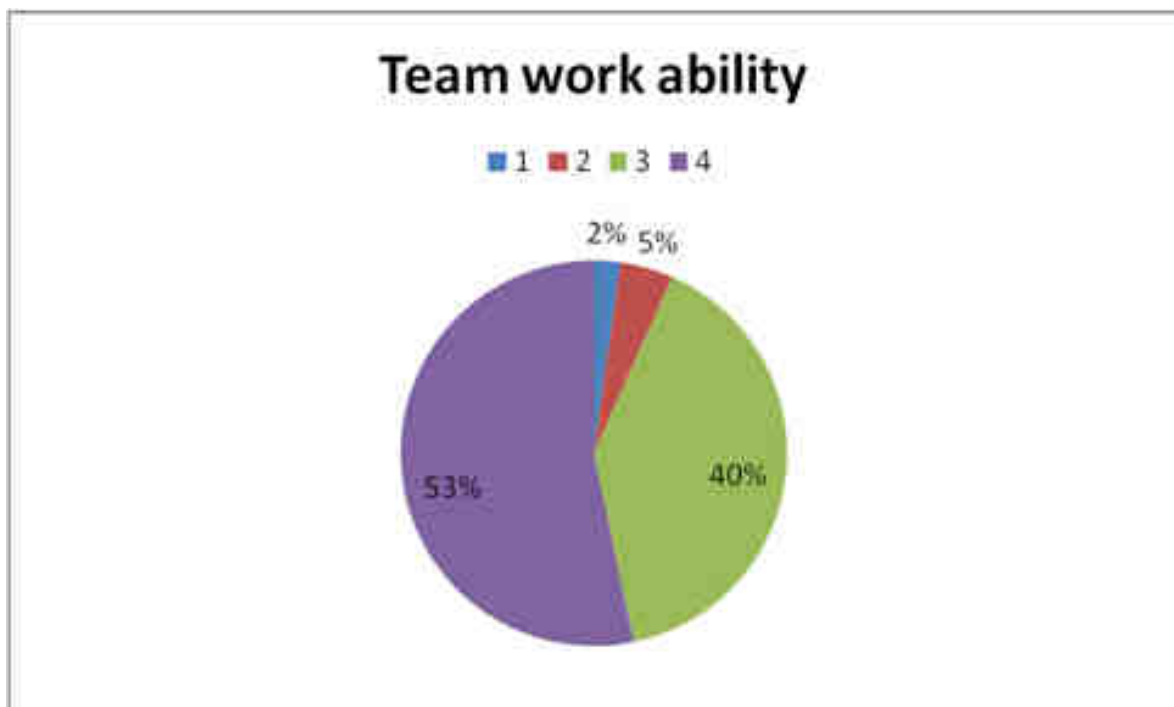**2. I am Confident about my understanding of professional practice and ethics**

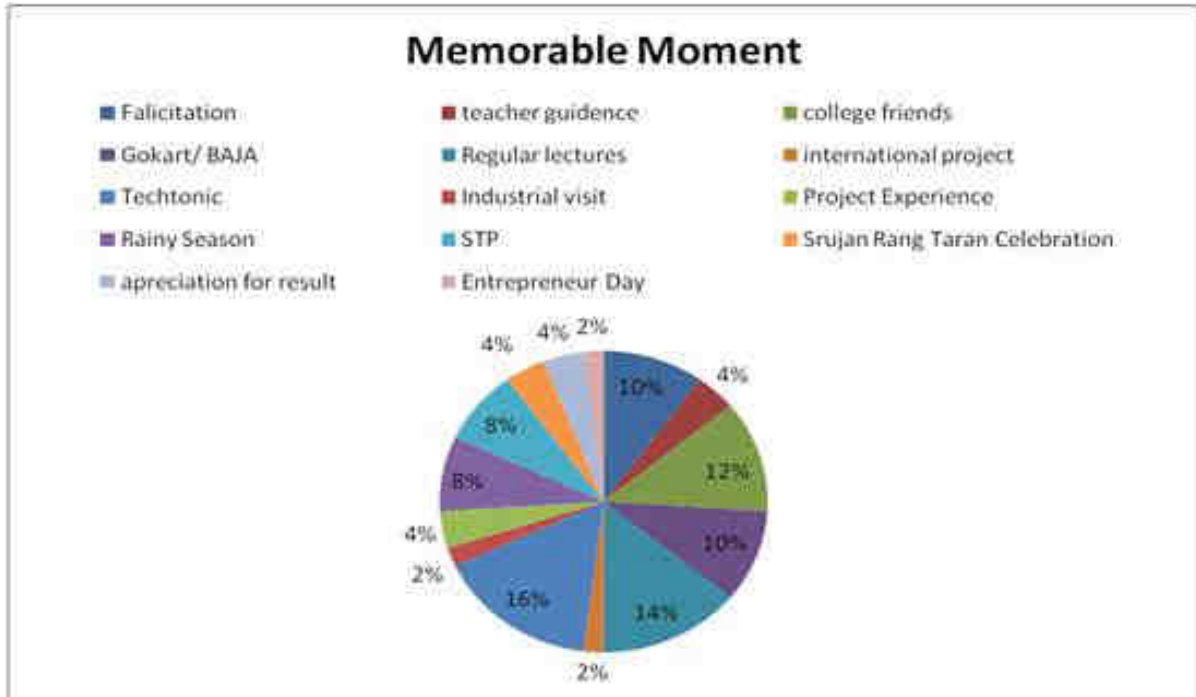**3. I have developed ability to write research papers and reports**
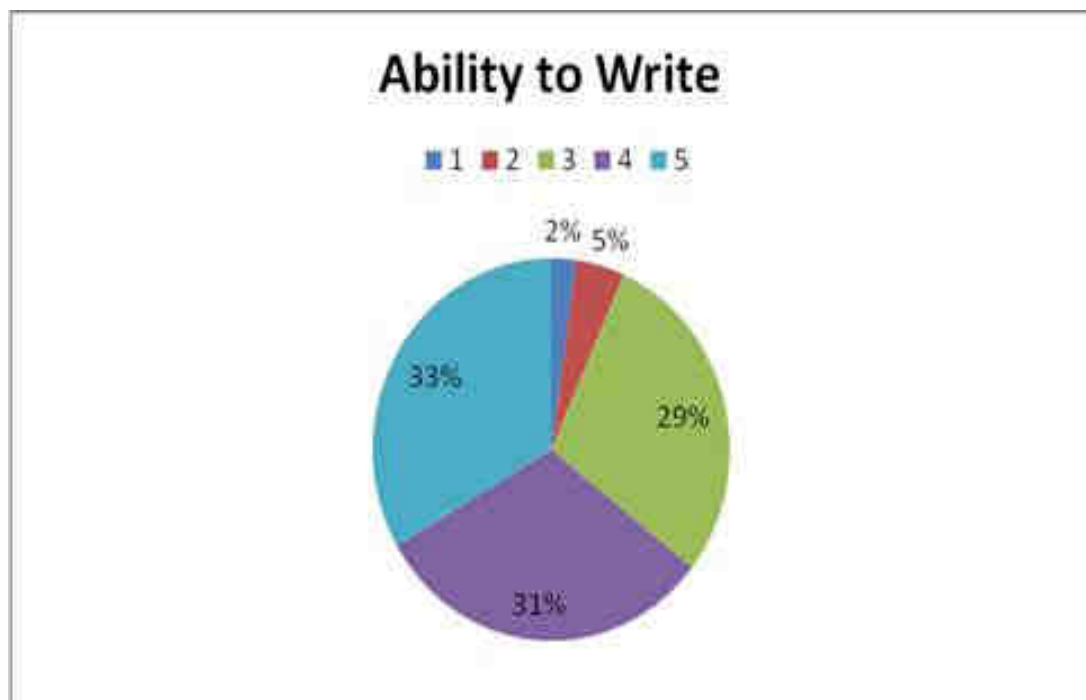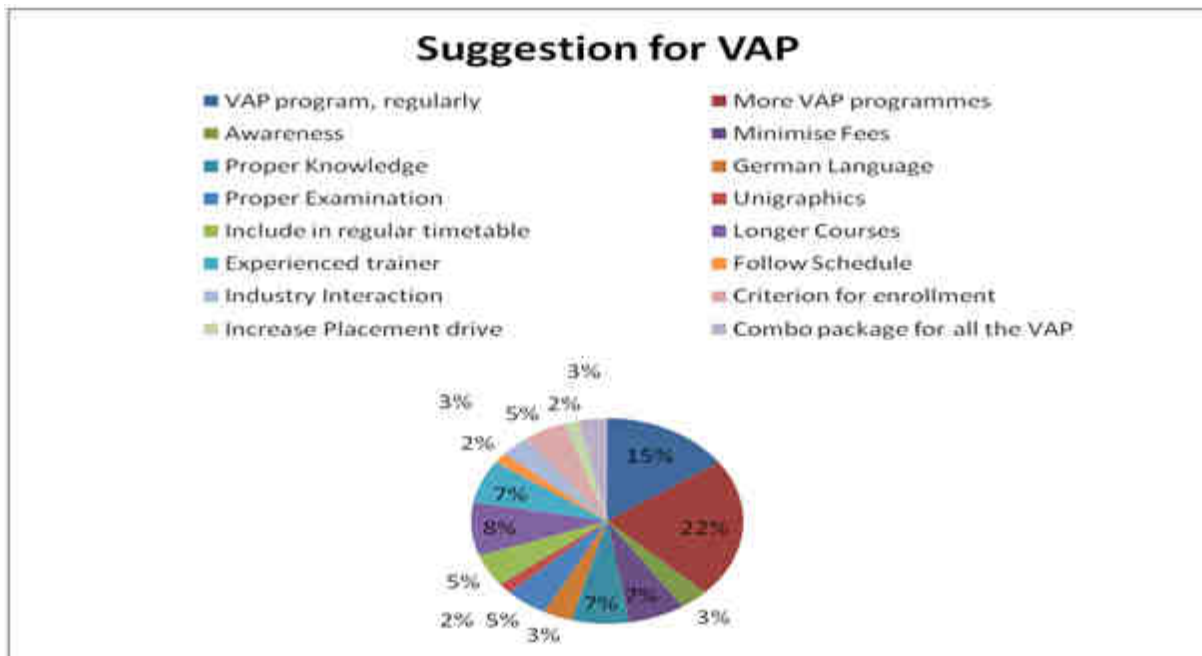
4. I have developed design skills

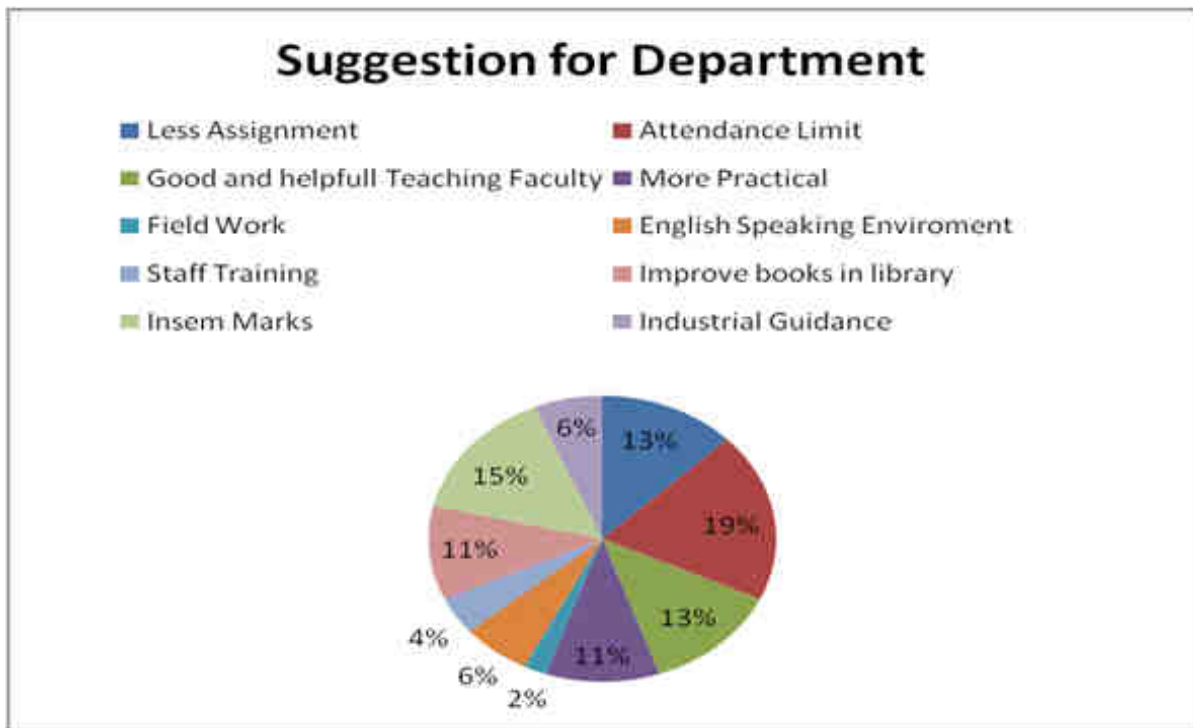**5. I have developed an ability to work in team**

6. Please share any particular rewarding educational moment that you remember during your experience in the SIT
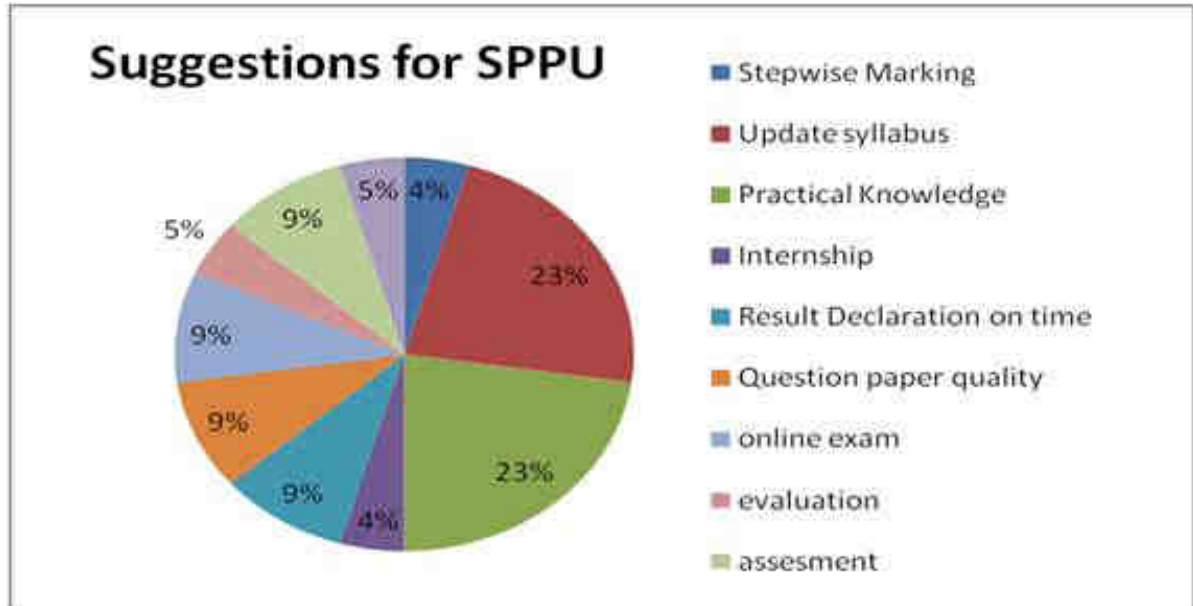

7. Any three Suggestions for VAP betterment for further students

8. Your suggestions about the SIT mechanical

9. Any five suggestions for SPPU curriculum Development

10. How would you rate your Educational experience at SIT

ANNEXURE III

BEST PRACTICE

A) Best Practice No.1: Project Based Learning Environment
1. **Goal:** For achieving effective learning by students.
2. **The Context:** Learning happens only when one performs tasks on his own.
3. **The Process:**
   i. Students are encouraged to pick up a project in small groups in the representative list of areas prepared by the department or by him. They are required to go through a structured process of analyzing the problem, solution development and implementation.
   ii. Student projects are then evaluated on the basis of merit.
   iii. Necessary feedback is given to students.
   iv. Institute has developed various schemes such as Lab innovations, VAP and IIIC which promote learning through projects.
4. **The Outcome:** PBL shows improvement in understanding and confidence about core concepts among students. It also helps in achieving skills required for the professional practice.

Ex. A PBL model developed to understand the topic Hardness testing of materials (Material Science) is given below

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Project Title 1: Determination of hardness of various materials on various hardness testing machines and their comparison

Aim: - To understand the hardness of different materials.

Objectives:

- Performing hardness testing on various harness testing machines to make students conversant with these machines.
- To compere hardness no's of the same material on various hardness scales
- To formulate relationship between UTS and hardness nos for the materials tested in the experiment.

Equipment's:– Rockwell, Brinell, Vickers Hardness Tester, Indenter, different materials

Procedure: -Necessity to find the hardness of given material. --- 5 min
1. State – Introduction to terminology.
2. Explain – hardness testing machines.
   2.1 Brinell, 2.2 Rockwell, 2.3 Vickers
3. Demonstration – Experimentation on machine.
   3.1 Procedure to calculate the Hardness on Brinell
   3.2 Procedure to calculate the Hardness on Rockwell
   3.3 Procedure to calculate the Hardness on Vickers

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4. Calculate – Calculation of Hardness. (BHN/ VHN) --------60 min.
    4.1 BHN – (Formula)
    4.2 VHN – (Formula)

5. Compare – Summarise and Compare readings of different materials

Table No.1 Hardness of different materials.

Sr. No.	Name of Materials(with crystal structure)	Hardness	Remark
1	MS (18–8 (304) stainless steel annealed	200-1180	Ok
2	Al – (FCC)(6082T6)	160–550	Ok
3	Cu – (FCC)(060 (soft)	343–369-878	Ok
4	Mg – (HCP)Grade ZE41 Magnesium Alloy	196	Ok

Conclusion:
Group of 5 with total 64 students has conducted the hardness test on different material using Brinell, Rockwell and Vickers tester, mean value of hardness are shown in table after student experimentation.

B) Best Practice No.2: Comprehensive Student Training Program (STP)
1. **Goal:** Development of core engineering aptitude among students.
2. **Context:** STP involves provision of special training over wide spectrum of attributes an engineer is supposed to possess. The whole training is sub divided in to five phases in five semesters. Curricula for these STP phases have been designed quite thoughtfully and are reviewed and revised suitably from time to time.
3. **Process:** Progressive stages of STP constitute the following

STP I: This module consists of following:

Module	Details of Activity	Suggestions / Activity
01	Personal and Career Goal Setting	Cross introduction, with the help of drawing-no words, numbers. Video-SMART goals
02	SWOT Analysis	Video, Carry out personal SWOT using colored cards-Green, Black, Yellow and red
03	Behavioral Skills	Attitude measurement test
04	Public Speaking	Show video and identify Do's and Don'ts
05	Presentation Skills	Body language and gestures to be taken care of
06	Resume Writing	Show bad 2/3 resume, actual resume writing

07	Listening Skills	BEC listening exercise with CD
08	Group Discussion	Identify topics
09	Report Writing	Topics
10	Letter / Application Writing	Show Sample bad emails and then provide Do's and don'ts

STP II: Covers following aspects

Module	Details of Activity	Suggestions / Activity
01	Listening Skills	1:Chinese Whispers 2:Audio Activity 3:Please Pay Attention 4:Story Telling 5:Audio Activity (Travelling Abroad) 6:Audio Activity (Going to the Cinema)
02	Reading Skills	1:Fluency Developer Activity 2:Summarizing Activity 3:Word Color Conflict 4:Punctuation Activity 5:Read and Summarize Activity 6:Comprehension Activity
03	Writing Skills	1:Job Ad Worksheet 2:Extempore 3:Guess the Movie Name 4:Group Verbal Presentation 5:Image Based Activity
04	Speaking Skills	1:Role Plays 2:Sentence Making 3:Essay Writing 4:Letter Writing 5:Report Writing 6:Resume Writing

STP III covers the following:

- Training and refreshing of technical fundamentals are provided to enhance the employability, prepare students for entrepreneurship and prepare students for higher education in India as well as Abroad.
- AMCAT test.
- Quantitative Aptitude and Logical Reasoning (QALR) Tests.

- Training need and outcome assessed using AMCAT, a job test preferred by many industries.
- Students will be provided a three-year presence on AMCAT portal to seek placement.
- "To build a personality equipped with exquisite technical and non-technical skills, which are globally at par".

STP IV covers the following:

Research Component: in the form of writing of a review paper.

1. This activity, to be undertaken by the student individually, should be coupled with the seminar activity by the departments who have seminar as a component in their third-year semester II syllabus. If seminar component is absent in the syllabus in TE II, this activity should be undertaken independently.
2. To educate the students, expert in-house & / external faculty with Ph.D. should deliver lectures on Research Methodology. 3 sessions of 2 hours each (1 session / week) should be conducted by the said faculty. Specific attention should be given to literature review, determination of gap, setting of aim and objectives, selection of appropriate methodology and technical writing. Delivery of the lecture should be in line with the standard presentation, which will be provided by the steering committee.
3. The guide should assist the student with a reading of published article, review of all such published articles, determination of gaps in the area. Also, the guide should assist the student with technical writing of the paper.
4. Per guide, 4-8 students should be allotted.
5. At the end of the semester, the student should submit the review paper. The paper should include following sections: introduction, background, literature review and summary. The Literature review section should be of minimum 3, open access, published articles from science direct.
6. Based on the quality of the paper, the guide should suggest whether to submit the paper to a conference / journal for publishing.

STP V covers the following:
- Interview Preparation
    1. Practice of Group Discussion and Personal Interview.
    2. Quantitative Aptitude and Logical Reasoning Tests.
    3. Adaptive test developed by experts from MIT, Harvard, IIITs and IIMs.
- Assessment Modules:
    1. Mandatory modules: English, Logic, Quantitative, Personality.
    2. Optional modules: Attention to detail, Excel, Typing, Data Interpretation, Behavioral Assessment, GK, Computer Literacy, CP, Java, C++, Unix, SQL, Domain Specific.

NOTE:
1. Every STP stage except V has one AMCAT Test.
2. In STP III, 6 numbers of QA/LR tests are given by each student.

Outcome: Outcome of this huge exercise has been enormous. Performance of students has significantly improved in both employability skills as well as the entrepreneurship skills.

Abbreviations

AAU	Aalborg University
ACES	Association of Computer Engineering Students
AMC	Academic Monitoring Committee
AICTE	All India Council for Technical Education
AMCAT	Aspiring Minds Computer Adaptive Test
BOS	Board of Studies
CAP	Centralized Admission Process
CAS	Career Advanced Scheme
CCD	Café Coffee Day
CEO	Chief Examination Officer
CBCS	Choice Based Credit System
CLOs	Course Learning Outcomes
CoE	Centre of Excellence
CTC	Corporate Training Centre
DTE	Directorate of Technical Education
EDC	Entrepreneurship Development Cell
EKC	Engineering Knowledge centre
ETP	Enhancement Training Program
EPF	Employee Provident Fund
ERP	Enterprise Resource Planning
EU	European Union
FDP	Faculty Development Program
FDPs	Faculty Development programmes
GATE	Graduate Aptitude Test for Engineering
GD	Group Discussion
GEMS	Governing Educational Management System
GISFI	Global ICT Standardization Forum for India
HOD	Head of Department
ICEM	Indira College of Engineering and Management
IETE	Institute of Electronics and Telecommunication Engineers
IIIC	Industry Institute Interaction Cell
IQAC	Internal Quality Assurance Cell
IQAS	Internal Quality Assurance System
ISP	Internet Service Provider
ISR	Institutional Social Responsibility
JAES	Journal of Advances in Engineering Science
LIC	Local Inspection Committee
MESA	Mechanical Engineering students Association
MITAE	MIT Academy of Engineering
MNC	Multinational Company

MoUs	Memoranda of Understandings
NAAC	National Assessment and Accreditation Council
NPTEL	National Programme on Technology Enhanced Learning
NSS	National Service Scheme
OPAC	Online Public Access Catalogue
OS	Office Superintendent
PBL	Project Based Learning
PEOs	Program Educational Objectives
PI	Personal Interview
PLOs	Programme Learning Outcomes
POs	Programme Outcomes
PPP	Profile and Project Presentation
PWD	The Persons With Disabilities Act
QA- LR	Quantitative Aptitude – Logical Reasoning
R&D	Research & Developement
RHTC	Rural Health Training Centre
SETU	School of Enterprises Tie-Up
SIT	Sinhgad Institute of Technology
SLS	Self Learning Session
SPPU	Savitribai Phule Pune University
SSR	Self Study Report
STES	Sinhgad Technical Education Society
STP	Student Training Program
SWOC	Strength Weakness Opportunity Challenges
T&P	Training & Placement
TAP	Teacher's Advancement Program
TFWS	Tuition Fee Waiver Scheme
TG	Teacher-Guardian
TTT	Train The Trainers
VAP	Value Addition Program
WSN	Wireless Sensor Network