



Sinhgad Institutes

**SINHGAD TECHNICAL EDUCATION SOCIETY'S**

**SINHGAD COLLEGE OF ENGINEERING**

**VADGAON (BK), PUNE**

**SELF STUDY REPORT**

Submitted to

**National Assessment and Accreditation Council**

**Bangalore**



**STES's Sinhgad College of Engineering, Pune**

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# **SELF – STUDY REPORT (SSR)**

**For NAAC Accreditation of  
STES' Sinhgad College of Engineering**

**Submitted to**

**National Assessment And  
Accreditation Council**



**Submitted By**

**STES' Sinhgad College of Engineering**

**Vadgaon (Bk.), Pune – 411 041**

**Maharashtra**

**[www.sinhgad.edu](http://www.sinhgad.edu)**

## Abbreviations

AICTE	All India Council for Technical Education
AIEEE	All India Engineering Entrance Examination
AMC	Academic Monitoring Committee
AMCAT	Aspiring Minds Computer Adaptive Test
ARAI	Automotive Research Association of India
ARC	Application - Form Receipt Center
ATMA	AIMS Test for Management Admissions
BCUD	Board of College and University Development
BOS	Board of Studies
CAP	Centralized Admission Process
CAT	Common Admission Test
CDAC	Center for Development of Advanced Computing
CEO	College Examination Officer
CET	Common Entrance Test
CPGCON	Post Graduate Conference for Computer Engineering
CSI	Computer Society of India
CT	Class Teacher
DEP	Programme/s in Distance Education Mode
Dept.	Department
DTE	Directorate of Technical Education
E & TC	Electronics & Tele-Communication Engineering
EBC	Economically Backward Class
E-Cell	Entrepreneurship Cell
ERP	Enterprise Resource Planning
ET	Employability Test
FDP	Faculty Development Programme
FE	First year Engineering
GATE	Graduate Aptitude Test in Engineering
GB	Governing Body
GD	Group Discussion
GEMS	Governing Educational Management System
GMAT	Graduate Management Admission Test
GoM	Government of Maharashtra
GRE	Graduate Record Examination
HBR	Harvard Business Review
HoD	Head of Department
HPC	High Performance Computing
ICT	Information and Communication Technology
IDP	Institutional Development Proposal
IETE	Institution of Electronics and Telecommunication Engineers
IIC	Industry-Institute Interaction Cell
IIM	Indian Institute of Management
IIT	Indian Institute of Technology
IPGCON	Post Graduate Conference for Information Technology
IQAC	Internal Quality Assurance Cell
ISF	Information Systems Frontiers
JEE	Joint Entrance Examination

LMC	Local Management Committee
MAT	Management Aptitude Test
MBA	Masters of Business Administration
ME	Masters of Engineering
MHCET	Maharashtra Common Entrance Test
MHRD	Ministry of Human Resource Development
MIS	Management Information System
MoU	Memorandum of Understanding
NAAC	National Assessment and Accreditation Council
NBA	National Board of Accreditation
NPTEL	National Programme on Technology Enhanced Learning
NSS	National Service Scheme
OBC	Other Backward Classes
OMS	Other than Maharashtra State
PEOs	Programme Educational Objectives
PG	Post Graduate
PI	Personal Interview
PO	Programme Outcomes
QALR	Quantitative Aptitude and Logical Reasoning
QIP	Quality Improvement Program
R&D	Research and Development
SAE	Society of Automotive Engineers
SC/ST	Scheduled Caste/ Scheduled Tribe
SPPU	Savitribai Phule Pune University
SSC	Sinhgad Student Council
STES	Sinhgad Technical Education Society
STP	Student Training Programme
STTP	Short Term Training Program
SWOT	Strength, Weaknesses, Opportunities and Threats
TAP	Teachers Advancement Program
TEQIP	Technical Education Quality Improvement Programme
TG	Guardian Teacher
TOFEL	Test of English as a Foreign Language
TTT	Train The Trainer
UG	Under Graduate
UGC	University Grant Commission
VAP	Value Addition Program

 **NAAC STEERING COMMITTEE** 

<b>S.No.</b>	<b>Name</b>	<b>Designation and affiliation</b>
<b>Chairperson</b>		
1.	Dr. S. D. Lokhande	Principal
2.	Dr. Y. P. Reddy	Vice Principal & Head – Mechanical Engg.
3.	Dr. M. B. Mali	Head – Electronics & Telecommunication Engg.
4.	Dr. P. R. Futane	Head – Computer Engg.
5.	Dr. S. S. Shastri	Head – Civil Engg.
6.	Dr. S. M. Chavan	Head – Chemical Engg.
7.	Dr. N. J. Uke	Head – Information Technology
8.	Dr. (Mrs.) Kalpana Joshi	Head – Biotechnology
9.	Prof. R. S. Katikar	Head – Production Engg.
10.	Prof. V. K. Chaudhari	Head – First Year Engg.
11.	Dr. (Mrs.) Mamta Mishra	Head – Management Studies (MBA)
12.	Mr. V. D. Tayade	Registrar

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## COVERING LETTER



Sinhgad Institutes

### SINHGAD TECHNICAL EDUCATION SOCIETY'S<sup>®</sup> **SINHGAD COLLEGE OF ENGINEERING**

[ Affiliated to Savitribai Phule Pune University & Approved by AICTE (ID No. PU/PN/Engg./116 (1996) ]

S. No. 44/1, Vadgaon (Bk), Off Sinhgad Road, Pune - 411 041.

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**Prof. M. N. Navale**  
M.E. (Elect.), MIE, MBA  
Founder-President

**Dr. (Mrs.) Sunanda M. Navale**  
B. A., M. P. M., Ph. D.  
Founder - Secretary

**Dr. S. D. Lokhande**  
M.E., Ph.D.(Electronics Engg.)  
Principal

Ref. No. SCOE/Office/2015-16/1508

11.05.2016

To

The Advisor,  
National Assessment and Accreditation Council,  
P.O. Box No: 1075, Opp. NLSIU,  
Nagabhavi, Bangalore – 560 072.

Sub: Submission of Self Study Report (SSR)

Ref: LOI bearing Track ID MHCOGN26248

Respected Sir,

With reference to our LOI bearing Track ID MHCOGN26248 submitted on 23/04/2016 and acceptance of the same by NAAC on 06/05/2016, please find herewith the Self Study Report (SSR) of this institute. The SSR is uploaded on our institute website [www.sinhgad.edu](http://www.sinhgad.edu) on 22.04.2016 for your kind perusal. The complete URL is follows:

[http://cms.sinhgad.edu/sinhgad\\_engineering\\_institutes/vadgaon\\_scoe/about.aspx](http://cms.sinhgad.edu/sinhgad_engineering_institutes/vadgaon_scoe/about.aspx)

The institute is ready for assessment and accreditation by the peer team from NAAC. You are kindly requested to consider the SSR of this institute for further processing.

This is for your kind information and consideration please.

Thanking You

With kind regards

**DR. S. D. LOKHANDE**  
PRINCIPAL





## A. PREFACE

The Sinhgad College of Engineering (SCOE) is a private unaided institution that was established by Sinhgad Technical Education Society (STES) in the year 1996. The STES was established in the year 1993 under able and dynamic leadership of Prof. M.N. Navale with an objective of providing quality education in the field of Engineering, Management, Architecture, Pharmacy, Medical Sciences, Hotel Management, Law and the basic school education from kinder garter onwards.

The SCOE offers eight undergraduate engineering programmes of four year duration namely Mechanical Engineering, Electronics & Telecommunication Engineering, Computer Engineering, Chemical Engineering, Information Technology, Production Engineering, Civil Engineering and Bio-Technology. Six engineering departments are offering post-graduate programs. The department of Mechanical Engineering, Electronics & Telecommunication Engineering, Chemical Engineering and Civil Engineering are recognized Ph.D. Research Centre by Savitribai Phule Pune University (SPPU). The institute also offers a post-graduate program leading to MBA degree. It has a total under-graduate and post-graduate annual enrollment of 1200 and 338 students respectively. There are 126 students registered for Ph.D. with this research center. All the courses are approved by All India Council for Technical Education (AICTE), recognized by Directorate of Technical Education, Mumbai and affiliated to SPPU, Pune.

The under graduate programs of the institute are accredited and reaccredited by National Board of Accreditation (NBA), New Delhi at different times for a period of 3 years and 5 years since 2003. The institute is also selected by Ministry of Human Resource Development (MHRD), Govt. of India for TEQIP-II project implementation and is a member of Confederation of Indian Industries (CII). The institute has been recognized as “Centre of Excellence” in engineering education and research by most of the stake holders in this region.

The institute has state of art infrastructural facilities in all departments for engineering research and development. The annual research paper publications of faculty and students reflect the facilities availability. The faculty of the institute continuously strives for imparting technical and soft skill knowledge to the students so as to make them employable at the time of campus recruitment by industry.

**PRINCIPAL**

## B. EXECUTIVE SUMMARY

Sinhgad Technical Education Society (STES) was established in the year 1993 under the dynamic leadership of Prof. M.N. Navale, Founder President, with an objective of providing quality education in the field of Engineering, Management, Architecture, Pharmacy, Medical Sciences, Hotel Management, Law and the basic school education from kinder garter onwards. There are more than 80 institutes under the aegis of STES offering school education, Diploma, Graduation, Post-Graduation and Ph.D. programs in various fields.

All the institutes under STES are recognized by the concerned statutory authorities and they meticulously fulfill the norms and standards laid down by these statutory authorities. All the members of the management committee of STES are eminent persons from academics and industry under whose guidance the institutes are progressing academically over the period of time. Sinhgad College of Engineering (SCOE) is established in the year 1996 and is considered as the flagship institute of STES both in academic and industry arena.

### Criterion I: Curricular Aspects

STES's Sinhgad College of Engineering is a premier self-financing institute affiliated to Savitribai Phule Pune University (SPPU). The institute follows the curriculum designed by respective Board of Studies in consultation with various stakeholders. The Course Education Objectives (CEOs) and Course Outcomes (COs) are prepared by faculty for effective delivery of respective course. The students are given a choice to choose elective subjects in final year. The academic calendar is strictly followed by every faculty, which is prepared on the basis of calendar circulated by Savitribai Phule Pune University. The academic progress of student is monitored by Guardian Teacher (Mentor) by keeping all sorts of academic, co-curricular and extra-curricular activities records. All students are encouraged to take up academic projects in collaboration with industries. The student feedback is taken at the end of first month in every semester to assess the quality of teaching-learning and corrective measures are taken by the faculty based on the feedback. The institute also has a formal mechanism to obtain feedback from other stakeholders like final year students (Exit survey), alumni, parents and industry.

Almost every department of the institute has representation either in Board of Studies (BoS), Academic Council or Senate of SPPU. Many faculty members are holding the portfolio of Subject Chairman for UG and PG courses. The institute encourages the faculty to undergo internship at industry during vacation and organizes different programs like Train the Trainer (TTT) and Teachers Advancement Program (TAP) for effectively transacting the curriculum and improving teaching practices. The institute promotes effective industry-institute interaction through Industry Institute Interaction Cell (IIC).

The institute has well equipped central library and state of art digital library for online access to international/national journals as well as several online academic resources. The departments of the institute offers several courses to serve the purpose of 'value addition' for students in their academics apart from the programs affiliated to SPPU.

All the departments of the institute make an effort to enrich the curriculum in the form of content beyond syllabus and enhance the experiences of the students by coping with the rapidly changing

technological innovations in industry. In addition, the departments conduct industrial visits, site visits, sponsored projects, AMCAT test, technical events and Student Training Programs.

### **Criterion II: Teaching-Learning and Evaluation**

The admission of students to the institute is in accordance with SPPU, Maharashtra State Government and AICTE rules. The students are admitted through Centralized Admission Program (CAP) of Directorate of Technical Education, Mumbai. The centralized admission process ensures the diversity of student admissions to the institute.

The institute has well qualified faculty with good retention ratio. It always tries to achieve excellence in teaching – learning by introducing new methods to enhance the employability and academic results. The institute has made various facilities and comfort zones available to serve the differently-abled students. It sensitizes the staff and students on issues such as gender, inclusion, environment by means of activities like Anti-ragging committee, Women Grievance Cell for Sexual Harassment, Grievances Redressal Cell, Induction Programs for newly admitted students, Guardian Teacher (Mentor) Scheme, Prayas Activity – for promoting the social values among the students, Organization of social awareness contests and activities, National Service Scheme (NSS) and others.

All the departments of the institute prepare the academic calendar for the entire semester to improve the quality of teaching-learning. The faculty members prepare their teaching plan based on feedback from stakeholders. The departments of the institute encourage the use of ICT based teaching. The institute motivates the scientific temper, critical thinking and creativity of students by organizing National and International conferences, workshops, seminars, National level technical event “Techtonic”, Robocon - Robotics competition, BAJA SAE - intercollegiate level design competition.

The institute has its own Academic Monitoring Committee (AMC) to monitor the quality of teaching–learning process. However the institute has changed this committee as per the guidelines of NAAC into IQAC from this academic year. It has a well-established policies and mechanisms to recharge the teachers by giving study leave for course work, thesis writing and financial assistance for attending FDP, STTP and conferences. The institute ensures the effective implementation of evaluation reforms of university in the form of online examinations, in semester and end semester examination and project based seminars.

The implementation of teaching plan and students’ attendance is regularly monitored by teacher guardian and Head of Department and regular efforts are made to inform the students and parents. All the departments ensure the 100% coverage of the syllabus at the end of the semester. Regular unit tests, mock online examinations, prelim tests, mock oral/practical examinations are conducted for enhancing the student results at University examinations.

### **Criterion III: Research, Consultancy & Extension**

The institute has recognized research centers affiliated to SPPU in four programs namely Civil, Chemical, E & TC and Mechanical Engineering. The Research centers are equipped with adequate hardware and software infrastructure and electronic facilities. Currently 120 Ph.D. research

scholars have registered in 4 research centers, out of which 14 scholars completed the doctoral degree. A total of 69 research supervisors are approved and attached to these four research centers of the institute.

The institute allocates a sum outlay of 10% of the total budget for Research and Development related activities. It has a Research and development (R & D) committee which plays a crucial role of promoting the research and development within the Institute. A total of 27 patents are registered by faculty and students till now. The faculty and students from the institute have carried out more than 100 research projects with a grant amount of Rs.2.63 crores received from various funding agencies till now. The Faculty strives for research paper publications in peer reviewed journals. A total of 525 research publications have been made by the faculty and students in reputed national and international journals with a citation count of 573 during the last four years. The institute also supports research projects by providing the financial assistance to the students as per the requirement of project wherever it is necessary.

The institute has signed MoU's with industries and other agencies for promoting training, research and extension activities in technical education. It has established state of art laboratories in the frontier areas like VLSI & Embedded Systems, Graphics Laboratory in collaboration with NVIDIA and INTEL, High performance computing lab.

The institute has well established procedures for consultancy activities. Both monetary and non-monetary benefits are extended to the faculty for utilizing their efforts towards consultancy assignments. A total of 20 consultancy projects have been carried out by the faculty by generating an amount of more than 1 crore.

All the departments of the institute have always remained enthusiastic to arrange training programs, technical workshops, seminars, expert lectures and others to help the faculty and students to upgrade their knowledge through knowledge exchange. Social activities like blood donation, computer awareness camp in rural area are organized by the students to enhance holistic development. The institute has a Social Welfare Officer (SWO) for creating the awareness about social activities among the students and to ensure the participation of students in these programs. The institute encourages and financially supports the students to participate in various national and international events like SAE BAJA, SUPRA, ROBOCON, Techfest etc. It also organizes various activities through Students' Clubs, NSS and other forms of community development services.

#### **Criterion IV: Infrastructure and Learning Resources**

The basic infrastructure required for teaching–learning is available in all departments and it is in line with the norms of AICTE. It includes class rooms, tutorial rooms, laboratories, seminar hall, auditorium, departmental library and others. The infrastructural facilities are being added from time to time to keep in pace with the requirements of increased intake. All the class rooms are equipped with LCD projector, computer system and CCTV facility at important locations of the building. In addition, several other facilities are available for extra-curricular activities like Cricket Ground, Playground, Indoor Games, Open Air theatre, Swimming Pool, Gymnasium, Cultural Activities, Newspapers, Fruit Centre, Milk Parlor, Medical Store, General Stores and Campus Clinic.

The institute has sufficient hostel facility available in campus for both boys and girls. There are 10 boys' hostels including one NRI hostel available with a capacity of 1068 rooms and a girl's hostel having 970 rooms with three, four and five seater capacity. All the rooms are provided with a cot, mattress, pillow, table, chair and cupboard. The NRI students are provided with three seater rooms with provisions like refrigerator, TV, Kitchen trolley with Gas cylinder and washing machine. The institute has a campus clinic for counseling and treatment. In addition, the STES has got a medical and dental hospital which provides all the facilities of hospital free of cost to all the students, faculty as well as the outside patients.

All the departments of the institute have adequate computing facility both in terms of hardware and software. All the computer systems available are with latest configuration with licensed software installed. The campus is connected to central Universal Threat Management device through LAN which provides internet facility of bandwidth 28 Mbps. In addition, Wi-Fi facility with band width 45 Mbps is made available  $24 \times 7$ .

### **Criterion V: Student Support and Progression**

The institute facilitates all the scholarships offered by both the State and Central Government. The needy students are helped through Earn & Learn scheme of SPPU in which 30% of the funds are contributed by the institute and 70% by the university. All the eligible students admitted in reserved category are receiving financial assistance from State Government. The institute arranges extra lectures for SC/ST students. Special preference is given for differently abled students for on-campus hostel accommodation.

The institute has active Entrepreneurship Development Cell (EDC) which organizes expert lectures conducted by industrialists and experienced professionals to develop entrepreneurial skills among the students. Some of the students of this institute have already made progress in starting their own startup companies after their graduation.

The institute motivates the students to go for higher studies and research work. Many students from the institute are appearing for GATE and other related examination for PG programs in India and abroad. This number is continuously increasing for the last few years. The institute has a centralized Training and Placement cell. It has a structured mechanism to make the students employable and also help them to choose the career of their interest. The cell is headed by dean with an institute level training and placement officer who co-ordinates with various department level faculty coordinators for its activities. More than 100 companies visit the campus every year for campus placement during the last four years with a placement rate of 90% of all the eligible students. The average passing percentage and completion rate of students during the last four years is in between 85-100%. The passing percentage of the institute as compared to other institutes in the surrounding colleges in the region is always higher.

The institute has a Student Grievance Redressal Cell comprising of Principal, Faculty members and student representatives. The students' personal and academic grievances are taken care of by the guardian teacher, Class Teacher and the higher authorities, if needed. It also has anti-ragging committee and squad comprising of Principal, senior faculty members and student representatives. The Alumni association contributes actively to the growth of the institution through registered alumni association.

The institute is part of annual cultural meet of students “Sinhgad Karandak”. All the events are organized by the students under the supervision of faculty. It is also a part of annual technical meet of students “Tectonic”, which showcase the technical skills of students. In addition, students are encouraged to participate in various national and international level events in cultural, sports and technical activities. Several students from the institute received laurels by winning the events in all these activities.

### **Criterion VI: Governance, Leadership and Management**

SCOE aims at holistic development of students and teachers by implementing education and other initiatives to strategically meet development goals of the institute. The SCOE has constituted Governing Body and Local Managing Committee as per rules and guidelines of Government of Maharashtra and SPPU. The head of the institution administers all the activities and plays a leading role in governance and management of the institution.

The institute provides various platforms for faculty to develop leadership skills at department, institute by giving them various portfolios. The policies for institution growth in terms of academic, administrative and financial matters are decided by Governing Body. The management has given freedom to the Principal, Head of Department and faculty for the overall progress and development of the institute in terms of academic and administrative matters. The functioning of the institute is at four different levels such as student, faculty, Head of the Department and Principal.

Several committees formed in the institute play important role in various institutional functions. The committees are always headed by faculty and in some cases with student as members. The management of the institute is committed in assuring quality service to all its stake holders, students, alumni, employees, employers and the community.

The institute conducts an exit survey of the outgoing students which is executed by the departments. The survey addresses the important issues like quality of students’ intake, academic performance of the students and acceptability of students by industry and institutes of national & international importance for higher education and variety of research activities.

The institute provides many welfare schemes like Group Insurance Scheme, EMBF, PF, Gratuity, Accidental Insurance, Free medical facilities, Maternity leave, extended maternity leave, uniform for security guards, provision for qualification improvement and staff quarters for both teaching and non-teaching staff.

The institute has implemented the concept and functioning of IQAC through the Academic Monitoring Committee of STES. The committee visits each department and takes feedback on the teaching and learning process at various departments in every semester. The suggestions for improvement if any are immediately given to the faculty and Head of Department.

The management of the institute is always proactive in introducing new methods for enhancing the governance and leadership among faculty, staff and students. The institute organizes need based motivational training programs for faculty and staff. The management takes Principal and Heads of Department (HoD) into confidence in finalizing various programs to be organized at STES level. The HoDs are given academic and administrative freedom in smooth functioning and development of the department. The management encourages the faculty to carry out the research

and consultancy activities. It has provided a well-defined guidelines for the distribution of income generated through various research and consultancy programs. The management motivates the faculty and staff to attend various workshops/ seminars/conferences by way of partial reimbursement of the expenses. The institute aims to achieve the center of excellence in academic research in select areas of engineering by motivating all the faculty to pursue Ph.D.

### **Criterion VII: Innovation and Best Practices**

The institute display posters at prominent places on issues like climate change and environment. It adopts environment friendly practices and takes necessary actions such as – energy conservation, rain water harvesting, waste recycling, carbon neutrality etc. Green audit initiative is taken by the faculty, staff and the students, through various projects periodically, by supervising the existing status of few of the aspects under audit concept, like: maintenance of the existing trees and locating places for planting new trees.

The charm of the campus is because of lush green surroundings, utility of natural topography. The variety of flora and fauna with different flowering periods is the peculiar trend of landscapes at any of the campuses under STE Society, same is the trend seen at SCOE. The institute tries to save each unit of energy on the campus by making optimum use of available energy. The use of solar energy for day time lighting, battery backups and for heating the water are few of the aspects promoted at various campuses under STE Society.

Some of the important best practices followed by the institute are – regular industrial visits by the students, industry supported student project works, encouraging student internship at industry during vacation, involvement of experts from industry in guest lectures, monitoring students through guardian – teacher scheme, special classes for academically weaker and lateral entry students, introduction of NSS, earn & learn scheme in association with SPPU, use of ICT and NPTEL lecture notes in class rooms, introduction of spoken tutorial project of IIT, Bombay etc.

The institute uses Governing Educational Management System (GEMS) for administrative works like online feedback, appraisal report, training and placement, leave management etc. of faculty and staff. An important initiative started by the institute during last four years is ‘Student Training Program’ which is to train and make the students employable at the time of final year graduation. The other initiative is the promotion of research and consultancy activities among the faculty and students leading to substantial increase in number of patents and publications in national and international journals having a good citation index.

## SWOC ANALYSIS OF THE INSTITUTE

### Strengths

- State of art laboratories and infrastructure
- Good faculty and staff retention ratio
- Student centric learning and environment
- Conducive work environment for faculty and staff
- Effective training and placement cell with more than 90% of the eligible students placed
- Significant number of University rank holders in every academic year
- Fully equipped and spacious central library with rich collection of books and journals
- Digital library with access to national and international e-journals
- 24×7 reading room at central library with cafeteria facility
- Excellent internet bandwidth and campus Wi-Fi facility
- Support to faculty for pursuing higher studies leading to Ph.D.
- Well planned and organized Student Training Program and Value Addition Programs
- Train The Trainer Program for newly inducted faculty
- MoUs with industry for student centric programs
- Effective Entrepreneurship Development Cell
- Well guarded and safe environment for students on campus
- Emphasis on holistic development of students

### Weakness

- Less number of faculty with Ph.D. qualification in few departments
- Limited number of consultancy and extension activities
- Moderate Industry Institute interaction
- Lack of Technology Business Incubation Centers to transfer the technology to industry
- Less number of book publications and patents
- Insufficient foreign university collaborations for faculty and student exchange

### Opportunities

- Development of web based learning mechanisms
- Networking with institutes of national and international repute
- Alumni networking to enhance the academic and placement activities
- ‘Center of Excellence’ in select areas in engineering and technology
- Collaborative research with corporate world

### Challenges

- Enhancing employability skills of students in rapidly changing technology in an affiliated institute
- Adaptability to globally changing industrial scenario
- Scarcity of faculty with Ph.D. qualification in select areas of engineering



## C. PROFILE OF THE INSTITUTION

### Profile of the Affiliated / Constituent College

1. Name and Address of the College:

Name :	Sinhgad Technical Education Societys' Sinhgad College of Engineering	
Address :	S. No. 44/1, Vadgaon (Bk), Off. Sinhgad Road, Pune	
City : Pune	Pin : 411041	State : Maharashtra
Website :	<a href="http://www.sinhgad.edu">www.sinhgad.edu</a>	

2. For Communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr. S. D. Lokhande	020 – 24354705 (O) 09011030579 (R)	09011030579	020-24357243	principal.scoe@sinhgad.edu
Vice Principal & Steering Committee coordinator	Dr. Y. P. Reddy	020 – 24354705 (O) 09881274525 (M)	09881274525	020-24357243	ypreddy.scoe@sinhgad.edu

3. Status of the Institution:

- Affiliated College
- Constituent College
- Any other (specify)




4. Type of Institution:

a. By Gender

i) For Men

ii) For Women

iii) Co-education

b. By Shift

i. Regular

ii. Day

iii. Evening

5. It is a recognized minority institution?

Yes

No

If yes specify the minority status (Religious/linguistic/ any other) and provide documentary evidence.

6. Sources of funding:

Government

Grant-in-aid

Self-financing

Any other

7. a. Date of establishment of the college: **30/06/1996**

b. University to which the college is affiliated /or which governs the college (If it is a constituent college)

**Savitribai Phule Pune University (Formerly University of Pune)**

c. Details of UGC recognition:

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks(If any)
2 (f)	Not applicable	Applied and application is in process at UGC, New Delhi (Vide letter No. SCOE/2(f) & 12(B)/2015-2016/1910 dt. 23.04.2015)
12 (B)	Not applicable	

(Enclose the Certificate of recognition u/s 2 (f) and 12 (B) of the UGC Act)

c. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE)

Under Section/ clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year	Validity	Remarks
<b>AICTE, NEW DELHI</b>	B. E. Chemical Engineering F.NO.74089/(E)/ET/96	30.04.1996	1 Year	Approval is extended Every year by submitting the approval process application along with the necessary fees to  AICTE, New Delhi
	B. E. Computer Engineering F.NO.74089/(E)/ET/96	30.04.1996	1 Year	
	B. E. Mechanical Engineering F.NO.74089/(E)/ET/96	30.04.1996	1 Year	
	B. E. Electronics & Telecommunication F.NO.74089/(E)/ET/96	30.04.1996	1 Year	
	B. E. Production Engineering F.NO.74089/(E)/ET/96	10.09.1998	1 Year	
	B. E. Information Technology F.NO.74089/(E)/ET/96	28.06.1999	1 Year	
	B. E. Civil Engineering F.NO.740-89/(E)/ET/96	09.09.1999	1 Year	
	B. Tech. Bio Technology F. No. 740-89-300(E)/ ET /96	09.09.1999	1 Year	
	B. E. Computer Engineering (2 <sup>nd</sup> shift) WR MH//1-3674191/2010 EOA	23.08.2010	1 Year	
	B. E. Civil Engineering (2 <sup>nd</sup> shift) WR MH//1-3674191/2010 EOA	23.08.2010	1 Year	
	B. E. Electronics & Telecommunication (2 <sup>nd</sup> shift) F.No. Western/1- 720835596/2012/EOA	10.05.2012	1 Year	
	B. E. Mechanical Engineering (2 <sup>nd</sup> shift) F.No. Western/1-1361591122/2013/EOA	01.05.2013	1 Year	
	M.E. Electronics Engg (Digital System) F.NOPG/MAH/M.E./2004/ECE/0113	28.06.2004	1 Year	
	M.E. Chemical Engineering F.NO.PG/MAH/ME/2004/CHEM/-0113	28.06.2004	1 Year	
	M.E. Mechanical (Design Engineering) F.NO.PG/MS/M.E/2004/MECH- 99	27.07.2004	1 Year	
	M.E. Mechanical (Heat Power) F.NO.740-89 / 300(E)/ ET/96	24.06.2005	1 Year	
	M.E. Civil (Structural Engineering) 780-89-300(E)/ET/96	30.06.2008	1 Year	
	M.E. Information Technology 780-89-300(E)/ET/96	30.06.2008	1 Year	
M.E. E & T/C (VLSI & Embedded Systems) 780-89-300(E)/ET/96	30.06.2008	1 Year		

Under Section/ clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year	Validity	Remarks
AICTE, NEW DELHI	M.E. Computer (Computer Networks) 780-89-300(E)/ET/96	30.06.2008	1 Year	Approval is extended Every year by submitting the approval process application along with the necessary fees to AICTE, New Delhi
	M.E. Mechanical (Mechatronics) 780-89-300(E)/ET/96	30.06.2008	1 Year	
	M. E. E & T/C (Communication Networks) WR MH./1-3674191/2010 EOA	08.11.2010	1 Year	
	M. E. Civil (Hydraulics) WR MH./1-3674191/2010 EOA	08.11.2010	1 Year	
	M.E.E&T/C ( Signal Processing) F.No. WR/1-405821861/2011/EOA/Corrigendum-1	01.09.2011	1 Year	
	M.E.Civil (Environmental Engineering) F.No. WR/1-405821861/2011/EOA/Corrigendum-1.	01.09.2011	1 Year	
	M.E. Mechanical (Automotive Engineering) F.No. WR/1-405821861/2011/EOA/Corrigendum-1.	01.09.2011	1 Year	
	MBA F.No.740-89-300(E)/ET/96	30.06.2008	1 Year	

(The recognition/approval letters of all the programs from statutory bodies AICTE and SPPU are given in **Annexure – 1, 2, 3 and 4**)

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

Yes  No

If yes, has the College applied for availing the autonomous status?

Yes  No

9. Is the college recognized?

- a. by UGC as a College with Potential for Excellence (CPE)?

Yes  No

- b. for its performance by any other governmental agency? Yes  No

If yes, Name of the agency NBA, AICTE/ TEQIP-II and

Date of recognition: (NBA-05/08/2013), (TEQIP-II- 16/12/2011)

(Please refer **Annexure – 5** for the details on NBA accreditation)

10. Location of the campus and area in sq.m:

Location *	Urban
Campus area in sq. m.	20234.28 sq. m. (5 Acres)
Built up area in sq. m.	39381 sq. m.

(\* Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

S.No.	Facilities Available	Yes/ No
1.	Auditorium/seminar complex with infrastructural facilities	Yes
2.	Sports facilities	Yes
3.	Play ground	Yes
4.	Swimming pool	Yes
5.	Gymnasium	Yes
6.	Hostel - Boys <ul style="list-style-type: none"> <li>Number of hostels - 12</li> <li>Number of inmates – 1600</li> <li>Mess, Cafeteria, Campus Clinic, Ambulance, ATM, Laundry, Wi-Fi etc.</li> </ul> Hostel – Girls <ul style="list-style-type: none"> <li>Number of hostels – 07</li> <li>Number of inmates – 500</li> <li>Separate Mess for Girls. Cafeteria, Campus Clinic, Ambulance, ATM, Laundry, Wi-Fi etc.</li> </ul>	Yes
7.	Working women's hostel <ul style="list-style-type: none"> <li>Number of inmates – Not Applicable</li> <li>Facilities (mention available facilities) – Not Applicable</li> </ul>	No
8.	Residential facilities for teaching and non-teaching staff (give numbers available — cadre wise) <ul style="list-style-type: none"> <li>Residential facility available for Teaching staff – 36</li> <li>Residential facility availed by teaching staff – 12</li> <li>Residential facility available for Non-Teaching staff – 160</li> <li>Residential facility availed by Non-teaching staff – 78</li> </ul>	Yes
9.	Cafeteria Total available – 06	Yes
10.	Health center – Campus Clinic available <ul style="list-style-type: none"> <li>First aid, Inpatient, Outpatient, Emergency care facility, Ambulance etc. – Available</li> </ul>	Yes
11.	Health center staff – The Society run a Medical College with 600 beds Hospital with all facilities free of cost to both students	Yes

	Qualified doctor - Full time Qualified Nurse - Full time	
12.	Facilities like banking, post office, book shops	Yes
13.	Transport facilities to cater to the needs of students and staff	Yes
14.	Animal house	No
15.	Biological waste disposal	Yes
16.	Generator or other facility for management/regulation of electricity and voltage	Yes
17.	Solid waste management facility	Yes
18.	Waste water management	Yes
19.	Water harvesting	Yes

12. Details of programmes offered by the college (Give data for current academic year)

S. No	Programme Level	Name of the Programme	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
1.	<b>Under-Graduate</b>	Computer Engg.	4 Years	XII Std	English	120	120
2.		Mechanical Engg.	4 Years	XII Std	English	240	240
3.		Electronics & Telecom.	4 Years	XII Std	English	180	180
4.		Chemical Engg.	4 Years	XII Std	English	60	60
5.		Production Engg.	4 Years	XII Std	English	60	60
6.		Information Tech.	4 Years	XII Std	English	120	120
7.		Civil Engg.	4 Years	XII Std	English	120	120
8.		B. Tech. Bio Tech.	4 Years	XII Std	English	60	60
9.		Civil Engg (2 <sup>nd</sup> shift)	4 Years	XII Std	English	60	60
10.		Computer Engg (2 <sup>nd</sup> shift)	4 Years	XII Std	English	60	60
11.		Electronics & Telecom (2 <sup>nd</sup> Shift)	4 Years	XII Std	English	60	60
12.		Mechanical Engg. (2 <sup>nd</sup> Shift)	4 Years	XII Std	English	60	60

13.	<b>Post-Graduate</b>	M.E. (Digital System)	2 Years	B. E.	English	25	21	
14.		M.E. (Design)	2 Years	B. E.	English	18	18	
15.		M.E. (Chemical)	2 Years	B. E.	English	18	08	
16.		M.E. (Heat Power)	2 Years	B. E.	English	25	19	
17.		M.E. (Structural)	2 Years	B. E.	English	18	18	
18.		M.E. Information Technology	2 Years	B. E.	English	24	15	
19.		M.E. (VLSI & Embedded Systems)	2 Years	B. E.	English	18	16	
20.		M.E. (Computer Networks)	2 Years	B. E.	English	24	22	
21.		M.E. (Mechatronics)	2 Years	B. E.	English	18	18	
22.		M. E. (Commu. Networks)	2 Years	B. E.	English	18	17	
23.		M. E. (Hydraulics)	2 Years	B. E.	English	18	10	
24.		M.E.(Signal Processing)	2 Years	B. E.	English	18	11	
25.		M.E. (Environmental Engg.)	2 Years	B. E.	English	18	16	
26.		M.E. (Automotive)	2 Years	B. E.	English	18	17	
27.		MBA	2 Years	Any Graduation	English	60	60	
1.		<b>Ph.D.</b>	Mechanical Engg.	52				
2.			Civil Engg.	10				
3.			Electronics & Telecom.	60				
4.			Chemical	01				

13. Does the college offer self-financed Programmes?

Yes  No

If yes, how many?

UG – 08, PG – 15, Ph.D. -04

14. New programmes introduced in the college during the last five years if any?

Yes	√	No		Number	02
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15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.)

Faculty	Departments	UG	PG	Research
<b>Engineering &amp; Management</b>	B. E. Computer Engg	Yes	Yes	-
	B. E. Mechanical Engg.	Yes	Yes	Yes
	B. E. Electronics & Telecom. Engg.	Yes	Yes	Yes
	B. E. Chemical Engg.	Yes	Yes	Yes
	B. E. Production Engg.	Yes	-	-
	B. E. Information Tech.	Yes	Yes	-
	B. E. Civil Engg.	Yes	Yes	Yes
	B. Tech. (Bio Tech.)	Yes	-	-
	MBA	-	Yes	-

16. Number of Programmes offered under (Programme means a degree course like B.A, B.Sc, MA, and M.Com)

- a. Annual system
- d. Semester system
- e. trimester system

17. Number of Programmes with

- a. Choice Based Credit System
- b. Inter/Multidisciplinary Approach
- c. Any other (specify and provide details)

18. Does the college offer UG and/or PG programmes in Teacher Education?

Yes  No



19. Does the college offer UG or PG programme in Physical Education? No
20. Number of teaching and non-teaching positions in the Institution

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor					
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC / University / State Government Recruited										
Yet to recruit										
Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor					
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the Management/ society or other authorized bodies Recruited	14	04	29	16	107	86	201	54	37	11
Yet to recruit	20	09	30	09	40	-				

\*M-Male \*F-Female

21. Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.							
Ph.D.	11	04	10	05	03	04	37
M.Phil.							
PG	03	-	19	11	104	82	219
Temporary teachers							
Ph.D.							
M.Phil.							
PG							
Part-time teachers							
Ph.D.							
M.Phil.							
PG							

22. Number of Visiting Faculty /Guest Faculty engaged with the College.

03

23. Furnish the number of the students admitted to the college during the last four academic years.

Categories	2011-12		2012-13		2013-14		2014-15	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	47	21	58	23	87	28	69	34
ST	22	11	20	15	24	8	19	6
OBC	102	42	122	46	178	108	248	88
General	374	124	442	129	575	146	505	160
Others	51	21	59	31	78	38	88	38

24. Details on students enrollment in the college during the current academic year:

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is located	1097	214	-		1311
Students from other states of India	153	16	-		169
NRI students	-	-	-		-
Foreign students	14	10	-		24
Total	1264	240	-		1504

25. Dropout rate in UG and PG (average of the last two batches)

UG

PG

26. Unit Cost of Education

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

(a) Including the salary component

(b) Excluding the salary component

27. Does the college offer any programme/s in distance education mode (DEP)?

Yes

No

28. Provide Teacher-student ratio for each of the programme/course offered:

S.No.	Name of the Programme	Teacher – Student Ratio
1.	Biotechnology	1:17
2.	Chemical Engineering	1:16
3.	Civil Engineering	1:17
4.	Computer Engineering	1:16
5.	Electronics & Telecommunication Engineering	1:17
6.	Information Technology	1:16
7.	Mechanical Engineering	1:17
8.	Production Engineering	1:17
9.	MBA	1:17

29. Is the college applying for?

Accreditation: Cycle 1  Cycle 2  Cycle 3  Cycle 4

Re-Assessment:

(Cycle 1 refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to re-accreditation)

30. Date of accreditation\* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)  
**Not Applicable**

31. Number of working days during the last academic year.

230

32. Number of teaching days during the last academic year

(Teaching days means days on which lectures were engaged excluding the examination days)

180

33. Date of establishment of Internal Quality Assurance Cell (IQAC) IQAC  
**21<sup>st</sup> December 2015**

34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC:  
**Not Applicable**

35. Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/descriptive information)

**Nil**

## CRITERION I: CURRICULAR ASPECTS

### 1.1 Curriculum Planning and implementation

1.1.1 State the vision, mission and objectives of the institution, and describe how these are communicated to the students, teacher, staff and other stakeholders.

#### *Vision of the Institution*

उत्तमपुरुषान् उत्तमाभियंतृन् निर्मातुं कटिबद्धाः वयम् ।

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

#### *Mission of the Institution*

“Holistic development of students and teachers in what we believe in and work for. 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. Our mandate is to generate, preserve and share knowledge for developing a vibrant society”.

#### *Objectives of the institution*

- To ensure all round development of the student by developing their academic, co-curricular and extra-curricular skills.
- To build a student personality equipped with exquisite technical and nontechnical skills, which are globally at par.
- To give the instruction and training to the students in the direction to create awareness and understand the technological and socio-economic needs of the society.
- To promote interaction between industry and institute to enrich teaching learning process and enhance career opportunities for the students.
- To explore opportunities of research taking into account local, regional, national and global requirements.
- To motivate the faculty to achieve excellence in their areas of interest and prepare them to face challenges of ensuring future of the student community.

#### *Communication to Stakeholders*

The vision, mission and objectives of the institution are communicated to the students, teacher, staff and other stakeholders by various ways. The vision and mission statements are displayed on institute website, at various locations of college such as Principal’s office, Head of Department Cabins, Department offices, Faculty Rooms, Library, Training and Placement Cell, Seminar Halls and Laboratories. These are communicated to the students through Notice Boards of all departments, College Brochure and awareness programs. For the newly admitted students of UG and PG, it is communicated through the Induction Program.

### **1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific examples.**

The institution scrupulously develops and deploys the action plan for effective implementation of the curriculum.

#### ***Development of action plan for effective implementation of curriculum***

- The institution follows the curriculum prescribed by affiliating university, Savitribai Phule Pune University (SPPU). The semester planning is done in advance, at the end of previous term through the departmental meeting by floating the curriculum to the faculty. The choice of 3 to 5 subjects is taken from every faculty. The subject allocation is done on the basis of the priority of the faculty from the choice given, area of specialization, qualification, number of times the subject taught and experience. The students are also informed in advance about curriculum and academic calendar.
- The students are given a choice to choose the elective subjects listed in the university curriculum and accordingly departments allocate the faculty for teaching the electives. Regular feedback is taken by the Head of Department for all the subjects at regular intervals both in online and offline mode and suggestions for corrections, if any will be informed to the faculty.
- The academic calendar is prepared by various departments on the basis of academic calendar circulated by SPPU. Class tests, mock online tests, STP activities and remedial lectures are also included in academic calendar. The individual faculty and class time tables are prepared by the department time table coordinator with the approval of HOD and Principal.
- Faculty prepares the teaching plan for the theory and practical subjects allocated to them by considering department academic calendar. Every faculty prepares a detailed course file which includes teaching plan, class notes, question banks, previous question papers of SPPU, study material beyond curriculum, PPTs.

#### ***Deployment of action plan for effective implementation of curriculum***

- The academic calendar of the institute is strictly followed by every faculty. The Academic Monitoring Committee (AMC) which work and act as IQAC committee of the institute monitors regularity in the conduction of lectures, progressive syllabus coverage, students' academic progress and their grievances. The feedback of the committee is conveyed to HOD for corrective measures.
- In the process of monitoring the attendance of the student, faculty maintains a daily attendance sheet of theory/practical in hard copy and on ERP. Weekly attendance is collected by the Guardian Teachers (Mentor) of the respective batch. Regular absent students are identified by the mentors and the same is informed to the parents through telephonic conversation, email, SMS alert or if required by post.
- The academic progress of student is also monitored by Guardian Teachers by keeping a record of class tests, mock online tests, in semester University examinations, performance in practical and conveyed to all the students as well as their parents. The corrective measures such as remedial lectures, mock examinations of theory and practical, personal counseling are taken for academically weak students.

- Student feedback of every faculty is taken at the end of first month in every semester. The department head assesses the feedback and conveys it to respective faculty for corrective measures if any. The academic monitoring committee of the department counsels the faculty concerned and reports the action taken to Principal.
- The planning for student project and seminar work is done at the beginning of every semester where the students as per their specific areas of core subject interest are allocated to guides who are specialized in those areas. In addition to in-house projects, students are also encouraged to take up projects in collaboration with industries. Furthermore, if there are ongoing research projects sanctioned by various organizations, the students are encouraged to pursue research as part of their projects.

### **1.1.3 What type of support (procedural and practical) do the teachers receive (from the University and/or institution) for effectively translating the curriculum and improving teaching practices?**

- The institute is affiliated to SPPU and follows the prescribed curriculum. The faculty attends the syllabi revision workshops conducted by university from time to time. The institute not only encourages but also supports financially to the faculty to attend the Faculty Development Programme (FDP), Short Term Training Programme (STTP), Quality Improvement Programme (QIP), National and International Conferences during summer and winter vacations to enrich their knowledge and help them to acquire new technical skills.
- The institute encourages the faculty to undergo internship at industry during vacation and organizes different programs like Train the Trainer (TTT) and Teachers Advancement Program (TAP) for the newly inducted faculty with the involvement of senior faculty from the University and industry experts.
- The university evaluates the students through online and offline examinations for which the duties are assigned to approved and experienced faculty of the institute as College Examination Officer, Paper setter, Moderator and Examiner.
- The central library of college is enriched by 46500 books with 12000 titles of various current as well as syllabi based books of all disciplines of Engineering, Management and Sciences. Along with 5000 reference books, the library also has 207 periodicals and journals out of which 143 are national and 59 international. Library has 76 Bound Volumes, mainly of IEEE transactions and ASME journals. The library also possesses 1300 CDs as offline databases.
- All the classrooms are well equipped with modern teaching aids like LCD supported by Wi-Fi or broadband internet facilities in order to ensure simple and effective teaching-learning process through audio-visuals.
- The content management software like ‘K-Point’ is subscribed by the institute. It is helpful for the students to understand the subjects through audio supported PowerPoint presentations.

**1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other statutory agency.**

- The institute organizes teachers training programs; ‘Train The Trainers’ for every subject during winter and summer vacation in which the faculty receives training through lectures and guidelines from experienced faculty.
- The teaching plan for every subject is uploaded by respective faculty at the beginning of every semester on ERP portal facilitated by the institute.
- The central library is open for 24 hours thorough out the year and Wi-Fi facility is made available in the campus at all important locations of the institute.
- The faculty takes care of academically weak students by conducting remedial lectures and sparing extra time for such students after daily academic schedule. The seminars, motivational lectures, industrial visits and training programmes are organized for overall development of students.
- One batch of students is allocated to every faculty to look after as ‘Guardian Teacher’ who monitors the theory-practical attendance and academic performance of every student in that batch. The students are counseled to improve attendance and academic performance as the case may be. The activity is also helpful in bridging the communication between parent and the institution.

**1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalization of the curriculum?**

- The institute has developed a wide network involving industries, alumni, research organization and the university. It promotes effective industry-institute interaction through Industry Institute Interaction Cell (IIC). The experts from industry are invited as guest faculty to discuss the state of art practices followed by industry. This motivates the students to develop their thought process and become acquainted with industrial culture. The students are encouraged to undergo internship programs of 15 – 30 days at industry during summer / winter vacation. The departments of the institute promote a number of student projects in collaboration with industry. This provides the students a platform to understand industry requirements and effective time management to complete the specific tasks.
- The institute has signed a good number of Memorandum of Understanding (MoUs) with various industries. This provides an ample opportunity to faculty and students to deal with industry specific challenges. These MoUs are backbone of research oriented projects and problem based learning.
- The faculty from the institute is actively involved in curriculum development for several subjects including open electives in collaboration with industry and research bodies like National Chemical Laboratory (NCL), Automotive Research Association of India (ARAI) etc.,
- The institute boasts of a strong alumni network channelized through alumni association. The communication between present students and the alumni is made possible through annual meets at institute level. A feedback from alumni is taken during the annual meet. The contents of the feedback form are relevant to know alumni’s view point on technical skills up gradation, problem solving ability, personality development and extracurricular activities of students of the institution.

**1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the University?(number of staff members/departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc.**

- The institute has developed a strong rapport with University and provides every possible support in framing the curriculum and its implementation. A number of syllabi revision workshops of University are conducted by the institution thus providing guidelines for framing curriculum through deliberations by faculty and industry representatives.
- The institute has representatives in the form of nine faculty members from different departments working as a Member-Board of Studies (BoS), Academic Council and Senate of SPPU. They act as a link between the institution and University for any type of communication related to academics and administration. In addition, many faculty members are holding the portfolio of Subject Chairman for UG and PG courses. They are responsible for paper setting, preparation of online examination question bank, assessment of papers etc.
- The feedback collected from students, alumni, industry experts and faculty about the existing curriculum is helpful in taking corrective measures in future curriculum development.

**1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university) by it? If ‘yes’, give details on the process (‘Needs Assessment’, design, development and planning) and the courses for which the curriculum has been developed.**

- Yes, the curriculum of following programs of SPPU is initiated and developed by the faculty of this institution.
  - B. Tech. (Biotechnology)
  - M. E. (Mechatronics)
  - M. E. (Computer Networks)
  - M. E. (Signal Processing) and
  - M. E. (VLSI and Embedded Systems)

The general procedure followed during the development of curriculum is as follows:

- The structure of syllabi and initial draft is prepared by the committee involving expert faculty from the department keeping program objectives and outcomes in mind. At this stage, the courses offered by different premier institutions are referred. The suggestions from industry professionals are also invited during this initial phase of draft preparation.
- This draft is presented before BoS and the industry invitees where deliberations from all sections are exercised. The final draft is prepared after going through the revisions suggested and is circulated to all the stakeholders involved in the syllabi framing. After the approval from BoS, the curriculum is put up before the faculty and academic council of University for final approval and circulation by the University.
- In addition to the above, the faculty from the institute is involved in development of course modules for Student Training Program (STP) and Value Addition Programs (VAP). These course modules are designed to improve the employability skills of students and offered at all levels of undergraduate program.



### **1.1.8 How does institution analyze/ensure that the stated objectives of curriculum are achieved in the course of implementation?**

- The Programme Education Objectives (PEOs) and Programme Outcomes (POs) are initially defined for each program run by the institution. For every course, Course Education Objectives (CEOs) and Course Outcomes (COs) are prepared for effective delivery of the respective course. The content beyond syllabus is planned in advance and is covered through different activities like guest lectures, industrial visits and student training programs. The feedback on course taught in a semester and for a particular program is taken from students and the analysis is made to ensure whether the stated objectives of curriculum are achieved or not.

## **1.2 Academic flexibility**

### **1.2.1 Specifying the goals and objectives give details of the certificate/diploma/skill development courses etc., offered by the institution.**

Apart from the programs affiliated to SPPU, the institute offer courses which basically serve the purpose of value addition. These courses are specifically for third year and final year students in order to enhance the employability skills, equip them with technical skills under industry-academia interactions. These include Short-term training programs, Certificate courses, Aptitude tests, Group discussions and others in relevance to the core subjects of respective departments.

- **EdX programs:** This is an online learning platform founded by Harvard and MIT. The students are guided to undergo these courses which would help to nurture their interests and acquire relevant technical skills.
- **IITB Spoken Tutorials:** IITB's Spoken Tutorials Project is about teaching and learning a particular free and open source software. The students are encouraged to undertake these courses and achieve proficiency by utilizing this platform.
- **Microsoft Certification:** An MOU has been signed with ATS InfoTech, New Delhi to conduct Microsoft certification program (.net) for enhancing competency necessary as a skill set for both academics and employment.
- **Thermax Graduate Program:** This program is conducted at the institution to provide theory and practical skills to the graduate trainees selected by Thermax Limited. The trainees are trained in specific identified areas of Mechanical Engineering and acquire skills suitable to their job requirements.
- **Intel Intelligent Lab:** This laboratory facility enables students for technological inventions that are compatible with Intel® architecture-based devices in the Internet of Things.
- **NVIDIA CUDA Teaching Centre:** The institution has been selected as CUDA Teaching Centre by nVidia Corporation. This includes access to webinars on CUDA related programming from experts in various fields and CUDA cloud training platform.
- **HP Summer Training Program:** The institution facilitates summer training program for the undergraduates in the areas of Programming Techniques, Network Management and Security, Embedded and Robotics etc. by the experts from HP Ltd.

### **1.2.2 Does the institution offer programmes that facilitate twinning/dual degree? If 'yes', give details.**

No, the institution does not offer programmes that facilitate dual degree.

**1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:**

- ***Range of Core/ Elective options offered by the university and those opted by the college***  
To develop generic attributes relevant to a career for the students, the SPPU offers core subjects that are mandatory along with a wide range of electives from which the college opts for selective elective subjects based on the prospects to acquire knowledge and have a potential for benefitting academic development culminating into a career of their choice. Further in lieu with the market demand, some electives are preferred by the students which are also given due weight age during selection of electives. This provides the student with the foundation necessary to achieve a competitive advantage in attaining their career goals. The students choice of elective classes are always discussed beforehand by arranging a brief lecture on content of syllabi of electives prescribed by the university from which the student chooses an option which is further approved by the respective department and finalized two in each semester depending on majority of students who opt for it to form a batch.
- ***Choice based credit system and range of subject options***  
The choice based credit system (CBCS) provides choice for students to select from the prescribed courses for both core and elective subjects. The semester system under CBCS accelerates the teaching learning process providing flexibility to adopt an interdisciplinary approach to learning. The choice based credit system is a facility available in the University curriculum. This provision is not availed for the core subjects by the students. However, it is applicable to the electives which are optional and are supportive to the discipline under study. The electives offered by the respective departments for the fulfillment of the curriculum are mostly selected by the students on the basis of the current requirement of the industry.
- ***Courses offered in modular form***  
All the courses are designed in modular form with a definite time limit for teaching of each module. In addition, the institutional modules developed under Student Training Program for enhancing the communication and technical skills are also offered in modular form.
- ***Credit transfer and accumulation facility***  
The facility of credit transfer is available in the University wherein a student who has completed a semester can continue with the remaining semesters in same or different branch on requesting for a transfer to another branch of same college or to continue the course in another college under SPPU.
- ***Lateral and vertical mobility within and across programmes and courses***  
Lateral mobility facility is available at second year level if the student wish to change the program. For academic flexibility, the students are encouraged for interdisciplinary projects across the various courses offered to enhance their curriculum skills in a wider context. The students can avail interdepartmental facilities so as to prepare them to understand concepts and apply their knowledge and experience globally. The projects are either in-house or in collaboration with industries as per the interest of the students.
- ***Enrichment courses***  
A certificate course on AutoCAD enhances the skill of reading and drafting engineering drawing which is the backbone of core branches of engineering. This facilitates to bridge

the curriculum and professional gap enabling the student to be technically equipped for a career in engineering.

In the PG program, enrichment courses like ‘Introduction to Human Rights and Duties’ and ‘Cyber Security’ are conducted for all the PG students. The main aim of human rights education is to uphold dignity, tolerance and peace in the society by enlightening the student fraternity to defend and advocate for their rights and also sensitize them about their duties towards a healthy society for social, economic and political sustainability. It focuses on human values, rights and duties of individuals with special emphasis on women, children, minorities, social and economically deprived people and vulnerable people. It mostly deals with issues relating to law, policies framed and enforcement mechanism in the Indian context.

The main objective of ‘Cyber Security’ subject is to provide safety to authorized users by maintaining confidentiality and integrity from various threats, vulnerabilities, identity thieves, spywares and hackers. The modules include pre-requisites in information and network security, laws outlined and security management. The course is thus designed to educate the students with the goal of raising awareness about cyber security and empowering them to face a cyber-incident in case of an eventuality.

**1.2.4 Does the institution offer self-financed programmes? If ‘yes’, list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.**

No

**1.2.5 Does the college provide additional skill oriented programmes relevant to regional and global employment markets? If ‘yes’ provide details of such programme and the beneficiaries.**

For preparing the students to compete in a highly demanding market, various skill oriented programs are arranged by providing facility for special trainings and advanced certification courses in the college premises. Some of the programs conducted are enlisted below:

- IIT spoken tutorials are conducted for the students to achieve proficiency in which the material is shared by IIT-B through video conferencing related to computer languages and report writing tools. The students appear for exam and get certification for the same. This additional training about open source technology is an advanced skill development which is an add-on for employability.
- All departments of the institute offer different Value Addition Programs for final year students through external agencies for enhancing the employability. These programs are in line with the requirement of student’s interest as well as the industry needs.
- A course on Fiber Reinforced Plastics (FRP) is regularly organized to help the students for exploring the possibilities of starting own enterprise.
- EdX is an online certification course for all disciplines is availed by the students of the college. The certification obtained on completion of the course verifies one’s achievement and can be used to highlight skills by job seekers.
- An MOU has been signed with ATS InfoTech, New Delhi to conduct Microsoft certification program (.net) for enhancing competency necessary as a skill set for both academics and employment.

**1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice” If ‘yes’, how does the institution take advantage of such provision for the benefit of students?**

No

**1.3 Curriculum Enrichment**

**1.3.1 Describe the efforts made by the institution to supplement the University’s Curriculum to ensure that the academic programmes and Institution’s goals and objectives are integrated?**

The institute academic calendar is prepared every semester with the involvement of Heads of the Department. The institute being affiliated to the SPPU, it does not have the option of formulating its own curriculum. But the institute, for the overall development of students strives for quality enhancement through rigorous academic discipline. Various personality development and orientation programs like those listed below are organized to fulfill the gap if any for achieving the institution goals and objectives.

- Guest lectures delivered by experts from industry and academic circles
- Soft Skill programs
- Inclusion of content beyond syllabus during regular lectures and practicals
- Various workshops and seminars
- Remedial classes for weaker students
- Internship programs and mini projects
- Tutorials and Assignments given to the students
- Various activities under different clubs of student council.
- Students Training Programme to improve soft skills
- Various value added programmes for enhanced employability
- Case Studies methodology for students from Harvard Business School Press

**1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?**

- Choice of open electives to the students
- Well organized industrial visits, site visits and sponsored projects to help the students in probing the contemporary aspects by themselves
- Half yearly Periodic AMCAT test for evaluating the student progress in employability test
- Annual Techtonic competition to showcase the student technical knowhow in a particular domain
- A well-established industrial network for the support as and when required
- Various Value Added Programs give the students a competitive edge over their peers
- Implementation of Student Training Program for better employability
- The research element is enhanced by encouraging the students to participate in platforms like International and National Conferences, Research workshops
- Organization of various programmes through Membership of CII and regular feedback from industry

**1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?**

***Gender Issues:***

- Work force Cell against Sexual Harassment exists and conducts review meeting periodically. If required need based meetings are also conducted to resolve the issues if any.
- Organization of Women's Day in the Institute
- A student grievance cell exists in all departments to address gender issues if any
- Students conducts session on Girl Child education, Women empowerment through higher education under social activity

***Climate change:***

- The institute is located in a lush green campus and efforts are taken for its maintenance for reducing the adverse climatic changes due to pollution.
- Regular tree plantation activities are conducted
- The institute is making efforts for the paperless communication.
- Awareness is created through display boards for implementation of economy measures for electricity, water and stationery saving.

***Environmental Education:***

- Waste Water Recycling plant
- Standard practices for disposal of waste
- A central switch for disconnecting the power supply
- Attempts to promote internal communication through institutional e-mail and intercom.
- A modular course on environmental education at First Year Engineering curriculum
- Utilization of rough pages for printing
- Saplings are presented to the dignitaries as a concern towards environment
- Celebration of World Environment Day, Earth Day, Water Day etc.
- Organization of environment related programs at nearby rural villages through a student body called 'Prayas'

***Human Rights:***

- A course on Skill Development on Human Rights Education is made mandatory
- Earn and Learn Scheme is implemented for the selective economically backward students
- Scholarship schemes from Government of Maharashtra are implemented as per the norms
- Initiation on NSS, Grievance Cell, Anti ragging Activity, Cell against Women sexual harassment

***ICT:***

- Class rooms equipped with LCD and Internet
- Wi Fi connectivity and Browsing Centre

- State-of-art infrastructure for practicals
- Effective use of K-point software for the students who are missing the lectures because of some co/extracurricular activities

#### **1.3.4 What are the various value-added courses/enrichment programmes offered to ensure holistic development of students?**

##### ***Moral and ethical values***

- Students coordinate the activities and events in the Institute
- Important aspect of Teacher Guardians counseling
- Observance of Days of National Importance
- Seminars on Cyber security and ethical hacking
- Compulsory Credit course on cyber security

##### ***Employable and life skills***

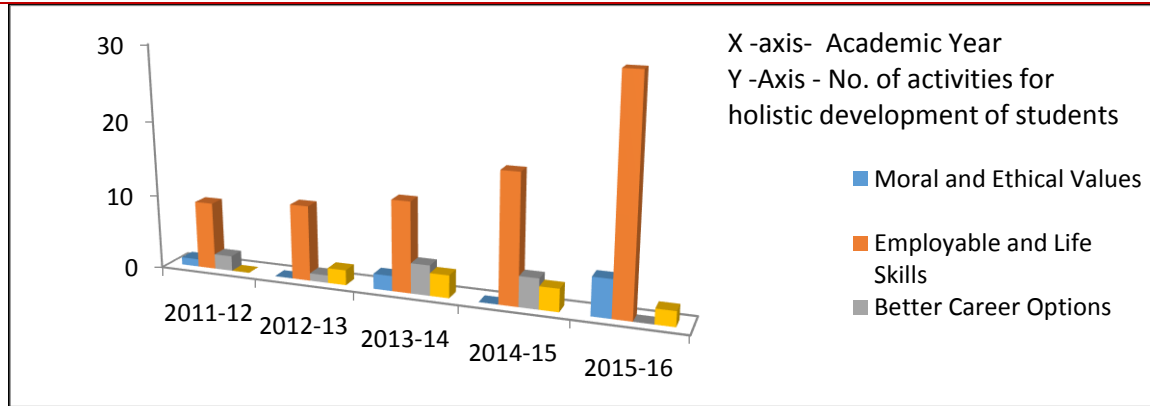
- Continuous efforts through Lecture series and orientation by T& P Cell and faculty coordinators
- Conduction of Aptitude Tests like AMCAT and QALR
- Guest Lectures, Seminars, Presentations are encouraged for improving the presentation skills
- Feedback from recruiters and alumni

##### ***Better career options***

- The ever increasing list of recruiters through Job Fair
- Orientation by companies on campus
- Existence of Entrepreneur Development Cell, Sinhgad Overseas Cell
- MoU's for improving technical skills of students
- Exploring the opportunities for higher studies by means of Educational fair

##### ***Community orientation***

- Organizing and participating in Blood Donation Camps
- Organizing various social activities under Prayas and Udhan
- Regular conduction of activities like computer literacy, girl child education etc.for upliftment of villagers
- Establishment of NSS
- Involvement with social associations like Police Mitra



**Fig.1.1: Enrichment programmes offered to ensure holistic development of students**

The Fig.1.1 indicates a continuous growth in activities related to employable and life skills conducted for making students job ready and bridging the gap between Industry and Institute. These activities included training sessions on soft skills, student training programmes, and various workshops. There is also an increase in moral and ethical values relevant programmes like conservation of energy and natural resources. Some of the programmes for identifying better career opportunities were also organized for students.

### 1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?

A regular feedback from all stakeholders is taken, based on which revision of content delivery is done. The stakeholders include students, Exit students' survey, parents, Industry and Alumni. The feedback is critically analyzed for inclusion of changes and improvements in teaching learning methodology like inclusion of content beyond syllabus, allocation of subject to expert faculty for extra inputs, delivery of content through Industry person, organizing industrial visit for better understanding of topic etc.

### 1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

The feedback outcomes are utilized for inculcating excellence in the way of working. The analysis of feedback is discussed with Industry, Alumni, Exit Students who give inputs to bridge the gap as per the industry's expectations. The quality of the programme is enhanced by organizing and conducting various Value Added Programmes, Student Training Programmes, and Guest Lectures from resource person from industry and academics.

## 1.4 Feedback System

### 1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

The contributions of the faculty of this institute in the design and development of the curriculum of the University is given in Question 1.17. In addition, many faculty members from the institute participate and contribute in syllabus making of all programs of the University. The institute has representatives in various bodies of the Savitribai Phule Pune University like BOS, faculty, academic council and Subject Expert Committee.

**1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If ‘yes’, how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?**

The Institute has formal mechanism to obtain feedback from students and other stakeholders like Final Year students (Exit survey), Alumni, Parents and Industry. It has a well-designed feedback form with defined criteria to get feedback from each category of stakeholder. A Course Feedback on curriculum and examination/evaluation pattern is taken from students periodically. The Alumni feedback is taken for revising the pedagogy and including the concepts as per industry requirement. The Parent Feedback Form is used to know their opinion about Institute, Infrastructure, Professional expectations. The Exit Student Survey Form is designed to know the fulfillment of their educational goals. The Industry Institute Interaction form is used to understand and bridge the gap between the institute and industry. The summary based on the feedback is used for the revision of syllabus at University. This summary is communicated to the University through faculty to BOS.

**1.4.3 How many new programmes/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?**

No new programmes/courses were introduced by the institution during last 4 years. However the Biotechnology Department was started in the year 2006 for better utilization of infrastructure as the institute already had Department of Chemical Engineering. It was also started as Rajiv Gandhi InfoTech and Biotech Park at Pune had many industries which required engineering graduates in Biotechnology. The post graduate programs in Mechatronics, Computer Networks and VLSI and Embedded Systems was started to promote interdisciplinary learning.

**1.4.4 Any other relevant information regarding curricular aspects which the college would like to include.**

Nil



**CRITERION II: TEACHING-LEARNING AND EVALUATION**

**2.1 Student Enrollment and Profile**

**2.1.1 How does the college ensure publicity and transparency in the admission process?**

The admission process and publicity of the institute is highly transparent and ethical. The details are explored below-

- *Publicity* - Advertisement in various exhibitions across country, Brochure of State Government Websites, Newspapers, magazines etc.
- *Transparency* - UG, PG and Ph. D. admission processes are highly transparent based on respective admission criterion set by Savitribai Phule Pune University (SPPU), Directorate of Technical Education (DTE) - Maharashtra and All India Council for Technical Education (AICTE), New Delhi.

The information of all these programmes is available on official institute website as mentioned in Table 2.1.1.

**Table 2.1.1: Information regarding admission process**

Sr. No.	Programme	Website / Link
1	UG - Under Graduate (BE)	http://sinhgad.edu/
2	PG - Post Graduate (ME and MBA)	
3	Ph.D.- Doctor of Philosophy	

**2.1.2 Explain in detail the criteria adopted and process of admission (Ex.(i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes of the Institution.**

The Criteria adopted and process of admission is according to Savitribai Phule Pune University, State Government and AICTE rules and regulations as explored below-

- Admission Criterion for UG - 80% (JEE and 12<sup>th</sup>), 20% (Institute Level Quota). The detailed procedure of UG admission process is shown in Fig.2.1
- Admission Criterion for PG - State level Common Entrance Test (CET), GATE and Institute Level Quota
- Admission Criterion for Ph. D. - Ph.D. Entrance Test (PET-I and PET-II), GATE qualified and Faculty with experience more than five years and followed by Interview.

The admission process adopted for first year undergraduate programs is given in Fig. 2.1.2.

**2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.**

The data for minimum and maximum percentage of marks with peer colleges in Pune district are not available for comparison because the entry level admissions are only through CAP and are managed by DTE, Government of Maharashtra. The information for minimum and maximum marks (CET/JEE/AIEEE or equivalent) for admission at entry level for each of the programmes offered by the college is mentioned in Table 2.1.3.

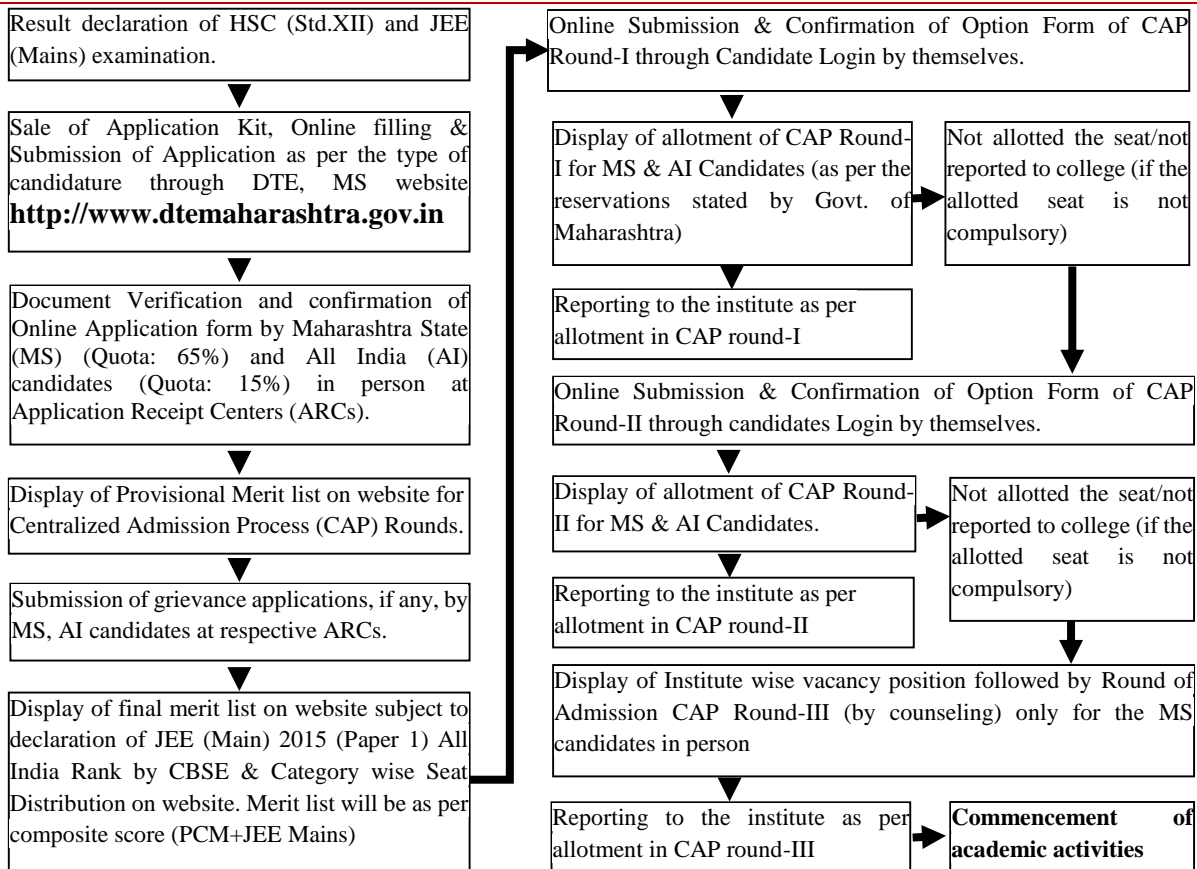


Fig.2.1.2 Admission Procedure for UG programs

Table 2.1.3: Information regarding minimum and maximum marks for admission in year wise at institute level

Sr. No.	UG Programme	Year of Admission	Maximum Marks		Minimum Marks	
			CET	AIEEE/JEE	CET	AIEEE/JEE
1	Biotechnology	2015-16		87.01		19.23
		2014-15		89.17		21.35
		2013-14	117		65	
		2012-13	125		53	
		2011-12	110	78	66	57
2	Chemical Engineering	2015-16		90.25		14.91
		2014-15		89.85		39.82
		2013-14	119		55	
		2012-13	132		65	
		2011-12	132		71	
3	Civil Engineering	2015-16		95.12		48.42
		2014-15		95.22		25.54
		2013-14	149		70	
		2012-13	165		72	
		2011-12	150		125	

4	Civil Engineering (II Shift)	2015-16		92.75		40.46	
		2014-15		91.96		52.3	
		2013-14	132			54	
		2012-13	132			61	
		2011-12	132	120	80	101	
5	Computer Engineering	2015-16		95.96		31.04	
		2014-15		95.14		34.02	
		2013-14	149			54	
		2012-13	150			53	
		2011-12	145			76	
6	Computer Engineering (II Shift)	2015-16		95.29		37.4	
		2014-15		94.77		33.01	
		2013-14	136			61	
		2012-13	144			60	
		2011-12	135	144	120	129	
7	E & TC Engineering	2015-16		92.48		30.93	
		2014-15		95.27		15.54	
		2013-14	152			56	
		2012-13	159			45	
		2011-12	159			77	
8	E&TC Engineering (II Shift)	2015-16		89.07		30.76	
		2014-15		89.3		30.2	
		2013-14	125			34	
		2012-13	137			57	
		2011-12	137	130	118	121	
9	Informatio Technology	2015-16		92.1		27.54	
		2014-15		93.27		45.87	
		2013-14	130			55	
		2012-13	144			50	
		2011-12	130			58	
10	Mechanical Engineering	2015-16		97.07		35.03	
		2014-15		97		40	
		2013-14	162			52	
		2012-13	185			49	
		2011-12	164			89	
11	Mechanical Engineering (II Shift)	2015-16		97.07		35.03	
		2014-15		94		45	
		2013-14	145			45	
12	Production Engineering	2015-16		83.71		25.55	
		2014-15		85.8		29.03	
		2013-14	139			57	
		2012-13	124			56	
13	MBA	2015-16	82.07		15.24		
		2014-15	84.94		11.09		
		2013-14	183			49	
		2012-13	104			66	

**2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If ‘yes’ what is the outcome of such an effort and how has it contributed to the improvement of the process?**

The Institute takes review of the admission process as well as cut-off merit values each year. Since, preference of admission by the students is based on placement status, quality of faculty and infrastructure; Institute takes care of it through the following measures -

- Central Placement Cell (CPC)
- Institute Level Placement Cell
- Job-Fair / Core Placement Drive (CPD)
- Parents meet and mouth publicity
- Induction Programs for FE, Directly admitted SE and ME students
- SE Direct admission help desk
- Strengthened library
- Fostering the laboratories
- Recruitment of excellent faculty (human resource)
- Branch wise cut-off merit data
- Student Training Program (STP) I to V

The above measures has improved the overall academic progress of the students in the campus thus creating a positive impact on overall admission process.

**2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion**

- SC/ST
  - OBC
  - Women
  - Differently abled
  - Economically weaker sections
  - Minority community
  - Any other
- 
- The admission process is transparent, merit based and ethical based on rules and regulations / norms set by University, State Government and AICTE. Hence, the institute is committed to the diversity and inclusion of SC; ST; OBC; Woman; Differently-abled; Economically weaker sections-EBC, SBC; Minority community; NT; VJ etc. according to the national norms.
  - Institute offers seats to SC/ST, OBC, NT, VJ students under (TFWS - Tuition Fee Waiver Scheme) as per the state government norms, rules and regulations.
  - Institute management offers complete fee waiver to economically weaker students.
  - There is a special quota for the candidates of Jammu and Kashmir (J & K), Person of Indian Origin (PIO) and Indian Council for Cultural Researcher (ICCR) students as per the rules, regulations and national norms.

**2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e. reasons for increase / decrease and actions initiated for improvement.**

The details of various Programmes offered by the Institution during the last six years are mentioned in Table 2.1.6 – A, B and C.

Table 2.1.6-A: Information regarding various UG programmes offered by the Institute

Sr. No.	UG Programme	Year of Admission	Number of Applications	Number of Students Admitted	Demand Ratio
1	Biotechnology	2015-16		63	1.05
		2014-15		64	1.06
		2013-14		50	0.83
		2012-13		57	0.95
		2011-12		56	0.93
2	Chemical Engineering	2015-16	Admission process in the state is only through CAP and governed by Director Technical Education (DTE), Government of Maharashtra.	64	1.06
		2014-15		63	1.05
		2013-14		60	1.00
		2012-13		63	1.05
		2011-12		58	0.97
3	Civil Engineering	2015-16	The Institute follows the rules, regulation and guidelines set by Savitribai Phule Pune University, Maharashtra State Government and AICTE.	126	1.05
		2014-15		128	1.06
		2013-14		126	1.05
		2012-13		127	1.06
		2011-12		62	1.03
4	Civil Engineering (II Shift)	2015-16		60	1.00
		2014-15		60	1.00
		2013-14		60	1.00
		2012-13		60	1.00
		2011-12		64	1.06
5	Computer Engineering	2015-16		124	1.03
		2014-15		126	1.05
		2013-14		124	1.03
		2012-13		127	1.06
		2011-12		126	1.05
6	Computer Engineering (II Shift)	2015-16		60	1.00
		2014-15		60	1.00
		2013-14		60	1.00
		2012-13		59	0.98
		2011-12		63	1.05
7	E & TC Engineering	2015-16		189	1.05
		2014-15		188	1.04

		2013-14		186	1.03	
		2012-13		189	1.05	
		2011-12		186	1.03	
8	E &TC Engineering (II Shift)	2015-16		60	1.00	
		2014-15		60	1.00	
		2013-14		48	0.8	
		2012-13		59	0.98	
		2011-12		-	-	
9	Information Technology	2015-16	Admission process in the state is only through CAP and governed by Director Technical Education (DTE), Government of Maharashtra.  The Institute follows the rules, regulation and guidelines set by Savitribai Phule Pune University, Maharashtra State Government and AICTE.	127	1.06	
		2014-15		126	1.05	
		2013-14		121	1.01	
		2012-13		125	1.04	
		2011-12		122	1.02	
10	Mechanical Engineering	2015-16			253	1.05
		2014-15			251	1.05
		2013-14			249	1.03
		2012-13			254	1.05
		2011-12			191	1.06
11	Mechanical Engineering (II Shift)	2015-16		60	1.00	
		2014-15		60	1.00	
		2013-14		50	0.83	
		2012-13		-	-	
		2011-12		-	-	
12	Production Engineering	2015-16		64	1.07	
		2014-15		64	1.07	
		2013-14		62	1.03	
		2012-13		62	1.03	
		2011-12		56	0.93	

**Table 2.1.6-B: Information regarding PG programmes offered by the institute**

Sr. No.	PG Programme	Specialization	Year of Admission	Number of Applications	Number of Students Admitted	Demand Ratio
1	Chemical Engineering	Chemical	2015-16	Admission process in the state is only through CAP and governed by Directorate of	13	0.72
			2014-15		10	0.56
			2013-14		16	0.89
			2012-13		18	1.00
			2011-12		4	0.22

2	Civil Engineering	Structural Engineering	2015-16	Technical Education (DTE), Government of Maharashtra. The Institute follows the rules, regulation and guidelines set by Savitribai Phule Pune University, Maharashtra State Government and AICTE.	18	1.00
			2014-15		18	1.00
			2013-14		18	1.00
			2012-13		18	1.00
			2011-12		18	1.00
		Hydraulics	2015-16		10	0.56
			2014-15		11	0.61
			2013-14		14	0.78
			2012-13		15	0.83
			2011-12		3	0.17
		Environmental	2015-16		16	0.89
			2014-15		17	0.94
			2013-14		18	1.00
			2012-13		17	0.94
2011-12	12		0.67			
3	Computer Engineering	Computer Networks	2015-16	Admission process in the state is only through CAP and governed by Directorate of Technical Education (DTE), Government of Maharashtra.	22	0.92
			2014-15		19	0.8
			2013-14		23	0.96
			2012-13		24	1.00
			2011-12		18	0.75
4	Electronics and Telecommunication Engineering	Digital Systems	2015-16	The Institute follows the rules, regulation and guidelines set by Savitribai Phule Pune University, Maharashtra State Government and AICTE.	21	0.84
			2014-15		24	0.96
			2013-14		24	0.96
			2012-13		24	0.96
			2011-12		25	1.00
		VLSI and Embedded Systems	2015-16		16	0.89
			2014-15		18	1.00
			2013-14		18	1.00
			2012-13		18	1.00
			2011-12		18	1.00
		Communication Networks	2015-16		17	0.94
			2014-15		18	1.00
			2013-14		16	0.89
			2012-13		18	1.00
2011-12	18		1.00			

		Signal Processing	2015-16		11	0.61
			2014-15		13	0.72
			2013-14		17	0.94
			2012-13		18	1.00
			2011-12		18	1.00
5	Information Technology	Information Technology	2015-16		15	0.63
			2014-15		20	0.83
			2013-14		23	0.96
			2012-13		24	1.00
			2011-12		18	1.00
6	Mechanical Engineering	Design	2015-16	Admission process in the state is only through CAP and governed by Directorate of Technical Education (DTE), Government of Maharashtra.	18	1.00
			2014-15		18	1.00
			2013-14		18	1.00
			2012-13		18	1.00
			2011-12		18	1.00
		Heat Power	2015-16		19	0.79
			2014-15		23	0.96
			2013-14		22	0.92
			2012-13		24	1.00
			2011-12		25	1.04
		Mechatronics	2015-16		17	0.94
			2014-15		12	0.67
			2013-14		18	1.00
			2012-13		17	0.94
			2011-12		8	0.44
		Automotive	2015-16		17	0.94
			2014-15		18	1.00
			2013-14		17	0.94
			2012-13		17	0.94
			2011-12		18	1.00
				The Institute follows the rules, regulation and guidelines set by Savitribai Phule Pune University, State Government and AICTE.		



7	MBA	MBA	2015-16		60	1.00
			2014-15		46	0.77
			2013-14		61	1.02
			2012-13		61	1.02
			2011-12		61	1.02

**Table 2.1.6-C: Information regarding various Ph. D. programmes offered by the Institute**

Sr. No.	Ph.D. Programme	Year of Admission	Number of Applications	Number of Students Admitted	Demand Ratio
1	Chemical Engineering	2015-16	Admission process in the Institute is only through Ph.D. Entrance Test (PET I and II), GATE Qualified and Faculty with experience more than five years and followed by Interview. The Institute follows the rules, regulations and guidelines set by Savitribai Phule Pune University, Maharashtra State Government.	-	-
		2014-15		-	-
		2013-14		-	-
		2012-13		-	-
		2011-12		1	1.00
2	Civil Engineering	2015-16	Admission process in the Institute is only through Ph.D. Entrance Test (PET I and II), GATE Qualified and Faculty with experience more than five years and followed by Interview. The Institute follows the rules, regulations and guidelines set by Savitribai Phule Pune University, Maharashtra State Government.	-	-
		2014-15		2	1.00
		2013-14		-	-
		2012-13		5	1.00
		2011-12		3	1.00
3	Electronics and Telecommunication Engineering	2015-16	Admission process in the Institute is only through Ph.D. Entrance Test (PET I and II), GATE Qualified and Faculty with experience more than five years and followed by Interview. The Institute follows the rules, regulations and guidelines set by Savitribai Phule Pune University, Maharashtra State Government.	-	-
		2014-15		3	1.00
		2013-14		11	1.00
		2012-13		29	1.00
		2011-12		17	1.00
4	Mechanical Engineering	2015-16	Admission process in the Institute is only through Ph.D. Entrance Test (PET I and II), GATE Qualified and Faculty with experience more than five years and followed by Interview. The Institute follows the rules, regulations and guidelines set by Savitribai Phule Pune University, Maharashtra State Government.	-	-
		2014-15		4	1.00
		2013-14		7	1.00
		2012-13		29	1.00
		2011-12		12	1.00

## 2.2 Catering to Student Diversity

### 2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

The institute understands the needs of differently-abled students. Various facilities and comfort zones are created to serve this purpose. The prominent of them are -

- Landscaping on Campus
- Western seating toilet in washrooms
- Extra ½ hour in examinations
- Intercom in each hostel room
- Free of cost - Campus Health Clinic (CHC), Dental Hospital, General Hospital
- Medical Insurance Scheme

**2.2.2 Does the institution assess the students’ needs in terms of knowledge and skills before the commencement of the programme? If ‘yes’, give details on the process.**

The institution does not assess the student’s needs in term of knowledge at the time of admission. However, overview and review of skill sets and liking of the students are considered through department wise induction programs for FE as well as SE directly admitted students to make the students aware of the infrastructure, facilities and faculty in detail. The Principal as well as training and placement officer give detailed presentation to the students and make them aware of the need of skill sets they should gain during the tenure of four years. Similarly, head of each department gives detail presentation to the newly admitted students of respective program. The skill set status and the needs of the students are identified after these programs. Based on these needs, various value additions are done at institute as well as department level. The activities planned and carried out accordingly are -

- Student Training Program (STP) I, II, III, IV and V
- Motivational lectures / seminar sessions for first year students
- Value Addition Programs
- Sinhgad Students Council (SSC) technical club and other related activities

**2.2.3 What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students (Bridge/Remedial/ Add-on/Enrichment Courses, etc.) to enable them to cope with the programme of their choice?**

The institute organizes following activities to accelerate the students in learning mode to bridge the knowledge gap so that the enrolled students can cope up with the programme and become employable -

- Guest lecturers/seminars of eminent personnel
- Workshops for hands on training
- Paper presentations and quiz competition
- Technical competitions and programs under professional bodies like IEEE,SAE,CEJ etc
- Value Addition Programs
- Spoken tutorials project of IITB, EDX courses
- Students Training Programs - Core subject enrichment, latest technical courses, communication skill development
- Internship Programs
- Faculty assistance for students opting GATE examination
- Sponsored Projects from industry
- Aspiring Minds Computer Adaptive Test (AMCAT) and Quantitative Aptitude and Logical Reasoning (QALR) tests
- Employability Tests from private agencies

The summary of number of internship programs attended by the students is shown Fig. 2.2.3 (a) and the summary of year wise number of sponsored projects by industry is shown in Fig. 2.2.3 (b).

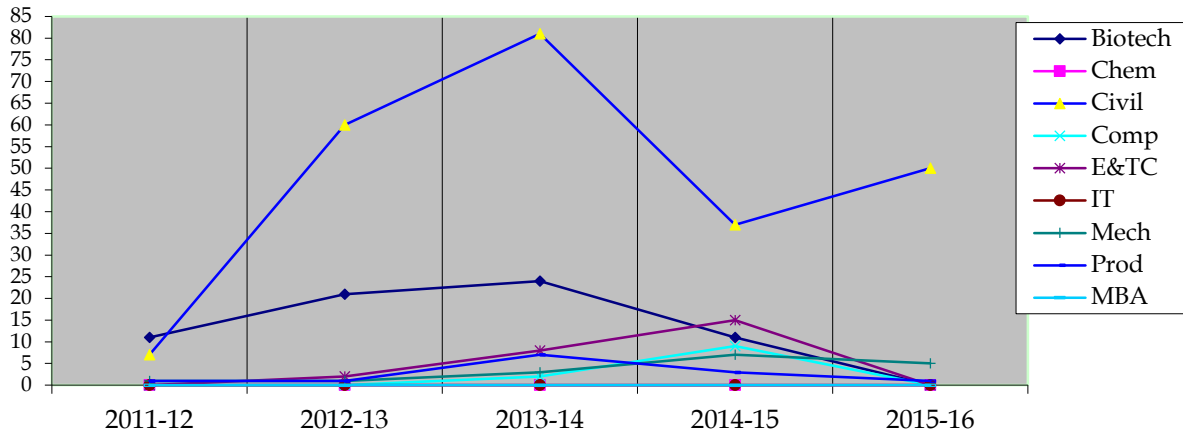


Fig. 2.2.3 (a) - Internship Programs attended by the students

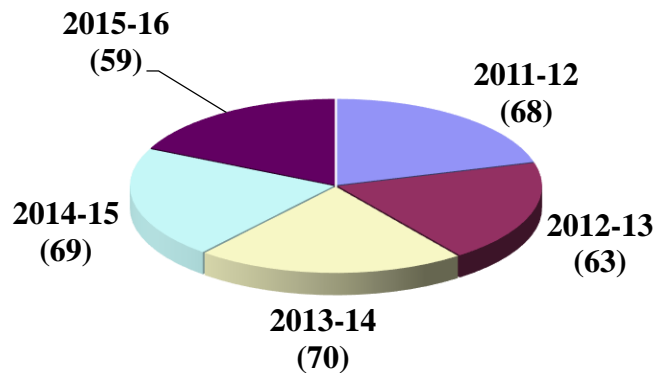


Fig. 2.2.3 (b) - Details of Sponsored Projects

#### 2.2.4 How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?

The Institute understands the need of comfort based on gender and environment. There is no discrimination on these issues. On the other hand, institute sensitizes staff and students on these issues through the following mechanism -

- Anti-ragging Committee
- Women Grievance Cell for Sexual Harassment
- Grievances Re-dressel Cell
- Induction Programs for newly admitted students
- Guardian Teacher (Mentor) Scheme at all the departments
- Prayas Activity – for promoting the social values among the students
- Organization of Social Awareness Contests and Activities
- National Service Scheme (NSS) – supported by Savitribai Phule Pune University
- Management Body interacts with the college policies and vision in creation of good working environment.
- Head of Department regularly monitors academic and discipline environment by visiting individual classes.

### **2.2.5 How does the institution identify and respond to special educational/learning needs of advanced learners?**

Institute identifies the special educational / learning needs of advanced learners through - Student's feedbacks, discretion and recommendation of respective subject teaching faculty, identification by external agencies /trainers, suggestion by respective Guardian Teacher (Mentor) and Result analysis.

The needs of such advanced learners is fulfilled through the following measures Special efforts by subject teachers in extra hours

- Specific Value Addition Programs (VAP) based on the student's choice
- Special assistance for higher studies like GATE
- Inclusion of such students in technical forums like. IEEE, CSI, SAE etc.
- Provision of internship for special hands-on experience at industry
- Allotment of industry sponsored/supported projects

### **2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?**

The Institute takes care of such category of students through the following ways -

- Economically weak students are taken care through -
  - Earn and learn scheme of institute and Savitribai Phule Pune University
  - Relaxation in fee payment through installments
  - Concession in fees by management

The concession in fees by various agencies such as AICTE, State Government etc. are given. These schemes are Scholarship/freeship, SC/ST, OBC, NT, VJ, EBC, SBC, Tuition Fee Waiver Scheme (TFWS), Minority State Govt., Minority State Central Govt., Secondary Teacher Concession, Primary Teacher Concession, Handicap Student Scholarship, Central Sector Merit Scholarship, Merit Scholarship, Prime Minister's Special Scholarship Scheme for Jammu and Kashmir, Pragati Scholarship for Girl Student, Bihar State Scholarship, Rasiklal Manikchand Dhariwal Foundation Scholarship, Bhosale Trust Scholarship, Cummins Scholarship, BSNL Scholarship, Pawar Charitabale Turst Scholarship, 10<sup>th</sup> and 12<sup>th</sup> 80% above Corporation Scholarship, NTS Scholarship, Zilla Sainik Kalyan Scholarship, Army Employees and P.M Scholarship, Oswal Bandhu Samaj, Railway Employees Scholarship etc.

- Financial aid given by professional multinational companies such as PSPL, Cummins India, Infosys, MITCON etc.
- Slow learner and academically weak students -
  - Additional classes
  - Counseling through Guardian Teacher (Mentor)
  - Practical - extra practices
  - Provision of learning material e.g. videos, PPT, animations, etc.
- Analysis of the performance of the students to be done based on -
  - Attendance
  - Test Results
  - Continuous Evaluation throughout semester

## 2.3 Teaching-Learning Process

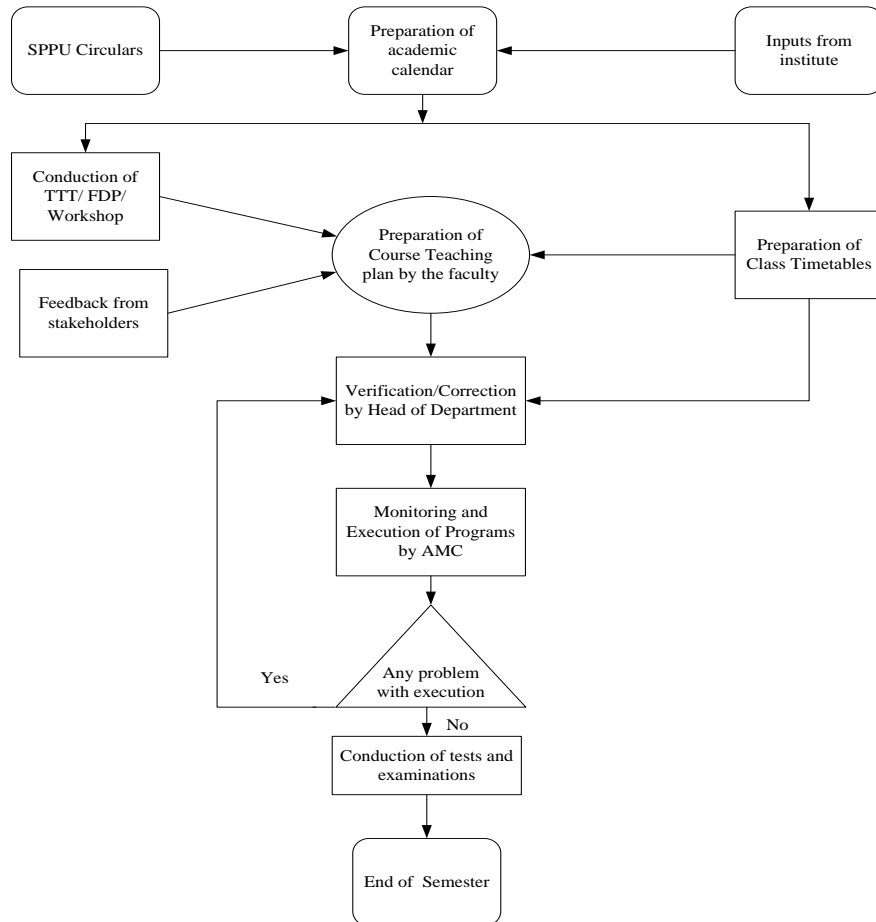
### 2.3.1 How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)

To improve the quality of teaching-learning, college prepares academic calendar for entire semester of thirteen week duration. All the faculty members prepare their teaching plan based on feedback from stakeholders.

Teaching, learning and evaluation schedules are planned and organized through the following mechanisms -

- **Academic calendar:** As per the curriculum circulated by University, all the departments prepare the academic calendars to cope-up with the cutting edge technology consisting of following activities -
  - Theory and Practical Sessions
  - Test-1, Test-2 and Test-3 / Prelim examinations
  - Student Training program activities including VAP
  - Guest lectures including their final consent
  - Industrial visits and others
- **Preparation of course objectives and outcomes:** Course objectives and outcomes are framed/reframed by respective faculty by considering the feedback from stakeholders such as students, alumni, industry personnel, parents, resource persons etc.
- **Teaching plan with additional contents:** Teaching plan for entire semester content delivery is prepared along with the content beyond syllabi to map with course objectives and outcomes with the consent from the subject in-charges and Head of department.
- **Class tests:** Regular unit wise class tests are planned and carried out for all the students. Retests are also conducted as scope for improvement if necessary.
- **Prelim/End semester examination:** Prelim/End semester examinations are conducted to summarize and conclude the teaching learning process of entire semester. It helps the students as mock of end semester university examinations.
- **Mock practical and oral examination:** To train students with real time external examination conducted by University, a mock session is carried for every subject to improve the performance and hence results.
- **Home assignments:** Regular assignments after the completion of every unit are given to monitor the understanding of content delivery.
- **Project presentation and evaluation schedule:** Committee is constituted to evaluate the project performance of students in completing their project work time to time and to avoid difficulties if any.
- **Mock on-line examinations:** To enable the students with realistic environment of university web based digital online examination, respective internal online mock examinations are planned and conducted.
- **Continuous assessment:** The assessment of academic progress of the students is on continuous basis, the internal term work marks are allotted based on parameters like attendance, understanding and journal write up.
- **SPPU online, practical, oral, term-work examination planning:** These examinations are planned and conducted as per the dates and schedule provided by respective subject chairman and competent authorities of University.

The details of planning and execution of teaching learning process are explored in Fig. 2.3.1 in brief.



**Figure 2.3.1: Planning and implementation of teaching learning process**

### 2.3.2 How does IQAC contribute to improve the teaching –learning process?

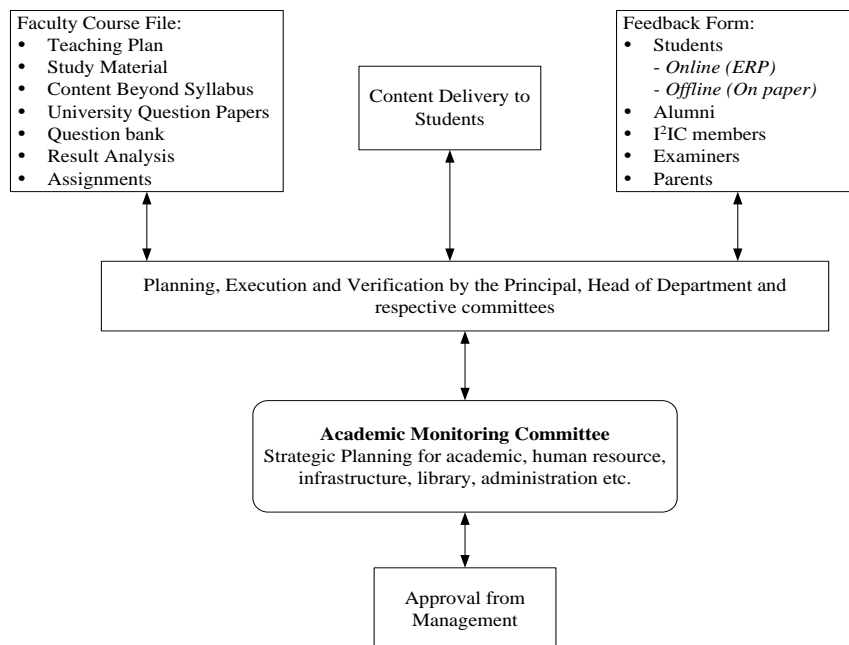
- The flow chart shown in Fig. 2.3.2 demonstrates the contribution of IQAC / Academic Monitoring Committee (AMC) in teaching–learning improvement. The college has its own IQAC / AMC committee to monitor the quality of teaching –learning process.
- Teaching learning process improvement took place due to following measures taken by AMC at institutional as well as departmental level-
- Critical course planning and course file preparation
- Student feedback and analysis
- Information / conveying feedback to faculty and suggestions for improvement
- Verification of improvement in next iteration
- Motivation to faculty for skill up gradation, qualification improvements, etc. so that faculty skill-set will get enhance
- Comparison of the students’ exam results of all the institutes under Sinhgad Technical Education Society (STES)

The details of IQAC are mentioned in Table 2.3.2.

**Table 2.3.2: Members of IQAC**

S.No.	Name	Designation and affiliation
<b>Chairperson</b>		
1.	Dr. S. D. Lokhande	Principal
<b>Members from the Management</b>		
2.	Dr. A. V. Deshpande	Member – Campus Director
3.	Prof. M. G. Bhat	Member – Director (Engg.)
<b>Member from Local Societies</b>		
4.	Prof. S. B. Pharkute	Director (Academics)
<b>Nine Teachers</b>		
5.	Dr. Y. P. Reddy	Vice Principal & Head – Mechanical Engg.
6.	Dr. M. B. Mali	Head – Electronics & Telecommunication
7.	Dr. P. R. Futane	Head – Computer Engg.
8.	Dr. S. S. Shastri	Head – Civil Engineering
9.	Dr. S. M. Chavan	Head – Chemical Engg.
10.	Dr. N. J. Uke	Head – Information Technology
11.	Prof. R. S. Katikar	Head – Production Engg,
12.	Prof. V. K. Chaudhari	Head – First Year Engg.
13.	Dr. (Mrs.) Mamta Mishra	Head - MBA
<b>Administrative Officers</b>		
13.	Prof. J. N. Pitambare	Dean – Training and Placement
14.	Mr. V. D. Tayade	Registrar
<b>Coordinator IQAC</b>		
15.	Dr. (Mrs.) Kalpana Joshi	Head – Biotechnology

The functioning of AMC pertaining to academic monitoring and execution is shown in Fig. 2.3.2.



**Figure 2.3.2: Functioning of AMC for academic execution and monitoring**

**2.3.3 How is learning made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?**

Faculty and students are motivated through various activities in teaching-learning process. The following measures and remedies are applied to enhance student centric learning –

- Video clips, snap shots, ppts for practicals / theory
- Tutorials
- Home assignments, on-line mock tests etc. for more practices
- Collaboration with industries through MoUs to boost practical hands-on and projects
- ASPP packages of standard journals made available as support for independent learning
- Wi-Fi set up, internet to each faculty for fast access
- Well-equipped seminar halls for interactive learning environment
- Floating funded research projects received from ACITE, University to faculty and students to fulfill their demands of funds for good experimentation
- Collaboration with professional bodies like IEEE, CSI etc. to get students and teachers at esteem global platform
- Fostering k-point digital resource to facilitate faculty as well as students to minimize physical efforts
- Organization of Faculty Orientation Workshops, Train the Trainers (TTT), Teacher Advancement Program (TAP)
- Collaborative learning of faculty for better student centric learning process through Mission-10x in liaison with Wipro
- Organization of webinars for interactive and student centric learning e.g. Infosys Webinars

**2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?**

The Institute motivates, nurtures, scientific temper, critical thinking and creativity for the transformation into life-long learning through the following activities -

- Organization of National and International conferences to share innovative ideas
- Scheduling project, mini project competitions to explore technical skills
- Annual national level technical event “Tectonic” to foster new technical and scientific concepts
- Organization of tool based workshops, hands on training for exposure to latest technologies
- Publication of departmental newsletters to disseminate new ideas and innovations
- Annual Publication of Institute magazine “Srujan”
- Providing Internship program for students at industries
- Incubation center and industry-sponsorship to the students for projects
- Robocon - It is a Robotics competition organized for the students interested in Robot making. Design of floating robot and socio robot for bomb detection are some of the attributes of Robocon event.
- BAJA SAE - It is an intercollegiate international level design competition conducted by the Society of Automotive Engineers (SAE) where participating teams design, build and race an All-Terrain Vehicles (ATV). The college team Kraftwagen has been participating in BAJA SAE International ATV competition since 2012. This team has won 1<sup>st</sup> prize



(Engineering esthetics and Ergonomics) at the 7<sup>th</sup> edition of BAJA SAE 2014 event, which concluded at the NATRIP facility in Pithampur, Indore on 23 Feb. 2014. Also, the team secured a prestigious top 10 finish in the design evaluation competition of the event.

- Supra - Mechanical and Production engineering students participate in this event. Students have designed a formulae one car. It is organized by International Society of Automotive Engineering
- Techfest - Workshops at Techfest have featured varied topics like Autonomous Robotics, Forensics, Network Security, Ethical Hacking, Swarm Robotics, Haptics etc. Students are motivated and promoted to participate in Techfest event organized by IIT, Powai.
- Research component addition in Student Training Program (STP) - This activity is added in the sixth semester of under graduate students. It enables the students for research methodology, technical paper writing, proposal writing and presentation etc. It is preferably taught by doctorate faculty.
- High performance computing lab - Complex engineering simulation in structural mechanics, thermal and Computational Fluid Dynamics (CFD).
- Formula Students - It is an event / competition where various universities across the globe participate to design, build a formula car. Recently, it was conducted on 11-14 Sep. 2015 in Italy and 22 students participated from the college.

### **2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? Eg: Virtual laboratories, e-learning-resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.**

The Institute has enough internal facilities for improvement in effective teaching. The prominent technologies and facilities available are -

- University of Berkeley driven EDX program
- NPTEL courses
- Technical videos from YouTube
- Course materials from IIT websites
- High Performance Computing Laboratory (HPCL)
- Advanced funded laboratories such as commissioned through Actel Inc. USA, Arm-STMicroelectronics UK, etc.
- Open Education Resources: Open CV, Scilab, Simulators, E-books, N-VIDIA Cuda etc.

### **2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?**

The faculty and students are exposed to advance level of knowledge and skill through various technical programs organized by the respective departments.

The advanced level exposure is achieved by -

- Expert lectures by eminent personnel
- Workshops and seminars
- Value Addition Programs (VAP)
- Skill development programs under STP
- Teacher Advancement Program (TAP)

- Train The Trainers programs (TTT)
- Industrial training to faculty and students
- Faculty Development Program (FDP), Staff Development Program (SDP)
- Industrial visits
- Events under Professional bodies like IEEE, CSI etc.
- Events under Sinhgad Students Council (SSC) clubs
- Industry sponsored/associated student projects
- Funded research projects to faculty

**2.3.7 Detail (process and the number of students benefitted) on the academic, personal and psycho-social support and guidance services (professional counseling / mentoring / academic advice) provided to students?**

The following processes / schemes are executed to support students in academic, personal and psycho-social way -

- Guardian Teacher scheme - 20 students per teacher/mentor
- Academic advice and counseling in extra hours/remedial classes
- Mentoring and counseling through STPs
- Resolution of complaints and support by Grievances cell, Woman
- grievance cell for sexual harassment, anti-ragging cell and community development program
- National Service Scheme (NSS) activities
- Earn and Learn Scheme for the needy and economically disadvantaged students (Approximately 40 students are benefitted per year)
- Regular visit of psychiatrist for counseling of needy students

**2.3.8 Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?**

- Faculty are provided with financial assistance and motivation to upgrade their skills and state of the art technology. Rewards in terms of appreciation are made by the institution.
- Innovative teaching practices adopted are -
  - Webinars for faculty
  - K-Point resource usage
  - Live presentations on various practical setups using audio/video techniques
  - Organization of quiz
  - Role-play activity
  - Projects under Research Promotion Scheme (RPS) of AICTE/University implementations through students
  - Model making
  - Animations
  - Problem Based Learning (PBL)
  - Innovative teaching process through Harvard cases.
- Impacts of innovative practices -
  - Teaching learning process gets strengthened.

- Increases the visualization power to solve engineering problems.
- Train them to work in a team to solve given case studies.
- Hands-on to explore the capabilities to solve real time society problems

### 2.3.9 How are library resources used to augment the teaching-learning process?

- Up gradation in books and e-resources are made regularly and faculty are involved in the process.
- Faculty refers the library resources like educational CDs, reference books, text books, Research Journals/Transactions, Various technical magazines, Proceedings for various international/national conferences for development of study material, projects and seminars.
- The ways by which library resources foster teaching learning process are -
  - Procurement of library books as per the suggestions and recommendations by faculty
  - Subscriptions of hard copy journals
  - ASPP package of journals
  - E-resources
  - Provision of book-bank to the needy students
  - Availability of library reading room for 24 hours daily
  - Issue and access of books from 8.00 am to 7.00 pm daily
  - Departments have its own departmental library for easy and immediate access of books
  - Easy access to existing project reports through departmental library
  - Easy book enquiry in central library through IP based “Slim software” access for students and Faculty
  - Educational CDs/DVDs
  - Books and magazines on recent trends in socio and economic issues and general knowledge

### 2.3.10 Does the institution face any challenges in completing the curriculum within the planned timeframe and calendar? If ‘yes’, elaborate on the challenges encountered and the institutional approaches to overcome these.

- The teaching learning process of University requires the completion of two units in a month before every online / In-Sem examination. To cope up with this time limit, faculty and departments takes a regular review and the steps are taken to complete the syllabi.
- Following special efforts are made for smooth conduction of academics in case of directly admitted SE students -
  - Help desk is made available for counseling.
  - Separate dedicated time table is executed to complete the syllabi.
  - Extra Classes are conducted on Sundays and holidays, if needed.
  - Online and mock exams are conducted separately as per university schedule
- While excelling technically, sometimes the conventional number of hours allotted for teaching-learning fall short. To cope up with this scenario, all the programs of the institute apply following measures -
  - Additional lecture hour per subject per week
  - Remedial classes
  - Availability of laboratories beyond working hours
  - Conducting extra classes / practical on Sundays / holiday if required

### 2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

- The departmental quality assurance committee is responsible to monitor day to day academic calendar. Result analysis of every subject is made and compared with their target value. Measures are taken to minimize the error between actual and targeted results.
- Quality of teaching learning is monitored, evaluated and maintained at department level, institute level as well as society level. Following processes are carried out to ensure the quality –
  - Institute level Academic Monitoring Committee (AMC)
  - Online feedback in between semester and Offline feedbacks after the end of semester from students
  - Evaluation of feedback and counseling to faculty by Head/Principal/AMC
  - Setting of department result thresholds in correlation with university results.
  - Motivation and appreciation of well performing faculty
  - Analysis and remedies based on class tests, prelim and end semester results
  - Monitoring and corrective measures taken by departmental AMC committee
  - Course file of individual faculty containing study material, assignments, question bank, previous question papers etc. is evaluated by head of department
  - AMCAT and Quantitative Aptitude and Logical reasoning tests are conducted for every student to achieve good placement ratio.

## 2.4 Teacher Quality

### 2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum

The details pertaining to the human resource is given in Table 2.4.

**Table 2.4: Information of human resource**

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
D.Sc./D.Litt.	-	-	-	-	-	-	-
Ph.D.	11	04	10	05	03	04	37
M.Phil.							
PG	03	-	19	11	104	82	219
Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Temporary Teachers							
Ph.D.	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-

PG	-	-	-	-	-	-	-
Part-time Teachers							
Ph.D.	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	-	-	-

A] Following strategies are adapted by the Institute for recruitment of human resource -

- Demo lectures are organized and each candidate is rigorously checked through interview process during local selection
- Thorough checking and verification of technical knowledge and skill sets of candidate during UGC interviews. The process in brief for Faculty selection through UGC is stated below –
  - The institute submit total requirement of the faculty to university and accordingly university allocates number of vacancies for various categories as per rules and regulations.
  - The Institute publishes recruitment advertisement in prominent Marathi and English newspapers and on Web-site.
  - Applications are scrutinized and Call letters are sent to the candidates accordingly.
  - Interviews of the candidates are carried out by the panel nominated by University.
  - Selection/Posting is done according to the selection list given by the panel by following all the stipulated reservation norms.

B] Following measures are taken for retention of faculty in the institute-

- Internal promotion scheme to accelerate the promotions
- Sponsorship and motivation of faculty to pursue Ph. D.
- Financial assistance to faculty for attending FDP/SDP/STTP/Conference /Workshop etc.
- Execution of appropriate pay scales as per AICTE norms
- Implementation of updated dearness allowance from time to time
- Additional incentives such as higher designation with pay for deserving and committed faculty.
- Provision of provident fund, insurance, gratuity etc.
- Availability of on campus staff quarters.
- Excellent work ambiance
- On campus school education for the family members of employees
- Free services of general hospital, dental hospital and campus health clinic for all employees
- Well set norms for research and consultancy
- Sponsorship for Research Program (Ph. D.) -
  - Sponsorship letter is provided to the faculty to ensure his/her admission to Ph. D. programme.
  - Leaves are sanctioned to carry out their course work and progress Seminars in time.
  - Study leave sponsorship for faculty seeking admission in National /International Universities.

**2.4.2 How does the institution cope with the growing demand / scarcity of qualified senior faculty to teach new programmes / modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.**

- Train the trainers programme is adopted before the start of every semester to teach new programme and emerging areas. Also, efforts are made to cater the need of teaching methodology.
- Workshops are conducted to have hands-on to new technology.
- Conferences are organized to inform about the thrust research areas.
- Technical books are procured as per the requirements by faculty.
- Faculty are motivated to apply for funding from various organizations.
- Promoting the faculty to get associated with industries of his/her own interest domain.

**2.4.3 Providing details on staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.**

The Institute is very keen and aware of the need for enhancement in the quality of technical and continuous up gradation of the teacher. Following types of programs are organized by the departments and institute to full fill this -

- Staff Development Programs (SDP)
- Faculty Development Programs (FDP)
- Short Term Training Programs (STTP)
- Faculty Orientation Workshops (FOW)
- Train The Trainer (TTT)
- Teacher’s Advancement Program (TAP)
- Administrative Skill Development Programs for Principals and Heads
- International Conferences
- National Conferences
- Technical Webinars
- Industrial Training

a) Nomination to staff development programmes during last four years.

Academic Staff Development Programmes	Number of faculty nominated
Refresher courses	13
HRD programmes	54
Orientation programmes	58
Staff training conducted by the university	100
Staff training conducted by other institutions	61
Summer /winter schools, workshops, etc.	85

b) Faculty Training programmes organized by the institution to empower and enable the use of various tools and technology for improved teaching-learning

- Teaching learning methods/approaches are guided by the practices introduced in training of Mission 10x seminar.

- Handling new curriculum is made easy by exploring the contents by Senior faculty to all the fresh / Junior faculty by way of conduction of “Train the Trainers” and “Faculty Orientation Workshop” for all subjects for 1 week.
- All faculty are exposed to Teacher Advancement Programme (TAP) to grill and update teaching and behavioral skills.
- Recorded content delivery of the subjects is made available to students under “K-point” programme.
- Cross cutting issues are nurtured through webinars, Intel-FICE program, High performance computing training programme and organization/Participation in National/International Conferences etc.
- Audio Visual Aids / multimedia educational CDs, Open Educational Resources (OERs) such as NPTEL and Standard Websites are made available to students for effective self learning.

c) Percentage of faculty

- Invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies
  - The Human Resource (HR) - faculty of the institute gained well reputation and invited as resource persons in various events in the region. The faculty members had been as resource persons in workshop / seminar / conference / etc. organized by following external professional agencies-
    - i] Institution for Electronics and Telecommunication Engineering (IETE)
    - ii] Board for College and University Development (BCUD) - Savitribai Phule Pune University
    - iii] Indian Society for Technical Education (ISTE)
    - iv] Industries
- Participated in external Workshops / Seminars / Conferences recognized by national/ international professional bodies
  - Faculty member participated in the external Workshops / Seminars / Conferences recognized by following national/ international professional bodies
    - i] Institute of Electrical and Electronics Engineering (IEEE)
    - ii] AICTE
    - iii] Computer Society of India (CSI)
- Presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies

The following Table 2.4.3-C shows number of paper presented in Workshops / Seminars/ Conferences conducted or organized by professional agencies

**Table 2.4.3-C: Number of Papers Presented**

Details	Year					Total
	2015-16	2014-15	2013-14	2012-13	2011-12	
Number of Papers presented	24	126	190	154	115	609

**2.4.4 What policies / systems are in place to recharge teachers? (eg: providing research grants, study leave, support for research and academic publications, teaching experience in other national institutions and specialized programmes, industrial engagement etc.)**

- Teachers are motivated by providing research grants, study leave. The details are given below -
  - Faculty is given study leave to complete their progress seminar, Course work, thesis writing as per the policies of the Institute.
  - Faculty is motivated/guided to apply for funding in their research domain.
  - Faculty is given sponsorship for attending skill development programmes in their research areas.
  - Institute initiates the research proposals through Faculty and submit to the University. These are further scrutinized and short listed through interviews/presentations at the University. Selected proposals receive grants as per the BCUD guidelines.
  - Institute has following well established policies / systems / mechanisms to recharge teachers-

*a) Provision of research grants*

**Table 2.4.4-A: Research Grants received since last four years**

Details	Programme								
	Biotech	Chem	Civil	Comp	E & TC	IT	Mech	Prod	MBA
Research Grants Rs. in Lac	6.35	4.8	7.4	18.45	34.8	7.6	23.05	9.0	1.45

*b) Funds to faculty for participation in-*

- Staff Development Programs (SDP)
- Faculty Development Programs (FDP)
- Short Term Training Programs (STTP)
- Faculty Orientation Workshops (FOW)
- Train the Trainer (TTT)
- Teacher’s Advancement Program (TAP)
- Administrative Skill Development Programs for Principals and Heads
- International Conferences
- National Conferences
- Industrial Training

**2.4.5 Give the number of faculty who received awards / recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.**

The Institute always inculcate the culture of applying for research funds in the technical growth by interaction with industries.



- Since the institution has excellent work ambience, research culture, large number of post graduate and Ph. D. programs, perks offered etc.; faculty members received awards / recognition at the state, national and international level for excellence in teaching.
- Total number of recognitions and awards received in last four years is 71.

**2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?**

Yes, evaluation of the teachers by the students is made through the feedback. Analysis of the feedback is conveyed to teachers for further improvement.

- Institution has well set process of evaluation of teachers through-
  - Students feedbacks
  - Parents feedbacks
  - Industry personnel feedbacks

The student's feedback is taken twice in a semester. Central Academic Monitoring Committee (AMC), Principal, Heads of the Department take review of the evaluations done by the students. If certain shortfalls are found, such faculty is made aware of it. Following remedies are applied for improvement in the teacher's performance-

- Provision of portable public address system for low voice problems
- Sponsorship to attend communication skill programs
- Deputation of faculty to Train the Trainers program
- Organization of faculty seminars in front of peer-colleagues

**2.5 Evaluation Process and Reforms**

**2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?**

The evaluation process helps to ensure an improvement in the student academics. The academic plans and academic calendar inclusive of various activities of the institute is displayed on notice board and website before the start of the semester. The stakeholders of the institute are made aware about the evaluation process by following means:

- Structure and syllabus of respective programme is displayed on University website and on department notice board.
- At the commencement of the semester, students are notified about the criteria for evaluation of term work.
- It is also disseminated to all the stakeholders of the programs through student induction programs and parent meetings
- Continuous evaluation of practical.
- Information of internal examination evaluations and results to the students.
- TGs, Class teachers and subject teachers inform students about evaluation process.
- The information in all these processes are informed to industry at the time of Training & Placement cycle

**2.5.2 What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?**

The institution implements all the evaluation reforms as prescribed by the SPPU. In addition, institute has introduced some other evaluation reforms.

- Following major evaluation reforms of the University are adopted by the institution –
  - Appointment of College Examination Officer (CEO)
  - Online examinations for first and second year
  - In-Semester examinations for third and fourth year
  - Official University conference and project exhibition for UG and PG students
  - The marks of term work, practical/oral examination are submitted online to the University.
  - College has adopted credit system for post graduate courses as per the SPPU guidelines. Majority of the academic activities such as appointment of examiners, paper setting, paper evaluation, marks filling are operated “Online”.
- The following major evaluation reforms are initiated by the institution on its own-
  - Mock online examination
  - Internal class tests and retests
  - Mock oral and practical examinations
  - Prelim examination
  - Mini project competition-evaluation
  - Final year UG and PG project mock presentation and evaluation
  - Project competition and evaluation
  - QALR/employability tests/ AMCAT are conducted by institute to improve placement

### 2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?

The institute is keen in adopting dynamic changes in the evaluation reforms initiated by the University and on its own. It conducts all the SPPU examination as per its schedule. The institute has taken following measures for the effective implementation of the evaluation reforms introduced by the University.

**Online examinations:** The effective implementation of the online examination is ensured by way of display of online examination timetable, appointment of eligible internal supervisors and use of CCTV cameras for monitoring of online examinations

**In-semester examination:** Execution of In semester examination is carried out in following steps

- In-semester examination is carried out as per SPPU timetable.
- In-semester and End semester examination question papers are set by SPPU appointed examiners.
- Junior supervisors are appointed for invigilation
- Masking of papers and Central Assessment of answer Papers (CAP) is conducted at college level for fair assessment of papers.

**End semester examination:** For smooth conduction of University theory examination,

- Appointment of examiners is done by SPPU
- Proper display of examination timetable
- End semester examination question papers are set by SPPU appointed examiners
- For smooth conduction of University theory examination, Senior Supervisor is appointed who looks after overall conduction of the examination. Junior supervisors are appointed for invigilation

**Term Work/Practical/Oral examination**

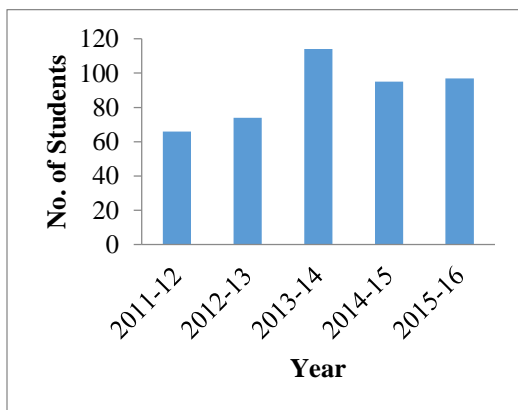
- Final year term work is jointly evaluated by internal and external examiners
- The marks of term work, practical/oral examination are submitted online to the University by using a unique username and password generated by a system

**2.5.4 Provide details on the formative and summative assessment approaches adapted to measure student achievement. Cite a few examples which have positively impacted the system.**

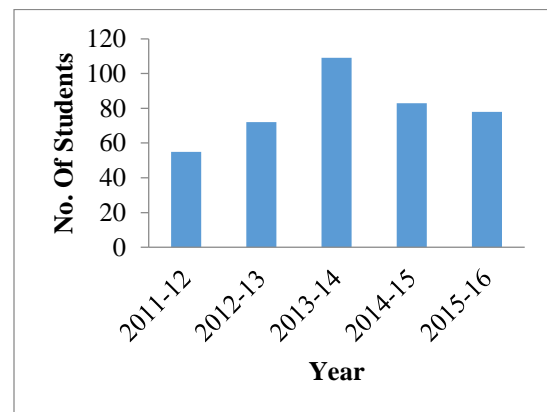
**Formative assessment:** This kind of assessment is employed to monitor students learning and to get feedback by students to improve their learning. The following parameters are considered in formative assessment

- Participation in organizing various events like seminars, design contests, paper presentation contests, and professional society chapters.
- Active participation in various inter-college events and national level contests.
- Mock on-line and practical/oral examinations
- Unit / Prelim tests
- Assignments
- Industrial visits
- Mini projects/Major Projects
- Social activities
- Value addition programme
- Student training programme

The students’ participation in extracurricular activities like sports and cultural events is given in Fig. 2.5.4 (a) and 2.5.4 (b). Students take part in events organized at inter-college, state and national levels and get awards for their exclusive performances and efforts.



**2.5.4 (a): Sports Activity**



**2.5.4 (b): Cultural Activities**

**Summative assessment:** In this assessment, performance of students is evaluated at the end of semester. Institute assists the University to conduct summative evaluation at the end of each semester by following means

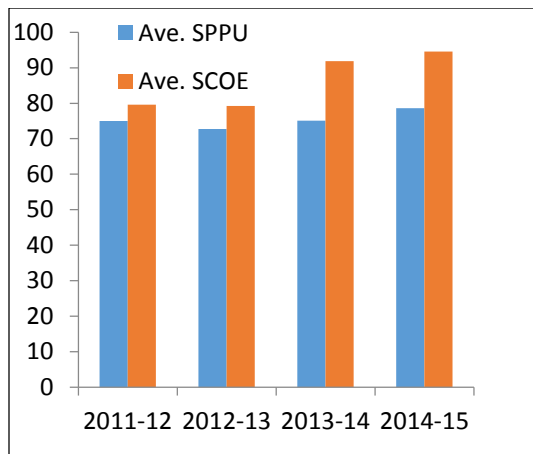
- Online examination and In-Semester examination
- Written theory examination
- Practical/Oral examination
- Seminar and Project work examination

The names of meritorious students of every year are displayed on the notice board. The

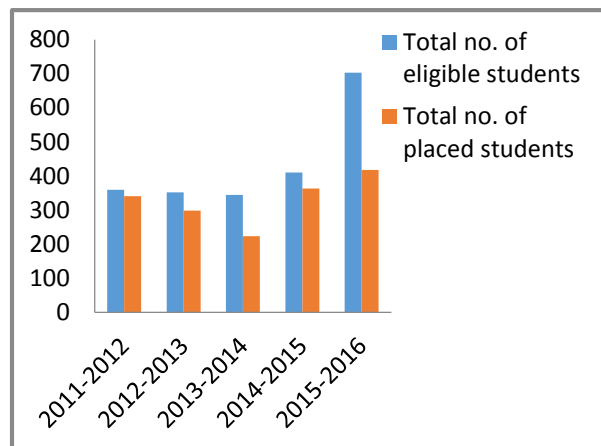
strategy adopted for overall assessment of students achievement and determining their level of intelligence in academic is given below -

- AMCAT
- Unit and Prelim tests

The above approach has resulted in improvement of results, and increase in the placement rate. There is continuous progression in SCOE results because of efforts taken at institute level. Improved results as well as employability tests, AMCAT and QALR practice sessions have made positive impact on placement. There is a steady rise in number of students eligible for placement and placed students. The details of result in comparison with average SPPU result and placement analysis is shown in Fig. 2.5.4 (c) and 2.5.4 (d) respectively.



2.5.4 (c): Result Analysis



2.5.4 (d): Placement Analysis

### 2.5.5 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioral aspects, independent learning, communication skills etc.)

The institute believes and trusts transparency in assessment of students. In order to keep the transparency in the internal assessment, following steps are taken by institute.

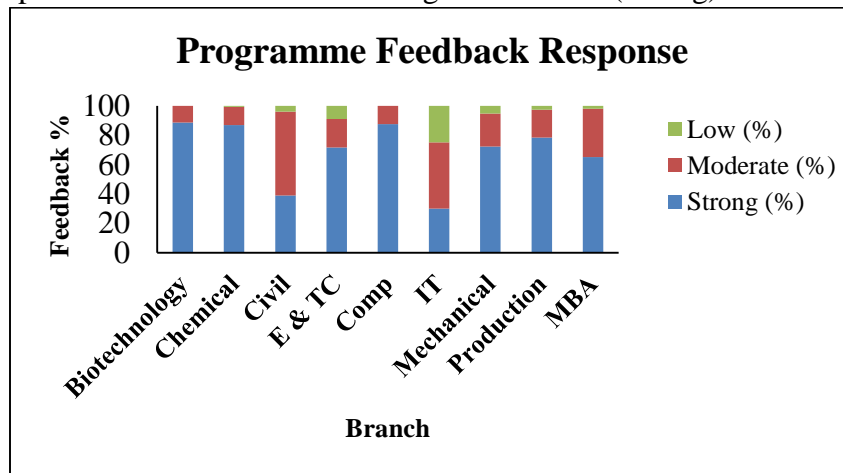
- The attendance record of each student in theory and practical is maintained and displayed on notice board at the end of month
- Timely submission of assignments and performance in tests
- Different rubrics have been developed for seminar and project assessment and term work assessment.
- There is a provision for applying photocopy of the answer paper. Students can apply for revaluation of answer papers after consulting with concerned faculty members (with answer paper)
- To encourage independent learning, few topics for presentation are given to final year students
- Diverse weightage is given to all points in internal marks calculations

**2.5.6 What are the graduates attributes specified by the college/ affiliating university? How does the college ensure the attainment of these by the students?**

The institute has specified following graduate attributes by considering the graduate attributes defined by various accreditation systems. The graduate attributes and hence the program outcomes are well defined and set by each department/program. Each department has its own process of assessing the attainment and refining the attributes/outcomes based on the feedback given by stakeholders. These feedbacks are taken and attainments are checked / verified continuously every year. The sample attributes are given below.

- Engineering Knowledge
- Problem Analysis
- Design & Development of Solutions
- Investigation of Complex Problem
- Modern Tools Usage
- Engineer and Society
- Environment & Sustainability
- Ethics
- Individual & Team work
- Communication
- Lifelong Learning
- Project management & Finance

Based on graduate attributes, every department of the institute has developed programme education objectives and outcomes. All the faculty has developed course objectives and course outcomes to satisfy the program education objectives and outcomes. The attainment of programme outcome was evaluated using exit feedback form of students. The program feedback response received was on an average above 80% (Strong).



**2.5.6: Programme Feedback Response**

The attainment of above mentioned attributes is carried out by means of the following steps:

- The Institute follows the curriculum prescribed by SPPU
- Each department has well defined programme outcomes, course objective and course outcomes
- Well-equipped laboratories for hands on experience

- Various Co-curricular activities to develop team work, problem solving and communication
- Extra-curricular activities to sensitize students towards ethics, environment, society and lifelong learning
- College has introduced special Group Discussion-Personal Interview (GD-PI) sessions for third year students
- Institute has set up well equipped language laboratory and ETNL Language Lab software has been installed. The activities carried out in language lab help the students to improve their verbal and nonverbal communication and develop soft skill among them.
- Institute encourages the independent learning which includes paper presentation by students, project, innovative mini project, publishing the articles in newspaper and gives proper weightage to these heads.

All these activities are planned at the beginning of each semester and mentioned in the activity calendar of each department

### **2.5.7 What are the mechanisms for redress of grievances with reference to evaluation both at the college and University level?**

- College has well established and set mechanisms / processes pertaining to evaluation - grievances redressel. These mechanisms based on the type of grievance are -
  - *Term works marks evaluation* - Such grievances are referred to the Principal through head of the program. Concerned subject teaching faculty and Guardian Teacher (Mentor) resolves the grievance based on documentation.
  - *Class test, Retests and Prelim examinations evaluations* - The complaints of such examination evaluations are resolved by respective subject teacher and head of the program.
- University also has set process of grievances redressel. It is adopted and executed at college level too. This includes -
  - *Theory examinations* - The queries and compliant about this evaluation are recorded by examination section of the college and submitted to University for corrective action. These corrective actions are normally re-evaluation, re-checking, providing photocopy of answer sheet to the student etc.
  - At University level, students can apply for verification, revaluation and for photocopy of answer book. The University examiners re-verify, re-assess the answer books and the revised marks if any, are sent to the institute which are communicated to the respective department and to the student.

## **2.6. Student Performance and Learning Outcomes**

### **2.6.1 Does the college have clearly stated learning outcomes? If ‘yes’ give details on how the students and staff are made aware of these?**

**Yes,** The institute has well defined learning outcomes. The vision and mission of the institution emphasizes on holistic development of students and teachers and to generate, preserve and share knowledge for developing a vibrant society.

- The vision and mission statements are displayed on the college website and at various key positions in the college building.
- Programme Educational Objectives (PEO), Programme outcomes (PO), Course Objectives and course outcomes (CO) have been defined by every department.

- Programme Educational Objectives and Programme outcomes are printed in department Newsletter as well as course files
- Course objectives and Course outcomes are discussed by faculty in the classrooms and are part of the course file.
- At the end of every semester, all the departments evaluate POs and COs by using tools like tutorial and mid-term results, on-line exam results, course feedback and yearly alumni feedback etc.

**2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programme? Provide an analysis of the students' results/achievements (Programme/course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/courses offered.**

The institute monitors and communicates the progress and performance of the students by following ways -

- After the declaration of University examination results, the result analysis report is prepared by every department. This report is compared with the reports of previous years to monitor the progress of department and take corrective measures whenever necessary.
- Result analysis report is shared with the faculty members as well as to the students. The copies of analysis are also submitted to the Principal.
- Guardian Teacher (Mentor) keeps close watch and track on the progress and performance of the students. The progress in terms of attendance, test marks, parent contact details, curricular and extra-curricular activities, students' grievances (if any) is recorded in the mentor booklet provided with the faculty. The progress of each student is informed to the parents time to time. In case of severity, parents are called to meet the authorities in person.
- All departments in the institute regularly communicate the marks obtained in the internal examination to the students.
- It has been observed many times that the academic progress of students is hampered due to personal and other reasons. In such cases, mentor along with subject teacher and head of department plays a major role in counseling and resolving the students' personal problems. It is found that such student excels in academics at later stages.
- The departments also encourages the students to perform better by means of following measures
  - Felicitation of toppers in FE induction program at institute level
  - Felicitation of toppers in department association program
  - Best outgoing project and best outgoing students in BE farewell program
  - Names of toppers are printed in Newsletters and college magazine

The Fig.2.6.2 shows the average passing percentage of first, second, third and final year students of all the undergraduate programs for the last four years. The comparison of SE, TE and BE result shows that, due to direct second year admissions from diploma background, passing percentage of SE students is relatively less compared to TE and BE in all programs of the institute. For SE directly admitted students, efforts are taken by the faculty by conducting remedial classes, extra lectures, tutorials etc. For TE and BE students, passing percentage result is relatively good.

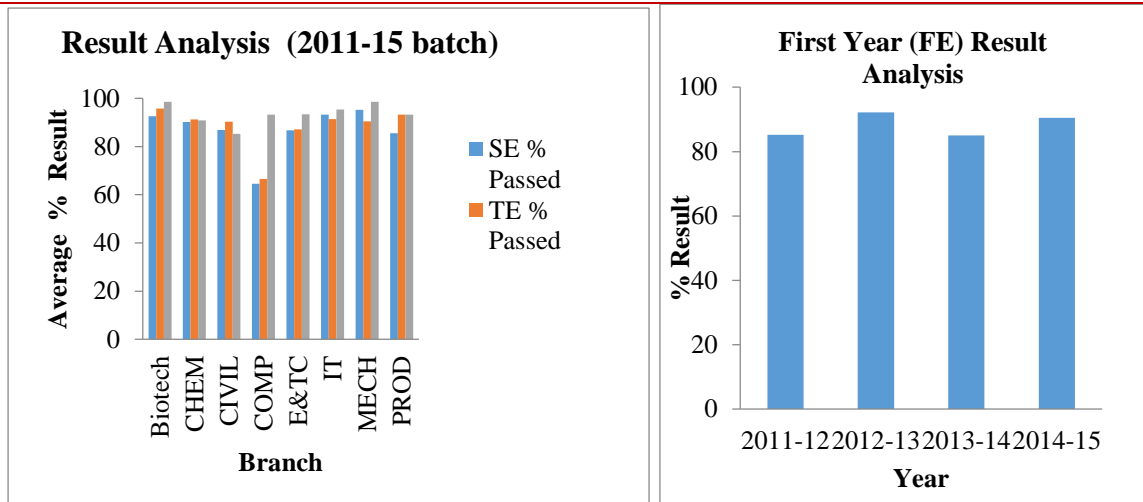


Fig. 2.6.2: Average Passing Percentage of UG students

### 2.6.3 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

#### *Teaching strategies:*

- Teaching strategies start with the preparation of academic calendar in every department which is in line with the academic calendar given by the SPPU.
- Allocation of the course modules to faculty at the start of semester
- Study of the course objectives and outcomes by the respective faculty
- Planning lecture delivery and its timely execution
- Students are provided with list of text and reference books and question banks
- Monthly review of lectures/ practical conducted and syllabus coverage
- Extra sessions are planned for the courses behind schedule
- Attendance monitoring during semester for effective dissemination of contents
- Guest lectures are arranged on advanced topics
- Quiz/ Debates/ Group discussions are held in class for better involvement of student
- Mock orals, practical and tutorial sessions are undertaken to increase the effectiveness of the course delivered.

#### *Learning strategies:*

Various teaching strategies are adopted to promote active learning by participatory activities such as:

- Tutorials, Home Assignments
- Paper presentations and Poster competitions
- Industrial visits
- Seminars and Project work
- Workshops and Value Addition Programs (VAP)

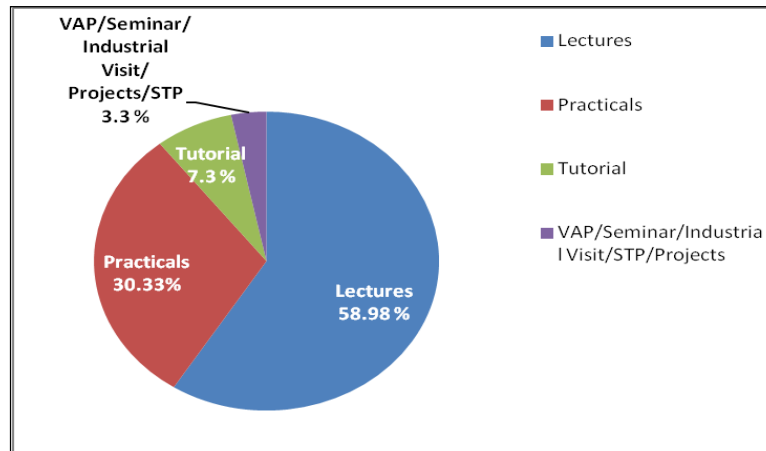
In addition to regular teaching and course coverage, learning material from various open resources like NPTEL-learning materials and videos, EDX courses, IITB spoken tutorials etc. is made available to the students.

After completion of the program in final year, students are expected to get employment or go for higher studies. To improve upon employability, Employability Tests and AMCAT are conducted.



QA-LR practice sessions are given to the students. GATE/GRE guidance is provided for the students who wish to pursue higher studies.

The Pie chart shown in Fig.2.6.3 depicts distribution of active teaching learning methods adopted by the departments. Lectures constitute about 60% of the total learning along with students' involvement in Practical sessions, Value addition programs, industry visits and seminars, projects, tutorials at about 40%.



**2.6.3 Departmental Teaching - Learning Methods**

**Assessment Strategies:** The institute adopts both direct and indirect assessment for evaluating the learning outcomes of the courses and program.

**Direct Assessment:**

- Internal and external examinations in theory and practical sessions.
- Online examinations.
- Oral Examinations, seminars, tutorials and assignments.
- Term work assessment

**Indirect Assessment:**

- Alumni feedback
- Exit students feedback
- Placement feedback
- Programme feedback

**2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?**

The institution continuously executes various measures and initiatives pertaining to students' training, placement, entrepreneurship, innovation, research aptitude and social awareness programs. The prominent of these are listed below -

- *Student Training Programme (STP)* - These programmes are organized for the students in five parts. STP-I and II are for communication skills/soft skills development; STP-III is designed to refine the fundamental core technical concepts needed in placements. STP-IV deals with soft skills and STP-V is oriented towards advanced technologies and related hands-on through Value addition Programs. These activities make the students' more

employable at the time of placement.

- *Executive training on Group Discussion, Group Task and Personal Interview* – The institute organizes a special drive for final year students. External professional agencies provide this training. It adds value to the students' employability.
- *AMCAT test series* - Every student of the institute undergoes AMCAT test series so as to upgrade and test the own aptitude. This test is a standard and well accepted by industries across the nation.
- *QALR* – Quantitative Aptitude and Logical Reasoning tests are conducted for the students. This test enables the students to prepare for most frequently asked aptitude and logical reasoning questions in various exams.
- *Prayas* - It is a social activity being executed in social context specially for up-liftment of rural area children by our students.
- *National Service Scheme (NSS)* - It is well proven and nationally accepted activity that is being carried out by the institute. It is well appreciated and supported by Savitribai Phule Pune University.
- *Sinhgad Student Council (SSC)* - The aim of this council is to groom student in technical, social, cultural fronts. The student registered to SSC participates in various activities organized by different SSC clubs during the semester.
- *Workshops / Trainings / Paper presentation / quiz activities* - These activities are organized by all the departments of the institute on regular basis to inculcate innovations and research culture.
- *Entrepreneurship Cell*: The institute has established a structured entrepreneurship cell at the institute. The cell conducts several workshops, seminars and motivational lectures from eminent entrepreneurs for the benefit of students on regular basis.
- *Employability Tests*: The Training and Placement cell of the institute conduct a series of employability tests, expert sessions to make the students well prepared to clear the aptitude tests conducted by different companies during placement.
- *Departmental newsletters*: All the departments of the institute has departmental newsletters where students are taking part actively in collection, editing, coordinating and printing of newsletter. This activity enhances the students' written communication and coordination skills along with leadership qualities.
- *Technology Business Incubation Center (TBI)*: The institute has recently undertaken TBI activity and created a brochure on domain wise expertise of the faculty. The domain expertise of the faculty and available infrastructure is projected in this brochure for the industrial collaborations.
- The Institute motivates and if needed sponsors students to participate in various research projects, project competitions and national and international conferences.
- The students are encouraged to take up sponsored projects from industry or projects in collaboration with institutes of national repute. The institute has signed several MoUs with industries and research institutes. In addition, the students are encouraged to participate University level competitions like AVISHKAR. Students are also encouraged to apply for DST/ DBT training programs.
- *Social Activities*: The students and staff of the institute are actively engaged in various social activities. Some of the social activities organized are career guidance to village students, task force cell against sexual harassment, health and hygiene awareness, dental

checkup-medical camp, computer literacy, blood donation camp, environment awareness-Tree plantation, Pune Smart City Survey, Police Mitra 2015, Kisan Relief Fund etc.

The institute has conducted various programmes like Remedial Lecture Series for FE students, Vidarthini Vaktimatwa Vikas, Apatti Vyavasthapan Yojana under sponsorship of Board of Students Welfare (BSW) of SPP University.

### **2.6.5 How does the institution collect and analyze data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?**

Every programme / department collects the feedback from all the stakeholders pertaining to students' performance and outcomes. These feedbacks are analyzed quantitatively as well as qualitatively. The gaps between the curriculum and technological need are found out.

- Faculty feedback is taken in every semester from students.
- Exit students feedback is taken from the outgoing students every year.
- The feedback from the alumni is taken during the Alumni meet.

#### **Corrective Actions:**

- Special attention is paid to lateral entry students.
- Remedial classes are conducted for subjects where percentage of failure is more
- Mock orals are conducted
- Students with difficulties in learning are counseled by respective subject teachers and teacher guardian

### **2.6.6 How does the institution monitor and ensure the achievement of learning outcomes?**

All the departments of the institute have the well-defined programme objectives and outcomes. These outcomes are analyzed based on the feedback taken from different stakeholders as mentioned earlier. The gaps between curriculum and technological need are found out. Every faculty member is made aware of the gaps and content beyond syllabus are included accordingly to bridge the gap. This ensures the achievement of outcomes of individual course as well as the resultant outcomes of programme and hence institution.

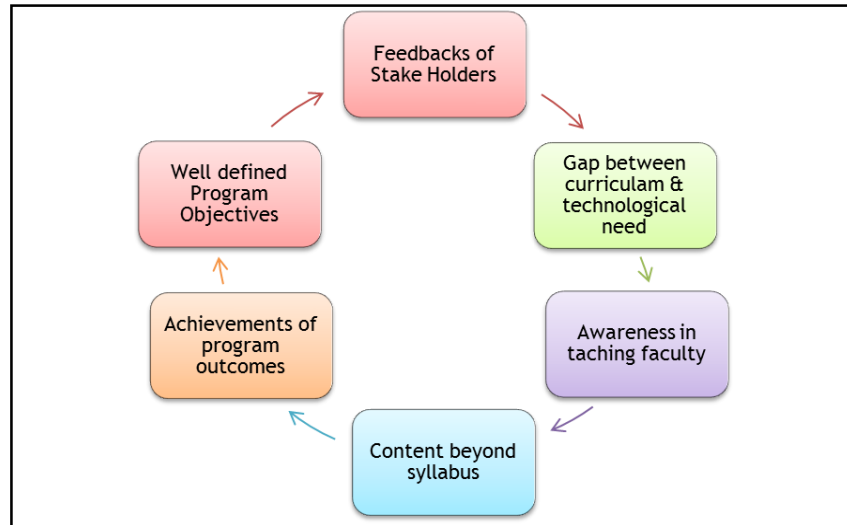
To ensure the achievement of learning outcomes each department:

- Display of academic calendar on notice board at the beginning of semester
- Monitors of theory, tutorial and practical classes
- Display attendance at the end of every month and Organizes remedial classes
- Ensure assessment in internal test and discussion on model answers for the same
- Conducts tutorials and includes them in the time table
- Ensures 100% syllabus completion by the end of each semester.

### **2.6.7. Does the institution and individual teachers use assessment/evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes' provide details on the process and cite a few examples**

**Partly Yes,** The teachers uses assessment and evaluation outcomes primarily for improving the teaching-learning process. However, liberty is given to the teachers to correlate the assessment/evaluation outcomes to the students' performance.

Teachers use evaluation outcome as an indicator of students' performance and achievement of learning objectives. Extra lectures and remedial classes are planned if the performance is not up to the mark. The Fig.2.6.7 shows the learning objectives and planning measures.



### 2.6.7 Learning Objectives and planning Measures

The teacher uses following factors to check fulfillment of objectives:

- Monthly attendance of student for theory as well as practical sessions
- Online mock exam results and Unit test marks help in knowing the performance of the students and corrective action is taken before the students appear for the SPPU examination
- Discussion on ideal/model answers and submission of assignments
- Considering the performance of students, teachers modify the teaching learning process to achieve the Programme Outcomes

### 2.6.8. Any other relevant information regarding Teaching-Learning and Evaluation which the college would like to include.

In addition to regular teaching, college gives emphasis on development of employability skills. STES has developed a special students training program (STP). Every semester there is one STP program where training for soft skills, core engineering knowledge, practice sessions for GD/PI, QALR practice sessions and Value Added Program for final year students are conducted.

**CRITERIA III: RESEARCH, CONSULTANCY AND EXTENSION**

**3.1 Promotion of Research**

**3.1.1 Does the institute have recognized research center / s of the affiliating University or any other agency / organization?**

Yes, the institute has recognized research centers affiliated to Savitribai Phule Pune University for following branches:

1. Civil Engineering
2. Chemical Engineering
3. Electronics and Telecommunication Engineering and
4. Mechanical Engineering

These research centers offer guidance to doctoral students through experienced research guides associated with the center. The research centers are equipped with adequate infrastructure and electronic facilities. Support and assistance to research scholars is provided at every step that leads to excellence in research and development.

Registered Students	Approved Guides	Ph.D. Completed	In Progress
123	69	14	109

**3.1.2. Does the Institution have a research committee to monitor and address the issues of research? If yes, what is its composition? Mention a few recommendations which have been implemented and their impact.**

Yes, the Institute have a research committee to address and monitor issues regarding research and development (R & D) faced by faculty and students. The committee plays the crucial role of promoting research and findings within the Institute. It helps to elevate the alertness of funding opportunities to support R & D. The research committee looks after the processes related to externally funded sponsored / consultancy projects. Furthermore, it deals with the issues of conference travel funding for faculty and research scholars, and facilitates conferences and workshops held at the Institute. This composition of research committee is given in Table 3.1.2 (a)

**Table 3.1.2a) Composition of a Research Committee**

Name of the Committee	Composition
Research Committee for funding projects	<ul style="list-style-type: none"> <li>• Academic Research Coordinator (ARC)</li> <li>• One faculty from each department</li> <li>• Librarian</li> </ul>
Research Committee for research center	<ul style="list-style-type: none"> <li>• Head of Department</li> <li>• 1-2 Professors</li> <li>• Librarian</li> </ul>

**Table 3.1.2 b) Recommendations and their Impacts**

Sr. No	Implementation	Impact
1.	<i>Allocate budget to enhance research facilities</i>	
	<ul style="list-style-type: none"> <li>The annual departmental R&amp;D fund along with funds received from different research grant agencies is utilized for departmental R&amp;D activities</li> </ul>	Improvement in number research publications in journals and conferences
2.	<i>Allocate funds for various faculty research projects and creation of awareness among faculty members to attend STTPs, FDPs, Workshops / conferences / seminars for skill up gradation</i>	
	<ul style="list-style-type: none"> <li>The institute supports faculty members to organize STTPs, FDPs, Workshops / conferences / seminars for skill up gradation.</li> <li>Institute bears registration fees and other related expenses of faculty members and students.</li> </ul>	142 programs are conducted during last four years.
3.	<i>Improve the quality and productivity of R&amp;D Outcomes.</i>	
	<ul style="list-style-type: none"> <li>Rigorous formal technical reviews of faculty and students projects are conducted.</li> <li>Faculty and students are motivated to comply with the reviewer's suggestions. They are motivated to publish the research work in reputed journals and conference proceedings.</li> </ul>	Good research outcomes  Faculty had received research awards
4.	<i>Identification of Consultancy opportunities and revenue generation</i>	
	<ul style="list-style-type: none"> <li>Faculty is motivated to do consultancy available through industry institute partnerships and active MoUs</li> <li>Faculty members actively participate in revenue generation through organization of in-house programmes</li> <li>Awareness is created among the faculty members to apply for various grants funded by various national level agencies like AICTE, CSI, DST, DBT etc.</li> </ul>	On an average Rs.18,00,000 amount is generated during last four years.
5.	<i>Motivate faculty and students to pursue higher education</i>	
	<p>The Institute motivate the faculty for taking up higher education for following reasons:</p> <ul style="list-style-type: none"> <li>Promotion avenue</li> <li>Passion for discovery of new knowledge</li> <li>Reputation that comes with qualification up gradation.</li> <li>Recognition in professional circles</li> </ul>	<ul style="list-style-type: none"> <li>All faculty are with PG qualification</li> <li>40 completed Ph.D.</li> <li>93 in process Ph.D.</li> </ul>
6.	<i>Assign instructional responsibilities during theory / laboratory load to various research scholars in the Institute.</i>	
	<ul style="list-style-type: none"> <li>Partial teaching load is assigned to research scholars based on their expertise.</li> <li>Department assigns additional contact hours for PG students.</li> </ul>	The PG students get an experience of academic responsibilities leading to become faculty after PG

7.	<i>Initiate linkage and collaborative R &amp; D efforts in association with Industry/ Academic Institutions / research organizations.</i>	
	<p>The institute has initiated following activities:</p> <ul style="list-style-type: none"> <li>• Faculty consultancy initiative with industry.</li> <li>• Students' Industrial visits.</li> <li>• Expert lectures on subject areas of mutual interest.</li> <li>• MOU's between the Institute and industries for fruitful technical collaboration.</li> <li>• Organizing workshops, conferences and symposia with joint participation of the faculty and the industries.</li> <li>• Participation of experts from industry in syllabus design and project work evaluation.</li> </ul>	In last four years 60 activities has been conducted.
8.	<i>Guide faculties for preparation of research proposals.</i>	
	<ul style="list-style-type: none"> <li>• Research committee at departmental level and institute level guide faculty help during preparation of research proposals.</li> </ul>	70 research proposals has been sanctioned by various funding agencies
9.	<i>Encouragement to faculty to take up research programs abroad</i>	
	<ul style="list-style-type: none"> <li>• The Sinhgad Technical education Society has tie-up with Alborg University Denmark for doctoral studies.</li> <li>• Few faculty members have completed their Ph.D. through this program.</li> </ul>	One faculty from E & TC department completed Ph.D. from Alborg University, Denmark and one faculty from Biotechnology dept. completed post doctoral degree from Linois at Urbana-Champaign, USA.
10.	<i>Strengthening Industry Institute Interaction to inculcate strong research culture</i>	
	<ul style="list-style-type: none"> <li>• Institute has many active MOUs with leading organizations.</li> <li>• Training sessions, guest lectures, sponsored projects are conducted through these MoUs.</li> </ul>	Out of 37 MOU'S, 26 MOU's are active through which various activities are conducted.
11.	<i>Inculcate IPR culture</i>	
	<ul style="list-style-type: none"> <li>• Institute organizes expert sessions on IPR basics and introduction to patents to create awareness among faculty and students about IPR.</li> </ul>	27 patents are registered by faculty and students

### 3.1.3 What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/projects?

- Autonomy to principal investigator
- Timely availability or release of resources
- Adequate infrastructure and human resources
- Time-off, reduced teaching load, special leave and others to teachers
- Support in terms of technology and information needs.

- Facilitate timely auditing and submission of utilization certificate to the funding authorities
- Any other

The Institute extends full support for smooth progress and implementation of research projects. This is facilitated with following:

- Assistance to formulate research problem for UG, PG and Ph.D. aspirants through development of in-house project ideas.
- Advice on the various options and best practices for documenting investigators work and for managing, storing, and disseminating the data produced by their research.
- Suggest possible funding sources and offer advice on how to write a successful research grant proposal.
- *Autonomy to principal investigator*  
The principal investigator is provided with freedom and encouragement to choose research topics and to hire services.
- *Timely availability or release of resources*  
The requisitions by principal investigators are processed with priority so that all the necessary resources are made available in time.
- *Adequate infrastructure and human resources*  
There is adequate availability of software, hardware and other supporting equipment and manpower for any assistance at institute. All these resources are made available to principal investigators.
- *Time-off, reduced teaching load, special leave etc. to teachers.*  
Faculty members who have undertaken research projects are provided with a comfortable environment, where project could be completed with fewer problems as and when applicable. Special leaves are also granted to Ph.D. pursuing faculties based on need particularly at the time of course work, presenting papers at national and international conferences.
- *Support in terms of technology and information needs.*  
Institute identifies the people and resources to guide principal investigators. Furthermore, Institute also identifies relevant tools and resources on campus.  
Facilitate timely auditing and submission of utilization certificate to the funding authorities. The accounting processes are well defined and well executed for formal completion of research projects.
- *Any other*  
This Institute ensures availability of research coordinators for any support requested by investigators for smooth progress of their research project.

### **3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?**

The institute played an instrumental role in developing scientific temper and research culture among students through many activities. The activities are listed as follows:

- Execution of research projects and assigning UG/PG projects to individuals or group of students on topics of promising areas to infuse critical thinking and scientific temper.
- Expert sessions and motivational lectures by eminent speakers on various occasions



- Organization of technical symposium at institute annual event-Techtonic that comprises Seminar and Technical paper presentations, quiz, projects and programming contests, robotics competitions to storm students' brains beyond threshold and to infuse critical thinking.
- Skill up-gradation among students through IIT spoken tutorials and free online EDX courses and certification programmes from the world's best universities including MIT, Harvard and others.
- Study tours, industrial visits, field trips and surveys organized every year to inculcate a sense of scientific temper and research culture.
- Organization of ISTE, AICTE, CSI sponsored and approved Short Term Training Programmers for faculty in upgrading technical skills at regular intervals.
- College organizes various programs on research methodology, technical writing skills, IPR etc. under Students Training Program.
- Students are encouraged to participate in various external competitions like Avishkar, project and paper presentation to show case their research ideas.

**3.1.5 Give details on the faculty actively involved in research (Guiding student research, leading research projects, engaged in individual or collaborative research activity etc.)**

All the faculty of the institute are qualified either with Ph.D. or M.E./M.Tech. Qualification. More than 70 faculty members of the institute are currently pursuing Ph.D. at different universities. Since the institute also has a research center and offers PG programs, many faculty members are recognized as research guides either for Ph.D. students or for PG students leading to number of research publications having good citation index and impact factor.

**3.1.6 Give details of workshops / training programmes / sensitization programmes conducted / organized by the institution with focus on capacity building in terms of research and imbibing research culture among the staff and the students.**

All Departments of the institute have always remained enthusiastic to arrange training programs, technical workshops, which help academicians and students to update their knowledge through knowledge exchange. Most of these programs are organized in association with industry/professional bodies with financial support from different funding agencies like AICTE/BCUD and others. In addition a total of eight national and international conferences were organized during the last 4 years.

**3.1.7 Provide details of prioritized research areas and the expertise available with the institution.**

A significant number of faculty members are working coherently in different research areas. Majority of faculty members are well qualified, experienced and cover almost all technical domains. Department of E&TC Engineering Department of Computer engineering are pioneers to start PG program in VLSI, Embedded Systems and Computer Networks respectively under the umbrella of Savitribai Phule Pune University. Similarly, the Mechanical Department started with Mechatronics program. In addition, the institute started with an undergraduate Biotechnology program for the first at University level.

Majority of department have MOUs and industry tie-ups with different companies in respective fields. The prioritized research areas and faculty expertise is given in Table 3.1.7.

**Table 3.1.7: Prioritized research areas and availability of faculty expertise**

S.No.	Prioritized Research Areas	Faculty Members with Expertise
<b>Electronics and Telecommunication Engineering</b>		
1.	VLSI	Dr. M. B. Mali
2.	Embedded Systems	Prof. M. N. Kakatkar
3.	Circuits and Systems	Dr. S. S. Lokhande
4.	Communication	Dr. K. S. Kawatkar
5.	Soft Computing	Dr. S. R. Gaonakar
6.	Image and Signal Processing	Prof. S. O. Rajankar
<b>Civil Engineering</b>		
1.	Structural Engineering	Dr. P. M. Alandikar
2.	Water Resources Engineering	Prof. N. P. Patki
3.	Environmental Engineering	Dr. S. S. Shatri
4.	Transportation Engineering	Prof. D. S. Aswar
5.	Construction Management	Prof. S. K. Patil
6.	Geotechnical Engineering	Prof. S. S. Jain
<b>Biotechnology</b>		
1.	Genomics and Molecular Biology	Dr. K. S. Joshi
2.	Stem cells and cell biology	Dr. S. U. Mahajani
3.	Bio separations, Bioprocessing	Prof. S. M. Kashid
4.	Bioenergy and Biofuels	Prof. P. D. Jolhe
5.	Biosensors	Dr. S. J. Kukarni
6.	Process development for Bioactive peptides and natural compounds	Prof. S. S. Kulkarni
<b>Chemical Engineering</b>		
1.	Design	Prof. S. R. Shirsat
2.	Modeling and Simulation	Dr. S. M. Chavan
3.	Separation Science and technology	Dr. J. G. Gujar
4.	Nano science and technology	Dr. S. S. Barkade
<b>Mechanical Engineering</b>		
1.	Fatigue Analysis	Dr. P. J. Awasare
2.	Manufacturing Systems, Welding	Dr. Y. P. Reddy
3.	Control System	Prof. S. A. Kulkarni
4.	Noise , Vibration , Harshness (NVH)	Prof. S. B. Sanap
5.	Heat Exchangers	Prof. P. M. Khanwalkar

S.No.	Prioritized Research Areas	Faculty Members with Expertise
6.	Energy Engineering	Dr. A. B. Kanase Patil
<b>Production Engineering</b>		
1.	Design & CAD/CAM	Prof. R.S.Katkar
2.	Management	Prof. S.S.Patil
3.	Manufacturing	Prof. Y. A. Kakade
4.	Automation Engineering	Prof. J. H. Shinde
<b>Computer Engineering &amp; Information Technology</b>		
1.	Computer Networks	Prof. U. A. Mande Prof. G.T. Chavan
2.	Database Systems	Prof. M. P. Wankhede
3.	Software Engineering	Prof. S. R. Hiray
4.	Operating Systems	Prof. S. A. Joshi Prof. C. A. Laulkar
5.	Intelligent Systems	Dr. J. R. Prasad
6.	Image Processing	Dr. P. R. Futane Dr. N. J. Uke

**3.1.8 Enumerate the efforts of the College in attracting researchers of eminence to visit the campus and interact with teachers and students?**

Since the organization of different workshop/seminars/conferences by the departments are the regular phenomena in the college, many experts and industry professional do visit the college on regular basis for interaction with faculty and students. The college invites the researchers of eminence to visit and interact with faculty members and students for enhancing the R&D activities of institute. More than 30 experts have visited the institute during the last 4 years.

**3.1.9 What percentage of faculty has utilized sabbatical leave for research activities? How has the provision contributed to the research quality and culture of the College?**

The sabbatical leave facility have been availed by very few faculty members. During the last 5 years only 2% of the faculty availed this facility. The college has well defined policy for sponsoring the faculty to pursue higher studies leading to Ph.D. In addition, the institute extends full support for faculty members who wish to avail a short period leave for the research work. Because of the college policy, many faculty completed their PG and Ph.D. degree over the period of time.

**3.1.10 Details on the College initiative in transferring/advocating the relative findings of research of the College and elsewhere to the students and the community (lab to land).**

The institute regularly initiates awareness drive about announcements of various competitions, call for research projects among faculty and students which will be made available in press releases, posters, notice boards etc. Efforts are made for successful collaboration of Institute with students' project sponsoring organizations for possible

placements of students. Institute has been instrumental in providing funding to meritorious students for filing patents and support for internships. Institute has been proactively advocating student's placements during their internships at industries.

### 3.2 Resource Mobilization for Research

#### 3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization.

In every financial year, around 10% of the total budget allocated to the institute is utilized for Research and Development related activities. The major heads of expenditure are faculty and staff development, research laboratories and library development. Every department of the institute has its own state of art facilities in terms of hardware and software in selected areas of research. The digital library with subscription to important journal publishers is also made available for both faculty and staff. In addition, research grants are also received from external agencies like SPPU/AICTE/DBT by the faculty.

**Table 3.2.1 Research Fund Allocation and Utilization**

Year	SPPU/ AICTE Grants/ Seminar Grants/ Consultancy & Seminar Program (Rs. in lacs)	Budget Allocation (Rs. in lacs)	Actual Utilization (Rs. in lacs)
2011-12	3.4	46.9	43.5
2012-13	23.9	90.5	66.5
2013-14	72.3	43.1	79.5
2014-15	87.2	75.2	82.3

#### 3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

Yes, the institute provide seed money for research project as per the need of project with due recommendation from the committee. The seed money is given to both for faculty as well as students research project.

#### 3.2.3 What are the financial provisions made available to support student research projects by students?

Yes, Institute supports research projects by providing the financial assistance to the students as per the requirement of project.

- Each department allocates finite proportion of their budget towards research projects of students. Specific purchases are made in the form of consumables, books, hardware and software based on the project needs.
- To support student research projects, critical components, software's etc. are procured as and when required.
- Faculty members and students are motivated and encouraged to register / file the patents for the intellectual properties and relevant expenses, supported by the Management.
- The faculty and students of the institute has 24 patents registered / granted during the last five years.

- The institute encourages and financially support the students to showcase the research outcomes in various events like SAE BAJA, FSAE and paper presentation competitions etc.

**3.2.4 How does the various departments/units/staff of the institute interact in undertaking interdisciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.**

The major challenges faced was the intercommunication link between different disciplines, which had been resolved by setting up the process as laid down below-

The college has a Research Committee which comprises of subject experts from various departments.

- Every department of the college has its own final year project coordinator.
- Various departments/faculty members of the Institute interact with the committee in undertaking inter-disciplinary research work.
- Institute encourages joint guidance of students project work with the faculty members from different disciplines acting as supervisors. Its research group and centers' are devoid of department boundaries and can have members from different disciplines. Some of the showcase areas are in Mechatronics, Robotics, Image processing, Environmental engineering etc.

**3.2.5 How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?**

The equipment details are displayed prominently on laboratory notice board. Every department of the institute has following:

- Thrust area of research by faculty is notified and informed to students.
- Maintaining Log books for usage of equipment and software.
- The Research Committee monitors the research activities and keeps track of the usage of various resources and facilities for research.
- Laboratories are kept open beyond college hours as per the project need
- Central Library facility remains open for 24 hours

**3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If 'yes' give details.**

Yes, The Institute has signed MoUs with industries and other agencies for promoting training, research and extension activities in technical education. The total grant received from agencies/industry for research activities is Rs.11.05 crores during the last 10 years. The institute also receive research facility developmental grants from AICTE/DST/BCUD, SPPU etc. The details are given Table 3.2.6.

**Table 3.2.6: Details of research facility developed with industry**

Sr. No.	Year	Name of Department	Name of Laboratory	Sponsored Company	Capacity/ Infrastructure	Cost / Funding (Lacs)
1	2015-16	E&TC	Advanced ARM & STMICROELECTRONICS Laboratory	ARM & Microelectronics	Keil Software 100 licenses of and ARM development boards	940

Sr. No.	Year	Name of Department	Name of Laboratory	Sponsored Company	Capacity/ Infrastructure	Cost / Funding (Lacs)
2	2014-15	IT	CUDA Teaching Center	NVIDIA	Graphics Cards	5.5
3	2012-13	E&TC	Project Laboratory	Texas Instruments	10 Microcontroller and 2 DSP boards were donated to the department	0.9
4	2011-12	E&TC	Communication Networking Laboratory	AICTE , MODROB	Qual Net and I security-Cryptography & Network Security Assurance	6.0
5	2008 -10	Civil	Advanced Surveying laboratory	MODROB	For Purchasing Necessary equipment's	10.0
6	2007-08	Civil	Structural Dynamics laboratory	MODROB	For Purchasing Necessary equipment's	7.0
7	2007-08	E&TC	Embedded Laboratory	AICTE , MODROB	ARM Development System for ARM 7 CPU , , DSP Processor based Development System , Universal Multivendor Kit , Labview Software , Embedded Add On Boards / Cards	10.0
8	2007-08	E&TC	Electronics Measurement Laboratory	AICTE , MODROB	Aglient Multipurpose Lab Station	6.0
9	2005-06	E&TC	Actel Advance FPGA VLSI Laboratory	Actel USA	20 FPGA Kits and 20 Libero Software License	120.0

**3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.**

The following efforts are made by the institute for inculcating research culture -

- Increased awareness about the research schemes by various funding agencies like AICTE/ DST/BCUD-SPPU among faculty and the institute ensures the participation of faculty and students in those schemes.
- Motivates the faculty for attending/giving research related training and making them aware of cutting edge technologies.
- The Institute has research committee to monitor research activities. These committee members guide other faculty members for preparation of research proposals and advise them about current trends in research in their area of expertise. Subsequently the research proposals are sent to various funding agencies for their considerations. The important major research projects completed during the last four years is given in Table 3.2.7.

**Table 3.2.7: List of ongoing and completed major research projects during last four years**

Sr. No.	Name of Department	Title of the project	Principal Investigator	Agency Funded	Amount Granted in Rs.
1	E&TC Engineering	Real Time Operating System Development	Prof.M.S.Kakade	ARM & STMicroelectronics (UK)	9,40,000
2	Mechanical Engineering	Investigation on waste heat recovery for diesel engine using an organic Rankine cycle	Prof. P.N.Chaudhari	BCUD, SPPU	2,20,000
3	Chemical Engineering	Kinetic, Mass Transfer & Optimization Studies on Extraction of Eugenol from Eugenia Aromaticum (Clove)	Dr. J.G. Gujar	BCUD, SPPU	2,30,000
4	Mechanical Engineering	Development of homogeneous mixture preparation unit for diesel fueled Homogeneous Charge Compression Ignition (HCCI) engine	Prof. M. H. Attal	BCUD, SPPU	2,15,000
5	Biotechnology	Microbial degradation of Polyurathane Foam.	Mr. P. D. Jolhe	BCUD, SPPU	2,70,000
6	Mechanical Engineering	Modernization of computing facility and up gradation of software	Prof. (Dr.) C. S. Pathak	Modrob AICTE, New Delhi	13,00,000
7	E&TC Engineering	Fault Detection and Diagnosis of Three Phase VSI using Discrete Wavelet Transform and Adaptive Neuro-Fuzzy Interface System	Dr. S. D. Lokhande	BCUD SPPU	3,00,000
8	E&TC Engineering	Design and analysis of semi-smart antenna array	Dr. R. S. Kawitkar	BCUD SPPU	2,50,000
9	E&TC Engineering	Iris Image acquisition on the move	Dr. S. P. Narote	BCUD SPPU	3,00,000
10	Mechanical Engineering	Experimental and theoretical investigation of influence of design parameters on Planetary gear system	Prof. (Dr.) S.B.Wadkar, Prof. S.B.Patil	BCUD, SPPU	3,00,000
11	Computer Engineering	Study of Interferometer data and its applications for subsidence monitoring	Mrs. C.A.Laulkar	ISRO Cell - UoP	6,56,000

Sr. No.	Name of Department	Title of the project	Principal Investigator	Agency Funded	Amount Granted in Rs.
12	Information Technology	Road Sign Detection and tracking - Vision based Driver Support System	Prof N.J. Uke	RPS-AICTE, New Delhi	5,90,000
13	E&TC Engineering	Modernization for Communication on Network Lab	Dr. S. D. Lokhande	MODROB AICTE, New Delhi	6,00,000
14	E&TC Engineering	An implementation of multimodal biometric system for personal identification	Prof. Ms. S.B. Patil	BCUD SPPU	2,50,000
15	Computer Engineering	Path finder: RFID based guide system for blind navigation	Mr. M.P. Wankhade	RPS, AICTE	5,10,000
16	Production Engineering	Effect of dressing process parameters on surface roughness & grinding ratio in surface grinding	Prof. S. S. Patil	BCUD, SPPU	1,00,000
17	Chemical Engineering	Optimization studies in Separation of heavy metals using Nano filtration modules	Dr. S.M.Chavan	AICTE, New Delhi	7,75,000
18	Chemical Engineering	Modernization of Process Dynamics Laboratory	Dr.S. M.Chavan	AICTE, New Delhi	6,00,000
19	Biotechnology	Underutilization of Solid state Packed bed fermenter	Dr. P. B. Dhamole	BCUD	3,00,000
20	Biotechnology	Cloning of Human Dipeptidyl peptidase (DPP)4, 8 and 9	Dr. S. G. Shukla	BCUD	3,00,000
21	Chemical Engineering	Ultrasound assisted saponification of vegetable oil in presence of phase transfer catalyst	Prof. S.R. Shirsath	BCUD, SPPU	2,20,000
22	Biotechnology	LCPUFA Status and Birth Outcome in India	Dr. K. S. Joshi	ICMR	10,84,000
23	Biotechnology	Genomic variation analysis & gene expression profiling of "Human Dosha-Prakruti based on Principles of Ayurveda	Dr. K. S. Joshi	DST-PSA	78,00,000
24	Production Engineering	Study of dry bearings with internal grooves	Dr.H. Bagchi	AICTE	2,50,000



### 3.3 Research Facilities

#### 3.3.1 What are the research facilities available to the students and research scholars within the campus?

- **Research Committee**  
The institute has research coordination committee with one faculty from each department as a member. The adviser and senior professors interact with junior faculty members to ascertain their areas of research interests. The needs of researchers are given highest priority. All the departments have a separate research laboratory so that it can be exclusively made available to the students.
- **Research Center**  
In the Institute, four departments has specialized research center recognized by SPPU. Every department makes research facilities available for students and the faculty. For multidisciplinary research projects, faculty and students are allowed to work in other department laboratories.
- **Research Laboratory**  
The institute has established laboratories in the frontier areas like VLSI, Embedded Systems, and Graphics Laboratory in collaboration with NVIDIA and INTEL, High Performance Computing lab etc.
- **Industry Interaction**  
All the departments of the institute has Industry-Interaction committee. Every department has MoU with industry so as to share the technical facilities for completion of the research projects. In addition, some of the industries such as ACTEL, USA, NVIDIA, Thermax etc. has provided equipment's and software's for research activities which helps the students to develop projects.
- **Central Computing Facility**  
The institute has Internet browsing center Open - access with 4 Mbps as a part of an extensive facility beyond college timing (up to midnight 1.00 am) available for researches and students. Wi-Fi facility has been provided in the hostels for the students, research scholars.
- **Central Library e- resources**

Library Holdings	Year-1 (2011-12)		Year-2 (2012-13)		Year -3 (2013-14)		Year-4 (2014-15)	
	Number	Total Cost (Rs)	Number	Total Cost(Rs.)	Number	Total Cost (Rs)	Number	Total Cost (Rs)
Reference Books	274	315000	72	292318	43	307505	08	6878
e-resources	11 DB	2158274	11 DB	2416838	2 DB	974300	1 DB	651422

#### 3.3.2. What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

All the departments of the institute have strategic planning for creating the research ambiance and to upgrade the research facilities on continual basis. The institute has 14 PG courses and four Doctoral programs. Every year, the department wise budget allocation for R&D initiatives is made and required funds to upgrade and create infrastructural facilities

are made available. In addition, the institute motivates faculty to apply for research grants from various government agencies and to enhance the industry collaboration in select areas of research.

The institute has the “Best Research Project” scheme for UG and PG students and even for faculty. Under this scheme the innovative projects are selected from different streams of Engineering after evaluation by the committee.

**3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities? If ‘yes’, what are the instruments / facilities created during the last four years.**

Yes, the major and minor research projects in laboratories are upgraded and created to meet the state-of-art facilities especially in emerging research areas of the program. All the departments of the institute apply for grants from different funding agencies like AICTE, DBT, DST, BCUD – SPPU and industry. Several laboratories are developed with the help of these special grants by procuring different hardware and software in all departments of the institute.

**3.3.4 What are the research facilities made available to the students and research scholars outside the campus / other research laboratories?**

The institute encourages students and research scholars to visit different laboratories for research purpose. The faculty of the institute is motivated and deputed for pursuing Ph.D. at IIT’s and other renowned institutes. The institute also sponsors students for participation in technical competitions, exhibitions and industrial visits.

**3.3.5 Provide details on the library/ information resource center or any other facilities available specifically for the researchers?**

The institute has dedicated six storey library facility with an area of 6870 sq.ft. with excellent ambience conducive for research with the support of 6000 + journals (IEEE, ASME, Springer and Elsevier), 55,700 volumes of text and reference books. The library facilities are available 24 × 7 hrs. all days a year. The library facilitates access to more than 200 video lectures under NPTEL prepared by various IITs. In addition to Central Library, each Department has ready reference library facility. Digital library has been established with 30 multimedia Desktop PC systems with internet facility to access various e-resources. The Library has good number of Reference Books. A total 185 volumes are added to the collection during last three years. The total number of reference books is 4745 which includes classic collection in engineering and technology branches. The Library also possesses a good number of National Print journals. During last four years, the number of National Print Journals is 134 which include 78 journals and 56 magazines.

**3.3.6 What are the collaborative research facilities developed/created by the research institutes in the college. For ex. Laboratories, library, instruments, computers, new technology etc.**

The department wise collaborative research facilities/laboratories developed for the students and research scholars within- campus are given in Table 3.2.6.

### 3.4 Research Publication and Awards

#### 3.4.1 Highlight the major research achievements of the staff and students in terms of

- *Patents obtained and filed (process and product)*

The faculty and students of the institute has made significant progress in terms of filing and published patents in different areas of engineering. A total of 24 patents are either filed or published. The details are given in Table 3.4.1.

**Table 3.4.1: Details of Patents**

Sr. No.	Year	Name of the department	Title of Patent	Faculty/Student Name	Date of Patent filed	Patent No.	Status	National (N)/ International (I)
1	2015-16	E&TC	Speech based ISL Image / Video Recognition	Shailendra Badwaik, Suman Maity	23/07/15	2788/MUM /2015	Filed	N
2	2015-16	E&TC	Performance Improvement of Blurred Video and Depth Estimation using Single Camera	Shailendra Badwaik, Vinay Raguvanshi	23/07/15	2786/MUM /2015	Filed	N
3	2014-15	IT	A Secure document transmission framework using digital image steganography	Samir Pokejwar, N.J.Uke	29/06/15	2471/MUM /2015	In process	N
4	2014-15	IT	Improved Bank Password Security Framework Based On Multistage Image Processing	Samir Pokejwar, N.J.Uke	20/11/14	3676/MUM /2014	In process	N
5	2014-15	E&TC	Dynamic Hand Gesture Recognition with Respect to Sign Language	Shailendra Badwaik, S.D. Lokhande	5/12/14	3898/MUM /2014	Published : Issue No 19/2015, May 8, 2015, pp 33118	N
6	2014-15	E&TC	Real Time Palm Segmentation From Hand Gesture	Shailendra Badwaik	5/12/14	3899/MUM /2014	Published : Issue No 19/2015 , May 8, 2015, pp 33119	N
7	2014-15	E&TC	Portable Powebank Using Ultracapacitor	Vinod Mhetre	3/09/14	2798/MUM /2014	Filed	N
8	2014-15	E&TC	VSIM Operated Mobile Phone	Bhushan H. Bardapure	1/09/14	2777/MUM /2014	Filed	N
9	2014-15	E&TC	Virtual Subscriber Identity Module(VSIM)	Bhushan H. Bardapure	1/09/14	2776/MUM /2014	Filed	N
10	2014-15	E&TC	Automatically Calibrating Projector with Feedback Camera	Kushal Sharma	1/09/14	2779/MUM /2014	Filed	N

Sr. No.	Year	Name of the department	Title of Patent	Faculty/Student Name	Date of Patent filed	Patent No.	Status	National (N)/ International (I)
11	2013-14	IT	Methods and System for Video Information Retrieval	A.N. Bhute, Dr. B. B. Meshram	06/09/13	2741/MUM/2013 A	In process	N
12	2013-14	E&TC	Intelligent Diabetes Management System	Shailendra Badwaik, Sunil Supekar	29/07/13	2499/MUM/2013	Filed	N
13	2013-14	E&TC	E-Novel Way To Reduce Malnutrition In Children	Shailendra Badwaik, Ajinkay Bankar	29/07/13	2498/MUM/2013	Filed	N
14	2012-13	E&TC	Design and implementation of Adaptive dynamic traffic light controller	Shailendra C. Badwaik, Shwetank R. Singh	10/05/13	1692/MUM/2013	Published : Issue No 11/2015, March 13, 2015. pp 28478	N
15	2012-13	E&TC	Intelligent Pesticide Spraying on Crop for Insects	Shailendra Badwaik, Priyanka S. Awasare	13/09/12	2663/MUM/2012	Filed	N
16	2012-13	E&TC	Remote Fingerprint Authentication System	Shailendra Badwaik, Priyank P. Awasware	2012	2967/MUM/2012	Published : Issue No 18/2014 May 2 2014 pp 12601	N
17	2012-13	E&TC	High Spped Data Bus Design and Development	Pallavi Dedge , Shailendra Badwaik,	26/12/12	3617/MUM/2012	Filed	N
18	2011-12	Comp	Automated Portable Book Reader(APBR)	Sharad R.Kale	16/03/12	290/MUM/2012	Filed	N
19	2011-12	Comp	Automated Portable Writer(APW)	Sharad R.Kale	13/12/13	925/MUM/2012	Filed	N
20	2015	Biotech	A Process for Extraction & Purification of Safranlal	S. J. Kulkarni	2015	1663/MUM/2015	Filed	N
21	2016	Civil	Lightweight Concrete for structural applications	P. B. Kodag M. M. Magdum	22/03/2016	Docket No. 7216	In process	N
22	2015	Civil	Onsite Waste Water Management for Multi Storeyed Buildings	S. S. Shastri, Mrs. V. S. Limaye	13/06/15	2281/MUM/2015	In process	N
23	2014	Civil	Movable Partition Wall Assembly (Design Patent)	Mr. Revansiddhe Talle (Student)	2014	2366/MUM/2014	In process	N

Sr. No.	Year	Name of the department	Title of Patent	Faculty/Student Name	Date of Patent filed	Patent No.	Status	National (N)/ International (I)
24	2013	Civil	Interlocking brick (Design Patent)	Mr. Aditya Marunmale	31/10/14	3434/MUM/2013	Provisional Patent Approved	N
25	2011	Mech	Novel system of damping using multiple cell enclosure	Dr. P.J. Awasare and T.A. Jadhav	08/08/11	2231/MUM/2011	Examination Pending	N

- *Original research contributing to product improvement*  
A significant contribution has been made through projects by faculty and students in developing a product useful for the society.
- *Research studies or surveys benefiting the community or improving the services*  
The faculty from civil engineering department are involved in community services like environmental awareness, green audit and water conservation programs.
- *Research inputs contributing to new initiatives and social development* : Nil
- *Research inputs contributing to new initiatives and social development* : Nil
- *Any remarkable achievement by staff/ student (best paper award, innovative idea, etc.)*  
Most of the faculty and students regularly attends workshops/conferences to showcase the research work carried by them. Several faculty from various departments have won various awards at various programs like academic excellence, best paper, young scientist, best teacher etc.

**3.4.2 Does the Institute publish or partner in publication of research journal(s)? If ‘yes’, indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database?**

No

**3.4.3 Give details of publications by the faculty and students:**

- Publication per faculty: **0.525 per year**
- Number of papers published by faculty and students in peer reviewed journals (national/international): **525 during the last four years**
- Number of publications listed in International Database (for Eg: Web of Science, Scopus, Humanities International Complete, Dare Database- International Social Sciences Directory, EBSCO host, etc.): **525 during the last four years**
- Monographs : Nil
- Chapter in Books: **5**
- Books Edited: Nil
- Books with ISBN/ISSN numbers with details of publishers: **4**
- h-index: **2**

The summary of year wise publication details are given in Table 3.4.3 (a), (b) and (c).

**Table 3.4.3 (a) Statistics of papers published by faculty/students in peer reviewed journals (National/International)**

Year	Journal		Conferences	
	International	National	International	National
2011-12	41	5	14	15
2012-13	132	20	56	22
2013-14	157	9	56	102
2014-15	189	4	59	15

**Table 3.4.3 (b) Publications, Citations Statistics of the institute from last four years**

Total No. of publications	525
Total No. of Citations	573

**Table 3.4.3 (c) Year wise publications in scopus, web of science and Google scholar**

Sr. No.	Academic Year	Publications Total	Web of Science	Scopus	Google Scholar
1	2015-16	47	2	11	42
2	2014-15	189	18	28	178
3	2013-14	157	13	30	149
4	2012-13	132	7	17	125
<b>Total</b>		<b>525</b>	<b>40</b>	<b>86</b>	<b>494</b>

#### 3.4.4 Provide details (if any) of

- *Research awards received by the faculty:*  
Several faculty members from different awards for best paper, research contribution in their respective fields.
- *Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally:*  
Most of the faculty from the institute are members of different professional bodies. The faculty participates in promoting various activities in those professional bodies and received recognition and awards from these professional bodies.
- *Incentives given to faculty for receiving state, national and international recognitions for research contributions*  
The institute appreciates the faculty for getting recognition in research contribution in different field of engineering. Due consideration in this regard is given at time of appraisal and promotion of the faculty.

### 3.5 Consultancy

#### 3.5.1 Give details of the systems and strategies for establishing institute-industry interface?

##### a) System

Following are the systems related to Institute-Industry interface establishment

- *Industry-Institute Interaction cell (IIIC)* – The institute has established Industry-Institute Interaction cell at department level. The composition for cell is as follows:
  - Entrepreneur,
  - Industry Employee with designation of Project Manager and above
  - Established Alumni,
  - 2-3 senior faculty and
  - Head of Department
- *Memorandum of Understanding (MOUs)* - To bridge the gap between academics and industry, the institute encourages MOU signing with leading industries. The MOUs have been signed with prominent industries in the specific technical areas. The institute appoints a single point of contact (SPOC) for the Industries with whom MOUs are signed for smooth execution of the activities.
- *Entrepreneurship Development Cell (EDC)* - To inculcate entrepreneur culture among the students, the institute has established an Entrepreneurship Development Cell (EDC). The cell consists of a coordinator and a representative from each department. It organizes several programs by way of workshops, seminars, faculty development programs and others in association with MITCON, dASRA foundation etc.
- *Other Activities* – The departments of the institute invite experts from the industry to share their experiences on current industrial trends and practices

#### **b) Strategies**

The institute has adopted following strategies for interaction with Industry.

- Every department conducts Industrial visits, arranges guest Lectures and workshops with industry experts to increase institute-industry interaction.
- Students are encouraged to gain the practical experience via Internships in the Industries.
- Entrepreneurship skill development programs are organized for students and faculty.
- Industry oriented and customized certification programmes are offered to students to address the growing need of IT professionals.
- Examiners and evaluators are appointed from industries for university exams and pre exam project demos.

#### **3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?**

- To enhance the professional and academic experience of the staff members, a strong link is established between the institute and external organizations so as to increase the research opportunities, student recruitment and placement. It also generated additional income for the faculty and staff. The consultancy areas are primarily in the field of testing and collaborative academic programs which are beneficial to both the institute and industry.
- The college has a stated consultancy policy as per which staff may engage in consultancy activity after taking their regular teaching load provided it does not conflict with the interests of the institute.
- Monetary and non-monetary benefits are extended to the faculty members by the college as per the stated policy of the society to utilize their efforts towards consultancy assignments
- The policy gives out the share of income for all staff working on the consultancy project depending on whether it is pure consultancy or testing work.

The expertise available with the institute is advocated and publicized in the following manner:

- The faculty association with IIC members, visit to the Industry to find out gray areas where collaborative work can be done with proper discussion and MoU.
- The available expertise and facilities are publicized via College Brochures and Website.
- Participation in CII survey helps in promoting the institute expertise to all other industry and institutes.

### 3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

Sr. No.	Name of Industry	Name of the Department	Mode of Collaboration	Revenue Generated (Rs.)
1	PICT, Pune	Computer	FDP	5000
2	University of Pune, SGGS - Nanded		FDP	15000
3	Sat Infosys, Coimbatore		FDP	21000
4	ARM and ST Microelectronics	E&TC	MOU	940000
5	Staff development program on Soft Computing	E&TC	SDP	70000
6	Emerging Technologies in Audio Video Engineering		FDP	17631
7	Faculty Development Program on “Embedded Image Processing”		FDP	49254
8	Staff Development Program (SDP) on “Troubleshooting & Maintenance of Electronic Instruments”		SDP	73387
9	Faculty Orientation Workshop of VLSI Design and Technology		Workshop	27,026
10	International Conference (ICPC)	E&TC	Conference	438055
11	National Conference on Latest Trends in Electronics (NCLTE)		Conference	10000
12	National Symposium on Pervasive Computing – NSPC 2013		Conference	108303
13	EMC	Information Technology	Academic Alliance	50000
14	HP Education Services		MOU	72250
15	HP Education Services		MOU	99280
16	NS3 Workshop		Workshop	72000
17	Asian Management Training Center	Management	MOU at Institute Level	9313
18				13578
19				13734
20				14300
21				14935
22				12280
23	Thermax Ltd. Pune (2008 – 09)	Mechanical	MOU	2000000
24	Thermax Ltd. Pune (2009 – 10)		MOU	2000000
25	Thermax Ltd. Pune (2010 – 11)		MOU	2000000
26	Thermax Ltd. Pune (2011 – 12)		MOU	2000000



27	Thermax Ltd. Pune (2012 – 13)		MOU	2000000
28	Thermax Ltd. Pune (2013 – 14)		MOU	2000000
29	Greaves Cotton Limited , Pune		MOU	200000
30	Toshiba		MOU	35000
31	Technophilia Systems pvt. Ltd. Institute of USA.	Production	Workshop	18400
32	IFS Academy, Pune		Value Added Program	53000
33	Approved by ISTE and association NIT Bhopal		STTP	114000

The institute encourages the staff to utilize their expertise for offering consultancy services. It has a well-defined down policy for disbursing the funds received from consultancy for both faculty and staff.

The institute provides facilities and seed money to carry out the testing and c consultancy with external agencies. It provides financial support to the staff for industrial training where they can find the potential for consultancy. The Institute grants duty leave if necessary while their consultation work is in progress. The successful consultancy works are notified and appreciated in the annual performance appraisal report

### 3.5.4 List the broad areas and major consultancy provided by the Institute & revenue generated in last four years.

The institute has signed MOUs with various industries for technology transfer. The major areas of consultancy, revenue generated by means of consultancy and other sources are given below.

### 3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

The institute has a policy which motivates faculty members to get involved in consultancy work. Major portion of the money earned would be utilized for promoting research and development facilities. The institute has well defined policy for disbursing the income from consultancy. Consultancy work should not affect the teaching-learning process.

- Expertise of faculty undergoing training would be used for consultancy.
- Financial revenue generated from consultancy work would be used for R&D and other incidental expenses.
- Faculty involved in consultancy work would be permitted to use college resources.

## 3.6 Extension Activities and Institutional Social Responsibility (ISR)

### 3.6.1 How does the institution promote institution-neighborhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

- Institute involves the faculty and students in community network. This helps the students to learn ethical values and understand their responsibilities, and develop as good citizens, in service orientation and their holistic development.
- Social activities like blood donation camps, Computer awareness camp in rural area are organized by the students.

- Faculty members and students visit the social organizations and help them by donating the material as per need (food, notebooks, cloths, educational instruments, etc)
- The State level culture event- Sinhgad Karandak is organized every year. Students get opportunity to nurture their organization skills, showcase talent and interact with other college students.
- The college has a very active and enthusiastic NSS team that regularly organizes camp at rural area for interacting with the students and resident for promoting the imparting education, medical checkup.
- Poster Exhibition on Environmental Awareness program was arranged for students of the college by NSS.
- Institute implements the Earn and Learn Scheme of the SPPU. This helps the students to understand the value of hard work for earning money.
- The student community is being benefited by implementing government reservation schemes and offering good scholarships for both merit and economic basis. The major strength of the institute is its ability to ensure holistic development of students to make them responsible citizens by teaching them the moral values. Institute provides quality based education to the students by inculcating moral values, scientific temper and employing state of art technologies. It aims to pursue excellence towards creating students with high degree of intellectual, professional and cultural development to meet the national and global challenges.

### **3.6.2 What is the Institutional mechanism to track students' involvement in various social movements/activities which promote citizenship roles?**

The Institute has a Social Welfare Officer, to create the awareness about the social activities movements/activities among the students, to plan various activities and ensure their participation. The student's participation is tracked by means of following methods-

- A student record file is maintained for all the students at the departmental level which includes all necessary details of the students, including their personal details, performance in technical and cultural events.
- Institute tracks the articles of students published in newspapers.
- Guardian Teachers collect information from the concerned students.
- University also has its own mechanism to monitor NSS and Earn & Learn activities.

### **3.6.3 How does the institution solicit stake holder perception on the overall performance and quality of the institution?**

Stakeholders such as Students, Parents, faculty members, University, Employers and the society are critical elements of the education system that decide the overall performance and quality of the institution. For smooth functioning of the Institute and to cater to the competitive environment, it is mandatory that certain processes be laid down in order to establish effective linkages between these elements, thereby contributing to the overall improvement in the existing system. For addressing these issues effectively, following steps are taken at the Institute level:

- Parent-Teachers meeting are regularly being conducted to know about academic performance and quality of their wards and to provide constructive suggestions to improve the overall performance and quality of their wards and institution.

- The forms and formats have been designed to collect feedbacks from the stakeholders. This includes Alumni feedback form, Course exit form, student feedback form etc.
- During Alumni meets, Alumni feedback is taken. Any suggestions given by the Alumni are analysed and suitably implemented.
- Employer feedback is also collected from companies who recruit students through campus placements.
- Exit survey from the final year students.
- These feedback and suggestion are incorporated in teaching-learning process in order to improve students' performance.
- The constructive feedback from all the stakeholders of education system is suitably implemented so as to improve the overall performance and quality of the institution.

**3.6.4 How does the institution organize its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.**

Every academic year various extension and outreach programmes are planned and executed. Few of the organized programmes are as follows:

- Blood donation camp
- Personality development
- Poster exhibition for Environmental Awareness
- Women's Day
- Teachers Day
- Engineers Day
- NSS Camp
- Prayas Camp

The institute allocates budget for all these activities and also for guest lectures. In addition, the institute organizes annual Technical Event Techtonic, Sinhgad Karandak in association with industry and service providers. The details of extension activities organized by the institute is given in Table 3.6.4.

**Table 3.6.4: Extension and Outreach programs**

Sr. No	Year	Name of department	Name of Event	Date	Objective / Purpose of Visit or Event
1	2015-16	Computer Engineering	Social visit to Dnyan Gangotri Matimand Mulanchi Nivasi School, Dhayri, Pune	19/09/2015	Social Visit to orphanage to help them and aware our students about social responsibility.
2	2014-15	Civil Engineering	ROAR	Jan-15	Empowerment of women in Vadgaon, bk pune.
3	2014-15	Computer Engineering	Social Visit to "Apala Ghar", (An orphanage) Vadgaon, Pune.	09/08/2014	Social Visit interaction with children's and bring some joy to them. Raksha Bandhan Program.
4	2014-15	Management Studies	Utthan : Girl child Education	01/02/2015	Importance of Girl's education in society and creating awareness about various future career opportunities for girls

Sr. No	Year	Name of department	Name of Event	Date	Objective / Purpose of Visit or Event
5	2014-15	Management Studies	Visit to Balgram	02/6/2014	To understand the problems of Orphan children and the role NGOs play in their upliftment
6	2014-15	SCOE Students	PRAYAS	7 /02/2015-15/02/2015	1. Computer Literacy 2. Vedic Mathematics 3. Career Guidance 4. Men & Women Empowerment 5. Free Dental Check Ups 6. Various sports and fun competitions
7	2013-14	Civil Engineering	Reform'n'ation , IIT Techfest	Jan-14	Distribution of hand gloves to street hawkers, awareness regarding health and sanitation to school children of Palshi village Satara district.
8	2013-14	Civil Engineering	Birthday celebration of Prof. M. N. Navale	30/12/2014	Distribution of sweets and fruits to children of orphanage in Vadgaon,bk Pune
9	2013-14	Chemical Engineering	Blood donation	12/02/2014	To donate the blood
10	2013-14	Computer Engineering	Sankarsha Balakashram, Vadgaon, Pune.	09/10/2013	Social Visit to orphanage to help them and aware our students about social responsibility.
11	2013-14	Information Technology	Blind School Kothrud Pune	07/09/2013	Social Visit
12	2013-14	Management Studies	Tree Plantation	21/01/2014	To create awareness and importance of trees in our life
13	2013-14	Management Studies	Utthan : Traffic Management	19/01/2014	Discipline and social awareness about traffic rules
14	2013-14	SCOE Students	PRAYAS	1/02/2014-10/02/2014	1. Computer Literacy 2. Vedic Mathematics 3. Career Guidance 4. Men & Women Empowerment 5. Free Dental Check Ups 6. Various sports and fun competitions
15	2013-14	Production Engineering	Blood Donation camp	16/02/2014	Blood Donation Camp
16	2012-13	Civil Engineering	TGCC, IIT Techfest	Jan-13	Rally for Environmental Awareness
17	2012-13	Computer Engineering	Social Visit to Sarvesha Sarva Sanchalit Pune	29/12/2012	Social Visit to help the children's and bring some joy to them
18	2012-13	E&T/C and Kshitij club	Visit to 'Ishaprema', Home for orphans, aged, destitutes	15/08/2012	70 kg cloths donated
19	2012-13	E&T/C and Kshitij club	Visit to 'Maher', Home for destitute women	15/08/2012	Donation of food grains and toiletries
20	2012-13	E&T/C and Kshitij club	Visit to 'Snehalaya'	15/08/2012	spending quality time with cerebral palsy children and

Sr. No	Year	Name of department	Name of Event	Date	Objective / Purpose of Visit or Event
					arrange drawing competition for them
21	2012-13	E&T/C and Kshitij club	Blood donation camp	25/08/2012	Collection of 180 bags of blood to donate to the hospitals
22	2012-13	E&T/C	IEEE students' awareness contest 2012	28/08/2012	The future citizens of urban and rural area who are studying in the school need to be exposed to new developments in technology and to make them aware and motivate them
23	2012-13	Management Studies	Tree Plantation	29/01/2013	To create awareness and importance of trees in our life
24	2012-13	SCOE Students	PRAYAS	1/02/2013-10/02/2013	1. Computer Literacy 2. Vedic Mathematics 3. Career Guidance 4. Men & Women Empowerment 5. Various sports and fun competitions
25	2011-12	SCOE Students	Prayas 12	11/02/2012 19/02/2012	Social work
26	2011-12	Computer Engineering	StarGazing Workshop Organized by Sinhgad Environmental conservation	18/02/2012	To Make aware about Astrology
27	2011-12	E&T/C and Kshitij club	Visit to 'Manavya'	22/08/2011	To sensitize students about the hurdles faced by HIV patients and their role as concerned citizens
28	2011-12	E&T/C and Kshitij club	Visit to 'Manavya'	20/09/2011	To empathize with the hardships faced and do their bit towards betterment of the society at large
29	2011-12	E&T/C and Kshitij club	Blood donation camp	15/10/2011	Collection of 150 bags of blood to donate to the hospitals
30	2011-12	E&T/C and Kshitij club	Paper bag campaign	15/10/2011	to create awareness about the misuse of plastic bags
31	2011-12	E&T/C and Kshitij club	Parvati' clean up drive	15/01/2012	A contribution towards 'Clean City'
32	2011-12	E&T/C and Kshitij club	Blood donation camp	17/03/2012	Collection of bags of blood to donate to the hospitals
33	2011-12	SCOE Students	PRAYAS	1/02/2012-10/02/2012	1. Computer Literacy 2. Vedic Mathematics 3. Career Guidance 4. Men & Women Empowerment 5. Free Dental Check Ups (From Dental Students) 6. Various sports and fun competitions

**3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/International agencies?**

- The college organizes various activities through Students' Clubs, NSS and other forms of community development services.
- The student club members plan the activity and communicate to student for active participation. During induction programmes, coordinators of the extension activities interact with the students and discuss about the benefits and scope of the activities.
- The students who are active members of NSS and other outreach programs are given academic liberty in the form attendance, internal marks based on the performance
- The information about the proposed activities are disseminated through the college notice board, academic calendar, circulars, web notifications and also by word of mouth.
- The student's participation for social activity is promoted and rewarded with certification.

**3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under-privileged and vulnerable sections of society?**

As a part of Prayas activities, College had arranged Camps at various villages around the Pune since 2012. Various activities are conducted during the camp for village residents. As a social initiative, the Institute donated books and clothes to the underprivileged sections of the society, during the camps. Surveys were conducted by students during these camps where students visited homes and schools in the villages. Table 3.6.6 shows the summary of social camps organized between the years 2012 to 2015.

Following surveys were conducted during the visit:

- Number of members including children in a family.
- Educational qualification of family members.
- Facilities available in the local school.
- Computer Awareness Program.
- Medical facilities and cleanliness of village.

**Table 3.6.6 Details of Social Camps**

Sr. No	Name of Activity	Date	Village / Area of City	Purpose
1.	Prayas 2012	28-01-12 to 06-02-12	Parner, Dist. Ahmednagar	Computer Literacy program, Vedic Mathematics, Carer Guidance, Man & woman Empowerment, Free dental Check-up, Scientific Toys, Street plays, PrabhatPheri, Competitions
2.	Prayas 2013	02-02-13 to 10-02-13	Takali Haji, Dist. Pune	
3.	Prayas 2014	08-02-14 to 16-02-14	VadgaonRasai, Dist. Pune	
4.	Prayas 2015	14-02-15 to 22-02-15	Bori, Dist. Pune	

**3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.**

The extension activities conducted by the institute always imbibe the academic learning experience, values and skills in students and faculty. These activities also energize the environment of the institute. The major strength of the institute is its ability to ensure holistic development of students to make them responsible citizens. It aims to maintain modern outlook with contemporary developments without compromising moral values.

**3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?**

The institution is roping in communities to actively participate in all the extension activities. This has contributed to both community- institution networking and development of institute. The institution organizes various

Activities like:

- Blood Donation Camps
- Visit to Old Age Home, Orphanage home
- Visits to rural areas and spreading awareness about social issues such as the dowry system, female feotide and Environment protection and energy saving to name a few.
- Educating the youth about Voting and Election

**3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities**

The institute has developed constructive relationship with other institutions has been developed through following measures:

- Blood donation camps are organized in association with RMD Foundation and Smt. Kashibai Navale Medical College and Hospital, Narhe
- MoUs are signed with reputed companies and groups to provide a platform for relationship building.
- Students participates in activities like street Play and traffic management in city

**3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.**

Nil

### **3.7 Collaboration**

**3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives-collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.**

The institute has taken keen initiative in interacting with the other research laboratories, institutes and industries for research activities. These interactions help in establishing

strong linkage which further resulted in the formal MOU's.

The institute organizes various interactive sessions with experts from the industry and other research organizations by:

- Deputing faculty members for exposure to industrial practices
- In-plant training and industrial visits for students
- Guest lectures by industry experts
- Permissions to carry out experiments and training in reputed Institutes like NCL, ARAI etc.
- Utilization of laboratories by research candidates of other institutions.
- Faculty members are deputed to Universities and Institutes of higher learning for attending refresher courses.

**3.7.2 Provide details on the MoUs/collaborative arrangements (if any) with institutions of national importance/other universities/ industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.**

The Institute has signed MoUs with external organizations to conduct activities like Training, Placement, Development of training facilities for students, Guest Lectures, Participation in technical events and Advanced Learning. The details on MoU signed with industries is given in Table 3.7.2.

**Table 3.7.2: MoU signed with industries**

Sr No	Name of Dept.	Organization / Institute with which MOU is Signed/ Agreements	Contribution for Department	Benefit to Department or College	Date of MoU
1	E&TC	Intel Fice	Setup of Intel Intelligent Systems laboratory	Enhancement of student's and faculty's knowledge	Jan 2015
2	E&TC	ARM Private Limited and ST Microelectronics	Given 100 licenses of Keil Software and ARM development boards	Students would be able to carry out projects using the development boards.	Aug. 2015
3	Mech	Geometric Limited	Conduction of course related to DFMPPro and Geometric Stackup.	Training to faculty and student	08-10-15
4	E&TC	K-imaginations	Conducting Technical sessions for the students to enhance the quality of education	Enhancement of technical knowledge of students	05-10-15
5	Comp	PSPL, Pune	Sponshership to students, Seminar Workshop, Placement, Skill Development for students and faculty, Projects	Placement, Skill Development for students and faculty, Projects	02-07-15



Sr No	Name of Dept.	Organization / Institute with which MOU is Signed/ Agreements	Contribution for Department	Benefit to Department or College	Date of MoU
6	IT	HP Summer Training Program	To conduct technical summer training at College	Revenue Generation	11-06-15
7	IT	EMC2	Exam Conduction for students on cloud and Big Data	Technology Updation	Sep-15
8	E&TC	HYC Technology, Pune.	Conducting Technical sessions for the students to enhance the quality of education	Technical development of students in embedded domain	03-06-15
9	Civil	Construction Diagnostic Centre, Pune	Sponsored Projects for students	Technical support for students projects	02-03-15
10	E&TC	Nichrome India Ltd.	Collaboration in the areas of mutual interest and exchange of knowledge.	It Concretes theoretical knowledge base as faculties are conducting sessions for company employees and in future department will get the consultancy projects from the company.	14-11-14
11	Mech. Engg.	Nichrome India Limited	Financial support to train Nicrome IL staff / engineers	Financial Benefits	14-11-14
12	IT	iGATE University	FDP Invitations for staff	Department faculty can join FDP, Technology updation	Nov-14
13	IT	NVIDIA CUDA Teaching Centre	IGraphics Cards and study material	Authorized center for Parallel programming CUDA technology education	01-10-14
14	E&TC	HYC Technology, Pune.	Conducting Technical sessions for the students to enhance the quality of education	Technical development of students in embedded domain	02-07-14
15	Comp	Zensar Technologies Limited, Pune	Employability skills development program to give students the opportunity to work in an industry-like environment.	Placement, Skill Development for students and faculty, Projects	26-05-14
16	Manag ement Studies	Munot Textiles Manufacturers and Exporters, Solapur	Support for Industrial Visit, Summer and winter internship	Resource person for various management events	12-03-14

Sr No	Name of Dept.	Organization / Institute with which MOU is Signed/ Agreements	Contribution for Department	Benefit to Department or College	Date of MoU
17	Management Studies	Vantage Media(VM), Pune	Support for Industrial Visit, Summer and winter internship	Resource person for various management events	11-03-14
18	Management Studies	Saipro Biotech Pvt. Ltd., Pune	Provide assistance to students for summer and winter internship Support for Industrial Visit Provide resource person for guest lecture, evaluators for various management events	Summer and Winter internship for students Getting resource persons for various management events Industrial Visit	09-03-14
19	E&TC	Campus Component Pvt. Ltd.	Enhancing students technical skills and make them aware of modern teaching tools and methodologies.	Technical development of students in embedded domain	January. 2013
20	E&TC	SPJ Embedded Tech. Pvt. Ltd.	Channelizing development with respect to academic qualifications	Technical development of students in embedded domain	February. 2013
21	Management Studies	Krishna and Saurastri Associates, Pune	IP awareness training programs	IP related Training for students and staff through training programs or workshops	11-09-13
22	Civil	Appasaheb Patwardhan Safai Parayavaran Tantraniketana, Dehugaon	Sponsored Projects for students	Enhancement in Project work of students and providing sustainable solutions to community for better sanitation conditions	18-07-13
23	E&TC	Edutech Learning Solutions Pvt. Ltd, Vadodara	Activating the online courses on Microcontroller and Embedded Systems	Technical development of students in embedded domain	24-06-13
24	E&TC	Texas Instruments	To Establish teaching lab facility in the area TI MSP 430.	10 Microcontroller and 2 DSP boards were donated to the dept.	24-06-13
25	Prod	IFS Academy	Conducting Sessions on CREO	Increased employability skill of students	13-06-13
26	Management Studies	Asian Management Training Center, Pune	To conduct value added courses like Six Sigma Green Belt Course, Kaizen Lean Manager	Students and staff receiving certification of Six Sigma Green Belt Course, Kaizen Lean Manager	09-01-13
27	Civil	CADD Center, Pune	VAP for Civil Students	Skill development of students	03-01-13

Sr No	Name of Dept.	Organization / Institute with which MOU is Signed/ Agreements	Contribution for Department	Benefit to Department or College	Date of MoU
28	Chem	Rashtriya Chemicals and Fertilizers, Mumbai	Industrial training	Industrial training	01-01-13
29	E&TC	Institute of Embedded and Robotics Research	Providing a platform to innovative students to explore their talent	Technical development of students in embedded domain	25-06-12
					25-06-11
30	Mech	Greaves Cotton Limited, Pune	Financial support to train Greaves Cotton Ltd staff / engineers	Financial Benefits	28-05-11
31	Chem	Praj Industries	Consultancy	Consultancy	12-04-10
32	Chem	Honeywell	Training to students on unisim	Training to students on unisim	02-02-09
33	Mech	Thermax Limited, Pune	Financial support to train Thermax Ltd staff / engineers	Financial Benefits	19-12-07
34	Comp	Infosys, Pune	STP and Foundation Program for Students, Lady ADA Content for Girls, Pre-Placement Workshop, Webinar Series	Placement, Skill Development for students and faculty, Projects	26-02-06
35	E&TC	ACTEL Inc.	Established dedicated laboratory to FPGA research, design and development.	Students can use hardware tools, software and sample FPGA devices.	05-07-05

**3.7.3 Give details (if any) on the industry-institution-community interactions that have contributed to the establishment / creation/up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories / library/ new technology /placement services etc.**

Interaction with eminent personalities from various reputed Universities and industries are very useful for the creation of establishing better academic facilities for staff and students. The Institute often interacts with industry people through industrial visits, seminars/Guest Lectures, workshops, conferences and placement. The Institute has signed MoUs with different industries. Many reputed industries visit the institution for placements.

The Institute has Entrepreneur Development cell. This particular cell were aimed at helping students understand and adapt to the changes between campus life and corporate life. This is a platform where experts from the Industry are invited in order to guide the students by giving an insight of their experiences, offering them encouragement, mentoring, and invaluable suggestions to show them the way forward. Please refer Table 3.2.6 for the details on research facility development.

**3.7.4 Highlighting the names of eminent scientists/participants, who contributed to the events, provide details of national and international conferences organized by the college during the last four years.**

The institute regularly organizes number workshops/conferences/seminars/ expert lectures on regular basis for improving the industry institute interaction and to enhance the research culture among the students and faculty. In all the programs, eminent scientists and industry personnel from reputed organizations are invited as guest speakers/advisors.

**3.7.5 How many of the linkages/collaborations have actually resulted in formal MoUs and agreements? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated.**

- Curriculum development/enrichment - Workshop and Training Programmes, Competition arranged by company
- Internship/ On-the-job training- Yes
- Summer placement- Yes
- Faculty exchange and professional development- Yes
- Research- Yes
- Consultancy- Yes
- Extension -Yes
- Publication- Yes
- Student Placement- Yes
- Twinning programmes- Yes
- Introduction of new courses -Yes
- Student exchange- Yes
- Any other - Nil

**3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/ collaborations.**

Efforts of the institution in planning, establishing and implementing the initiatives of the linkages/collaborations:

- Planned and established linkages/collaborations related to academic and research activities for students and faculty members in various specializations.
- Signing of MoUs with leading industries.
- Inviting expertise from various industries for delivering Guest Lectures, key note address in Conferences, speaker in workshops and symposiums.
- Conducting joint technical programmes and events with other organizations.
- Organizing industrial visits with the help of various collaborating agencies.
- By way of establishment of Industry Institute Interaction cell in the Institute.

**3.7.7 Any other relevant information regarding Research, Consultancy and Extension which the college would like to include.**

Nil

## CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

### 4.1 Physical Facilities

#### 4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

The basic infrastructure required for teaching and learning is in line with the norms recommended by AICTE and Savitribai Phule Pune University. Infrastructure like laboratories, classrooms, library, tutorial room, seminar hall, internet etc. is reviewed by various committees approved by AICTE, DTE and Savitribai Phule Pune University and necessary budget is allocated for up gradation.

The enhancement of infrastructure that facilitate effective teaching and learning is attained by providing facilities like

- LCD projectors in classrooms and laboratories
- Public Address system in classrooms and seminar hall.
- Wi-Fi facility for students and faculty.
- Additional computers with higher configuration and software.
- Additional equipment in the laboratories.
- Expansion of library( digital library, e-journals)

#### 4.1.2 Detail the facilities available for

*a) Curricular and co-curricular activities – classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.*

The facilities available in the institute for curricular and co-curricular activities are shown in Table No. 4.1.2(a) and 4.1.2(b).

**Table No. 4.1.2(a) Details of Infrastructure facilities**

Sr. No.	Facility	Details of the facility available
1.	Class Rooms	Class rooms are well equipped with Desks, bench, Platform, Fans, Tube lights, Green board, PA System, LCD Projector, curtains.
2.	Workshop	Various sections like machine shop, fitting shop , sheet metal shop, welding shop, carpentry and foundry are equipped with conventional machines/tools.
3.	Drawing Hall	Drawing hall is equipped with drawing boards, stools, chalk boards
4.	Seminar Hall	Seminar Hall equipped with Dias, Chairs, White board, Table, Podium, P.A. system, Fans, light, LCD Projectors etc.
5.	Laboratories	All laboratories are equipped with adequate Instruments / equipment to meet the curriculum and Program Outcomes.
6.	Central Library and Departmental Libraries	Text books, reference books, e-books, magazines, journals, e-journals, audio visual academic resources, projects, seminar reports, University question papers, national and international journals and magazines.

7.	Faculty Rooms	Individual/shared faculty rooms are equipped with the required facilities such as LAN connection, furniture etc.
8.	Electricity and Power Backup	The college has made arrangements for power connections with a central substation and a generator for power backup.
9.	Drinking water	The college has a water purification and cooling facility at each department and hostels.
10.	Washrooms	Adequate Gents and Ladies washrooms are available in every department at proper locations.
11.	Canteen/ Mess	Canteens are available for staff and students.
12.	Security	The college has the service of own security which takes care of security measures. The institute is under CCTV camera surveillance.
13.	ATM Facility / Bank Facility	Five ATM facilities and two nationalized banks are available in the campus for students and staff members in the campus.
14.	Photocopy Machine	More than five Photo copying centers are available for students and staff in the campus.
15.	Post Office	One post office within 9.00 AM – 5.00 PM is available for staff and students.

**Table No. 4.1.2. (b) Details of Facilities available department wise**

Facility	Biotech	Civil	Chem	Comp	IT	E & TC	Mech	Prod	MBA	FE
Class Rooms	2	6	3	8	5	8	12	2	2	13
Seminar Hall	1	1	1	1	1	1	1	1	1	0
Laboratories	9	13	11	13	9	21	17	11	1	4
Departmental Library	1	1	1	1	1	1	1	1	1	1
Tutorial Rooms	1	6	1	1	1	2	5	1	2	0
Faculty Cabin	7	28	11	32	25	52	45	6	5	25
Washrooms	4	3	4	11	10	13	12	2	1	10

b) *Extra –curricular activities – sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygiene etc.*

The institute encourages the students to participate in several extra-curricular activities. To cope up with the requirements for extra-curricular activities, the institute has sufficient infrastructure. The details of facilities available in the Institute for Extra –curricular activities are shown in Table No. 4.1.2 (c).

**Table No. 4.1.2 (c) Details of Infrastructure facilities**

Sr. No.	Facility	Details of the facility available
1.	Cricket Ground	One Cricket ground utilized for various regional and national tournaments.

2.	Play ground	Basket Ball, Volley ball, Lawn Tennis and Foot Ball
3.	Indoor Games	Tables Tennis, Chess, Carom board
4.	Open Air theatre	Ample space with Dias, Chairs, Lights, fans, LCD Projector and 1500 sitting capacity for audience.
5.	NSS	National Service Scheme (NSS) has been started in association with SPPU through which Social welfare activities like blood donation, Special Camps, are organized.
6.	Swimming Pool	Swimming Pool is available for students and there is a special batch for ladies (students and staff).
7.	Gymnasium	Gymnasium is available for students
8.	Cultural Activities	Every year, a cultural programme named “SINHGAD KARANDAK” is organized to encourage the students to participate in performing arts. This program is very useful to bring out hidden talent of students.
9.	Newspaper at Library	English, Marathi newspapers are made available in the in the central library.
10.	Hair dressing Facility	Hair dressing facility is available for students and staff in the campus.
11.	Fruit Centre	More than two fruit centers are available for students and staff in the campus.
12.	Milk Parlor	More than two milk parlors are available for students and staff in the campus.
13.	Medical Store	One Medical Store is available for students and staff in the campus.
14.	General Stores	Three general stores with various facilities like all engineering accessories, mobile recharge vouchers etc are available.
15.	Campus Clinic	It is available for all students, faculty and staff.

**4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution / campus and indicate the existing physical infrastructure and the future planned expansions if any).**

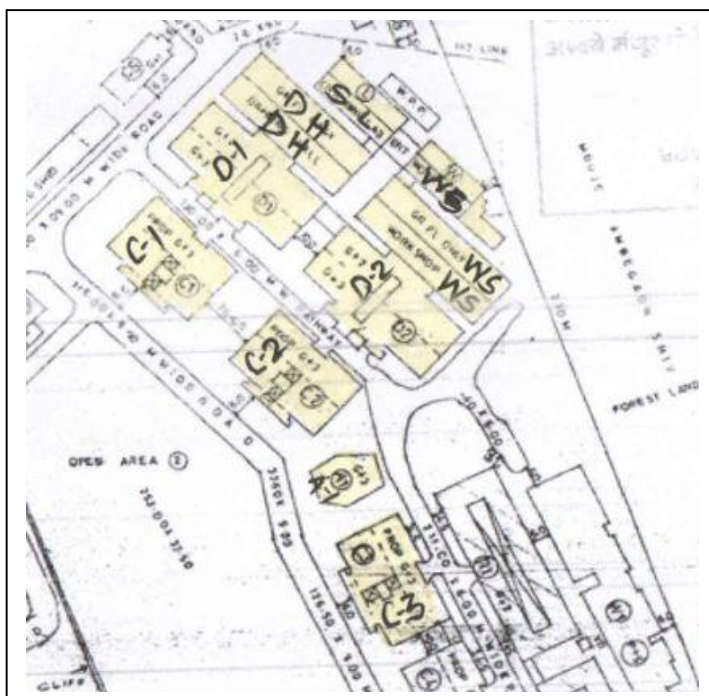
Since its inception in 1996, the institute has been keeping pace with the changing needs and requirement to meet its academic growth. To keep the pace with the needs and requirements of increased intake, additional infrastructure is being added from time to time. In the last four years, additional facilities have been developed by the Institute. The details of the amount spent on the facilities are as under:

**Table No.4.1.3 Details of Amount Spend (Amount in Lacs)**

Sr. No.	Addition in Infrastructure facilities	2011-12	2012-13	2013-14	2014-15
1	Furniture and Fittings	49.22	47.08	30.24	6.55
2	Equipment and Machinery	76.18	43.56	42.73	47.37

3	Computer Equipment	57.18	39.68	17.16	20.89
4	Building	0	478.49	0	0

The layout regarding master plan of the Institution / campus is given in Fig. 4.1.3.



**Fig. 4.1.3: Layout of the campus**

**4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?**

The institute has the policy that the classrooms and examination hall for physically disabled students are on the ground floor. There is also a lift provided in the library for these students to get the access of digital library and study room. All the buildings are provided with ramps for disabled students to enter the building.

**4.1.5 Give details on the residential facility and various provisions available within them:**

The institute has made the residential facilities available for both staff and students. All the staff quarters and student hostels are fully equipped with the basic needs. The details of residential facilities and various provisions available within the campus are given in Table 4.1.5.

**Table No.4.1.5 Details of residential facilities and various provisions**

Sr. No.	Available Residential Facilities	Various Provision Available within them
1.	Hostel Facility – Accommodation Available	10 boys hostel with capacity of 4224 (Four seated) out of which one is for NRI students.



		Girls hostel has 970 rooms with three, four and five seated respectively provided with cot, mattress, pillow, table, chair and cupboard. For NRI students three seated rooms are available with provisions like refrigerator, TV, Kitchen trolley with Gas cylinder and washing machine.
2.	Recreational facilities, gymnasium, yoga center, etc.	Daily newspaper to serve as a source of information, swimming pool is freely available between 5.00 PM – 7.00 PM.
3.	Computer facility including access to internet in hostel	Computer facility is not available in the hostel however central browsing centre is open from 5.00 PM – 1.00 AM.
4.	Facilities for medical emergencies	Doctor is available for 24 hours, medical store is available and open from 9.00 AM – 9.00 PM. In case of emergency ambulance is made available by society and students are taken to Smt. Kashibai Navale General Hospital for treatment at free of cost.
5.	Library facility in the hostels	Central Library facility is available in the campus and is open for 24 hours.
6.	Internet and Wi-Fi facility across the campus	Internet with 28 Mbps and Wi-Fi with 45 Mbps 24 × 7 is available
7.	Recreational facility-common room with audio-visual equipment	Television set is available in the common room.
8.	Available residential facility for the staff and occupancy	In-campus 1 BHK and two BHK flats are available for teaching and non-teaching staff.
9.	Constant supply of safe drinking water	Water cooler with aqua guard is available at the institute and in every hostel.
10.	Security	Guards on shift basis: 2 guards in the morning shift, 2 in the evening/night shift.
11.	Firefighting equipment	Firefighting facility is available at the institute and in every hostel.
12.	Mess	Five messes for girls and seven messes for boys are available with average capacity of 200 sitting capacity
13.	Generator back-up	Available for 24 hours in case of emergency.
14.	Laundry shop	Two laundry shops are available
15.	Gents and ladies Parlour	Hair dressing parlor one for gents and one for ladies is available.
16.	Water filter plant	One water filter plant is available in the campus.
17.	Sinhgad Shopping Complex	Two shopping complex with various accessories required for the students (boys and girls) are available.

**4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?**

- The institute has got campus clinic available from 9.00 AM to 5.00 PM for medical emergency, counseling and treatment. STES has got Smt. Kashibai Navale General Hospital which is 3 kms away from the institute where all the facilities are available for any type of medical treatment. The medical treatment is free of cost for all the staff, students and also the general public. In addition, two meals are provided to indoor patients totally free of cost and to the patient's relative.
- The institute has got in campus dental college cum hospital where all the facilities required for dental care is available and the treatment is free of cost for all the faculty and students.
- In-campus ambulance facility attached with SKN and Dental Hospital is available throughout the day for any medical emergency.
- First aid box in all the departments
- Medical Insurance scheme (General Insurance Scheme) for staff at Society level and for students at SPPU level.

**4.1.7 Give details of the Common Facilities available on the campus –spaces for special units like IQAC, Grievance Redressal unit, Women's Cell, Counseling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.**

(Give only space availability details for meeting of these committees)

**Table No. 4.1.7 Common Facilities available on the campus**

Sr. No.	Common Facilities	Availability	Location
1.	IQAC(Internal Quality Assurance Cell)	Formed recently	SCOE office.
2.	Grievance Redressal Committee	Available	SCOE office.
3.	Women's Cell (Task force cell against sexual harassment at work place)	Available	SCOE office.
4.	Counseling and Career Guidance (Sinhgad Overseas Cell)	Available	C3 Building Ground floor
5.	Placement Cell	Available	C3Building Ground floor
6.	Purchase Committee	Available	SCOE office.
7.	Website	Available	C3 Building Second floor
8.	Class room Maintenance	Available	D1Building
9.	Students' Activity	Available	C3 building
10.	Project Evaluation Committee (PEC) for AICTE projects.	Available	SCOE office.
11.	Roboclub Activities	Available	D2 Building Second floor
12.	Cultural Activity	Available	C2 Building Second Floor
13.	Sport Activity	Available	Office building second floor
14.	Sinhgad student Council	Available	D2 Building Second floor
15.	Kshitij	Available	D1second floor

16.	College Magazine 'Srujan'	Available	C1 Building First floor
17.	Technical event 'Techtonic'	Available	C1 Building Second floor
18.	Students Welfare officer	Available	Library Building ground floor
19.	Alumni Coordination Committee	Available	C1 Building Second floor
20.	Student Training Programme (STP)	Available	C1 Building Second floor
21.	Health Centre	Available	One in number at Sinhgad shopping complex
22.	Canteen	Available	Seven canteens available open from 7 AM- 10 PM.
23.	Recreational spaces for staff and students	Available	Swimming pool, Lawn Tennis court, Yoga centre, Cricket ground
24.	Safe drinking water facility	Available	One in each department and at required locations.
25.	Auditorium	Available	Two auditorium with AC.C3 building third floor, Office building first floor
26.	Security	Available	At required locations security check points are provided.

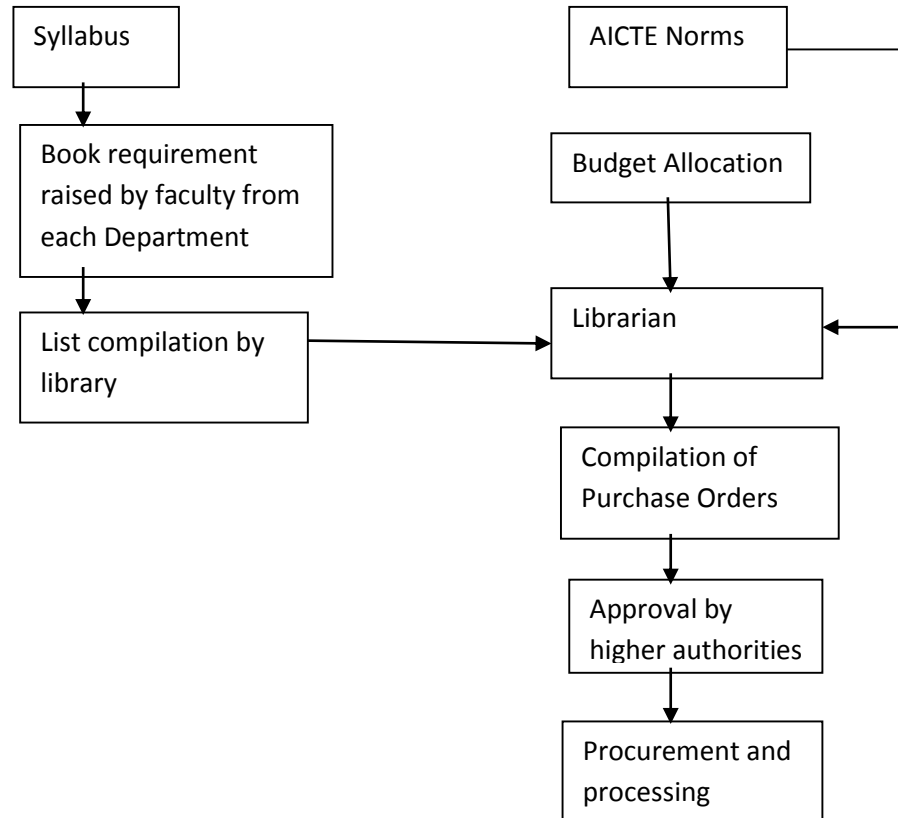
#### 4.2 Library as a Learning Resource:

##### 4.2.1: Does the Library have advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/user friendly?

**Yes.** The library has an Advisory Committee. It comprises of Principal as Chairman, Librarian as secretary, one senior faculty from each department as member and one student representative who is also a member of Students Council. The tenure of the committee is of two years and the committee meets once in a semester for reviewing the functioning and activities of the library. The major initiatives taken by Library Committee (LC) to support the development of Library are as follows:

- Ensuring procurement of quality books commensurate with the syllabus revisions of SPPU and AICTE norms
- Prepared the rules and regulations for issue-return system for smooth functioning taking into considerations the students' needs
- Enhancing general reading skills among the students by providing Open Access to library resources.
- Selection of library software, monitoring its functionality and supervising installation of online public access catalogue in various departments to facilitate document searching.
- Book Reservation Facility (as per the suggestions in LC meeting)
- Creation of Departmental Library facility including commonly referred books and some ready reference material – coordinated by the departmental representative of the LC.
- Recommendation of Book Bank facility for needy students

- Supporting organization of workshops conducted by the library
- The process shown in the Figure 4.2.1 is used for procurement of books and other reference material.



**Figure 4.2.1: Procedure for procurement of books to central library**

**4.2.2: Provide Details of the Following:**

**Total Area of Library** (in sq.m.): **6,870 sq.m.** Each floor area: **1145 sq.m.**

**Total seating capacity for students (SCOE): 1200**

**Working Hours:**

The Library is open for 24 hours (in 3 shifts), all the days in a week including holidays for Reading

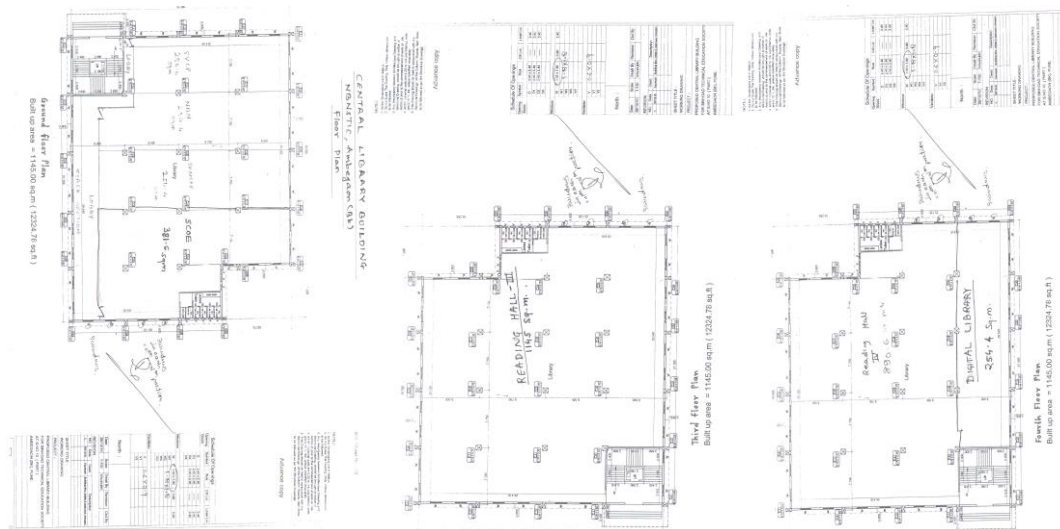
The Stack section operates from 8 am to 12 midnight in two shifts for issue-return facility.

The Digital library facility is available from 8 a.m. to midnight on all days.

**Library Layout:**

- Ground floor - Stack section,
- Third floor - Reading hall,
- Fourth Floor - IT zone with Digital Library for browsing of E-resources with multimedia facility.

The floor wise layout of the central library is shown in Figure 4.2.2.



**Figure 4.2.2: Floor wise layout of the central library**

**4.2.3. How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on purchasing new books, journals and e-resources during the last four years.**

***Selection and Procurement of Current Titles:***

- The selection and procurement of current titles is ensured by taking into account the syllabus and AICTE requirements as outlined in point no. 4.2.1
- The purchase process laid down by the Institute is followed for procurement of all library material
- The procured books are classified, catalogued and stacked as per the standard procedures, to ensure easy and open access.
- 4 Books are lend to each student for 15 days and renewal is permitted once. To systematize the process, Issue time table is followed.
- Database of books is created in standard Library Software and OPAC is made available to each department
- Book Bank facility is given to needy students. 5 Books are lend per semester.
- Besides technology books, the library also posses 2000 literature and fiction books.

***Use of current titles:***

- Current titles are displayed in library as new arrivals. New Arrival Lists are sent to all the departments for further circulation to faculty and students.
- Web OPAC is available for students to browse through book lists and check availability
- Students get open access and assistance of library staff to locate the books. Shelve guides are properly placed.

***Print and e-journals:***

- Print and e-journals/databases are procured for student benefit. Library provides access to IEEE database, Science Direct Engineering and Computer Science database, Proquest

Database. Journal lists and IP enabled browsing facility is made available to the departments for easy access to students and faculty.

- Referral services from other sources outside the library are made available on request.
- Users have facility to browse through NLIST database and open resources like DOAJ (Directory of Open Access Journals)

**Table 4.2.3: Details of facilities and various provisions for Library**

Library Holdings	Year-1(2011-12)		Year-2(2012-13)		Year -3 (2013-14)		Year-4 (2014-15)	
	Number	Total Cost (Rs)	Number	Total Cost(Rs.)	Number	Total Cost (Rs)	Number	Total Cost (Rs)
Text Books	4450	2778589	2391	1081984	894	345071	1415	744821
Reference Books	274	315000	72	292318	43	307505	06	5078
Journals/ Periodicals	134	190000	132	1 80 000	132	190000	134	210000
e-Resources	11 DB	2158274	2 DB	1554302	1 DB	651422	1 DB	651422
Any Other/ Newspaper	6	1680	6	1680	9	2250	9	2250
CDs	1130	-	1150	1000	1180	-	1200	-

**4.2.4 Provide details on the ICT and Other tools deployed to provide maximum access to the library collection?**

- **OPAC:** Library has “SLIM 21 –Web version” as library software and has Online Public Access Catalogue for users browsing.
- **Electronic Resource Management package for e-journals** – The institute has indexed e-journal databases of IEEE, Science Direct and Proquest. They are available to users through internet.
- **Federated searching tools:** Knimbus is a federated search engine which is installed in Central Library and users are benefited with search facility at single platform. Open access resources are indexed into it and users information requirement are fulfilled at one platform.
- **Library Website:**  
<http://www.sinhgad.edu/sinhgadInstitutes-2013/Inner-pages/centrallibrary>
- **In-house / remote access to e-publications:** The e-resources are IP based. Wi-Fi connectivity in the campus makes it possible to view e-resources as well as library catalogue from distant location.
- **Library Automation:** SLIM 21 – web version software is used for library automation and bar-coding is implemented for book transaction.
- **Total Number of computers for public Access:** – There are 30 PCs in Digital Library with P-IV and above configuration. One additional PC is kept as OPAC terminal.
- **Total Number of printers for public Access** – 2 Nos.

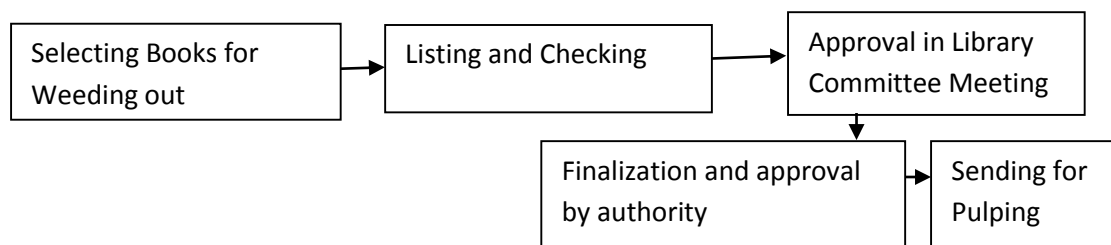
- **Internet bandwidth/speed** – Library has 4 mbps dedicated leased line.
- **Institutional Repository** - An Institutional Repository has been created where question papers, syllabus copy and faculty publications are stored. They are made available on intranet. College Magazine is scanned and uploaded.
- **Content Management system for e-learning** – GEMS-Institutional ERP software is used to store and publish teacher notes and making them available for students.
- **Participation in Resource Sharing networks/Consortia (Like INFLIBNET)**: Library is Institutional Member for DELNET (Developing Library Network), New Delhi since 2005. DELTNET gives facilities of Document delivery and access to international journals and e-resources
- The library extends facility of browsing NLIST programme of INFLIBNET.

**4.2.5 Provide details on the following Items:**

- Average no. of walk-ins - : 800-900
- Number of users (issue book) per day : 450 to 500
- Ratio of library books to students enrolled : 11:1
- Average number of books added during last three years:

Library Holdings	Year-1 (2012-13)		Year-2 (2013-14)		Year-3 (2014-15)	
	Number	Total Cost (Rs.)	Number	Total Cost (Rs.)	Number	Total Cost (Rs.)
Text Books	2391	1081984	894	345071	1415	744821
Reference Books	72	292318	43	307505	57	305078

- Average number of login to OPAC : 100-125 hits per day
- Average number of login to e-resources : 300- 350 per day
- Average Number of e-resources downloaded and printed : 50-55 per day
- Number of Information Literacy trainings : 1 per year
- Number of users (reading space) per day : 800-900 average
- Details of Weeding –out of Books and other material : As on today, the central library has weeded out 2997 books through the process shown in Figure 4.2.5.



**Figure 4.2.5: Weeding out process of books in central library**

#### 4.2.6: Give Details of the specialized services provided by the library

- **Manuscripts** – No
- **References** – Yes. Reference Book Section separately maintained. There are total 4743 Books.
- **Reprography** – Yes.
- **ILL (Inter Library Loan)** – Yes, User get facility to borrow books from other institutes of STES.
- **Information deployment and notification:** Notices are displayed on Notice Boards. Hording and Banners are displayed in library. New arrivals are displayed.
- **Download** – Yes, the library has digital library of 30 PCs wherein document downloading facility is provided to students.
- **Printing** – Yes. Document printing facility is given to students on request.
- **Reading List / Bibliography compilation:** Yes. Reading Lists and Bibliographies of a particular topic are given to the users on request.
- **In-house / remote access to e-resources:** Yes. Library provides IP based access to all e-resources and open source resources. Students can browse for them from anywhere in the campus.
- **User Orientation and awareness** – Library arranges orientation program for First year students and inform them with library rules, e-resources and time-table.
- **Assistance in searching databases** – Yes. Library has a separate Digital Library, assistant librarian is helping the user to solve the queries related to e-resources.
- **INFLIBNET/ IUC facilities:** Access to NLIST programme is given in Digital Library on sharing basis.

#### 4.2.7 Enumerate on the support provided by the Library staff to the students and teachers of your college.

The central library staff extends the following facilities and services to the users:

- Issue-Return (Home Lending ) of books
  - Book Bank facility
  - Interlibrary Loan Service
  - Reference and Referral Service
  - Reprographic Service
  - News Paper Clippings Service
  - Question papers and Syllabus Consultation facility
  - Internet browsing facility through Digital Library
  - Book Reservation Facility
  - Overnight book issue facility
  - Availability of previous examination question papers
  - Periodical Current content service
- Selective Dissemination of Information Service (SDI) is given to users to know about book collection in their specialized subjects.
- Library has open access and proper shelve guides are maintained. The library staff helps the student to go and search the books as per classification numbers.



- Use of ICT is made to reach to the users. OPAC is used. Bar coding is done to save the time of the reader. E-mail alerts are used to increase the Library usage.

#### 4.2.8 What are the special facilities offered by the library to the visually / physically challenged persons? (Give Details)

Since the institute has multimedia computers, the audio facility is provided to visually challenged students. Library has Lift facility for all the floors for physically disabled students. Ramp is provided in all the buildings.

#### 4.2.9 Does the library get feedback from its users? If yes, how is it analyzed and used for improving the library services. (What Strategies are deployed by the library to collect feedback from users? How is the feedback analyzed and used for further improvement of the Library services?)

Yes, the library has its feedback mechanism. A exit survey feedback form is designed for pass out students and an interview is taken. The feedback form has questions for resource adequacy, service quality and staff behavior. The gathered feedback is analyzed using excel sheet and inferences are drawn to improve upon.

A suggestion box is also kept for judging students requirement. The students can meet the Librarian directly at any point of time and give their feedback and complaints.

### 4.3 IT Infrastructure

#### 4.3.1. Give details on the computing facility available (hardware and software) at the institution.

The institute has adequate hardware and software facilities at all the departments of the institute. The details of department wise hardware and software facilities are given in Table 4.3.1 (a) and 4.3.1 (b).

**Table No.4.3.1 (a) Hardware and Other peripherals**

Sr. No	Name of Department	Name of Laboratory	No. of PC in Lab	Other peripherals
1.	Bio Technology	Bioinformatics Laboratory	17	9
2.	Civil Engineering	Computer Laboratory	44	25
		TOM Laboratory	1	
		Environmental Laboratory	1	
		Environmental Research Laboratory	2	
		Transport Laboratory	1	
		Faculty Room	1	
		HOD Cabin	2	
3.	Chemical Engineering	Computer Laboratory	46	12
4.	Computer Engineering	Project Lab	20	58
		Computer Network Lab	20	
		Database Lab	20	

		Computer Graphics Lab	22	
		Advanced Development Tool Lab	22	
		Post Graduate Lab – II	9	
		Digital Elec. & Logic Design Lab	-	
		Hardware Lab – I	20	
		Hardware Lab – II	20	
		Server Room	3	
5.	Electronics & Tele Communication Engineering	Computer & Soft Computing	39	23
		Actel Advanced FPGA VLSI & Signal 29Processing	29	
		Reconfigurable Computing	12	
		Modeling & Simulation	12	
		Basic Electronics & Networks	1	
		Devices & Circuits	10	
		Project	8	
		Optical Fiber Communication	1	
		Embedded	31	
		Microwave & Measurements	1	
		Digital Electronics	4	
6.	Information Technology	Digital Lab	20	18
		PL1 Lab	22	
		PL2 Lab	22	
		Software Engg. Lab	20	
		Computer Graphics Lab	20	
		Post Graduate Lab	18	
		Elective Lab	20	
		Network Laboratory	20	
		ISD Laboratory	20	
7.	MBA	Computer Lab	12	2
8.	Mechanical Engineering	CAD-I Laboratory	58	10
		CAD-II Laboratory	45	
		CAE Laboratory	22	
9.	Production Engineering	CAD Laboratory	34	9
10.	First year Engineering	FPL Laboratory	72	12
		CAD Laboratory	72	

Total number of Computer Systems available: **904**. The configuration details of all the computers are given in Table 4.3.1 (b).

**Table No. 4.3.1 (b) Number of Computer Systems**

Sr. No.	Name of Dept	System Configuration	Qty.
1.	Bio Technology	Desktop : HP Make with configuration	17
2.	Civil Engineering	Desktop : Dell Core 2 Duo	20

		Desktop : HP Core 2 Duo	11
		Desktop : HP Dual Core intel inside	2
		Desktop : HP Pentium 4	19
3.	Chemical Engineering	Desktop : Dell Make with configuration	6
		Desktop : HP Make with configuration	15
		Desktop : ACER Make with configuration	25
4.	Computer Engineering	Core 2Duo	109
		Core i5	44
		Quadcore & i5	3
5.	Electronics & Tele Communication Engineering	HP Compaq P-IV Intel E2180, 2.00 GHz Processor, 1.00 GB RAM DDR, 80 GB HDD, 15 TFT Monitor Model Dx2480	39
		HP Make Pentium – IV , 2.93 GHz , CPU 256 MB, RAM, 80 GB HDD, 14” SVGA Colour Monitor	30
		DELL Desktop Optiplex 3010 , I 3 Processor (20)	20
		380 DELL Desktop, Intel core 2040 2GB RAM, 320 GB HDD, Keyboard, Mouse 17” TFT (07)	31
		DELL Desktop Optiplex 3020 , I 5 Processor	24
		DELL Desktop Optiplex 3010 , I 3 Processor	4
6.	Information Technology	Desktop : HP Make with configuration Intel Core 2 Dx2480, 1.6 Ghz, 1GB RAM, 160 GB HDD, 52X DVDROM, 14” LCD Color Monitor	20
		Desktop : Dell Make with configuration DELL Optiplex390 Desktop Intel core i3 E7500, 2GB RAM , 500GB HDD, 17”TFT Dell Monitor	116
		Desktop : IBM Make with configuration Thick Center PIV 2.8 GHz , 256 MB SDRAM, 40 GB HDD, 52X CDROM, 1.4 MB FDD, 15” Color Monitor	18
		Desktop : HP Make with configuration Intel Core 2 Duo, 1.6 Ghz, 1GB RAM, 160 GB HDD, 52X DVD ROM, 14” LCD Color Monitor	20
		Desktop : HP Make with configuration HP Compaq D-290 Intel Pentium 2.93 GHz , 256 MB DDR, 80 GB HDD, 15” Color Monitor	8
7.	Mechanical Engineering	Desktop : HP Make with configuration Core 2Dual Intel DX 2480, 2GB RAM, HDD 80 GB SATA	58

		Desktop : Dell Make with configuration 2nd Gen. Intel I-3, 4GB RAM, HDD 500 GB, Graphics	35
		T1600 Precision Workstation, Intel I-3 2120, 8 GB RAM, HDD 500 GB, NVIDIA Quadro 400	10
		Desktop : HP Make with configuration T1500 Core I5 650 Intel, 8 GB DDR3 RAM, 320 GB SATA HDD	5
		Boston 2 UPC 32 Core Intel Xeon, 128 GB RAM, HPC System	1
		T1700 Precision Workstation, Intel Xeon, 8 GB DDR3 RAM, HDD 1 TB	16
8.	Production Engineering	Dell Core 2 duo, 2GB RAM, 320 GB HDD	5
		Dell Core i3, 2 GB RAM, 500 GB HDD	5
		Dell Core i5, 4 GB RAM, 500 GB HDD	2
		HP P-IV, 1 GB HDD, 40 GB HDD	1
		Acer Dual Core, 1 GB Ram, 160 GB HDD	4
		HP Pentium(R) Dual , 1 GB RAM, 80 GB HDD	4
		HP P-IV, 1GB RAM, 40 GB HDD	3
		HP P-IV, 1GB RAM, 160GB HDD	7
		HP Pentium (R) Dual, 1 GB RAM, 160 GB HDD	3
9.	MBA	Desktop : HP Make with configuration	12
10.	First year Engineering	P-IV 2.99 Ghz 1 GB RAM 80 GB HDD	72
		P-IV , Dual Core 2.99 Ghz 1 GB RAM 160 GB HDD	72

- Computer-student ratio: **UG – 1:6**
- Stand alone facility : Nil
- LAN facility: **Available**
- Wi-Fi facility: **Available throughout the campus**
- Licensed software: The list of licensed application software is given in Table 4.3.1 (c).

**Table No. 4.3.1 (c) List of Licensed Application Software**

Sr. No.	Department	Name of Software	Date of Purchase	No. of Users	Amount (Rs.)
1	Civil Engineering	STRAP Software Suite Ver: 12.0 (ISCode)	10/09/2006	1	275000
		AutoCAD 2009	12/10/2008	1	280800
		Primavera Contractor standalone 5 users software	17/09/2009	5	312000
		CADian 2004 Architecture	9/02/2003	8	64000

		Strap Software Release, 11.0 Indian Code	10/12/2004	1	49500
		ETABS & NL V-9CD	15/09/2008	1	5000
		Primavera Contractor, Standlone (5 Users)	17/09/2009	5	31000
2.	Chemical Engineering	MATLAB 7.0	12/03/2002	5	789925
		MATHCAD PROF. 2000	15/12/2000	1	9566
		UNISIM DESIGN 410	3/8/2007	100 (Networking)	82368
		CADIAN MECH	24/09/2003	12	96000
3	Computer Engineering	QualNet,	11/1/2009	1	436800
		Oracle 10g	16/11/2007	1	72800
		Dream Viewer	19/9/2007	1	15444
4	Electronics & Telecommunicati on Engineering	MATLAB with DSP, Communication, Simulink, Image Processing Blockset,Release12	14/09/2000	01	304691
		Colour image analysis software Déjà vu plus	6/7/2001	1	24248
		MATLAB 7.X + Toolboxes, Release 14	12/3/2002	10	1579849
		Multisim Education (version – 7 ) spice simulation software	8/9/2003	1	43120
		PLC Software RSLOGIX 500	3/9/2003	1	31200
		MATLAB R2012a Software + 22 Toolboxes	10/7/2012	13	248284
		Netsim Academic version	23/08/2012	10	179729
		Netsim Standard version	23/08/2012	05	192921
		VHDL Simulation synthesis software	15/09/1999	1	35880
		Xilinx Licensed Software Ver. 2.1	28/07/2000	01 +4 Copy	134772
		Active – HDL(PE) VHDL + Active –HDL(Student)	6/9/2004	01	98820
		Xilinx Software Version 6.2	6/9/2004	01	40000
		Colour image Analysis Software WG – Déjà vu – 2.0	31/03/2005	01	14000
		MicrowindPakage DSCH 3.0 and Microwind 3.0	23/03/2005	01	145800
		Microwind Package DSCH3	14/08/2006	05	280000
ISE 11.1 System Edition	7/12/2009	01	100000		
Edwin XP Full Version	16/10/2008	05	156000		

		C-AVR Compiler Software for AVR (SPJ Systems)	9/10/1999	01	4590
		Additional License for SC 51	17/08/2005	11	51480
		Triton IDE software	28/09/2007	04	83200
		Keil MDK-ARM	18/09/2007	01	102960
		SPJ IDE ARM SPJ C Compiler	1/11/2007	10	54756
5	Information Technology	KEIL,TC,TASM	9/11/2005	120	411798
		Office 2007,VB6.0, TC, TASM, Mysql, R-studio, putty, winscp, VMware , JAVA,TOMCAT	25/10/2005	120	560792
		Office 2007,VB6.0, TC, TASM, Mysql, R-studio, putty, winscp, VMware , JAVA,TOMCAT	25/10/2005	120	461794
		Office 2007,VB6.0, TC, TASM, Mysql, R-studio, putty, winscp, VMware , JAVA,TOMCAT	25/10/2005	120	423798
		Office 2007,VB6.0, TC, TASM, Mysql, R-studio, putty, winscp, VMware , JAVA,TOMCAT	25/10/2005	120	423798
		Office 2007,VB6.0, TC, TASM, JAVA,TOMCAT	9/11/2005	45	716798
		Office 2007,VB6.0, TC, TASM, Mysql, JAVA,TOMCAT	25/10/2005	80	4,63,798.00
		Office 2007,VB6.0, TC, TASM, Mysql, VMware , JAVA,TOMCAT	25/10/2005	80	423798
		Office 2007,VB6.0, TC, TASM, Mysql, VMware , JAVA,TOMCAT	25/10/2005	80	411798
6	MBA	Quick Heal Eps 503 2014	8/25/2009	12	264000
7	Mechanical Engineering	Auto-Cad	9/3/1998	1	37200
		I-Deas Artisan	9/22/1998	2	100000
		M.S.Win-95 OS	1/28/2000	1	3250
		Ansys 6.1	9/17/1999	1	380000
		Ideas-8m3, Perpetual	9/29/2001	1	175000
		i) Modular, Surfacing and Mfg Pr900		1	50000
		ii) Mechanism Design A172		2	69000

		iii)I Deas8m3,Advs. Surface A309			9000
		Autodesk Inventor	8/29/2003	6	237120
		MSc Nastran +Patron Software	12/20/2004	2	416000
		Ansys Intermediate Software	10/17/2005	1	122656
		F-Chart Software	7/1/2006	1	48750
		PRO-E Perpetual	9/12/2006	200	270400
		Auto-CAD 2009	12/10/2008	1	280800
		i) MD.FEA, MD.Motion and Fatigue Complete package	5/29/2009	1	572000
		IES Software	7/25/2011	(04)LLC	308700
		Hyperworks, Perpetual	8/3/2010	125	135714
		Cognifront Engg. Graphics V3D	7/17/2011	1	43050
		ABACUS Softwares, Perpetual	8/1/2011	12	722465
		Star CCM+, Star CD, es-Ice	8/1/2011	(3+2+3)	149890
		SGS 2.2 Mech. Engg.	8/30/2011	12	18700
		Master CAM X5 Perpetual	9/3/2011	1	210000
		Wolframe Mathematica	8/17/2011	1	38784
		Automation Studio 5.7	10/3/2011	11	308746
		CATIA V6 Product, Perpetual	6/14/2012	20	299268
		1) MATLab	7/10/2012	12	213248
		NI Lab View software, Perpetual	9/10/2013	1	258589
		Ansys Academic teaching, Perpetual	6/18/2015	50	400000
		MasterCAM X9 Perpetual	6/18/2015	10	295000
8	Production Engineering	Virtual Reality Robot Software (Denford)	5/10/2002	1	35500
		Virtual CIM software	5/10/2002	1	71000
		Auto Desk Inventor Series - 7(Standalone)	30/09/2003	4	158080
		Reliability Software Tool	14/08/2006	4	66836
		Pro-Engineering Wildfire 4.0 (Perpetual licence)	12/09/2006	20	27040
9	First year Engineering	Turbo C++, Java, Eclips,	---	--	Freeware Available on net
		Auto CAD-2009	10/12/2008	40	540000

- Number of nodes/ computers with Internet facility : 821

The department wise breakup of computers with internet facility is given in Table 4.3.1. (d)

**Table No. 4.3.1 (d) Number of nodes/ computers with Internet facility**

Sr. No.	Department	Number of nodes/ computers with Internet facility
1.	Bio Technology	17
2.	Civil Engineering	27
3.	Chemical Engineering	36
4.	Computer Engineering	156
5.	Electronics & Telecommunication Engineering	123
6.	Information Technology	148
7.	Mechanical Engineering	125
8.	Production Engineering	33
9.	MBA	12
10.	First year Engineering	144

**4.3.2 Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?**

Each department has its own computing facility for faculty and students and all the computers are provided with internet facility. The details are as follows:

- College campus is connected to central UTM device through LAN which provides internet facility of 28 mbps speed
- Wi-Fi facility with band width of 45 mbps is available 24 × 7.
- Internet Browsing Centre is available for the students from 5.00 PM – 1.00 AM.

**4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?**

Institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities:

- IT infrastructure is upgraded as per revision in syllabus as well as technological innovations.
- Adequate funds are made available in the annual budget for the procurement/up-gradation/maintenance and renewal of IT infrastructure.
- Power back up requirements for the IT infrastructure facilities is reviewed periodically and provisions are made for fulfilling the additional requirements.
- IT infrastructure facilities are under AMC.

***Strategies for deploying and upgrading the IT infrastructure and associated facilities***

- IT infrastructure is upgraded as and when it is to be made compatible with the latest innovations:
  - Replacing CRT monitors with the LED monitors.
  - Incorporating changes in networking system so as to be in line with latest innovations in networking field.
- Appropriate budget provision is made available in annual budget as per the requirement of the department.
- A purchase committee is formed for independent review and evaluation of purchasing requirements of individual departments.



**4.3.4 Provide details on the provision made in the annual budget for procurement, up-gradation, deployment and maintenance of the computers and their in the institution (Year wise for last four years)**

**Table 4.3.4: Provision in the annual budget for procurement of Computers**

Items	Year 2011-12		Year 2012-13		Year 2013-14		Year 2014-15	
	Budgeted Amount (Lacs)	Actual Expenses (Lacs)	Budgeted Amount (Lacs)	Actual Expenses (Lacs)	Budgeted Amount (Lacs)	Actual Expenses (Lacs)	Budgeted Amount (Lacs)	Actual Expenses (Lacs)
Computers	150	57.18	110.00	39.68	85.70	17.18	114.00	22.07
Accessories (Equipment)		95.80		70.91		68.66		93.82
Software	32.50	33.33	21.50	21.91	9.50	9.35	16.80	18.18

**4.3.5 How does the institution facilitate extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students?**

- Faculty members make use of power point presentation for effective lecture delivery.
- All the class rooms are well equipped with LCD projectors.
- All faculty rooms have the facility of Internet.
- The institute maintains a data base of objective questions for all subjects which helps to know the depth of understanding of students through online examinations.
- Audio-video content on all subjects is made available to the students through K-Point Software for self-learning and revision of the subject content.
- The faculty and students can access e – resources through digital library.
- Mock online exam is conducted in every department for FE & SE.
- Extensive use of ERP system like GEMS by faculty and student. Faculty can make the use of GEMS for uploading personal information, leave application, teaching plan & student related information. Student can make use of GEMS to see the academic and placement related information.
- Students, staff and faculty are provided with institute email ID's for communication through sinhgad.edu server.

**4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching- learning resources, independent learning, ICT enabled classrooms/learning spaces etc.) by the institution place the student at the center of teaching-learning process and render the role of a facilitator for the teacher.**

- Recorded lectures are made available to the students through K-Point software.
- Content beyond syllabus is covered by conducting workshops and guest lectures by experts from the industry.
- Industrial visits are organized for independent learning and to gain the latest technical knowledge in the industry.

- E-resources access is made available for independent learning to all the students and faculty through digital library and laboratory computer facility.
- Participation of students in national and international level project competitions like Robotics, SAE BAJA, Techfest etc.
- Students are exposed to Spoken tutorials program -an initiative by IIT Mumbai for independent learning.
- The institute provides online NPTEL video material for students.
- Webinars in the various domains are arranged for the students.
- Students prepare their final year project reports using software like Latex.
- Online examinations are conducted for FE and SE students through Myexamo.com portal.
- EDX online courses are made available to the students for self-learning.

**4.3.7 Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?**

No.

**4.4 Maintenance of Campus Facilities**

**4.4.1 How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?**

A review of the requirements of infrastructure is done before the commencement of each academic year. Details of the budget allocated for infrastructure and others are shown below for the last four years:

**Table No.4.4.1 Maintenance of Campus Facilities Amount in Lacs**

Sr. No	Facilities	Year 2011-12		Year 2012-13		Year 2013-14		Year 2014-15	
		Budget	Expenses	Budget	Expenses	Budget	Expenses	Budget	Expenses
1.	Building	83.5	29.30	123.00	46.15	95.00	31.24	133.0	43.12
2.	Furniture		1.03		2.54		4.43		4.93
3.	Equipment		19.62		27.36		25.93		46.45
4.	Computers		0.00		0.00		0.02		1.18
5.	Vehicles		28.30		36.89		24.24		24.82
6.	Any other		6.15		8.73		8.15		14.40
Total		83.5	84.40	123.00	121.66	95.00	94.01	133.0	134.91

**4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college?**

- *Class Rooms, Seminar hall and tutorial rooms:* All these rooms are cleaned by departmental peon and this activity is monitored by departmental technical assistant.
- *Laboratories:* Faculty in-charge & technical assistant look after the maintenance of each laboratory. The funds available from the budget head is used to repair of any break-

down item. When new purchase is to be made, then faculty in charge proposes the annual requirement and provisions for the same are accordingly in the budget. For consumable items, budget is prepared by staff in charge and technical assistant.

- *Equipment:* Preventive maintenance schedule is prepared by the faculty in charge & maintenance is carried out regularly as per schedule and this activity is monitored by staff in-charge.
- *Computers:*  
All the computers and peripherals are checked by faculty in charge and technical assistant for any problems once in a semester before beginning of the academics. Any maintenance activity, if required is carried out and required consumables are purchased. Maintenance activates and consumables purchased are entered in the respective dead stock registers.
- *Central library:*  
The Central Library of the institute is well maintained and each section in it is taken care by an assigned person for cleanliness. Electric fittings, equipment like photocopy machine, computers, printers, scanners are given for maintenance from time to time. Old machines are send to scrap with set procedure of the institute. Book Stacks are thoroughly cleaned once in a week. The books are weed out as per the norms and procedure laid down by the society. The book binding is done to keep them in condition of use. The stock verification is done as a part of regular maintenance
- *Departmental library:* Faculty members of the dept. can borrow the books from dept. library & students in their free time can make use of the books available in the department.
- *Civil maintenance* is looked after by estate office for minor maintenance work and through civil contractor for major maintenance.
- *Hostel maintenance* is carried out by two different teams of housekeeping staff separately for girls' hostel and boys' hostel.
- *Mess maintenance:* A committee of faculty members and students is formed to look after the quality of food and hygienic in the mess.
- *Garden maintenance* is looked after by gardening staff under the supervision of estate office.
- *Pest control* is carried in the hostels at regular intervals by external agency under the supervision of hostel warden

#### 4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment/ instruments?

The faculty in-charge of a particular laboratory ensures that the equipment/instrument is in working condition. The departments take the initiative to calibrate the precision instruments for their optimum and assured performance, once in a year. The calibration of all the precise instruments are done annually as part of Annual Maintenance Contract.

**Table No.4.4.3 List of Precision equipment and frequency of calibration**

Sr. No.	Name of Department	Name of Precision equipment	Frequency
1.	Bio Technology	pH meter	Every time before use
		Analytical Balance	Twice in a year

2.	Civil Engineering	Flow measuring devices.	1 / Year
		Tilting Flume	1 / Year
		Wind tunnel with cylinder model	1 / Year
		Pentax total station PUS	Calibrated once in a year at departmental level.
		225 with all accessories.	1 Year
		Tripal prism unit A type	1 Year
		MPU - 7A	1 Year
		1" Theodolite (Mag. 30 - 35X) Shortest sighting Distance 2meter, Longest sighting distance 500m,Field of view angle 1-1.5dg metallic body with steel stand	1 Year
		Mirror Stereoscope	1 Year
		1" Theodolite (Magnification 30-35X) distance 2m, Longest sighting distance 500m, Metallic body & folding stand	1 Year
		1" Theodolite J22 (FOIF Make )	1 Year
		Micro Optic Theodolite J - 22 FOIF Make	1 Year
		FIE Electronic Universal testing machine model UTE - 100	1/Two Years
		Compression Testing Machine: 200 kN	1/year
3.	Electronics & Tele Communication Engineering	CRO (Test Lab) Model: 3744	1 Year
		Frequency Counter Model: HM 02-3	1 Year
		D.S.O Model: TDS 1002C	1 Year
		Signal Generator Model: 2014	1 Year
		Function Generator Model: Intrx 2000	1 Year
		Power Scope Model: 330P	1 Year
		CRO Model: 804	1 Year
		Digital Multimeter Model: 1087A	1 Year
		DC Regulated Power Supply Model: L 3202	1 Year
4.	Mechanical Engineering	Height Gauge	1 Year
		Floating Carriage Micrometer	1 Year
		Inside Micrometer	1 Year
		Tool Maker's Microscope	1 Year
		Profile Projector	1 Year
		Slip Gauge Set	1 Year
		Depth Micrometer	1 Year
		Outside Micrometer	1 Year
		Auto Collimator	1 Year
		Tooth Thickness Vernier Caliper	1 Year
		Gear Tooth Tangent Micrometer	1 Year
		Sine bar	1 Year

**4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?**

*Maintenance of academic infrastructure and facilities*

- Fire extinguishers are provided at multiple strategic locations and maintenance is done through AMC
- Floor indication boards are given at strategic locations.
- Electricity: - 3-Phase line with HT 900 kW, 800 kVA electricity supplies from Maharashtra State electricity Distribution Co. Ltd.
- Power Backup: - Power back up from Kirloskar Genset 500 kVA (50 Hz).
- Water supply: - Water is directly lifted from canal and filtered in DMF plant with a capacity of 3,00,000 lit/hr also there is overhead tank of 30,000 liter capacity which is maintained annually.

**4.4.5 Any other relevant information regarding Infrastructure and Learning Resources**

Nil

## CRITERION V: STUDENT SUPPORT AND PROGRESSION

### 5.1 Student Mentoring and Support

#### 5.1.1 Does the institution publish its updated prospectus/handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

Yes, the institute publishes prospectus annually. The institute also provides online access to brief history of the institute, department wise faculty details, Infrastructural Details, about Academics, Examination , Placements, Alumni, awareness for anti-ragging, achievement of the students, sports, Sinhgad Student Council (SSC), Student Training Program(STP), research activities, academic calendars, and syllabus for the benefit of students.

The data to be published in the brochure is collected from various Departments. It undergoes the process of authentication by the Heads of Departments, supporting documents and proofs for which are collected and maintained in the department. It is then processed centrally and validated before it is published.

The brochure contains the following salient features:-

- Mission of the institute
- About program and Departmental information
- Admission process
- Best practices
- Memoranda of Understanding
- Placement activities
- Recruiters
- Infrastructural Facilities
- Library information
- Hostel information
- Alumni association
- Student achievements
- University rankers
- Sinhgad Students Council

In addition to the above, following information is also available online in the form of a website

- Institutional & Departmental Profiles
- Co-curricular , Extracurricular & Sports activity Calendars
- Innovation & Research Activities
- Events, visits of eminent personalities
- <http://www.sinhgad.edu/>
- [http://cms.sinhgad.edu/sinhgad\\_engineering\\_institutes/vadgaon\\_scoe/about.aspx](http://cms.sinhgad.edu/sinhgad_engineering_institutes/vadgaon_scoe/about.aspx)

The institute is committed to the information provided in the prospectus in all respects & strictly adheres to the time schedule indicated in the prospectus thereby ensuring the accountability. The institute prepares an annual academic report which reflects the execution of the planned activities and is authorized by the Local Monitoring Committee (LMC).

**5.1.2 Specify the type, number and amount of institutional scholarships / freeship given to the students during the last four years and whether the financial aid was available and disbursed on time?**

- The institute provides all the scholarships offered by the Government.
- The institute supports private scholarships like RMD foundation scholarship, Bhosale Trust scholarship etc. for deserving students.
- The institute allows students to pay their fee in installments.
- Students are offered Earn & Learn facility in which 50% of the funds are contributed by the institute and 50% by the university.
- The institute provides fee waiver to the students who are not in a position to pay the fees and request for concession.
- Book bank facility is provided to all first year students.
- Every year endowment prizes are given by the institute to the toppers.

**5.1.3 What percentage of students receive financial assistance from state government, central government and other national agencies?**

- Scholarships / free ships are given by Government of Maharashtra on the basis of parental annual income. Apart from the above, GATE scholarships are provided by AICTE to PG students. The Table 5.1.3. (a) shows the financial assistance in the form of scholarship given to UG students by the Govt. of Maharashtra.

**Table 5.1.3(a) Financial Assistance (scholarship/freeship) to UG students by state Govt.**

Academic Year	Category	Total No of students	No. of students sanctioned Financial Assistance		Total No. of scholarship holders	% of students receiving financial assistance
			Renewals	New		
2015-16	SC	504	368	136	504	100
	ST	137	88	49	137	100
	VJNT	416	290	126	416	100
	OBC	896	627	269	896	100
	SBC	90	67	23	90	100
2014-15	SC	482	339	143	482	100
	ST	99	68	31	99	100
	VJNT	372	261	122	383	103
	OBC	838	619	219	838	100
	SBC	81	58	23	81	100
2013-14	SC	436	288	144	432	99
	ST	100	63	37	100	100
	VJNT	337	240	97	337	100
	OBC	723	520	203	723	100
	SBC	69	38	31	69	100
2012-13	SC	354	214	140	354	100
	ST	98	54	44	98	100
	VJNT	320	194	126	320	100

	OBC	707	472	232	704	100
	SBC	69	38	31	69	100
2011-12	SC	274	181	93	274	100
	ST	86	42	44	86	100
	VJNT	235	144	91	235	100
	OBC	564	359	205	564	100
	SBC	48	34	14	48	100

The Table 5.1.3 (b) shows the year wise list of GATE qualified students who receive the financial assistance from AICTE.

**Table 5.1.3 (b): Financial Assistance to PG students by AICTE**

Academic Year	No of GATE qualified students	No of students receiving GATE scholarship	% of students receiving financial assistance
2015-16	50	50	100
2014-15	100	100	100
2013-14	105	105	100
2012-13	31	31	100
2011-12	6	6	100

The Table 5.1.3 (c) shows the financial assistance in the form of scholarship given to UG students under SC category by the Govt. of Maharashtra

**Table 5.1.3 (c): Scholarships offered to UG students by the state government for SC Category**

Academic Year	Total No of students	No. of students sanctioned Financial Assistance		Total No. of scholarship holders	% of students receiving financial assistance
		Renewals	New		
2015-16	504	368	136	504	100
2014-15	482	339	143	482	100
2013-14	436	288	144	436	100
2012-13	354	214	140	354	100
2011-12	274	181	93	274	100

The Institute also admits the students under TFWS (Tution Fee Waiver Scheme) scheme of Government of Maharashtra. The details are given in Table 5.1.3 (d).



**Table 5.1.3 (d): TFWS (Tuition Fee Waiver Scheme)**

Year	No .of students getting TFWS	Percentage of Students	Total Amount (Rs)
2015-16	41	4.92	809791
2014-15	38	4.56	397176
2013-14	48	5	412080
2012-13	47	5	318425
2011-12	46	5	586730

In addition to the above, the college facilitates financial assistance to students from different agencies as listed in question 2.2.6.

#### 5.1.4 What are the specific support services/facilities available for:

##### *Students from SC/ST, OBC and economically weaker sections*

- The institute arranges extra lectures for these students
- The facility of part payment of fee is provided to the economically weaker students.
- Earn and Learn Scheme: This scheme is implemented in cooperation with the University, which enables the socially and economically disadvantaged students to earn by working in various Institute departments/library, while studying.
- SC/ST, OBC and EBC students are given fee concession by the Government.
- Social Welfare Department-Government of Maharashtra provides book bank scheme to SC/ST students.

##### *Students with physical disabilities*

The institute provides the following facilities to the differently abled students

- Preference is given for hostel / in campus accommodation.
- Extra time is given during theory and practical examination.
- Lecture and Examination halls are provided on the ground floor
- Administrative support to avail concessional travel to attend conferences, seminars, industrial visits etc.

##### *Overseas students*

- *Foreign National Students (FNS) cell* - The Sinhgad Technical Education Society has a Foreign National Students cell. Presently it has more than 1000 foreign nationals from more than 38 countries to pursue Higher Studies in streams like Science, Commerce, Arts, law, Engineering, Medicine, Architecture, and Management etc. The foreign national students are offered help in terms of guidance with respect to their registration in the local police station, Visa formalities & residential permit. The institute has state of art amenities and facilities in hostels exclusively built for International students. In-room personalized cooking arrangement is in place to heed their culinary preferences. Cultural Programs are organized to provide a platform for expression of talent and cultures, which mark our respect for cultural diversity. These students are encouraged to participate in the sports activities and have won Football

tournaments since last couple of years. The constituent institutes host an annual award ceremony where a special award is instituted for the best outgoing Foreign Student and best cultural presentation award.

***Students to participate in various competitions/National and International***

- Students are motivated to participate in international competitions like SAE Baja, an inter-collegiate International level design competition organized by SAE, USA in which students have been winning laurels for three consecutive years.
- Formula Society of Automotive Engineers, FSAE, Italy, an international level student manufactured car racing competition in which students won the first prize last year.
- The institute encourages students' participation in national events like ROBOCON, TechFest, Mood Indigo etc. by providing financial sponsorship in the form of travelling allowance (TA), Registration & Entrance fees.
- Participation in inter-university project competitions like Avishkar and Anveshan is encouraged amongst students. This begins with conducting department level project competitions from which the best projects are short-listed and forwarded to national level competitions.

***Medical assistance to students: health center, health insurance etc.***

- STES's Smt. Kashibai Navale Medical College and General Hospital located at a distance of 3 km from college campus provides free medical services to the employees and students of the institute.
- Free dental checkup at Sinhgad Dental College in campus.
- Complete medical check-up is provided to all students of the institute when they are admitted to the college.
- Full time doctor is appointed in campus clinic.
- All the students are covered under Sinhgad Technical Education Society's accidental Insurance policy.
- Ambulance/Institute vehicle is available 24 × 7 for emergencies.
- First aid boxes are made available at each department, office and library.

***Organizing coaching classes for competitive exams***

- The institute provides free coaching to the interested students appearing for GATE and equivalent competitive examinations and provides infrastructural facilities to provide guidance for the same.
- The institute has a student's overseas cell in which students who wish to pursue higher studies abroad are provided with guidance and counseling for competitive exams.
- Study material related to GATE, GRE and other competitive examinations is made available in the central library.

***Skill development (spoken English, computer literacy, etc.,)***

- The Institute grooms students by giving proper training apart from the regular curriculum, for improving their soft skills.

- Students Training Programme (STP):
- This program is spread over *seven* semesters, with total duration of the program as 120 hours. It provides training and practice on:
  - Soft Skills
  - Technical Fundamentals
  - Value Added programs
  - Quantitative Aptitude and Logical Reasoning and
  - Group Discussion and Interview preparation
- Audio recording of lectures is provided for refreshing concepts. Quantitative Aptitude and Logical Reasoning tests are also conducted. Audio backed lectures by expert faculty with video illustrations for all 10 subjects of FE are given.
- Training is incorporated into the curriculum to prepare and evaluate the students in technical and non-technical skills. As a part of STP, all lectures are recorded subject-wise by expert faculty. This is a LAN based resource to help students learn and revisit concepts discussed in class.
- Aspiring Minds Computer Adaptive Test (AMCAT) is conducted for all the second/ third year students which helps them to enhance employability opportunities. Training need and outcome is assessed using AMCAT, a job test preferred by many industries. Students will be provided with a three year presence on AMCAT portal to seek placement. It also prepares students for entrepreneurship and higher education in India as well as Abroad.
- The institute has a International Center, which is accredited by the University of Cambridge to conduct and Evaluate 3 levels of Business English Certification. Quality training is also provided for the same.
- The institute organizes various seminars, workshops and guest lectures for the students by experts to enhance their soft skills and to make them aware of the current trends in technologies. Language lab, Internet facility and Wi-Fi connectivity in campus, facilitates students in overall skill development.
- (The institute conducts Spoken Tutorial sessions in association with IITB which enhances the technical skills of the students.)

#### **Support for “slow learners”**

- Students who are at risk of failure and dropout are identified based on the previous semester’s performance and are provided with counseling for performance enhancement.
- An access of E-Examination portal, which contains question bank of all the subjects, is provided to the students in which they can practice the examination several times to increase their score.
- Mock practical and orals are conducted twice in a semester to improve the performance of slow learners.
- Institute has initiated K-Point software which is made available to the students, with audio recorded lectures by expert faculties of various subject domains. It is a LAN based resource to help students learn and revisit concepts discussed in the class.
- Guardian teacher also identifies slow learners and provides them counseling and intense coaching.

- Remedial classes are conducted for slow learners.
- Extra assignments, university question papers are given for solving.

**Exposures of students to other institution of higher learning/ corporate/business house etc.**

- Workshops, seminars and guest lectures are arranged for career guidance which motivates students for higher education & placements.
- Students are encouraged to be a part of industry sponsored projects through which they get exposure to work with the professionals & industry experts of their domain.
- Industrial visits and internships in leading Industries and corporate houses are arranged for students which give them practical exposure.
- Collaboration with industries, R&D labs is done so as to benefit the students in terms of recent developments.
- Letters of Recommendation & Transcripts are provided to the students to promote higher studies.
- National Level Technical Event “Techtonic” is organized every year in which students participate in various technical events.
- MOUs are signed with companies like PSPL, Infosys Technologies Limited, Zensar, KPIT Cummins, BMS Solutions, Intel, Rashtriya Chemicals and Fertilizers Limited, PRAJ Industries Limited, Honeywell Automation Indis Ltd., ICT, Greaves Cotton, Thermax for industry-institute interaction. Also MoU’s are signed with educational organizations like UCLA’s Henry Samueli School of Engineering and Applied Science, True Copy, CFP Asia, Aalborg university, ECTA and Rwanda University to promote joint research and faculty-student exchange.

**Publication of student magazines**

- The institute publishes a college magazine “SRUJAN” annually, which is helmed by students that provides them with a platform to showcase their creativity, innovations and talents by publishing different articles.
- “SRUJAN” has won second prize for “best magazine” in Savitribai Phule Pune University in the year 2009 and first prize in 2014.
- In addition, the institute has,
- English newsletter - The Den
- Departmental News Letters like
  - Cyber Times (Computer Engineering)
  - Digerati (Information Technology)
  - Chemigizer (Chemical)
  - Friction (Mechanical)
  - Spiegel (Production)
  - Biosk (Bio Technology )
  - Beacon (Civil)
  - Quantum (E & TC)
- Public Relations (PR) & Social Media Club

### **5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.**

- The institute has a very active Entrepreneurship cell which organizes expert lectures conducted by Industrialists & experienced Professionals to develop entrepreneurial skills among the students.
- The Institute has organized various Programs, awareness drives for Entrepreneurship Development.
- Activities & Events Carried out by Entrepreneurship Cell
  - Dr. APJ Abdul Kalam memorial Lecture series
  - MOU with De Asra foundation
  - National entrepreneur awareness drives
  - Seminars & Workshops in association with NEN on Entrepreneurship Initiatives. Management Games/Exercises
  - Icebreaking Session on Motives behind EDC Summits, Conferences, Idea-Exchanges and Exhibitions

A grant of Rs. 60,000/- is received from National Science and Technology Entrepreneurship Development Board (NSTEDB), Department of Science and Technology(DST) to conduct E-awareness camps. More than 5,000 students are registered in this cell & their Aspirations have been changed. They have abundant potential in them and are benefited by the guidance provided & activities conducted in the events carried out for them which results into transformation of students into entrepreneurs every year who start their own units.

### **5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co- curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc. additional academic support, flexibility in examinations special dietary requirements, sports uniform and materials any other**

- The institute organizes two mega events Sinhgad Karandak & Techtonic thereby promoting students for participating in various extracurricular activities.
- The necessary facilities are provided and adequate funds are allocated.
- The sports and cultural committees arrange and coordinate the extra-curricular activities.
- Programs are conducted with professional societies like CSI, IEEE,ISTE,SAE etc
- Participation is encouraged in all activities by felicitating worthy students.

#### *Policies & Strategies for Extra Curricular (Cultural and Sports) Activities*

- Students willing to participate in extra-curricular activities have to undergo physical fitness and screening in which they are shortlisted for the intercollegiate and other competitions to represent the institute.
- Students are provided with equipment's and infrastructural facilities like amphitheater, cricket ground, gymnasium, basket ball court, Table Tennis court, Swimming Pool etc.
- Institute gives concession in attendance for students participating in sport activities and they are appreciated with certificates/trophies.

#### *Policies & Strategies for Co-curricular Activities*

- Institute arranges paper presentation competitions, Mega Technical event, Project exhibitions, to promote the students participation in such activities.
- Participation in state-level and national-level events is encouraged by giving attendance concession and financial support.
- They are provided with facilities like laboratories, digital library reference facilities and guidance for such activities.

#### *Outcomes*

- The institute achieves sportsmanship, physical and mental fitness amongst students by encouraging their overall development and create awareness about global sports events.
- By giving equal platform to all the students as per their inherent skill set to develop the spirit of unity, team work, coordination, creativity, confidence, self discipline, moral & ethical values amongst all students.

#### **Additional academic support, flexibility in examinations**

To ensure active participation of students in sports and extracurricular activities,

- Attendance exemption (with prior approval) is given.
- Rescheduling of examination is done for the national & international sports persons.
- Provision for adjustment of laboratory work and conduction of extra lectures on topics missed by the students due to participation in various events.

#### **Special dietary requirements, sports uniform and materials**

- The Institute provides sports uniform, sports kits and dietary supplements to the students participating in sports.
- Institute vehicle / Travelling Allowance is provided to the students participating in tournaments.

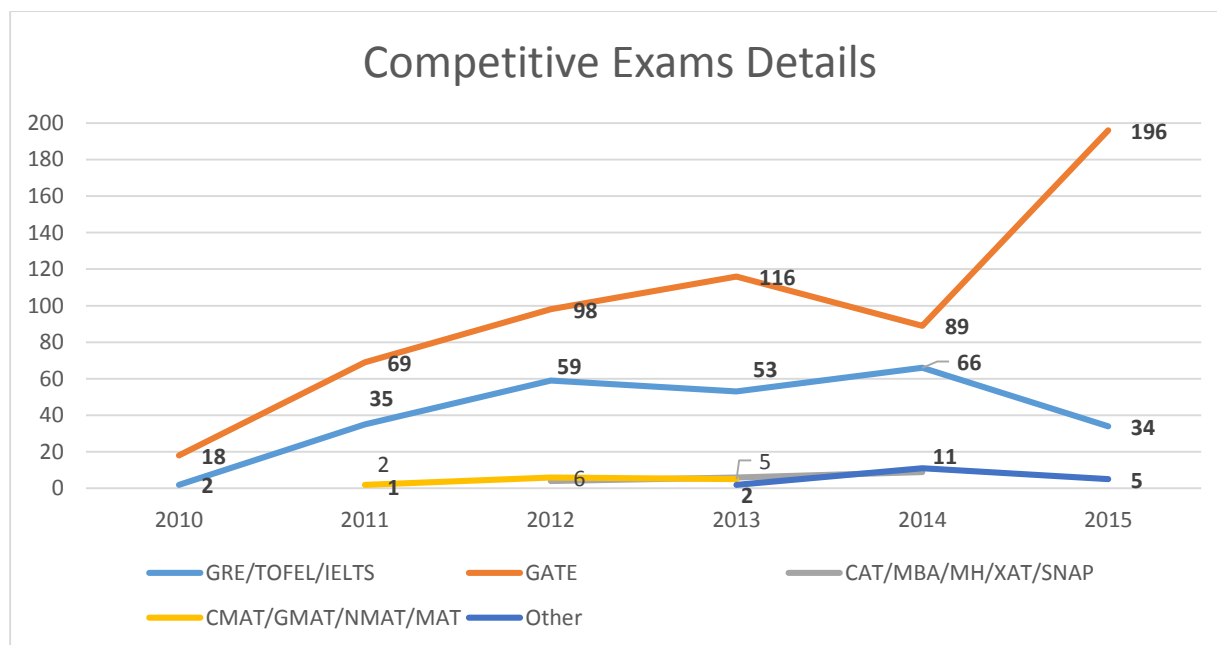
#### **Any other**

- The students are encouraged to participate under the guidance of staff advisors appointed for each sport.
- Annual sports competition is organized every year in second semester and winners are honored with certificates and cash prizes.

**5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central /State services, Defense, Civil Services, etc.** The Institute motivates students for higher studies and research work. Library is open beyond college hours for the benefit of students. Students are aptly guided by the teachers and counseled for the right strategies in preparing for these examinations. Attendance exemption is given to students for such examinations. The Table 5.1.7 shows the competitive examination details for the last five academic years.

**Table 5.1.7: Competitive Exams Details**

Year	No. of Students									
	GATE		GRE/TOEFL / IELTS		CAT		CMAT/ GMAT		Other	
	Appeared	Qualified	Appeared	Qualified	Appeared	Qualified	Appeared	Qualified	Appeared	Qualified
2014-2015	212	196	43	34	1	0	0	0	9	5
2013-2014	95	89	75	66	3	9	0	0	23	11
2012-2013	163	116	65	53	4	6	8	5	4	2
2011-2012	122	98	63	59	2	4	12	6	0	0
2010-2011	75	87	42	37	1	1	3	2	1	1



The above graph depicts an increase in number of students appearing for GATE and getting admitted to PG courses successfully in India and abroad.

**5.1.8 What type of counseling services are made available to the students (academic, personal, career, psycho-social etc.)**

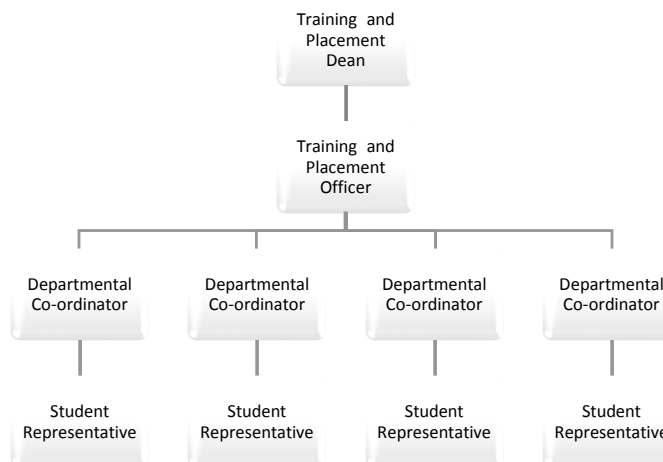
- *Academic:* The Institute has a guardian teacher scheme in which 15 to 20 students are assigned to each faculty who counsels the students regularly and looks after their

academic and career related issues. Class Teachers, Subject Teachers, HoD's also play a vital role in this regard.

- *Career*: Institute has a Training and Placement Cell which counsels the students and gives them information about employment/placements. The cell organizes career guidance and personality development programs like STP. Institute has a student's overseas cell in which students who wish to pursue higher studies abroad are provided with guidance and counseling for competitive exams.
- *Personal & psycho-social counseling*: students meetings are conducted by guardian teacher regularly and try to identify the personal problems of the students. They are counseled to become better human beings and advised to stand tall for the social cause.
- A doctor is made available in the campus for counseling the students undergoing mental stress.
- In addition, the institute arranges various social welfare programs like Blood donation camps which makes them socially aware. Students and faculty of Institute visit social organizations like Orphanage, old age homes. They observe the activities which make them aware of social responsibilities.

**5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If 'yes', detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programs).**

- **Yes**, The Institute has a structured mechanism to make the students employable and also to help them choose the career of their interest.



- The cell is headed by a dean with an institute level training and placement officer who coordinates with various department level faculty coordinators for its activities. All students register online on a portal with their personal and academic details. Employability tests (ET) are conducted by the cell to train the students for placements. Based on the company's criterion and ET score, students are short-listed for placements.



- Institute organizes soft skill development programs in the form of STP from second year onwards. The faculty and experts thereby guide students to explore various career opportunities by inculcating necessary skills in them. It is divided into five modules as follows:-

*STP I: Training on Soft Skills*

Which covers training on SWOT Analysis, Goal Setting , Personality and Stress Management, Behavioral Skills, Listening, Reading (Technical and Non-technical), Writing (Letter, Resume, CV, Report), Speaking (Public speaking, Group Discussion) and AMCAT Assessment to assess need for training in soft skills.

*STP II: Training on Communication Skills*

This part of training includes Listening, Reading, Writing, Speaking skills followed by AMCAT Re-assessment to evaluate soft skills of student.

*STP III: Training on Technical Skills*

This module of training covers refreshing of Technical Fundamentals followed by AMCAT Assessment to assess need for training in technical skills.

*STP IV: Interview Preparation*

This includes Practice of Group Discussion and Personal Interview & Quantitative Aptitude and Logical Reasoning Tests.

*STP V: Value Addition Program*

In this part the students are given training from outside expert to add value to CV. AMCAT Re-Assessment is done to evaluate technical skills and the score may be used for placement purpose.

- The institute encourages the students to take up internships during winter and summer vacation. The Table 5.1.9 shows the summary of companies visited to the campus placement and number of students selected for the last four academic years.

**Table 5.1.9- Summary of companies visited and number of students placed**

Academic Year	No. of companies Visited	No. of Students Placed		% of Students Placed
		UG	PG	
2014-15	114	363	39	98.05
2013-14	114	224	10	67.83
2012-13	89	298	1	84.70
2011-12	88	333	8	94.72

**5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.**

- Yes, the institute has a Student Grievance Redressal Cell comprising of Principal, Faculty members and student representatives.
- Students' personal & academic grievances are taken care of by the guardian teacher, Class Teacher & the higher authorities if needed.
- The examination department of the institute solves student's academic grievances pertaining to university results, revaluation process etc.
- Failed students are counseled to improve their performance.

Some of the grievances reported in last four years are

- More photocopying machines
- Additional Internet facility
- Extending the working hours of the library
- Better catering service from the canteen and Hostel Mess
- Purified Drinking Water facility

Grievances mentioned above are redressed by the cell with due representation to the management.

**5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?**

- The institute has adopted the guidelines laid down by the Honorable Supreme Court of India, for woman harassment in compliance with the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013. The authority refers the matter to Women Cell which has a representation of Principal and lady representatives. The cell resolves the issues by taking proper disciplinary actions. The frequency of the meeting is based on the need and complaints received.
- The institute involves lady faculty and girl student representatives, in all students and faculty activities who closely monitor these activities and if necessary give feedback to the concerned authority.

**5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?**

- Yes, the institute has an anti ragging committee and squad comprising of Principal, Senior faculty members, Student representatives, Police Officer and NGO representative which takes preventive actions to avoid ragging. The Committee gives wide publicity to related acts, statutes and punishments in the form display boards in the college, library, website and hostels. It is mandatory for the students to produce an anti-ragging affidavit during admission to the institute. The Anti-ragging squad makes random visits to various departments, library and hostels to ensure that no ragging takes place.
- No ragging instances have been reported in the last four years.

**5.1.12 Enumerate the welfare schemes made available to students by the institution.**

- *Earn and learn scheme:* Institute has appointed a student welfare officer to monitor various activities of earn and learn scheme. Under the universities earn and learn scheme, Institute provides financial aid to economically weaker students. Around 150 students are benefitted under this scheme in the last four years.
- Various scholarships are given to the students to avail concession in the fees.
- Book bank scheme is available for backward category students.
- Following SPPU social welfare scheme are offered to the students
  - Vidarthini Vyaktimatwa Vikas, Board of Student Welfare, SPPU
  - Vishesh Margadarshan Yojana' Board of Student Welfare, SPPU

- Vishesh Navinyapoorna Upakram, Savitribail Phule Pune University, Pune
- Karmaveer Bahurao Patil Earn and Learn Scheme of BSW – SPPU
- *Health services:* The institute has made arrangements of a full time doctor in campus clinic.
- *FNS cell:-*The institute has a Foreign National Students cell. It presently has more than 1000 foreign nationals from more than 38 countries to pursue Higher Studies in streams like Science, Commerce, Arts, law, Engineering, Medicine, Architecture, Management etc. They are provided Hostels of International quality with top of the line Amenities which is exclusively built for International students. In-room personalized cooking arrangement is in place to heed their culinary preferences.

**5.1.14 Does the institution have a registered Alumni Association? If ‘yes’, what are its activities and major contributions for institutional, academic and infrastructure development?**

- **Yes**, the institute has a registered Alumni association (Registration No.: Maharashtra/1494/2003/Pune/Dec 6, 2003). The Alumni association contributes actively to the growth of the institution.
- An alumnus meeting is organized annually by the institute.
- Illustrious and prominent alumni are invited to deliver special lectures, motivating the students to opt for higher education and to find the means for job opportunities.
- Their valuable suggestions are taken into consideration in designing and updating the curriculum and placement assistance.
- The institute collaborates with the alumni for Industry Institute Interaction, Personality Development Programs, Project Assistance for final year students, arranging seminar / guest lectures for UG students.

**5.2 Student Progression**

**5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlight the trends observed.**

Student progression	%
UG to PG	7
PG to M.Phil.	NA
PG to Ph.D.	-
Employed • Campus selection • Other than campus recruitment	87

**Table 5.2.1.1: Students opting for PG and higher studies**

Academic Year	Total Students opted for PG		Students registered for Ph.D.
	In India	Abroad	
2014-15	24	12	1
2013-14	40	76	0
2012-13	38	26	1
2011-12	65	45	0

**Table 5.2.1.2: Students Placed in campus and off campus**

Academic Year	Total Eligible Students	Students Placed (in campus + off campus)
2014-15	410	402
2013-14	345	234
2012-13	353	299
2011-12	360	341

Considering that post-graduation has become an integral part of present education and looking at historical data of the institution, the following trends were observed so far as higher education and employment is concerned.

- Students opting for post-graduation abroad is increasing progressively.
- Students opting for post-graduation In India is becoming popular.
- Students Opting For Ph.D. is in a nascent stage
- Students opting for employment through college is more than 95% of eligible students

**5.2.2 Provide details of the programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Institutes of the affiliating university within the city/district.**

**Table 5.2.2.1: Passing percentage and completion rate for the last four years**

Department	Year	Passing Percentage	Completion Rate (%)
Biotechnology	2014-15	98.18	84.61
	2013-14	98.18	73.68
	2012-13	97.87	87.23
	2011-12	100	81.63
Chemical Engineering	2014-15	91.66	72
	2013-14	84.28	58

	2012-13	89.23	58
	2011-12	84.21	52
Civil Engineering	2014-15	95.8	69
	2013-14	94.96	58
	2012-13	80	67
	2011-12	85.13	68.63
Computer Engineering	2014-15	95.00	72.77
	2013-14	92.02	71.09
	2012-13	92.44	75.34
	2011-12	93.14	76.43
Mechanical Engineering	2014-15	90	61
	2013-14	90.3	64
	2012-13	93	72
	2011-12	85.3	65
Production Engineering	2014-15	94	62
	2013-14	89	71
	2012-13	97	72
	2011-12	93	55
E & TC Engineering	2014-15	94.38	75.65
	2013-14	92.36	70.83
	2012-13	93.84	73.24
	2011-12	92.53	68.92
Information Technology	2014-15	99.27	72.61
	2013-14	92.25	68.27
	2012-13	97.03	70.05
	2011-12	91.91	66.03
MBA	2014-15	94.33	94.33
	2013-14	89.47	89.47
	2012-13	96.6	96.6
	2011-12	77.58	77.58

**Table 5.2.2.2: Passing Percentage of the Institute as compared to other Institutes**

Department	Year	Passing Percentage	Passing Percentage of other institutes (University Result)
Biotechnology	2014-15	98.18	96
	2013-14	98.18	96
	2012-13	97.87	91
	2011-12	100	100
Chemical Engineering	2014-15	91.66	87
	2013-14	84.28	85

	2012-13	89.23	88
	2011-12	84.21	92
Civil Engineering	2014-15	95.8	88
	2013-14	94.96	86
	2012-13	80	75
	2011-12	85.13	86
Computer Engineering	2014-15	95.00	91
	2013-14	92.02	87
	2012-13	92.44	85
	2011-12	93.14	86
Mechanical Engineering	2014-15	90	88
	2013-14	90.3	83
	2012-13	93	79
	2011-12	85.3	77
Production Engineering	2014-15	94	89
	2013-14	89	81
	2012-13	97	86
	2011-12	93	87
E& TC Engineering	2014-15	94.38	92
	2013-14	92.36	89
	2012-13	93.84	84
	2011-12	92.53	83
Information Technology	2014-15	99.27	94
	2013-14	92.25	90
	2012-13	97.03	85
	2011-12	91.91	100
MBA	2014-15	94.33	-
	2013-14	89.47	-
	2012-13	96.6	-
	2011-12	77.58	-

### 5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?

Sinhgad Overseas Cell is an initiative started by the institution to help the students who wish to study abroad. They are not only counseled regarding clearing the requisite eligibility test but are also helped in securing admissions to good universities with appropriate monetary aid. Some of the highlights of the cell are:

- Facilitates Summer Internships and Trainings
- Ph.D. Fellowship
- Development of Soft Skills
- Guidance and Counseling

- Training on Project Innovation & Research Skills

The institute also caters to the needs of students who would like to pursue their education in India by training them to crack competitive examinations like GATE, CAT etc.

The institute has a Training and Placement Cell which ensures that students receive quality training for all round personality development from professional trainers, and those maximum numbers of students are placed in good companies with lucrative package deals.

*Entrepreneurship Cell:* The institute has a very active Entrepreneurship cell which organizes expert lectures conducted by Industrialists and experienced Professionals to develop entrepreneurship awareness and skills amongst the students which leads to self-employment.

*Students Training Programme (STP):* The Institute through STP provides an extensive training to the students in presentation and communication skills, prepares them to face corporate interviews by conducting effective GD/PI sessions and grooms them for campus placements.

#### **5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?**

The institute has a tried and tested system for improving the performance of academically weak students. Every department

- Conducts extra theory and practical sessions for the identified students.
- Conducts meeting of guardians of concerned students to improve their academic performance.
- Laboratories, Library facility and internet browsing center beyond Institute working hours are made available for these students.
- Regular tests and mock practical exams are conducted for students to help improve their performance in examinations.

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

#### **5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.**

- Sinhgad Karandak, one of the biggest national level cultural and sports festival organized by Sinhgad Technical Education Society, is a fine blend of activities like dance, Fashion Show, Aegis of Rock, Singing, Street Play, Cricket, Football, Volleyball, Throw ball, Basketball, Tennis, Table Tennis, Chess, Kabaddi, Skating, Running, Relay and Swimming which gives students a chance to showcase their talents.
- Techtonic, one of the largest national level technical extravaganza hosted for the engineering students by Sinhgad Technical Education Society is a fine blend of innovative and challenging events with a dash of entertainment added to it. The events organized in Techtonic are largely based on themes which connect to problems faced by the common man. Techtonic is a conglomerate of technical events with over 90 plus different technical competitions, more than 15 seminars, 40 plus workshops and 35 plus

chill zone gaming events being conducted in various engineering disciplines which help students in their overall growth. The promotion leaflet used for Techtonic is shown in Fig. 5.3.1.



**Sinhgad Karandak** 

**11-16 JANUARY, 2015 SINHGAD INSTITUTES, VADGAON CAMPUS, PUNE**

Powered by  
**POOJARA**  
TELECOM PVT. LTD.

Cash prizes worth  
**₹.3 55 000**

**NEON**  
PUNE'S  
HOTTEST  
CULTIFEST

**Sunday, 11.01.2015**

**Live in Concert jaysean** 6.00 PM To 9.00 PM  
School Ground, Vadgaon

**Monday, 12.01.2015**

**Solo Dance** 1.00 PM To 4.00 PM  
Cultural Centre, Vadgaon Campus

**Group Dance** 4.00 PM To 9.00 PM  
Cultural Centre, Vadgaon Campus

**Street Play** 10.00 AM To 5.00 PM  
Cricket Ground, Vadgaon Campus

**Tuesday, 13.01.2015**

**Sinhgad Idol (Solo)** 11.00 AM To 3.15 PM  
Cultural Centre, Vadgaon Campus

**Sinhgad Idol (Duet)** 3.30 PM To 8.30 PM  
Cultural Centre, Vadgaon Campus

**Wednesday, 14.01.2015**

**Mr. & Ms. Sinhgad** 1.00 PM To 3.30 PM  
Cultural Centre, Vadgaon Campus

**Aegis of Rock** 5.00 PM To 8.00 PM  
Cultural Centre, Vadgaon Campus

**Thursday, 15.01.2015**

**Fashion Show** 2.30 PM To 9.15 PM  
Cultural Centre, Vadgaon Campus

**Friday, 16.01.2015**

**Prize Distribution** 4.00 PM To 5.00 PM  
Cultural Centre, Vadgaon Campus

**Aegis of Rock (Top 3)** 6.00 PM To 8.00 PM  
Cultural Centre, Vadgaon Campus

[www.sinhgadkarandak.org](http://www.sinhgadkarandak.org)  SinhgadKarandak  SinhgadKarandak  [neon@sinhgad.edu](mailto:neon@sinhgad.edu)

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PUNE  
KOREGAON PARK

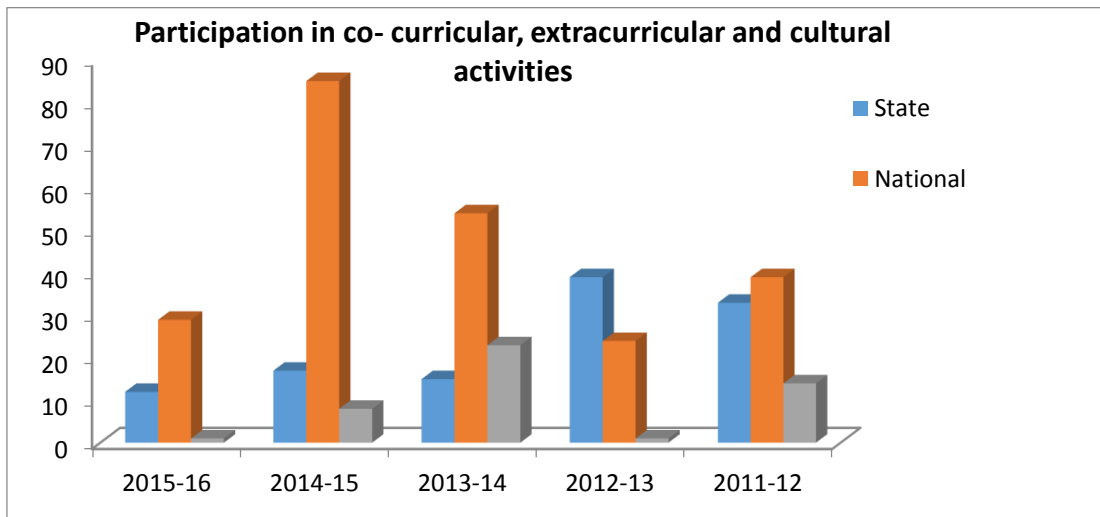
**Outdoor Media Partner**  **MARQUIS**  
The Hoarding Pulse of Maharashtra

Fig.5.3.1 Leaflet for promotion of annual cultural event Neon



**5.3.2 Furnish the details of major student achievements in co- curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. for the previous four years.**

Students are encouraged to participate in various activities at different levels, which is projected in the graph. Students also have own various prizes at national and international level.



**5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?**

- *Student's feedback:* Feedback taken from students in the form of course feedback and faculty feedback helps in improvement in curriculum and teaching methodologies adopted by faculty members. It also helps the institute in improving the infrastructural facilities if need be. The student's feedback is taken on-line to maintain transparency in the system.
- *Alumni feedback:* The Institute regularly conducts Alumni meets in which the Alumni feedback is taken regarding current industry trends and what enhancements are required in teaching-learning process which will make the current students industry-ready.
- *Employer feedback:* The feedback given by employers after campus placements also helps the institute immensely in improving the training imparted to students who face interviews.

**5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.**

The institute not only emphasizes on imparting quality engineering education to its students but also honing their creative skills like writing and communication skills through various magazines and newsletters as listed below:

- College Magazine - Srujan
- Departmental News Letter
  - Cyber Times (Computer Engineering)
  - Digerati (Information Technology)

- Chemigizer (Chemical)
- Friction (Mechanical)
- Spiegel (Production)
- Quantum (Electronics & Telecommunication)
- Biosk (Bio Technology )
- Beacon (Civil)
- College English News Letter - The Den
- Public Relations & Social Media Club

All departments have almost equal representation in the centrally published college magazine and newsletters and many students are actively involved in departmental newsletters, the numbers for which are reflected in Table 5.3.4.

**Table 5.3.4: Involvement of students in magazines, college magazine, and other material**

Department	Den	Srujan	Department News Letter
Biotechnology	14	4	23
Chemical Engineering	7	1	36
Civil Engineering	5	24	129
Computer Engineering	77	6	38
Mechanical Engineering	6	6	5
Production Engineering	1	1	23
Information Technology	13	2	37

**5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.**

**Yes,** The institute has a Student council established under the provisions of section 40 (2) (b) of Maharashtra University Act 1994 as per notification by SPPU.

The council comprises of the Principal, one Faculty member, National Service Scheme Program Officer, Director of Sports and Physical Education, one representative from sports, NSS and cultural activities, one meritorious student from each class and two lady student members.

The Sinhgad Student Council (SSC) is also a student association with a perfect blend of clubs to produce competent students to face the newer challenges of today's globalized world through holistic development. This council provides a platform for students to support, share and excel in potential qualities.

The activities are conducted under various clubs under SSC are as follows:

<i>Alumni Club</i>	<i>Engineering Club</i>	<i>Student Welfare Club</i>
<i>Cultural Club</i>	Automobile Engg. Club	<i>Sports Club</i>
Music Club	Aero Club	Cricket Club
Dance Club	Computer Engg. Club	Football Club
Drama Club	Civil Engg. Club	Tennis Club
<i>Foreign Student Club</i>	Chemical Engg. Club	<i>Social Media &amp; Public Relation Club</i>

<b>Placement Club</b>	Electrical Engg. Club	Social Media
<b>Research Club</b>	Energy & Environmental Engg. Club	Photography & News Letter
Project Club	Ethical Hacking Club	
Publication Club	E&TC Club	
<b>Science Club</b>	Information Technology Club	
Biotechnology Club	Mechanical Engg. Club	
	Production Engg. Club	
	Robo Club	

Constitution of student's council:

- President
- Vice president (students affairs)
- Vice president (students activities)
- Secretary
- Treasurer
- Foreign student's representative
- 14 Council members

*Selection Process:* The Office bearers of the SSC are elected through an online process which includes:

- Registration – Letter of recommendation from HoD
- Interview – By apex body consisting of senior faculty
- Campaigning - Electronic Media
- Elections - Result

### 5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

The institute has student representatives in many of the academic and administrative bodies for effective functioning of the same. Some of the bodies are listed below:

- Women Harassment Cell
- Anti Ragging Committee
- Training and Placement Cell
- Student Council
- National Service Scheme
- Cultural/Sports Committee
- Social Initiatives
- Student grievance redressal committee.
- Professional bodies
- Hostel Committee
- Mess/Canteen Committee

**5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution.**

*Collaborate with the Alumni*

The interactions between the Alumni and the present students give a chance for both the parties to develop positive synergies to enhance growth. Every year the annual Alumni Meet provides a platform for the students to renew old bonds with the Alma-mater, foster new ties and relive the nostalgic college moments.

The Alumni Association interfaces between the eminent alumni and the institute creating a strong network that helps in nurturing executives who can thrive in a challenging and changing business environment.

The interaction with alumni is helping the institute by way of guest lectures, industrial visits, project work, student internship, training and placement etc

The institute effectively networks and collaborates with alumni which have seen a progressive increase in the number of alumni interacting with the students every year.

*Collaborate with the Faculty*

The former faculty of the institution also contributes in the form of speakers and judges of various events, examiners and Ph.D. guides at the respective research centers.

**5.3.8 Any other relevant information regarding Student Support and Progression which the college would like to include.**

Nil

## CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

### 6.1 Institutional Vision and Leadership

#### 6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

The vision and mission of Sinhgad College of Engineering are:

#### **VISION**

उत्तमपुरुषान् उत्तमाभियंतृन् निर्मातुं कटिबद्धाः वयम् ।

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

#### **MISSION**

*“Holistic development of students and teachers is what we believe in and work for. We strive to achieve this by imbining a unique value system, transparent work culture, excellent academic and physical environment conducive to learning, creativity and technology transfer. Our mandate is to generate, preserve and share knowledge for developing a vibrant society”.*

*The institute aims at holistic development of students and teachers by implementing education and other initiatives to strategically meet development goals of the institute. Transparency is maintained in the administrative affairs of the college for better work culture and excellent academic environment is available for the students and faculty. It aims at becoming a premier institute in engineering education with state of the art facilities and good Industry Institute Interaction.*

*The Vision and Mission of the institute have been developed with the active involvement and participation of all faculty members in thoughtful and focused deliberations. The Vision, Mission statements serve the institute as a navigational guide for the betterment of the institute.*

#### **Communication of Vision and Mission to students, teachers, staff and other stake holders**

The Mission statement is communicated to all the students, teachers, staff and other stake holders. Mission is published through the college website, through circulars, display boards as well as college magazine. The mission is also published in the college prospectus making it available to students, parents/guardians and the public.

#### 6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

The institute has a Governing Body and Local Managing Committee as per Government of Maharashtra norms. For designing and implementing its quality policy and plans effectively, the institute has an efficient co-ordination and internal management system. The Quality Policy of the institute aims to establish center of excellence in technical education and research in Engineering and Technology by way of

- Inducting faculty having sound knowledge in the field of Science and Engineering and to make special efforts to retain them.
- Proven good results and admitting quality students.
- Developing human capital by supporting talent, ideas and energies of outstanding individuals.
- Promoting partnerships with the quality institutes like IITs, IISc, research organizations like ARAI, NCL, C-DAC etc. and prominent corporate houses.
- Developing excellent teaching learning process by establishing cohesive bond between students & faculty and healthy atmosphere with decent discipline.

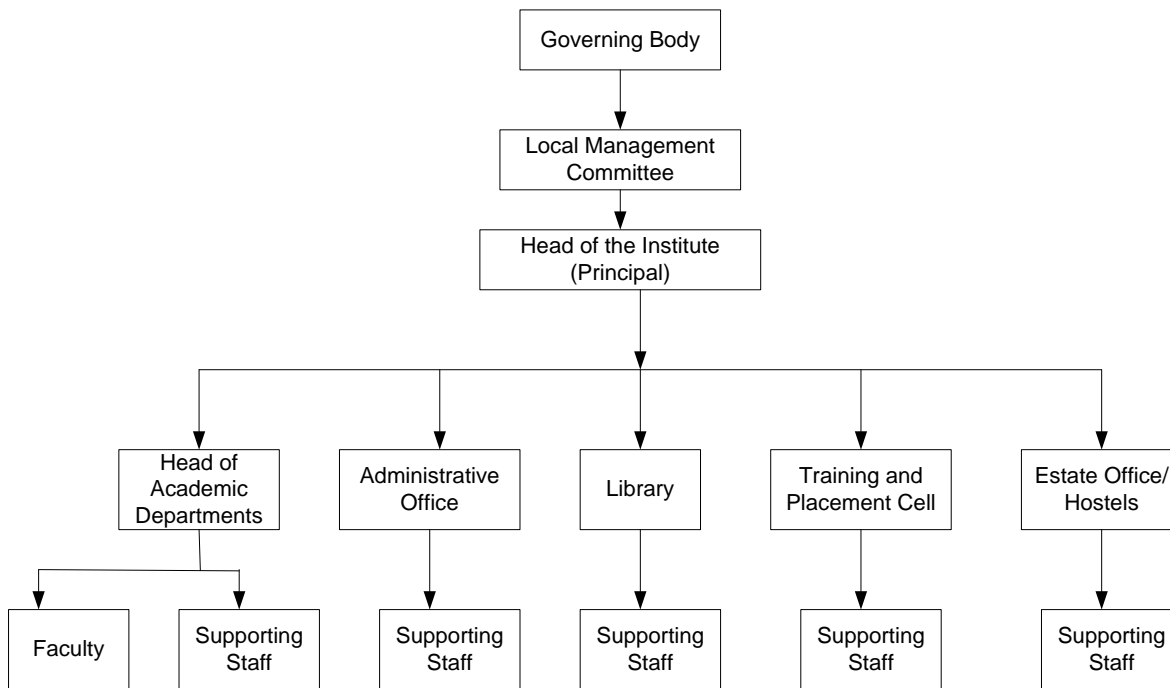
For the effective and efficient implementation of its Quality Policy, the management has formulated standard practices which show the commitment, leadership role and its involvement. Following are some of the points which highlight the intent of the college for implementation of its quality policy.

- Recruitment procedures and policies are followed as per AICTE/ Savitribai Phule Pune University / Directorate of Technical Education, Government of Maharashtra rules and regulations.
- Sufficient financial budget provided to each department.
- Motivation, guidance, appreciation, incentives and moral support to all the stakeholders.
- Active involvement of students and faculty in academic events organized by college.
- Development of effective mechanism for monitoring the activities.
- Regular meetings with teaching and non-teaching staff for better interaction.

The faculty members are actively involved in decision-making process at various levels. Different committees are constituted for the smooth conduction of various events. All the new and revised policies to improve academic activities, methodology of conducting examinations are reviewed and discussed in HOD meetings before implementation.

### 6.1.3 What is the involvement of the leadership in ensuring:

- **the policy statements and action plans for fulfillment of the stated mission**  
The head of the institution administers all the activities and plays a leading role in governance and management of the institution. The mission is communicated to the faculty and accordingly all activities are planned as per the suggestion of the governing body and other committees. The meetings of all faculty members are regularly conducted for the better working of the college. The leadership hierarchy of the institute is given in Fig.6.1.3.
- **Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**  
A detailed academic calendar is prepared at the start of each semester which includes all academic, co-curricular and extra-curricular activities to meet the institutional objectives. The calendar prepared is in line with the University calendar. Apart from the regular teaching activities, institute has taken an initiative to run innovative programmes like Student training Program (STP), Teacher advancement program (TAP), and Train the trainer (TTT) etc.



**Fig.6.1.3 Institutional leadership hierarchy**

- **Interaction with stakeholders**

All the stakeholders such as students, parents, alumni, industry, employers and professional bodies participate in institutional activities through the feedback mechanism as well as regular contact. The involvement of all stakeholders is ensured for improving the quality of the institution and internal coordination.

- **Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders**

The college policies are constituted to meet the market demands. The stakeholders requirements and industrial needs are taken into account while planning the policies. For the execution of these policies the facilities are created by the institution for the training of the students, improving their soft skills.

- **Reinforcing the culture of excellence**

The institute has recognized the need to achieve the academic as well as overall excellence. In order to achieve this, Guest lectures, workshops, student project competitions, paper presentation competitions, technical quiz, industry institute interaction, consultancy activities, R & D activities are carried out which help to achieve the excellence.

- **Champion organizational change**

For the overall development of the college, regular feedback is taken from all the stake holders. Any areas of improvement mentioned in the feedback are given due consideration and the related changes or the improvements are brought in the relevant areas. The college is striving hard for achieving excellence.

#### **6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?**

The functioning of the institute is monitored at three levels. They are as follows:

*Sinhgad Technical Education Society (STES)*

The resolutions made in the Governing body meetings related to the policies and plans are communicated to the institute.

*Institute*

Regular meetings of heads of department are conducted for smooth functioning of the college. All suggestions regarding better functioning of the departments are accepted and positively executed. Apart from this, the implementation of policies and plans recommended by the LMC are discussed.

*Department*

The minutes of heads of department meetings are briefed to all the faculty members by the head of each department. Further the planning is made at the department level for effective implementation of policies and plans. The faculty members work as activity chairpersons and members in various administrative committees.

#### **6.1.5 Give details of the academic leadership provided to the faculty by the top management?**

The institute provides various platforms for faculty to develop leadership skills at department, institute and STES level by giving them various portfolios. The policies are decided by the governing body of STES and complete academic, administrative and financial freedom is given to the Principal, heads of the departments and faculty. The details of responsibilities, duties and expected outcomes from the individual are mentioned below:

- Principal is authorized to appoint appropriate person as the head of the department with distinct leadership qualities and good listening ability to understand the students and faculty, their situations and expected outcome
- Head of the department is empowered to allocate specific subjects to appropriate faculty for the betterment of students and to get quality results. Apart from the academic workload the head of the department also assigns few administrative duties to the individual faculty based on the ability and the leadership qualities of the individuals
- Every faculty is given complete freedom to decide the suitable teaching methodology of his/her choice by understanding the time frame and evaluation mechanism of SPPU.
- Decentralization has been done at various levels. Under the leadership of Principal, coordinators of various committees along with the heads of the departments are delegated powers and responsibilities to handle specific task assigned to them.
- Based on the feedback and periodic result analysis, the remedial actions to achieve the expected outcome are specifically given to all the faculty members either by oral discussion or through official orders if necessary by the principal through the heads of the departments
- Also faculty members exploit their knowledge and ability to percolate the knowledge with the help of academic freedom given by the heads of the departments with clear understanding of their responsibilities and expected outcomes.



### 6.1.6 How does the college groom leadership at various levels?

The functioning of the college operates at four different levels such as student, faculty, Head of the department and Principal. The institute provides various forums for all to develop leadership at department, institute and STES level by giving them various portfolios.

The Head of the Department as a leader understands the strength of the faculty and assess involvement of faculty and interest shown while executing specific activities. The Head of the Department is empowered to promote specific faculty to handle dedicated events in best possible way. This process is not only helps to groom the leadership of head of the department but also to create a follower while executing various activities efficiently. Similar approach is also followed by the Principal to promote and encourage heads of the departments while executing various activities for the development of the institution. The institute grooms the leadership as follows-

#### *Student level:*

- Encouraging to conduct various activities by the students for the students
- Assigning freedom and responsibilities to develop their plan of execution of various activities
- Enhancement of their personality development, soft skills and communication skills and build the confidence while execution of specific task
- Motivation and encouragement for new innovative ideas with strong moral support from faculty

#### *Faculty level:*

- Opportunities to lead specific committee while conducting various activities at department and institute level
- Freedom is given to express their thoughts, new ideas and novel approaches
- Inspiring them to lead the students community during the classes, practical and industrial tours to guide the students while acquiring knowledge
- Encouragement to lead the faculty while organizing various university level seminars and workshops

#### *HOD level:*

- Decentralization of various tasks to develop leadership at department level
- Assigning few institutional responsibilities well supported by the Principal and the Management
- Experiencing healthy competition among the departments and encouragement to head of the department to achieve greater academic performance
- Encouragement to visit various organizations to understand their best performances and implementation policies
- Encouragement to follow best administrative practices to avoid confusion and hurdles in the path of success

#### *Principal level:*

- Freedom is given while executing academics
- Financial freedom and moral support for the betterment of quality outcome
- Appreciation for execution of best practices
- Experiencing healthy competition among the institutes and encouragement to head of the institute to achieve greater academic performance

- Assigning Society level tasks to organize specific activity

**6.1.7 How does the college delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?**

The management of the institute has two main committees, Governing Body (GB) and Local Management Committee (LMC). The role of the GB is to decide the policies for the smooth functioning of the institute. The GB decides the policies and gives directions to the institute through LMC for the effective implementation.

The organizational structure of SCOE is a blend of professional autonomy, individual accountability and well-defined administrative structure. Within this overall framework, faculty members have the professional operational autonomy in conducting their teaching, research, training and consultancy.

The involvement of faculty members in all aspects of academic administration throughout the Institution is assured by the administrative structure. Decentralization has been done at all levels for good governance. The institute has appointed committees with a senior faculty in-charge for various activities taking place in the institute. There is a separate Training and Placement Cell and the other units of the institution like NSS, English Club, Robo club and Prayas Group are constituted by the Institute for encouraging cultural activities, maintenance of healthy campus life and work towards decentralized governance system.

**6.1.8 Does the college promote a culture of participativemanagement? If ‘yes’, indicate the levels of participative management.**

**Yes**, the college promotes participative management. The college constitutes committees for general and academic development which includes faculty, non-teaching staff and students’ participation and everyone is involved in decision making processes. These Committees are formed in the College as per the directives of the Governing Body playing an important role in various institutional functions. Regular meetings of these committees are held for the effective and smooth functioning of the college. The innovative ideas, concepts and thoughts from the different committee members are appreciated and due care is taken to implement those. There are three levels of administrative structure under which all the activities of the institute are carried out.

*STES* - The management of the College rests with its Governing Body, whose members, are appointed in accordance with the guidelines provided by the Director of Technical Education, Savitribai Phule Pune University and AICTE.

*Institute* - All the main decisions related to the institute are taken by the Principal in consultations with the department Heads. Principal is the academic and administrative head of the Institute and the Member Secretary of the Governing Body.

*Department*- The Heads of Department are responsible for the day-to-day administration of the Department and report directly to the Principal.

Student centric activities form very important part of decision making process. Formal and informal feedback from students is also used to modify the system to get positive outcome. Thus, the overall coordination amongst these committees and the participation of all concerned helps in the overall improvement of the functioning of the institute.

## 6.2 Strategy Development and Deployment

### 6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

**Yes.** The plan for the development activities of the college are initiated by the Governing body of the institute. The management is committed in assuring quality service to all its stake holders, students, alumni, employees, employers and the community. Quality Policy of the institute aims to establish Centre of Excellence of Technical Education and Research in Engineering and Technology by way of –

- Inducting faculty having sound knowledge in the field of Science and Engineering and to make special efforts to retain them.
- Proven good results and admitting quality students.
- Developing human capital by supporting talent, ideas and energies of outstanding individuals.
- Promoting partnerships with the quality institutes like IITs, IISc, etc., research organizations like ARAI, NCL, C-DAC, etc. & prominent corporate houses.
- Developing excellent teaching learning process by establishing cohesive bond between students & faculty.
- Healthy atmosphere with decent discipline.
- Enhance the employability, no of students going for higher studies and entrepreneurship

The quality policy of the institute is formulated based on the vision and mission of the institute. The quality policy is driven through entire organizational structure involving Principal, head of department, faculty and students. All the stakeholders are made aware about the quality policy through institute website, college magazine and other publications related to the institute. The quality policy of the institute is deployed and reviewed by the information collected through various stakeholders like students, parents, industry, faculty and staff. The institution always strives to improve its quality of programs through feedback mechanism.

### 6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

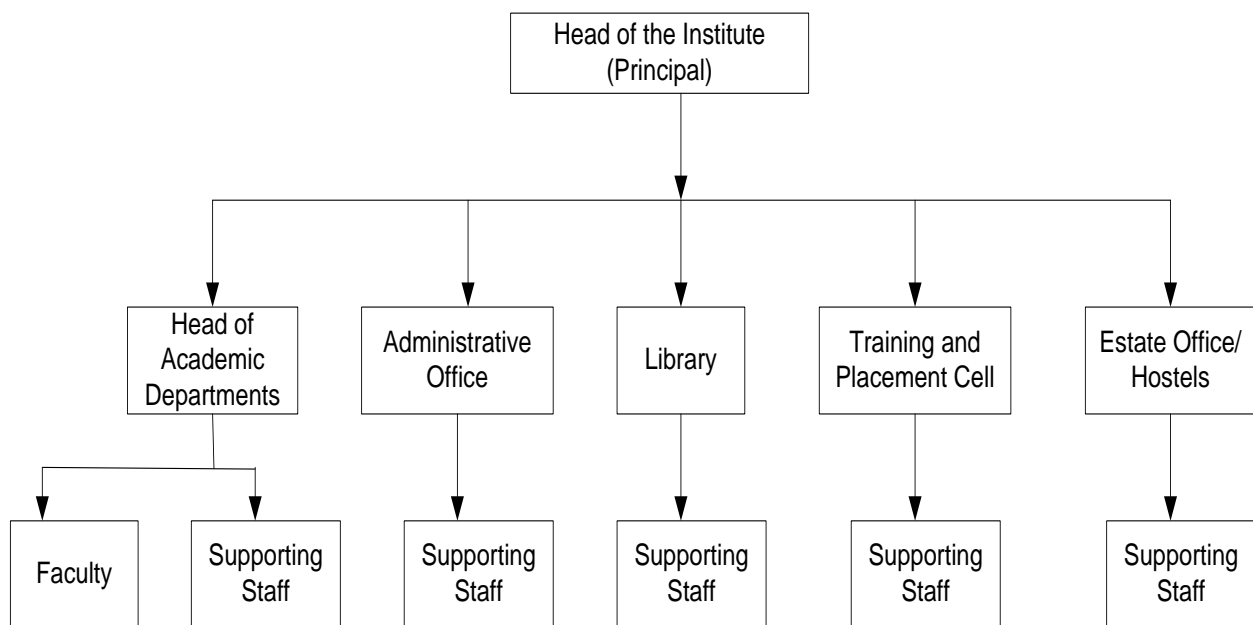
**Yes,** The institute has a perspective plan for the development and the following aspects are taken into account for the development.

- The institute aims to become a Centre of Excellence in Science, Engineering and Technology.
- To develop the institute in focused areas like Information Technology, Biotechnology, Energy etc.
- Engineering knowledge Centre of Society
- In order to achieve these goals the institute is promoting partnerships with the quality institutes like IITs, IISc, research organizations like ARAI, NCL, C-DAC, etc. & prominent corporate houses.
- Industry Institute Interaction Cell has been formed to enhance the industry institute interaction, and the cell has started Campus Connect programs with leading industries such as Cognizant, Accenture, PSPL, KPIT, Infosys, Capgemini, TCS, IBM. Some of the departments have already collaborated with industries such as Actel, Thermax etc.

- Actel have helped in establishing the laboratories in the respective departments. The departments arrange seminars/ workshops in collaboration with such leading industries. The Industry Institute cell organizes industrial visits and presentations in different industries.
- The institute is already running P. G. Programmes for six departments and it is planned to start new Post Graduate Programs in remaining two departments: Production Engineering and Biotechnology.
- The University has granted permission to start Ph.D. programs in four departments and the institute is striving hard for the addition of Ph.D. programs in remaining departments
- It is planned to increase the number of faculty with Ph. D degree. The faculty from the various departments is encouraged for higher education and they are deputed for Doctoral Programs.
- The institute is also planning to seek Academic Autonomy leading to University status.

### 6.2.3 Describe the internal organizational structure and decision making processes.

The broad outline of internal organizational structure of the institute is shown in Fig.6.2.3.



**Fig. 6.2.3: Organizational Structure of the institute**

All the departments of the institute have departmental committees coordinated by faculty members and monitored by Head of the Department to keep a check on academics and effective as well as efficient performance of the department in all aspects.

- A central Academic Monitoring Mechanism evaluates the activities of the departments. A regular review of the departments is taken through this mechanism.
- Several committees are formed at institute level for appropriate coordination of the activities. Due departmental representation is ensured in central committees.

- The Local Managing Committee and Governing Body are the final approving bodies. The various committees for internal coordination and monitoring are:
  1. Governing Council
  2. Local Managing Committee
  3. Finance Committee
  4. Purchase Committee
  5. Staff Selection Committee
  6. Building Committee
  7. Website Committee
  8. Research Co-ordination Committee
  9. Alumni Committee
  10. Information Brochure Committee
  11. Committee for college Magazine 'Srujan'
  12. Technical Event (Tectonic) Committee
  13. Sports Committee
  14. Sinhgad Cultural Committee
  15. Dead stock verification Committee
  16. Grievance Redressal Committee
  17. Anti-Ragging Committee
  18. Time table Co-ordination Committee
  19. Entrepreneurship Development Cell

The functioning of some of the committees is described below:

*Finance Committee:*

The Committee headed by the Head of the Institute, comprises of a team of senior faculty members. The steps in its functioning are:

- Raising of the budgetary requirements, on an yearly basis, at the department level by the Head of the Department in line with the laboratory and other requirements suggested by the department faculty
- Forwarding the budgetary requirements to the institute.
- Review of requirements of all departments by the Central Committee and forwarding it to LMC.
- Recommendation of the budget requirements of the Institute by LMC to GB for approval.
- Distribution of allocated funds by the institute within the departments
- Purchase Planning by the department as per the allocated funds.

*Purchase Committee:*

The Purchase Committee comprises of a team of faculty members and Head of the Department at the department level which works under the guidance of a Central Purchase Committee comprising of three senior faculty members and headed by the Head of the Institute. It's modus operandi:

- Compilation of requirement of dead stock, semi-consumables and consumables as per the requirement of individual laboratories at the department level
- Raising enquiries and seeking quotations for all the above, by the department coordinators, as per the required technical specifications

- Making of comparative statement by the department coordinators after initial negotiations with the vendors, and identifying the vendors for final negotiations, based on the technical specifications and quoted price
- Inviting the shortlisted vendors for a meeting with the central purchase committee
- Revision of comparatives by the department coordinators based on the negotiated price and recommendation of vendor(s)
- Final scrutiny and approval by the Departmental and then the Central Purchase Committees
- Making Purchase Orders and dispatching them to the respective vendors after due approval of the higher authorities
- Material Procurement

*Dead Stock verification committee:*

The dead stock verification committee carries out a complete audit of the dead stock of each department. It is formulated once in an academic year and its functioning is as mentioned under:

- Formation of the committee by the Central Office – comprising of a main coordinator and other members (two from each department)
- Allocation of the department to a pair of faculty members for carrying out the verification for the allocated department.
- Visit of the pair of faculty members to the allocated department after due consultation with the respective head of the department
- Physical verification of the dead stock of the department along with the respective lab in-charges and technical assistants, against the dead stock register maintained by the department for each laboratory
- Recording of discrepancies (if any) and suggestion of corrective action accordingly
- Report generation after checking if suggestions have been incorporated
- Scrutiny of the reports by a central audit committee and generation of queries (if any)
- Justification of the queries by the Head of the Institute
- Final report

*Faculty Selection Committee*

The committee headed by the Head of the Institute, comprises of Senior Faculty Members assisted by a team of non-teaching staff. Its function is to ensure the smooth execution of the faculty recruitment process in-line with the directives of AICTE, SPPU and the Institute. It's functioning:

- Collection of data for faculty requirement from each department (in terms of numbers, position and qualification)
- Checking it against SPPU and AICTE norms by the committee members
- Publishing an advertisement in the newspapers and on the website in accordance with the above and inviting applications
- Scrutiny of the applications received and short-listing of candidates by the committee members with the help of non-teaching faculty
- Dispatching interview call letters to the short-listed candidates
- Branch-wise formation of panels of experts in accordance with the directives of SPPU

- Sending out invitation letters to all the panel members and University appointees
- Making all the arrangements like space allocation at the venue, transportation arrangement for the panel members, etc. for conduction of interviews
- Facilitating conduction of interviews on the appointed date
- Compiling of data from all the panels and making a branch-wise list of selected candidates after approval of the higher authorities.
- Sending out appointment letters to selected candidates.

**6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following:**

***Teaching & Learning:***

Quality improvement in teaching & learning is achieved by scrupulously following the academic calendar and processes laid down by the University and the institute. The academic steps broadly comprises of:

- Published time-table with sufficient number of hours for lectures, labs, self-learning and extra-curricular activities.
- Tutorial classes to address personal level doubts and queries
- Remedial classes and additional make-up tests to help academically weaker students
- Mentoring system to help at individual levels
- Generation of self-learning facilities, and availability of materials for learning beyond syllabus.
- Contents beyond the syllabus have been identified in all the courses, which are addressed through guest lectures, industrial visits, seminars and projects
- By participation and organization of Technical events
- Through Innovative Live projects
- Students are motivated to refer to reference books, on- line/ hard copies of reputed journal papers for Self Learning and contents beyond syllabus.
- Free access to library and internet even after College hours.
- Lectures are recorded by the teachers and processed through K-Point software available with the institute. These are available to the students through the website [siom.kpoint.com](http://siom.kpoint.com) for study beyond college hours.
- Besides, in Department Library, several CDs/ charts/guideline books are available.
- Students are also encouraged to take up spoken tutorials made available on-line by IIT Bombay

By having Flexibility in academics with scope for self-learning

- Open Elective
- Wider Scope for selection of Electives
- Motivation for participating in technical activities
- In plant Industry Training

These practices help in broadening and stimulating the students' thinking process and ultimately improving the quality of teaching – learning process.

### ***Research & Development:***

The institute encourages the faculty to apply for funded projects, to collaborate with research organizations for UG and PG projects, to participate in seminars and conferences as well as organize them, to publish their research work, to enroll for doctoral programs and to become members of and participate in the activities of professional bodies in their respective fields.

- Conferences and Seminars are organized by the Departments to attract researchers of eminence to visit the campus and interact with teachers and students. While organizing workshops, the focus is on imparting advanced technology, tools and techniques and research areas in the subject domain of the program. Such programs are funded by the Institute.
- Publication of research outcomes by faculty in different International and National refereed journals, books, articles in edited volumes, seminar proceedings etc. is encouraged.
- Internet, LAN and journal and e-journal subscription is made available to the faculty by the institution to facilitate smooth progress and implementation of research schemes/projects
- The Institute encourages and helps the faculty in filing patents for their research
- The Institutes promotes the faculty to associate with industry for their research project

### ***Community Engagement***

The college initiates community orientation programs and executes them through PRAYAS, NSS and Sinhgad Students Council (SSC).

- The institute motivates students to undertake social activities through a forum called “PRAYAS”. Some of the activities are: computer literacy drive for school children from villages, spreading environmental awareness through presentations and talks.
- The institute has activities conducted under NSS like Police Mitra, data collection for smart city, contribution towards drought relief fund etc.
- Community activities are also conducted under the aegis of SSC.

### ***Human resource management***

The Institute has the following mechanisms for better management and improvement in Human Resource:

- The performance of the teaching faculty is regularly monitored and evaluated at the department level through feedback from students and other stakeholders. Based on the feedback corrective measures are implemented for managing and improving the overall performance of the teachers.
- These activities are monitored centrally and effectively to utilize the available manpower with the institute. The Non-teaching staff is involved in supporting all the above activities.
- Visiting/guest faculty is inducted as per the necessity.
- Support for professional development of staff is provided by the institute.
- Recruitment of well qualified and experienced faculty as per SPPU norms.
- The Institute has a budget allocated for the professional development of the faculty for supporting activities like participating in paper presentation, seminars, conferences, workshops, etc. and for programs aimed towards the skill improvement of staff.



The good retention ratio of the faculty indicates that best human resource management policies are practiced in the institute.

### ***Industry- Institute interaction***

A good industry-institute interaction exists in the institute. To further strengthen it, the institute aims to

- Have more number of industry sponsored projects
- Increase the number of consultancy projects
- Increase training programs for teachers
- Have guest lectures delivered by eminent industry personnel
- Have short term training programs conducted by industry personnel for students and faculty
- Increase the number of MoUs
- Increase the participation of industry in laboratory development.
- Establish center of excellence in collaboration with industries
- Conduct Industrial Visits and site visits regularly

### ***Entrepreneurship cell and incubation facility***

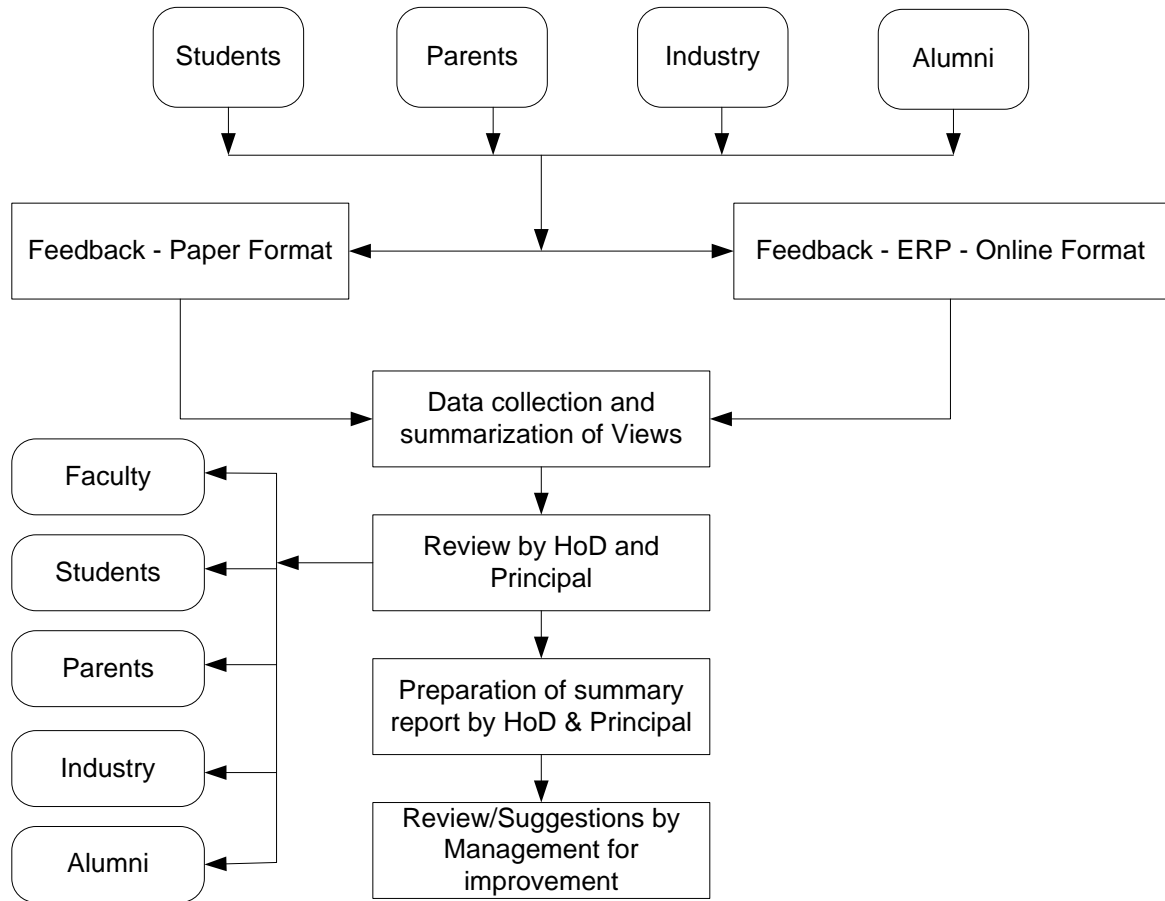
The Institute has an active entrepreneurship cell.

- Entrepreneurship Development Cell was established in 2006 with identified objectives.
- Institute is Member of National Entrepreneurship Network (NEN).
- Several activities like entrepreneurship awareness camps, seminar for women entrepreneurs, entrepreneurship week, etc. have been conducted and many more are planned by this cell.
- A Technical Business Incubation center has been formed in the Department of Electronics & Telecommunication Engineering.

### **6.2.5. How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?**

The feedback is collected by the established mechanism from various stakeholders. The head of the institute makes a summary of this feedback available to the management. ERP system helps in the review of various activities and contributions of the staff therein.

- The feedback both online and in paper format is collected from all the stakeholders periodically
- A summary is made by Head of the Department and the same is forwarded to the Principal. It is then forwarded by the Principal to the higher authorities for review. The top management of the institute can also directly view the online feedback
- In case of any comments from the higher authorities regarding any faculty member he/she is informed about the same and instructed to bring about necessary improvements. The Fig.6.2.5 explains the feedback process followed at the institute.

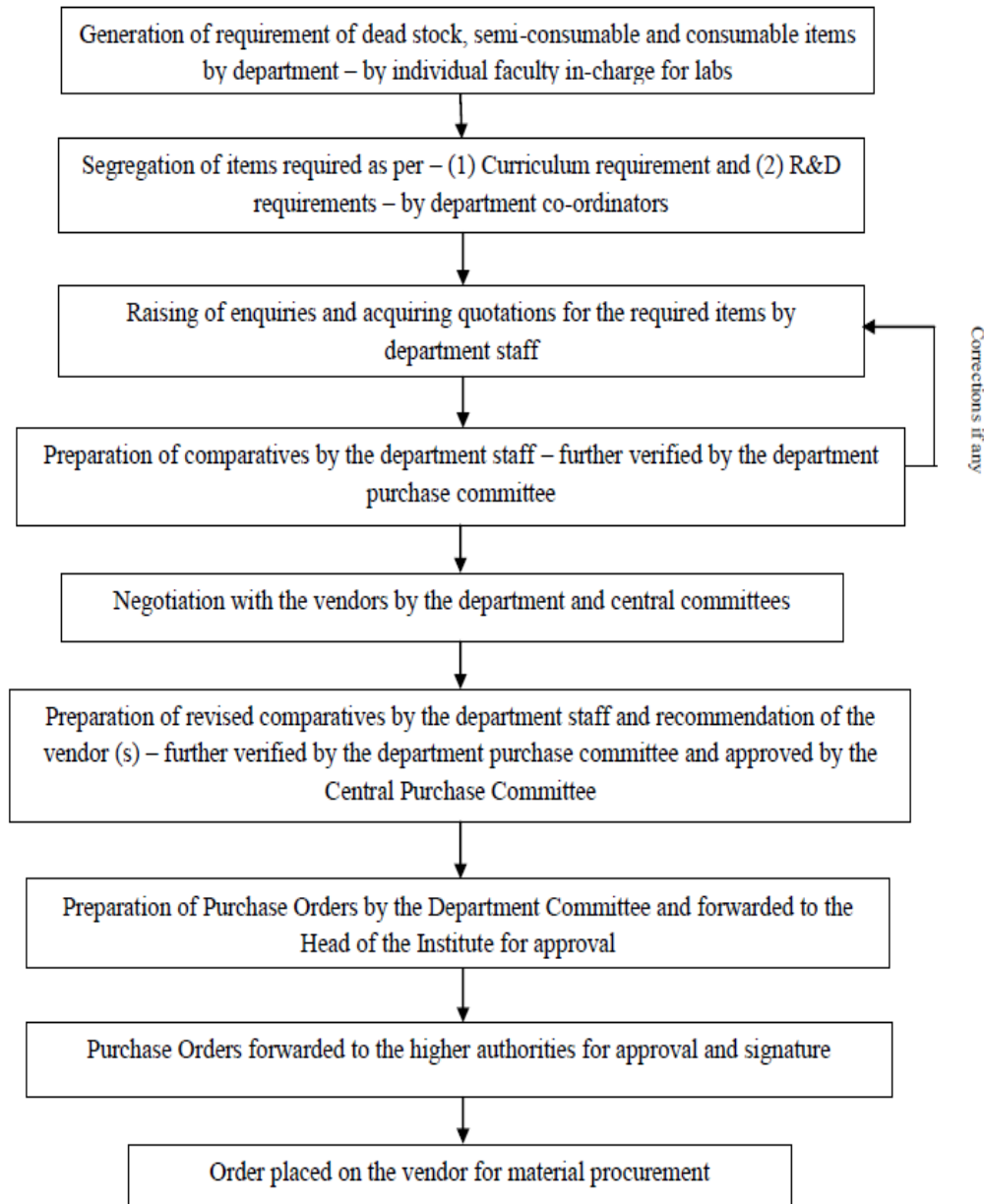


**Fig. 6.2.5: Feedback System**

**6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?**

The involvement of staff in various committees listed above and hence in the decision making process of the institution ensures their participation in improving the effectiveness and efficiency of the system. The faculty are entrusted with the responsibility of carrying out an activity completely and they are encouraged to give their feedback to further improve the smooth and efficient execution of the activity. An Example is cited here regarding the functioning of the Purchase Committee.

The Fig.6.2.6 shows the functioning of the Purchase Committee, in which the faculty is involved in every step of the process. The faculty has the freedom to decide which equipment should be procured based on the needs of the curriculum and research activities. They have the freedom to decide the technical specifications and also give the choice of vendors to ensure quality of the equipment procured. The entire process is transparent. Thus the faculty are involved in a big way in the decision making process and hence in improving the effectiveness and efficiency of the institutional processes.



**Fig. 6.2.6: Process Outlines for Purchase Committee**

**6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.**

Resolutions made by Management Council in the last year and their status:

*Academic Monitoring Committee:*

- Preparation of Academic Calendar – Completed
- Time Table and Work Load – Completed

*Human Resources Management Committee:*

- Staff Position Record updation (Teaching and non-teaching) – Completed

- Leave Record updation (Teaching and non-teaching) – Completed  
*Building Committee:*
- Furniture and Equipment Stock Checking – Completed  
*Finance Committee:*
- Budget sheet preparation and Submission – Completed
- Foreign National Students’ fees – Implemented as per circular STES/2015-16/6697 dated 07/05/2015
- Interim Fees for the year 2015-16 – Implemented as per circular dated 13/06/2015
- Fees structure for ICCR students – Implemented as per circular STES/2015-16/6696 dated 07/05/2015
- Student Insurance (As per SPPU circular no. BCUD/2015-16/3578 dated 31/08/2015) – Implemented
- Student Welfare Fund (As per SPPU circular no. BCUD/2015-16/3578 dated 31/08/2015) – Implemented
- Emergency Fund (As per SPPU circular no. BCUD/2015-16/3578 dated 31/08/2015) – Implemented
- University Sports Board Fund (As per SPPU circular no. BCUD/2015-16/3578 dated 31/08/2015)– Implemented
- Computer Fees (As per SPPU circular no. BCUD/2015-16/3578 dated 31/08/2015) – Implemented
- Pro-rata Sports Fund (As per circular dated 03/08/2015) – Implemented

**6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If ‘yes’, what are the efforts made by the institution in obtaining autonomy?**

The Institute is affiliated to the Savitribai Phule Pune University. The University has the provision for awarding autonomy. The institute has all the prerequisites for qualifying for autonomy and is in the process of applying for the same.

**6.2.9 How does the Institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?**

*Grievance redressal mechanism for faculty, staff and students:*

- Teaching and non-teaching staff members enter their grievances in a register maintained in the office of Member Secretary, Grievance Redressal Committee.
- A Grievance Redressal Committee at the institute level has been formed to address the grievances of faculty, staff and students.
- The categorization of the grievances is done by the said committee and after proper analysis and review it suggests and recommends the corrective measures.
- After the decisions of said committee the administrative authority implements it to resolve the issues and help maintain cordial relations within the stakeholders
- Further, a committee at the department level comprising of head of the department, two faculty members (one male and one female) and student representatives (one boy student and one girl student) looks towards addressing the grievances of the students.

**6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?**

No court case has been filed by and against the institute in the last four years.

**6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?**

Yes, the institute conducts an exit survey of the outgoing students which is executed by the departments. The survey addresses the following points:

- Quality of students intake
- Academic performance of the students
- Acceptability of students by industry and institutes of national & international importance for higher education
- Type and variety of research activities
- Consultancy (Acceptability of the faculty/students by industry)
- Adequacy and level of facilities in the department
- The quality of activities in the department
- Adequacy of library facilities
- Comments on the activities of the training and placement cell
- Ambience in the department
- Facilities for curricular and extra-curricular activities

**6.3. Faculty Empowerment Strategies**

**6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non-teaching staff?**

The Institute constantly strives to enhance the professional skills of its teaching and non-teaching staff.

*Teaching Staff*

- The Institute motivates and provides facilities for the faculty for pursuing higher education.
- The Institute has MoU with Universities in Denmark, for eg. Alborg University. The scheme entitled 'Erasmus Mundus', under which faculty can pursue doctoral programs at that university. The Institute sponsors faculty for these programs.
- The Institute organizes Teacher Advancement Programs aimed towards improving the soft skills of faculty to enhance their overall performance.
- The Institute encourages and motivates the faculty for
  - Attending workshops, conferences, seminars, short term courses, etc.
  - Becoming members of professional bodies and to participate in the activities organized/sponsored by them.
  - Undergoing industrial training programs and going for industrial visits
  - Applying for research projects and providing support for their execution and completion and publish the research work

- Enhancing and improving their teaching skills by the use of modern teaching aids, use of online resources like NPTEL, Harvard EDX courses, spoken tutorial project of IITB, etc.

*Non-Teaching Staff*

- The Institute arranges need based training programs for their skill improvement and permit them to attend similar programs at other institutes.
- They are encouraged to go for higher studies and their workload is adjusted if the need arises
- They are encouraged to participate in the organization of technical events

**6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?**

- The institute invites resources persons from industries, researchers and academicians for interactions with the faculty and staff.
- The institute encourages the faculty to motivate in following ways-
  - Giving essential inputs, providing personal training on lecture/ lab-work delivery/seminar-project guidance, counseling on career advancement.
  - Involving them in discussions on topics in the syllabus.
  - Creating an open atmosphere for personal growth and to clarify the doubts, concepts and difficulties.
- For personality development, teaching skill development and social and technical up-gradation, the Institute organizes training programs like Teacher Advancement program (TAP) for management capacity building, inculcating leadership qualities and decision making, Train the Teacher (TTT) etc.
- The institute deutes the faculty for training organized by other organizations. For example, refresher courses, orientation programs, summer/winter short term schools (SWSS), etc.
- The institute encourages the non-teaching staff to upgrade their skills. For example computer operational programs, training for operation of research equipment etc.

**6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.**

The performance appraisal system consists of self-appraisal and appraisal by reviewing officer.

*Performance appraisal system of the faculty:*

Annual self- assessment for the performance based appraisal system is adopted. Hence it is ensured that information on multiple activities is appropriately captured. The information includes

Part A: General information and academic background, courses / STTP / seminars /workshops attended during the year, Teaching – learning and evaluation related activities, Co-curricular, professional development related activities, research, publication and academic contributions.

Part B: Remarks by Head of Department in Part A which is filled by individual faculty.

Part C: Principal / Director as the case may be, shall give justification for his remarks if the remarks of Head of Department in Part B is not satisfactory.

Part D: Final Review by accepting authority.

*Performance appraisal system of the non- teaching staff:*

Annual assessment for the performance based appraisal system is adopted. Hence it is ensured that information on multiple activities is appropriately captured. The information includes

Part A: General information and academic background, Date of Joining, Improvement in Qualification, Nature of Duties performed, Officiating designation etc.

Part B: Remarks by Head of Department in Part A which is filled by individual staff.

Part C: Principal / Director as the case may be; shall give justification for his remarks if he is not satisfied with the remarks of Head of Department in Part B.

Part D: Final Review by accepting authority.

Principal / Director should submit the report duly completed in all respect to the Founder President/ Founder Secretary as the case may be for final review without loss of time so as to complete process before expiry of tenure of the faculty for that academic year.

#### **6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?**

The outcome of performance appraisal reports is used for reviewing the annual progress of staff and for promotion to the next scale/designation. The outcome of performance appraisal is communicated to the faculty by making an appropriate entry in service books. The procedure adopted for performance appraisal is as follows:

*Review of performance appraisal:* The Performance appraisal reports are initially submitted to the Academic Monitoring committee which is also the review committee appointed by the top management.

*Outcome:*

The outcome of the performance appraisal is that each faculty/staff becomes aware of self-weaknesses and tries to improve oneself in those areas so that they can score better in the next year.

*Major decision taken:*

The remarks obtained in the Performance appraisal report contributes to the decision about faculty appreciation.

*Communication with stakeholders:*

Remarks obtained in Performance appraisal reports of faculty is available to stakeholders and appropriate steps will be taken for poor performance of the faculty and based on their performance appreciation letters will be issued.

**6.3.5 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?**

The following welfare schemes are available for teaching and non-teaching staff.

Sr. No.	Welfare Schemes	Percentage of staff availed the benefit of such schemes
1.	Group Insurance Scheme (GIS)	100 %
2.	EMBF	100 %
3.	PF	64 %
4.	Gratuity	100 % (Applicable to all the eligible staff)
5.	Accidental Insurance	100 % (Applicable to all the eligible staff)
6.	Free medical facilities for all faculties and their families	100 %
7.	Maternity leave, extended maternity leave and permission to leave early or extended lunch	100 % (Applicable to all the eligible staff)
8.	Uniform for security guards	100%
9.	Provision for qualification improvement	100% (Applicable to all the eligible staff)
10.	Faculty and staff quarters	90% (Provided for all needy faculty and staff)
11.	Admission to the wards of faculty and staff at schools and colleges	100% (Applicable to all the staff)

**6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?**

- Experienced and qualified faculty is appointed.
- The institute offers freedom of work and gives an opportunity to excel in the domain of individual areas. It also assigns important administrative roles to the eminent faculty.
- Additional incentives/increments are given to experienced faculty.
- The institute provides functional office infrastructure and other space to carry out their work effectively and efficiently.
- For retaining the eminent faculty, budget is allocated for staff development, advanced study, research, participation in seminar, conference, workshop, FDP etc.
- Decentralized academic environment, good governance and flexibility in the teaching – learning process are provided in the institute. Due to these factors, the faculty gets full job satisfaction in their field. During last three years, the institute has an average retention ratio of faculty as 92 %. Appreciation letters are issued to well performing faculty.
- Institute offers Pay scale as per the norms of Govt. of Maharashtra from time to time. It encourages the transparent work culture.



#### 6.4 Financial Management and Resource Mobilization

The budgetary requirements are raised from the department every year, they are forwarded to institute. The Institute reviews requirements of all departments and forward it to LMC. The LMC recommends the budget requirements of the institute for GB approval. The institute distributes the allocated funds within the departments, then the department plans the purchases as per the allocated funds.

##### 6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

- The College follows a proper budgeting system, with adequate resources for non-recurring expenses, recurring expenses (e.g. salary, faculty, enrichment, maintenance etc.), learning resources (e.g. books, and periodicals- both print and online versions), and developmental purposes (e.g. addition of new equipment and materials).
- The procurement section of the College circulates a prescribed format (received from the College management) for the budgetary requirement of each Dept. The format is distributed in February - March of each year. The College budget is then prepared and approved in three stages.
- The Heads of the dept., in consultation with the other faculty members and staff, finalize the dept. requirements and forward the proposals to the Principal.
- Following the approval of the Principal, the proposals are sent to the college management for further consideration.
- The Governing Body of the institute is the final decision making authority for budgetary approval based on recommendations given by the LMC.
- This decision is made in consultation with the Principal to ensure that the requirements stated in the budget are given proper justification.
- Following approval, additional justification if necessary, is provided by the respective department, after which a standard operative procedure is followed for procuring and purchasing.
- Budgets are prepared for both recurring and capital expenditure. However budgets for immovable assets is prepared by the College Management following assessment of the funds available, after providing for recurring expenditure, movable assets.
- Provision is made for any additional requirement of capital for emergency expenditure
- Regular review by Principal for effective utilization of budget with account section of the institute
- A review on budget utilization by LMC and GB is held twice in a year

##### 6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

###### **Institutional mechanisms for Internal and External audit:**

Yes, The institute ensures an internal and external audit of all its accounts. Internal audit is done two times in a year. A committee of internal auditors comprising of 3 - 4 accountants from STES visit the institute. External audit is done once in a year. Queries in the audit will be reported to Principal and within one month, the queries need to be complied.

### **Details on Compliance**

- During the internal financial audit, auditors raise objections related to finance and stock related records, giving an opportunity to the College to address and rectify the same. They also give necessary guidance for improvement in account maintenance. These measures ensure no further discrepancies in the records that can be objected to by the external auditors.

#### **6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.**

The major source of receipts is Tuition Fees and Development fees from the students. Audited income and expenditure statement of academic and administrative activities of the previous four years are available. Deficit if any is taken care by the STES through corpus fund.

#### **6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).**

For acquiring additional funding, the institute generates revenue through projects sponsored by organizations like DST, AICTE (schemes like MODROB, RPS, Seminar etc.,) BCUD, Consultancy work and others.

### **6.5 Internal Quality Assurance System (IQAS)**

#### **6.5.1 Internal Quality Assurance Cell (IQAC)**

##### **6.5.1. a. Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?**

The institute has implemented IQAC through the Academic Monitoring Committee headed by Director (Engineering) and Director (Academics). The committee visits each department and takes feedback on the teaching and learning process at various departments. The feedback is then compiled and corrective measures are suggested on the lacunae and weaknesses found at individual level. Other systems to take feedback on the administrative matters are in place at the institute and department level, but not under the title as 'Internal Quality Assurance Cell (IQAC)'. However, all these systems effectively carry the role of IQAC. The institute has recently formulated IQAC as per NAAC guidelines. The members of the IQAC is given in Table 6.5.1

**Table 6.5.1: IQAC Members and Designation**

S.No.	Name	Designation and affiliation
<b>Chairperson</b>		
1.	Dr. S. D. Lokhande	Principal
<b>Members from the Management</b>		
2.	Dr. A.V. Deshpande	Member – Campus Director
3.	Prof. M. G. Bhat	Member – Director (Engg.)
<b>Member from Local Societies</b>		
4.	Prof. S. B. Pharkute	Director (Academics)
<b>Nine Teachers</b>		
5.	Dr. Y. P. Reddy	Vice Principal & Head – Mechanical Engg.
6.	Dr. M. B. Mali	Head – Electronics & Telecommunication
7.	Dr. P. R. Futane	Head – Computer Engg.
8.	Dr. S. S. Shastri	Head – Civil Engineering
9.	Dr. S. M. Chavan	Head – Chemical Engg.
10.	Dr. N. J. Uke	Head – Information Technology
11.	Prof. R. S. Katikar	Head – Production Engg,
12.	Prof. V. K. Chaudhari	Head – First Year Engg.
13.	Dr.(Mrs.) Mamta Mishra	Head - MBA
<b>Administrative Officers</b>		
13.	Prof. J. N. Pitambare	Dean – Training and Placement
14.	Mr. V. D. Tayade	Registrar
<b>Coordinator IQAC</b>		
15.	Dr.( Mrs.) Kalpana Joshi	Head – Biotechnology

**6.5.1. b. How many decisions of the IQAC have been approved by the management/ authorities for implementation and how many of them were actually implemented?**

The outcome of the academic monitoring committee visits to the departments is communicated to the Principal and the management. The suggestions wherever needed are accepted by the management and communicated to the Principal for effective implementation.

**6.5.1.c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.**

Yes. Institute has formed IQAC comprising senior faculty from various departments and expert members from industries, research institutes, social organizations, etc. Inputs from these experts are incorporated in policies of IQAC.

**6.5.1.d. How do students and alumni contribute to the effective functioning of the IQAC?**

During IQAC activities meetings are conducted with the student representatives from various departments. Alumni meet are arranged every year, which come to the department and share their experience and opinions with the students and the teaching faculties. Alumni and passing students are motivated to provide feedbacks with forms such as exit survey and alumni feedback. Such data is then carefully screened and analyzed to academic quality improvements. The opinion regarding teaching quality, teaching-learning process,

laboratory equipment/practical, departmental activities, library, training and placement, infrastructure, overall ambiance are covered from students. The issues like employability, course content, industrial requirements, infrastructure, career counseling and higher studies, development of problem solving ability are taken from alumni.

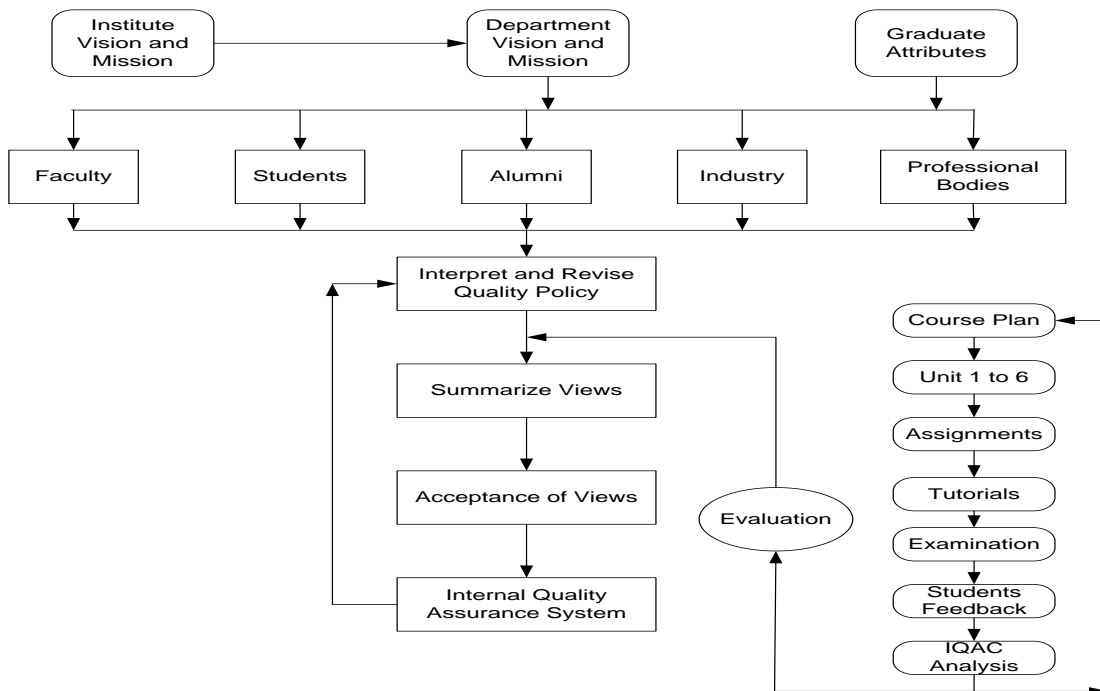
**6.5.1.e. How does the IQAC communicate and engage staff from different constituents of the institution?**

In the basic formation of IQAC the committee members are the heads of the departments from the institutes. These representatives are the leaders and motivators for the policy decisions to be implemented in the departments. The effectiveness of each policy decision is monitored and communicated to the head of the institution for further corrective action. The overall process is as follows:

- The feedback from all the stakeholders is taken and forwarded to the IQAC for further corrective actions at regular intervals.
- IQAC goes through the various requirements of external stakeholders like industries, AICTE, UGC based on the feedback reports generated.
- Considering these factors IQAC decides academic policies which are to be transferred to the Institute and to the departments.
- According to the directions of IQAC and institute, Heads of the department give instructions to the teaching and non-teaching staff for improvements in the overall teaching and learning process.

**6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalization?**

Yes, The operationalization procedure for quality assurance is given in Fig.6.5.2.



**Fig. 6.5.2: Operationalization procedure for quality assurance**

**6.5.3 Does the institution provide training to its staff for effective implementation of the quality assurance procedures? If ‘Yes’, give details enumerating its impact.**

Yes, The schemes like Teachers Advancement Programme (TAP) and Train The trainers (TTT) have been implemented for teaching staff. Following are the details of the programmes.

Sr. No.	Programme	Agency	Objectives
1.	Teacher Advancement Programme (TAP – I)	Wren & Pecker Pvt. Ltd., Pune	<ul style="list-style-type: none"> <li>To impart Effective teaching methods &amp; skills</li> <li>To improve Communication skills.</li> <li>To teach Impressive presentation skills</li> </ul>
2.	Teacher Advancement Programme (TAP – II)	Wren & Pecker Pvt. Ltd., Pune	<ul style="list-style-type: none"> <li>To develop Skills to motivate &amp; influence others, be courteous, increased tolerance &amp; openness.</li> <li>Skills for improved Collaboration with colleagues.</li> <li>To improve Adaptability and Flexibility.</li> </ul>
3.	Train The Trainer (TTT)	Sinhgad Technical Education Society (STES)	<ul style="list-style-type: none"> <li>To bring uniformity in teaching processes and methodologies in the colleges under STES</li> <li>To train the teachers by experienced faculty for the depth of the content delivery</li> </ul>

**6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If ‘yes’, how are the outcomes used to improve the institutional activities?**

Yes, the details are as follows:

*Internal Academic Audit:*

Every semester institute undergoes an internal academic audit through Head of Department and Academic Monitoring Committee (AMC) comprising senior faculty from various departments. Following are the various aspects and their outcomes:

*Teaching learning process:*

The daily conduction of lecture and practical is monitored by Head of department. Student attendance, continuous assessment sheet, teacher guardian records, course files, parent’s feedback are regularly checked by Head of department.

*Outcome:* Students performance during semester is evaluated.

*Teacher feedback:*

The academic monitoring committee collects the online feedback from students with respect to teacher’s performance for content delivery in class and practical hours.

*Outcome:* Overall teaching quality and content delivery is mapped through feedback. If any problem persists through feedback, the teacher is counseled for content delivery, clarity in teaching, command in subject and others.

*Academic assessment:*

The quality of seminar and project work is monitored through a regular review process at various stages during semester. The feedback from alumni, industry, faculty, professional bodies is used to revise the teaching-learning process and programme education objectives (PEO).

*Outcome:* Academic quality is assessed in terms of passing percentages and requirements of external stakeholders like alumni, industry, faculty and professional bodies.

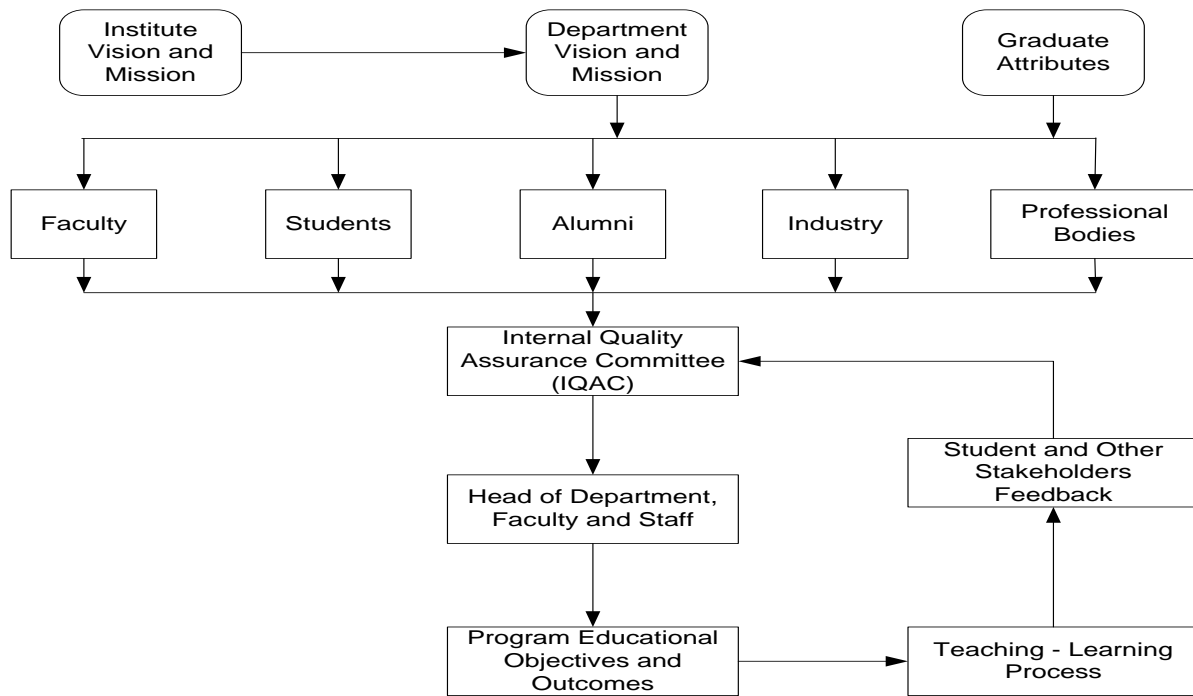
*External Academic Audit:*

Most of the departments of the institute have undergone the accreditation by National Board of Accreditation (NBA) for three times during last 10 years. The report of the chairman of committee is referred for area of improvement. The following corrective actions were taken:

- Increasing number of industry sponsored / funded projects for UG and PG
- Efforts are made to increase the number of consultancy activities.
- Numbers of faculty are encouraged to pursue Ph.D.
- Number of experienced faculty has been increased.

**6.5.5 How is the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/ regulatory authorities?**

Academic peers visit various departments of the college during university practical examinations, evaluation of work done by Postgraduate and Doctorate students. The employers do visit the college frequently during placement activities. Academic auditing agencies like NBA, DTE, AICTE, LMC, UGC, CII visit institutes for quality assurance purpose. Institute has developed various mechanisms in developing outcomes expected by such agencies. One of the processes in developing programme education objective is as follows:

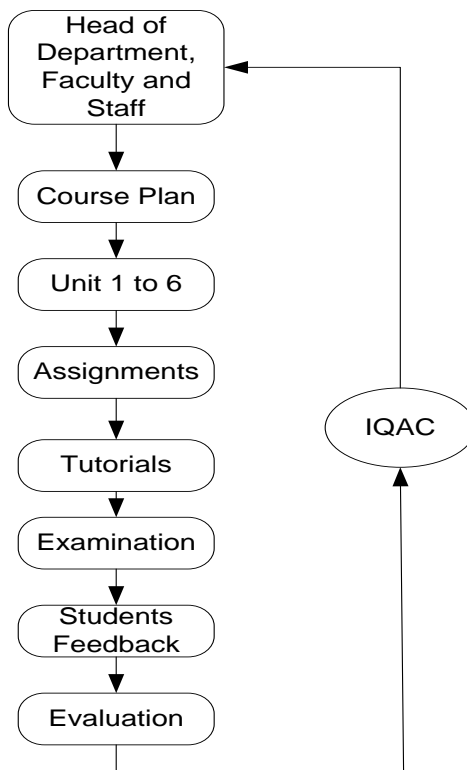


**Fig.6.5.5: Procedure followed for formation of Program Education Objectives**

Formation of program Education Objectives are one of the most important aspects of National Board of Accreditation (NBA). During process, IQAC considers various attributes of external stake holders, institute and department. Accordingly institute and concern departments are directed to PEO formation which could fulfill the quality education requirements. These PEO's are then covered through teaching learning process. Student feedback is considered for further corrective actions (if any).

**6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?**

The methodology adopted for continuous review of teaching learning process is shown in Fig.6.5.6.



**Fig.6.5.6: Teaching learning process and continuous assessment**

All the faculty prepares the subject lesson plan for theory and practical sessions. These plans are reviewed and monitored by head of the department for regular conductance of lectures and practical. During semester, assignments and tutorials are conducted for each subject. Students appear for the various exams like institute level class test I and II, university level in semester examination, prelims and final semester end exams. Student feedback and result analysis are then reviewed by IQAC members for the course conduct and result improvement. The suggestions of IQAC are then implemented for the coming semester.

**6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?**

Any other relevant information regarding Governance Leadership and Management which the college would like to include.

- Mission, Quality Assurance policies are displayed on the website of the institution.
- Mission and Quality Assurance mechanisms are printed in the students' diary.
- Vision and Mission statements are displayed on boards at prominent places in campus.
- Vision, Mission and quality assurance mechanisms are included in the information brochure.
- Quality Assurance mechanisms and outcomes are informed to all during students induction program, students mentoring sessions, parents meetings, alumni meetings Principal's address at seminars/ conferences/ interactive sessions with stakeholders etc.



## CRITERIA VII: INNOVATION AND BEST PRACTICES

### 7.1. Environment Consciousness

#### 7.1.1 Does the institute conduct a Green Audit of its campus and facilities?

Green audit of the campus is not carried out separately from private agencies, but an initiative is taken by the faculty members, staff members and the students, through various projects periodically, by supervising the existing status of few of the aspects under audit concept, like: maintenance of the existing trees and locating places for planting new trees. Nurturing Plants is one of the non-academic pursuits that develop eco-concern among the students. Areas are assigned to student clubs and the department motivates the students' initiative for planting, watering, weeding and maintaining the plants, greens, herbs and trees.

Personal experience of sowing seeds, watering plants, preparing and using organic manure, removing weeds etc., has sensitized the student volunteers, club members and to non-teaching staff as well.

#### 7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

The charm of the campus is because of lush green surroundings, utility of natural topography. Variety of flora and fauna with different flowering periods is the peculiar trend of landscapes at any of the campuses under STE Society, same is the trend also seen at SCOE.

Landscape conservation, recycling of waste water, use of treated waste water in campus itself, use of sprinkler system in gardens is a concept that has arisen, in response to both the challenges of climatic change and a perceived excessive focus on site based development. It aims to take a holistic approach, looking not just at biodiversity issues, but also issues such as local economics (by providing employment to local unskilled labor), the health and social benefits of the environment. This aspect is well taken and promoted in this campus.

The Human Resources of the STES at various levels tend to study nurturing the nature, natural benefits, sustainable development, landscape studies, cultural ecology and environmental conservation approaches. The institute tries to minimize waste generation by some simple practices like the normal prints like general notices; notes, information etc are taken on one side used papers. Availing the facility of internet to transfer the relevant information through e-mails has become a practice. Also the burden on environment is reduced through application and use of Google forms and ERP for better communication and data storage, used by faculty and students, resulting into saving of papers and environment and trees in turn.

#### **Energy conservation:**

The institute believe in the fact that: "Energy Conserved is Energy Generated. Hence we try to save each unit of energy on the campus by making optimum use of available energy. Further, following attempts are made to create awareness amongst students and faculty towards energy conservation:

- Creating Signs and slogans: The students and teachers come together to create Instructional signboards and post within the premises and around, giving students important reminders about "Switching off tubes-lights fans while leaving the classrooms / laboratories / working areas", thus helping to achieve reduction in carbon emission.

- Internal Monitoring: The internal monitoring committee at each department and at office level keeps vigilance on wastage of water, electrical equipment etc to minimize the energy consumption, thus resulting into saving of carbon emissions.

**Use of renewable energy:**

The use of solar energy for day time lighting, battery backups and for heating the water are few of the aspects promoted at various campuses under STES. Also retaining the contours by positioning the buildings parallel to the counters as far as possible was the planning aspect promoted, which saves heavy cutting and filling. This aspect also serves the purpose of getting the advantage of wind direction; which in turn saves the expenditure on ventilation.

The faculty members motivate the UG & PG students to carry out projects and activities related to Environmental Conservation. Few of such projects and activities have been listed below:

- Apart from this, isolated switches for each floor have been put in each building.
- Solar water heaters have been installed in various hostels (Refer Table 7.1.2).

**Table 7.1.2: List of Solar Water Haters Installed in the Campus**

Sr. No.	Particulars/ Capacity (Liters)	No. of panels installed	Building Details	Remarks / Name of Hostel
1.	375	09	Girls' Hostel	Indrayani
2.	300	01	Girls' Hostel	Saraswati
3.	300	02	Boys' Hostel (Ambegaon)	Raigad
4.	2800	01	2 Boys' Hostels (Ambegaon)	Rajgad, Torana
5.	2400	11	Boys' Hostels (Ambegaon)	Vishalgad
6.	2000	09	Ambegaon Girl' Hostel	Krishna
7.	1400	03	Ambegaon Campus Boys' Hostel	Sajjangad
8.	2000	06	Ambegaon Campus Boys' Hostel	Purandar

**Water harvesting:**

Though conventional rain water harvesting is not observed (due to restriction of location – hill top & Geology: Rocky patch) , few of the other approaches are observed; like the waste water is recycled for gardening / landscaping, which reduces the pressure on Urban Local Body like Pune Municipal Corporation fresh water supply. Also in few of the Departments like Civil Engineering, IT waterless urinals are promoted, which indirectly has resulted in water harvesting. The faculty members and students, especially from Civil Department have undertaken various projects with an inclination to improvise water utility status, either through conservation or technology applications or so.

**Check dam construction – Not Applicable**

**Efforts for Carbon neutrality:**

- Car Idling: The students are encouraged to use local government bus services, Faculty members are also opting carpooling, share rickshaw options. Preference is given for reserved parking space to faculty members opting for carpooling.

- Use of solar water heaters has resulted into reduction of CO<sub>2</sub> emissions. Practices like effective use of ERP and Google forms have resulted in huge saving of papers and in turn is a step towards carbon neutrality.
- Plantation: The lush green ambience of the college is welcoming the visitors and users largely due to tree plantation. There are more than 2100 big trees of various kinds, such as gulmoher, neelmoher, rain tree, kanchan, spathadia, booch, silver oak, etc and hedges, small trees more than 4000 in number with varieties of hibiscus, palm trees, chapha, etc in the campus also lawn is provided on open grounds. Trees have nearly covered 25% of the college area. They help to maintain the ecosystem and biodiversity.

### **Hazardous waste management**

Though the hazardous waste is not often observed at the campus, but to safeguard the buildings from fire hazard following measures are taken.

- Limiting the height of the building and providing spacious passages.
- Fire extinguisher provision for every building.
- In addition to above, the laboratories of Biotech, Chemical and Civil Department dispose off their hazardous waste in safe manner by handing over the waste to central waste management team deputed at Dental College Premises. The waste is given to Biomedical Waste Management System deployed by Pune Municipal Corporation and is further disposed off by them.

### **e-waste management:**

The e- waste generation and management is of major concern in today's context. Every update/version put a lot of pressure on the environment; hence it becomes customary to recycle the same. With the same thought in mind various departments are collecting the waste and giving it for recycle to the respective agencies.

## **7.2 Innovations**

### **7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on functioning of the college?**

In its quest for excellence in academics, the institute has introduced innovative measures during the last four years. Some of them are as follows:

- Introduction and use of ERP software 'GEMS' for online self-appraisal reports of faculty, student feedback, leave management, academic planning and others
- Introduced 'Train the Trainer' program where new faculty are trained by senior faculty
- Development and Implementation of Student Training Programs, Value Added programs for all the undergraduate students to enhance the employability skills
- Use of e-resources like NPTEL, spoken tutorials from IITB and modern ICT tools in all class rooms
- Increased number of MoU's with industry for enhancing industry – institute interaction
- Biometric attendance monitoring system for faculty and staff
- Introduction of departmental research monitoring committee to enhance research and consultancy activities
- Computerization and digitization of central library for online access to books and journals

- Wi-Fi facility across the campus
- Introduction of e-examination portal for students for online examination practice
- Promoting and rewarding the students who excel in academics, curricular and extra-curricular activities
- Encouraging the students to go for internship at industry during vacation
- Conduct of regular AMCAT tests for monitoring the students' progress in aptitude and soft skills
- Appointment of Chief Examination Officer for execution of various University examinations
- Introduction of Earn and Learn scheme, National Service Scheme and promotion of activities with Board of Social Welfare of SPPU
- Free medical and dental facility for all the faculty, staff and students
- Introduction of Sinhgad Student Club to increase the student participation in curricular and extra-curricular activities
- Organization of national level annual cultural event 'Sinhgad Karandak' and technical event 'Tectonic'
- Creation of NRI hostel facility for foreign national students

### 7.3 Best Practices

**7.3.1 Elaborate on any two best practices as per the annexed which have contributed to the achievement of the Institutional Objectives and/or contributed to the quality improvement of the core activities of the college?**

#### **Best Practice – 1**

##### **Title: Student Training Program**

**Goal:** To enhance the employability skills of students by imparting additional skill sets from first year onwards

**The Context:** The employability skills of students is one of the important issues faced by the institute when they appear for campus placement during final year. The training and placement department of the institute was conducting soft skill programs with outside agencies for the third year students. The overall impact of these programs could not improve the employability skills of students, as these programs are conducted in summer vacation of third year engineering. Hence it was decided to start a modular course titled 'Student Training Program' from the first year itself so as to increase the employability skills.

**The Practice:** The Student Training Program primarily consists of five modules spread over five semesters with basics being introduced at first year engineering. The program covers oral & written communication skills, technical skills, group discussion and personality interview skills and value addition programs. The selective faculty in all departments are trained by professional trainers so as to impart these skills to the students. Every week, two hours are allotted in time table for this program. Periodically, AMCAT tests are conducted to evaluate the student progress in aptitude and technical skills. A separate budgetary provision is made for this program. Regular feedback from the stake holders is taken to evaluate the progress of

the program. As the program is carried out over the period of time, it made a positive impact on student preparedness for the campus interviews.

**Evidence of the success:** The program has helped the students in motivating and preparing the students for better employment during placement. The outcome of this has been judged from the current final year placement of students, which shows the significant improvement compared to previous years.

**Problems encountered and resources required:** The only problem encountered for starting this program was the motivation and convincing the faculty to undergo training on soft skills area. The required resources are primarily computer laboratories which are sufficiently available in all the departments.

**Contact details:**

Name of the Principal: Dr. S.D. Lokhande

Name of the institution: Sinhgad College of Engineering

City: Pune Pin code: 411 041

Accreditation Status: Accredited by *National Board of Accreditation (NBA)*

Work phone: 020 – 24354705 Fax: 020 – 24357243; Mobile: 09011030579

Website: [www.sinhgad.edu](http://www.sinhgad.edu) Email: [principal.scoe@sinhgad.edu](mailto:principal.scoe@sinhgad.edu)

**Best Practice – 2**

**Title:** Promotion of research and consultancy activities

**Goal:** To promote the research and consultancy activities among the faculty and students

**The Context:** In the early days, the research and consultancy contribution of faculty and students was relatively low. The institute has taken initiative to start new PG programs in majority of departments so as to make the faculty and students aware about the importance of research and consultancy activities. In addition, four departments of the institute obtained the permission for recognized Ph.D. research center from SPPU.

**The Practice:** All the students who are admitted to the institute are made aware of the importance of research in engineering education at various levels by the faculty. Several faculty and student oriented programs are organized every year to highlight the importance of research. The institute provides monetary support to all the faculty and selected group of students for research related projects, conferences and workshops. A separate annual budgetary provision is made for research expenses. All the departments of the institute have identified selected areas of research and consultancy. It is mandatory for every PG student to publish a research paper in refereed research journals/conferences. The faculty are encouraged to do the consultancy work. The institute has well defined policy for consultancy revenue distribution between the institute and the faculty.

**Evidence of the success:** The research and consultancy policy of the institute has helped in increased number of research publications both in journals and conferences. The number of research projects undertaken by the faculty in association with different funding agencies has

been increased during last four years. This lead to the increased number of publications in Scopus/web of science/Google scholar indexed journals. The average citation index of the institute faculty has also gone up. The consultancy policy has also contributed in increasing the revenue generation during the last five years.

**Problems encountered and resources required:** Though the institute support the research activities in all departments, requirement of high end equipment is an important lacuna. Another problem is the insufficient support from industry for consultancy work. The institute has got the sufficient resources to carry out the basic research in all the departments. Efforts are being made to make the laboratories with more advanced equipment and software facilities.

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Email: [principal.scoe@sinhgad.edu](mailto:principal.scoe@sinhgad.edu)

## 6. EVALUATIVE REPORT OF THE DEPARTMENTS

### BIOTECHNOLOGY

1. Name of the department : **Biotechnology**
2. Year of Establishment : **2006**
3. Names of Programs / Courses offered:

Sr. No	Name of the programme	Year of Establishment
1	UG	2006

4. Names of Interdisciplinary courses and the departments/units involved :

Sr.No	Name of the Interdisciplinary Courses	Departments/Units Involved
1	UG	Applied Science Mechanical Engg. Civil Engg. Chemical Engg.

5. Annual/ semester/choice based credit system (programme wise) :

Sr. No	Name of the programme	Pattern/System (Annual/ semester/choice based credit system)
1	UG	Semester
2	PG (Specialization)	NA
3	Ph.D.	NA

6. Participation of the department in the courses offered by other departments :

Sr. No	Name of the Department	Class	Courses offered
1	Engineering Science	NA	NA
2	PG (Specialization)	ME- Civil	Environmental Microbiology
3	Ph.D. -Course work	Ph.D.	Research Methodology

7. Courses in collaboration with other universities, industries, foreign institutions :

Sr.No	Class	Certificate/Course Name	Collaborating Institution /Industry/Universities etc.
1	SE Biotechnology	Human Anatomy	EDX
2		Biology of Health and Water	
3		Human Anatomy	
4		Fundamentals of Neuroscience	
5		Science of Happiness	
6		Industrial Biotechnology	
7		Introduction to Biomedical Imaging	
8		Future food Production	
9		Communicating Strategically	
1	TE Biotechnology	The Immune System "New Developments in Research".	EDX

Sr.No	Class	Certificate/Course Name	Collaborating Institution /Industry/Universities etc.
2		Industrial Biotechnology	
1	BE Biotechnology	Introduction to Environment Science. Making Biologic Medicines for Patients	EDX
2		The Principles of Biopharmaceuticals and Manufacturing.	

8. Details of courses/programs discontinued (if any) with reasons : Nil

9. Number of teaching posts

Designation	Sanctioned	Filled
Professors	01	01
Associate Professors	02	-
Asst. Professors	09	07
Visiting/guest faculty	-	02

10. Faculty profile with name, qualification, designation, specialization, D.Sc./D.Litt. /Ph.D./M. Phil. etc.)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. Kalpana S. Joshi	Ph.D. (Chemistry)	Professor & Head	Microbiology	17	5
Dr. Sudha J. Kulkarni	Ph.D.(Biochemistry)	Asst. Professor	Biochemistry	7.3	-
Dr. Sarita U. Mahajani	Ph.D.(Microbiology)	Asst. Professor	Microbiology	34	-
Mrs. Shraddha S. Kulkarni	Ph. D. (Pursuing )	Asst. Professor	Biotechnology	9.5	-
Mr. Prashant D. Jolhe	Ph. D. (Pursuing )	Asst. Professor	Chemical Engg.	9.5	-

11. List of senior visiting faculty :

Sr. No	Name of the faculty	Affiliation	Subject
1	Dr. Sanjay Nene	Retired Scientist NCL Pune	Biochemical Engineering
2	Dr. Sanket Desai	ACTREC, Mumbai	Bioinformatics
3	Mrs. Pranali Kulkarni	Suryadatta Junior College Pune	Applied Chemistry

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty : Nil



13. Student -Teacher Ratio (programme wise) :

Sr. No	Programme	Student -Teacher Ratio
1	UG	17:1
2	PG	NA

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Staff details	Sanctioned	Filled
Academic Support Staff	3	3

15. Qualifications of teaching faculty with DSc/ D.Litt./ Ph.D./ MPhil / PG.:

PhD	PhD Pursuing	PG	UG
03	02	03 (Excluding PhD Pursuing)	0

16. Number of faculty with ongoing projects from National and International funding agencies and grants received

a) National b) International :

SrNo.	National /International	Number of Faculty	Total Grant Received Rs.
1	National	03	18,70,000
2	International	01	75,000

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: AY 2011-12 onwards

Sr. No	Projects funded by	Total Number	Total Grants Received Rs.
1	AICTE (ICMR, Office of PSA, SERB)	03	61,54,000
2	TEQIP (FDP. SDP, Workshop)	-	-
3	University (BCUD+ISRO)	03	3,00,000
4	Any other (A.J. Organica Pvt.Ltd, Nisarga Biotech, Glenmark, Heinze.)	04	5,25,075

18. Research Centre /facility recognized by the University : Not Applicable

19. Publications:

a) Publication per faculty :

Parameters	Number
Number of papers published in peer reviewed journals (National /International) by faculty and students	National – 01 International - 29
Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	29
Monographs	00
Chapter in Books	05
Books Edited	01
Books with ISBN/ISSN numbers with details of publishers	00

Citation Index	1709
SNIP	32
SJR	32
Impact factor	109.47
h-index	20

**20. Areas of consultancy and income generated :**

Sr. No.	Details of Consultancy (Technical / Academic / Testing)	Name of Faculty	Revenue Generated Rs.
1	Glenmark	Dr. K.S.Joshi	75,000
2	Nisarga Biotech	Dr. K.S.Joshi	1,50,000
3	Heinz	Dr. K.S.Joshi	2,00,000
4	A.J. Organica Pvt. Ltd.	Dr. K.S.Joshi	1,00,000

**21. Faculty as members in**

**a) National committees:** (Member of BoS , Senate, academic council, MPSC, State level evaluation)

Sr. No	Name of the faculty	Name of the committee	Nature of work/description
1.	Dr. K.S. Joshi	FSSAI GM foods committee, Govt of India	National

**b) International Committees :** (Reviewers of journal, transactions) Nil

**c) Editorial Boards:**

Name of the faculty	Name of Journal/ Conference /Magazine/News Paper
Dr. K.S. Joshi	Member, Editorial Board - Elsevier Journal

**d. Any other committee :** (Coordinator of conference, LIC member, UGC Interview member, Presiding officer for elections etc.)

Sr. No	Name of the faculty	Name of the committee/Role	Nature of work/description
1	Dr. K. S. Joshi	LIC	Member (Petrochemical egg)
2		Ethics committee	Member
3		RRC	Member, Faculty of Technology
4		BOS Biotech	Special invited member
1	Dr. S. U. Mahajani	Ethics Committee for stem cell Research (IC-SCR)	Secretary
1	Mr. P. D. Jolhe	Interview member	As a Subject Expert for the Teaching Post in Chemical Engineering on the selection Committee Appointed by University of Pune
2		Presiding officer for elections	Election Duty

1	Mrs. S. M. Kashid	National Conference on Green Technologies for Sustainable Development (NCGTSD-2016)	Coordinator of Conference
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## 22. Student projects

- a) Percentage of students who have done in-house projects including inter Departmental/programme
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Programme	Academic Year	Percentage of in-house projects	Percentage of sponsored projects
UG	2015-16	75	25
	2014-15	82	18.33
	2013-14	97	03
	2012-13	100	-
	2011-12	100	-

## 23. Awards / Recognitions received by faculty and students :

Total Number of students awards	Total Number of Faculty awards
19	05

## 24. List of eminent academicians and scientists / visitors to the department :

Sr. No.	Name of eminent academicians, scientists, visitors	Association/Affiliation	Purpose of visit
1	Mr. Pradip Dhotey	Asst. vice President Praj Industries Ltd., Pune	Student -Industry Interaction
2	Dr. Sanjay Nene	Retired Scientist G, National Chemical Laboratory (NCL), Pune	Syllabus Revision
3	Mr. Milind Kulkarni	General Manager, AyuGen Biosciences Pvt. Ltd., Pune	Student -Industry Interaction
4	Dr. Manish Pungliya	Founder 6 MD, AyuGen Biosciences Pvt. Ltd., Pune	Student -Industry Interaction
5	Dr. Rajesh Gupta	Senior Scientist, Lupin Research Park, Pune	Student -Industry Interaction
6	Dr. V. M. Kulkarni	Founder, VM Biotech, Pune	Student -Industry Interaction
7	Dr. Mugdha Potnis-Lele	Manager, NCL Innovation Park, Pune	Guest Lecture

8	Dr. Ketaki Bapat	Scientist Office of PSA- New Delhi	Inspection of facilities for research work
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**25. Seminars/ Conferences/Workshops organized & the source of funding**

a) National b) International:

Year	Sr. No.	Name of FDP / SDP / STTP / Workshop / Webinar etc.	National/ International	Sponsoring / Funding Agency if any	Revenue Generated
2015-16	1	National Conference on Green Technologies for sustainable Development	National	SPPU	80,000
	2	Workshop on Microbiology in Environmental Engineering	Department	Nil	Nil
2014-15	1	Workshop on Cell Culture Techniques	State	Nil	Nil
2013-14	1	Seminar on Systems Biology	State	Nil	Nil
2012-13	1	FDP on Advances in Upstream and Downstream Processing in Biotechnology	State	TEQIP-II	Nil
	2	Seminar on Advances in Enzyme Technology	State	BCUD	Nil
2011-2012	1	Workshop on Fermentation and Molecular Biology	State	Nil	Nil
	2	Workshop on Downstream Processing of Bio products	State	Nil	Nil
	3	Workshop on Food Technology & Cell Biology	State	Nil	Nil

**26. Student profile programme/course wise:**

Name of the Course/programme		Applications received	Selected	Enrolled		Pass percentage
Course	Year			*M	*F	
UG	2015-16	Admission process in the state is only through CAP and governed by Directorate of Technical Education (DTE), Mumbai, Government of Maharashtra.	63	26	37	Since the college wise application received is with DTE, pass percentage is Not available with the institute.
	2014-15		64	31	33	
	2013-14		50	18	32	
	2012-13		57	29	28	
	2011-12		56	21	35	

\*M = Male \*F = Female

**27. Diversity of Students**

Name of the Course/programme		% of students from the same	% of students from other States	% of students from abroad
Course	Year			
	2015-16	100	0	0
	2014-15	96	2	2

	2013-14	98	2	0
	2012-13	94	3	3
	2011-12	88	10	2

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Competitive Examinations /Academic Year	No of Students				
	2011-12	2012-13	2013-14	2014-15	2015-16
GATE	7	3	4	7	10
GRE/TOEFL	12	7	8	8	13
Civil services	0	1	0	0	0
Defense services	0	0	0	0	0
Others (DBT)	2	4	2	2	0

29. Student progression

Student progression	Against % Enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	46.81	53.19	41.38	32.14
PG to Ph.D.	Nil	2	2	Nil
<b>Employed</b>				
• Campus selection	11	9	3	5
• Other than campus recruitment	25	30	1	1
Entrepreneurship/Self-employment	3	-	-	2

30. Details of infrastructural facilities:

a) Library

Sr. No.	Particulars	Number
1	Titles	707
2	Volumes	2683
3	National Journals	08
4	International Journals	-
5	CDs	1200
6	e-Books and e-Journals	-

b) List of Periodicals/ Journals available Print format

Sr.No.	Journal Titles	Status
1	Journal of Nano science & Nanotechnology	National
2	Jr. of Genetic Engg. & Biotechnology	National
3	Research Journal of Biotechnology	National
4	Indian Journal of Biochemistry & Biophysics	National
5	Jr. of Biosciences	National
6	Jr. of Genetics	National
7	Bhoomi	National
8	Indian Journal of Biotechnology	National

- No. of Books in the department library : 94
- c) Internet facilities for Staff & Students
  - Staff cabins are with computer, Internet connections, Cupboard and Pin Board
  - Wi-Fi and wired network facility is available in the building, labs and classrooms.
- d) Class rooms facility
  - Class rooms for lectures (core/electives), seminars, and tutorials with LCD projector and Wi-Fi internet connections.
- e) Laboratories

Sr. No	Name of Lab	Major Equipment's in the department
1	Bio-Separation	<ul style="list-style-type: none"> <li>• High Performance Liquid Chromatography (HPLC)</li> <li>• Gas Chromatography</li> <li>• UV Spectrophotometer</li> <li>• Ultrasonicator</li> <li>• Deep Freezer (-20&amp; -80°C)</li> <li>• Inverted Microscope</li> <li>• CO<sub>2</sub> Incubator</li> <li>• Lyophilizer</li> <li>• ELISA Plate Reader</li> <li>• Cold Centrifuge</li> <li>• Ice Flaker</li> <li>• Autoclave</li> <li>• Fermenter (Brunswick, Germany)</li> <li>• Laminar Air Flow Workstation</li> <li>• Distilled Water Assembly</li> <li>• Rotary Flash Evaporator</li> <li>• 16 Computers with Internet Facility</li> </ul>
2	Molecular Biology/Genetic Engineering	
3	Bioinformatics	
4	Research Lab	
5	Cell biology/ Tissue Culture	
6	Microbiology/Biotherapeutics/Fermentation Technology	
7	Biochemistry/Novel Separation Techniques/ Environmental Engineering	
8	Preparation Lab	
9	Project Lab	
10	HPLC Lab	

**31. Number of students receiving financial assistance from college, university, government or other agencies**

Year	No of students			
	College( Earn & Learn Scheme)	University	Government	other agencies
2015-16	1	Nil	76	0
2014-15	1		93	5
2013-14	2		91	0
2012-13	2		85	0
2011-12	2		91	1

**32. Details on student enrichment programmes (Special Lectures/workshops/Seminar) with external experts**

Sr. No.	Academic Year	Name of Enrichment Programmes	Name of external Expert	Designation/Organization
1.	2015-16	Biomedical devices	Dr. Niranjan Khambete	Manager, Clinical Engineering, Deenanath Hospital ,Pune
2.		Workshop on Bioprocess Modeling and simulation using MATLAB	Mr. Suet Asraani	Asian Academy of Professional Training,Pune
3.		Molecular neurology	Dr. Vella Reddy Ananthram	Associate Prof, Biomedical sciences, Iowa state University
4.		Regulomics	Mr. Sanket Desai	MGM IBT, Aurangabad
5.		Stem cells	Dr. Ramesh Bhonde	Retired scientist, NCCS-MIRM, Bangalore
6.		Clinical research and clinical trials	Dr. Girish Tillu	Associate Prof, Symbiosis school of Biomedical sciences, Pune
1.	2014-15	Application of Molecular Techniques in diagnosing genetic disorders	Dr. Mugdha Potnis-Lele,	NCL Innovation Park, Pune
2.		One day workshop on Bioinformatics	Mr. Sameer Choudhary	Director, Rasa Life Science Informatics
3.		Major Histocompatibility Complex	Dr. Sudha Gangal Biotechnology,	Emeritus Professor at Rajiv Gandhi Institute of Bharati Vidyapeeth, Pune
4.		Cell Biology	Dr. Mohan R. Wani,	NCCS, Pune
5.		Sequence Alignment in Bioinformatics,	Mr.Sanket Desai,	MGM IBT, Aurangabad
6.		Phylogenic analysis	Mr.Sanket Desai,	MGM IBT, Aurangabad
7.		Management and Entrepreneurship	Mrs. Mamta Mishra,	MBA department, Sinhgad College of Engineering, Pune
8.		Instrumentation and process control	Mr. A. P. Kulkarni,	M.I.T. College, Pune
9.		Sequence Alignment in Bioinformatics,	Mr.Sanket Desai,	MGM IBT, Aurangabad
10.		Developmental Biology	Dr.Surendra Ghasakadabi	Agharkar Research Institute, Pune
11.		Biotherapeutics	Dr. Swati Shukla	University of Pune
12.		Scope, Development on Industrial Biology	Dr.Anand Ghosalkar	Senior Staff Technologist Praj Industries Ltd.
13.		Intellectual Property Rights	Dr. Rashmi Phadnis Arya	CSIR-URDIP, Pune
14.		Clinical Research	Dr. Ravindra Ghooi	Director, Scientia clinical services
15.		Downstream Processing in Biotechnology	Dr. Mukesh Vinje	Executive DirectorFabtech Technologies International LTD, Biotech Division- Fablife
1.	2013-14	Bioremediation	Dr. K. Kodam	University of Pune
2.		Vaccine immunology	Mr. Sandip Naikwade	Research officer,Serum Institute of India Limited
3.		Intellectual Property Rights	Dr. Rashmi Phadnis Arya	CSIR-URDIP, Pune

Sr. No.	Academic Year	Name of Enrichment Programmes	Name of external Expert	Designation/Organization
4.		Health care challenges in the age of next generation sequencing	Dr. Nitin Udar	Associate research scientist, UCLA, USA
5.		Immunology health and diseases	Mr. Rahul Sutar	Executive research officer, Serum Institute Pune
1.	2012-13	Bioenergetics	Mr. Pranav Tembe	Modern College , Pune
2.		Biotechnology Product development Quality and Regulatory Prospective	Dr. Sameer Naik	Scientist, Serum Institute of India, Pune
3.		Animal Cell Culture & Plant Tissue Culture	Mr. Varun Hingane	Scientist, Serum Institute, Pune
4.		An overview of Biopharmaceutical Processing	Mr. Prakash Kotwal	Manager, Lupin Pvt. Ltd., Pune
5.		Introduction to Biotechnology and Overview of Fermentation Techniques	Mr. Baburao Bhussari	Scientist, Serum Institute, Pune
6.		Importance of Informatics for Life Sciences in Biotechnology	Mr. Sameer Chaudhari	Director, RASA Life Sciences, Pune
1.	2011-12	Bioenergetics	Mr. Pranav Tembe	Modern College , Pune
2.		Opportunities in Biotechnology	Dr. Sandeep Kale,	ICT, Mumbai
3.		IPR	Mr. Anand Mahurkar,	Inrex ITES Systems Pvt.
4.		212 Degree Attitude	Lt. Col. Sameer Kulkarni,	Teak Trails

Sr. No.	Title of the Module	No. of hours	No. of students enrolled			
			2012	2013	2014	2015
<b>Student Training Program (Module I)</b>						
1	Personal and career Goal Setting	2	-	59	58	48
2	SWOT Analysis	2	-	59	58	48
3	Behavioural skills	2	-	59	58	48
4	Public Speaking	2	-	59	58	48
5	Presentation skills	2	-	59	58	48
6	Resume writing	2	-	59	58	48
7	Listening skills	2	-	59	58	48
8	Group discussion	2	-	59	58	48
9	Report writing	2	-	59	58	48
10	Letter/Application writing	2	-	59	58	48
<b>Student Training Program (Module II)</b>						
1	Introduction	2	-	59	58	48
2	Listening Session – I	2	-	59	58	48
3	Listening Session - II	2	-	59	58	48



Sr. No.	Title of the Module	No. of hours	No. of students enrolled			
			2012	2013	2014	2015
4	Reading Session - I	2	-	59	58	48
5	Reading Session - II	2	-	59	58	48
6	Writing Session - I	2	-	59	58	48
7	Writing Session – II	2	-	59	58	48
8	Peaking Session – I	2	-	59	58	48
9	Speaking Session – II	2	-	59	58	48
10	Speaking Session - III	2	-	59	58	48
<b>Student Training Program (Module III)</b>						
1	Overview Of Applied Chemistry And Biochemistry	2	-	-	65	53
2	Overview of Microbiology	2	-	-	65	53
3	Overview of Fluid Flow & Unit Operations	2	-	-	65	53
4	Overview of Material Balances and Stoichiometry	2	-	-	65	53
5	Overview of Cell Biology And Tissue Culture Techniques.	2	-	-	65	53
6	Overview of thermodynamics	2	-	-	65	53
7	Overview of Heat Transfer	2	-	-	65	53
8	Overview of Genetics & Molecular Biology	2	-	-	65	53
9	Overview of Problems from MBS, FFUO and HT	2	-	-	65	53
<b>Student Training Program (Module IV)</b>						
1	Introduction	2	-	-	-	53
2	Introduction and Group formation for Group discussion & Personal Interview	2	-	-	-	53
3	Group Discussion - I	2	-	-	-	53
4	Group Discussion - II	2	-	-	-	53
5	Group Discussion - III	2	-	-	-	53
6	Personal Interview – I	2	-	-	-	53
7	Personal Interview – II	2	-	-	-	53
8	Personal Interview – III	2	-	-	-	53
9	Personal Interview - IV	2	-	-	-	53

### 33. Teaching methods adopted to improve student learning

- Videos from The National Programme on Technology Enhanced Learning (NPTEL) of the subject related topics are shown to enhance understanding.
- Paper presentations/poster competitions/ Model making are arranged under Sinhgad student council (SSC).
- Value addition programme (VAP) and student training programmes (STP) are arranged.
- Guidance lectures for higher studies and AMCAT tests are conducted.
- Industrial visits to understand operational parameters and working of equipments like distillation columns, dryers, mixers, large fermenters etc.

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Sinhgad technical education society in association with prayas has conducted following activities for more than 3500 village students from 35 different schools at Takli Haji (Taluka - Shirur, District-Ahmednagar)

#### 1. Career guidance to village students

Village students were informed about various career options and how to achieve their dreams

#### 2. Women empowerment

To give girl students a greater sense of confidence or self-esteem an “Task force cell against sexual harassment” is established in college. Dr. Mamata Mishra has been appointed as head of this committee. Various ladies faculty members from all departments are members of this committee. Under this various issues are discussed with girl students and accordingly corrective measures are taken.

#### 3. Health and hygiene awareness:

Students were informed about importance of hygiene and its benefits in maintaining good health.

#### 4. Computer literacy: In 21<sup>st</sup> century computer is the tool of learning. Student members, aware of this are making students “Computer literate”.

#### 5. Blood donation camp: Periodical blood donation camps were organized and the people at large were inspired to donate blood.

#### 6. Environment awareness-Tree plantation: In campus large scale the propaganda about environmental protection is carried out.

### 35. SWOC analysis of the department and Future plans

#### Strengths

- Integration of biological sciences and engineering principles
- One of its kinds in SPPU
- Students prefer B.Tech biotechnology in Sinhgad institute over deemed universities.
- Well equipped classrooms and laboratories

#### Weaknesses

- Students need PG studies for getting job in Biotech companies.
- Placement.

#### Opportunities

- Industry Linkages and Consultancy
- Students can go abroad for higher studies as UG biotechnology is a 4 years course.

#### Challenges

- Direct entry in biotech companies is difficult.

#### Future Plans

- To start M.Tech. Biotechnology programme and research centre for Ph.D.
- To enhance the placement scenario for UG students
- To fetch more grants from funding agencies

## CHEMICAL ENGINEERING

1. Name of the department : **Chemical Engineering**
2. Year of Establishment : **1996**
3. Names of Programs / Courses offered:

Sr. No	Name of the programme	Year of Establishment
1	UG	1996
2	PG –ME(Chemical)	2004
3	Ph.D	2005

4. Names of Interdisciplinary courses and the departments/units involved: **NA**
5. Annual/ semester/choice based credit system (programme wise) :

Sr. No	Name of the programme	Pattern/System (Annual/ semester/choice based credit system)
1	UG	UG – Semester wise
2	PG (Specialization)	PG – Choice based credit system

6. Participation of the department in the courses offered by other departments:

Sr. No	Name of the Department	Class	Courses offered
1	BioTechnology	SE (BioTech)	Heat Transfer, Fluid Flow and Unit Operations
2	Civil Engineering	ME(Environmental Engg.)	Environmental Chemistry and Microbiology, Air Pollution and Control
3	PhD -Course work	Ph.D.	Research Methodology

7. Courses in collaboration with other universities, industries, foreign institutions: **NA**
8. Details of courses/programs discontinued (if any) with reasons : **NA**
9. Number of teaching posts

Designation	Sanctioned	Filled
Professors	02	01
Associate Professors	03	03
Asst. Professors	06	08
Visiting Faculty	-	01

**10. Faculty profile with name, qualification, designation, specialization, D.Sc./D.Litt. /Ph.D. / M. Phil. etc.)**

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. S.M. Chavan	Professor & Head	B.Chem. Eng. (UDCT, Mumbai) Ph.D. IITB	Chemical Engg.	30	04 (in process)
Dr. S.R. Shirsath	Associate Professor	M.E. Chem., Ph.D.(Chem.Engg.)	Chemical Engg.	22	-
Prof. Y.R.Soman**	Associate Professor	M.E. Chem.	Chemical Engg.	-	-
Prof.Mrs. R.S. Deshpande	Associate Professor	M.E. Chem.	Chemical Engg.	18	-
Prof. Mrs. V.S. Ashtekar	Asst. Prof.	M.E. Chem.	Chemical Engg.	20	-
Prof. V.H. Bankar	Asst. Prof.	M.E. Chem.	Chemical Engg.	18	-
Dr. S.S. Barkade	Asst. Prof.	M.E. Chem., PGDBM, Ph.D.(Chem. Engg.)	Chemical Engg.	15	-
Dr. J.G.Gujar	Asst. Prof.	M.Tech. (Chem.), Ph.D.	Chemical Engg.	7	-
Prof.Mrs. Sai Chandra	Asst. Prof.	M.E. Chem.	Chemical Engg.	11	-
Prof.Mrs. S.S. Patil	Asst. Prof.	M.E. Chem.	Chemical Engg.	13	-
Prof. S. A. Ghodke	Asst. Prof.	M. Tech. Chem.	Chemical Engg.	9	-
Prof.Mrs. D.S.Patil	Asst. Prof.	M.E. Chem.	Chemical Engg.	9	-

\*\* On lien

- 11. List of senior visiting faculty** : Nil
- 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty** : Nil
- 13. Student -Teacher Ratio (programme wise):**

Sr. No	Programme	Student -Teacher Ratio
1	UG	16:1
2	PG	12:1

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

Staff details	Sanctioned	Filled
Academic Support Staff	7	7

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.:**

Ph.D.	Ph.D. Pursuing	PG	UG
04	05	03	0

**16. Number of faculty with ongoing projects from National and International funding Agencies and grants received**

- a) National :  
b) International :

S.No.	National/ International	Number of Faculty	Total Grant Received
01	02	02	8.25 Lakhs

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received**

Sr. No	Projects funded by	Total Number	Total Grants Received, Rs
1	AICTE (RPS+MODROB+FDP)	2	7,75,000/-
2	TEQIP (FDP. SDP, Workshop)	1	48,000/-
3	University (BCUD+ISRO)	6	11,00,000/-

**18. Research Centre /facility recognized by the University :**

Sr. No	Total Number of PhD students		Number of guides associated
	Registered	Completed	
01	01	---	04

**19. Publications:**

- a) Publication per faculty : 4.54 (Publications/No of faculty)

Parameters	Number
Number of papers published in peer reviewed journals (National /International) by faculty and students	22
Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	21
Monographs	Nil

Chapter in Books	03
Books Edited	00
Books with ISBN/ISSN numbers with details of publishers	05
Citation Index	494
SNIP	05
SJR	05
Impact factor	08
h-index	03

**20. Areas of consultancy and income generated** : Nil

**21. Faculty as members in**

**a) National committees** :

Sr. No	Name of the faculty	Name of the committee	Nature of work/description
01	Dr. S. M. Chavan	The peer review committee member, Advisory board, , Ministry of Defence, Govt. of India	Designs to be utilized in the modern design of 'Agni' missiles under the project, 'Motor processing technology for small caliber motors manufactured in large numbers', worth Rs. 16 Crore.
02	Dr. S. M. Chavan	The peer review committee member, Advisory board, , Ministry of Defence, Govt. of India	Designs to be utilized in the modern design of 'Agni' missiles under the project, 'Development of continuous mixing system for composite propellants', worth Rs. 15 Crore.
03	Dr. S. M.Chavan	BOS Chairman, Solapur University	University related work
04	Dr. S. M.Chavan	Member - LIC, SPPU, Pune	University related work
05	Dr. S. M.Chavan	Member, Research Committee, SPPU	University related work
06	Dr. S. R. Shirsath	BOS member, SPPU,Pune	University related work
07	Dr. J. G. Gujar	Adhoc member, Solapur University	University related work

**b) International Committees** : Nil

**c) Editorial Boards**

Name of the faculty	Name of Journal/ conference/ magazine/ news paper
Dr. S.M. Chavan	Member, Editorial Board, Science Journal Of Energy Engineering, Science PG, USA

**d. Any other committee :**

Sr. No	Name of the faculty	Name of the committee/Role	Nature of work/description
01	Dr. S. M. Chavan	BOS Chairman, Solapur University	University related work
02	Dr. S. M. Chavan	Member, LIC, SPPU,Pune	University related work
03	Dr. S. M. Chavan	Member, Research Committee, SPPU,Pune	University related work
04	Dr. S. M. Chavan	Member, UGC interview Committee, SPPU,Pune	University related work
05	Dr. S. M. Chavan	Member, UGC interview Committee, Shivaji University, Kolhapur	University related work
06	Dr. S. M. Chavan	Member, UGC interview Committee, Bharati Vidyapeetha, Pune	University related work
07	Dr. S. M. Chavan	Presiding Officer	State level election
08	Dr. S. R. Shirsath	BOS member and faculty Of Engineering, SPPU,Pune	University related work
09	Dr. J. G. Gujar	Adhoc member, Solapur University	University related work

**22. Student projects**

- Percentage of students who have done in-house projects including inter departmental/programme
- Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Programme	Academic Year	Percentage of in-house projects	Percentage of sponsored projects
UG	2014-15	93	7
	2013-14	89	11
	2012-13	85	15
	2011-12	72	28
PG	2014-15	94	6
	2013-14	93	7
	2012-13	100	-
	2011-12	100	-

**23. Awards / Recognitions received by faculty and students :**

Total Number of students awards	Total Number of Faculty awards
40	-

**24. List of eminent academicians and scientists / visitors to the department :**

Sr. No.	Name of eminent academicians, scientists, visitors	Association/Affiliation	Purpose of visit
01	Dr.Rahul Banerjee	National Chemical Laboratory	Resource Person for FDP
02	Dr.Pankaj Poddar	National Chemical Laboratory	Resource Person for FDP
03	Dr. Pawan K Khanna	DIAT, Pune	Resource Person for FDP
04	Dr. Balasubramanian	DIAT, Pune	Resource Person for FDP
05	Dr. Chetan Bhongale	DIAT, Pune	Resource Person for FDP
06	Dr. Shaibal Banerjee	DIAT, Pune	Resource Person for FDP
07	Mr.Ananad Bhawe	Anand Electromagnetics,Pune	Resource Person for FDP
08	Dr. S.I.Patil	HOD,Physics Dept,UOP,Pune	Resource Person for FDP
09	Dr.M.Y.Khaladkar	COEP,Pune	Resource Person for FDP
10	Dr.Anjali Athawale	UOP,Pune	Resource Person for FDP
11	Dr.V.S.Galphade	COEP,Pune	Resource Person for FDP
12	Dr. Rahul Harshe	R & D Engineers, Dighi	Resource Person for FDP
13	Dr. Makarand Joshi	R & D Engineers, Dighi	Resource Person for FDP
14	Dr. Milind Kulkarni	C-MET,Pune	Resource Person for FDP
15	Dr. Ulhas Kharul	NCL,Pune	Resource Person for FDP
16	Dr. R. K. Goyal	COEP,Pune	Resource Person for FDP
17	Dr. D. N. Naik ,	Agharkar Research Institute, Pune	Resource Person for FDP
18	Mrs. Sunitra Patwardhan	SCOP, Pune	Resource Person for FDP
19	Dr. K. N. Shobha,	Reliance Industries Ltd., Mumbai.	Resource Person for FDP
20	Dr. Anil Patil	Halliburton, Pune	Resource Person for FDP

**25. Seminars/ Conferences/Workshops organized & the source of funding**

a) National :

b) International :

Year	Sr. No	Name of FDP / SDP / STTP / Workshop / Webinar etc.	National/ International	Sponsoring / Funding Agency if any	Revenue generated Rs.
2014-15	1	STTPon "Recent Advances in Nano-Polymer Technology	National	Self financed	25000/-
2013-14	1	FDP on "Sophisticated Instrumental Analysis Techniques	National	Self financed	56,000/-



2012-13	1	FDP on "Advanced Materials for Engineering Applications"	National	TEQIP – II	1,40,000/-
	2	State level Seminar on "Recent Advances in Natural Product Extraction"	National	QIP , Savitribail Phule Pune University, Pune	45,000/-
2011-12	1	Staff Development Programme – “Recent Advances In Chemical Process Control”	National	Funded by AICTE	1,70,000/-
	2	Workshop on “Industrial Waste Water Treatment”	National	Approved by ISTE	30,000/-
2010-11	1	Staff Development Programme – “Optimization in Chemical Process Industries”	National	Self Supported	45,000/-
	2	Short Term Training Programme on “Optimization in Chemical Process Industries”	National	Self Supported	40,000/-

**26. Student profile programme/course wise:**

Name of the Course/programme		Applications received	Selected	Enrolled		Pass percentage
Course	Year			*M	*F	
UG	2014-15	Admission process in the state is only through CAP and governed by Director of Technical Education (DTE), Government of Maharashtra.	63	51	12	Since the college wise application received is with DTE, pass percentage is Not available with the institute.
	2013-14		60	45	15	
	2012-13		63	43	20	
	2011-12		58	43	15	
PG	2014-15	The Institute follows the rules, regulation & guidelines set by	10	02	08	
	2013-14		16	10	06	
	2012-13		18	08	10	

	2011-12	Savitribai Phule Pune University, State Government body.	04	04	00	
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\*M = Male \*F = Female

## 27. Diversity of Students

Name of the Course/programme		% of students from the same state	% of students from other States	% of students from abroad
Course	Year			
UG	2014-15	89.23	7.69	3.07
	2013-14	76.66	23.33	00
	2012-13	87.30	12.69	00
	2011-12	89.65	10.34	00
PG	2014-15	100	00	00
	2013-14	100	00	00
	2012-13	83.33	16.66	00
	2011-12	75	25	00

## 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Competitive Examinations /Academic Year	No of Students			
	2011-12	2012-13	2013-14	2014-15
GATE	5	3	4	1
GRE/TOEFL	2	1	2	1
GMAT/CMAT	-	-	-	-
NET/SET	-	-	-	-
Civil services	-	-	-	-
Defense services	-	-	-	-
Others	1	2	1	1

## 29. Student progression

Student progression	Against % Enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	16.13	17.65	10.14	3.57
PG to M.Phil.	-	-	-	-
PG to Ph.D.	-	-	-	-
Ph.D. to Post-Doctoral	-	-	-	-
<b>Employed</b>				
• Campus selection	48	47	7	11
• Other than campus recruitment	20	25	5	10
Entrepreneurship/Self-employment	01	-	-	-

## 30. Details of infrastructural facilities

### a) Library

Sr. No.	Particulars	Number
1	Titles	1444
2	Volumes	4489
3	National Journals	09
4	International Journals	-
5	CDs	1200
6	e-Books and e-Journals	-

### Department library

- Department library is equipped with books (number of titles 240 and volumes 288)

### b) Internet facilities for Staff & Students

- Staff cabins are fully furnished and equipped with computers, Internet connections, Laser Printer, Book Racks and Pin Board
- All staff rooms and department office have EPABX system facility.
- Wifi and wired network facility is available in the building, labs and classrooms.
- Power back-up is also provided in all labs for smooth conduction of practical and classes.

### c) Class rooms with ICT facility

- Adequate number of class rooms for lectures (core/electives), seminars, and tutorials with LCD projector and wired and wi-fi internet connections.
- A Seminar Hall with aforementioned facilities with a capacity of 100 shared with Civil and Biotech departments

d) Laboratories

Sr. No	Name of Laboratory	List of Major Equipment
1	Mechanical Operation Laboratory	Jaw Crusher, Ball mill, Distillation Column, CSTR, Plug Flow Reactor, Interacting & Non-interacting system Atomic Absorption Spectrophotometer, UV Visible Spectrophotometer,
2	Heat Transfer Laboratory (Shared)	
3	Chemical Reaction Engineering Laboratory	
4	Process Instrumentation and Control Laboratory	
5	Process Dynamics and Control Laboratory	
6	Mass Transfer Laboratory – I	
7	Mass Transfer Laboratory – II	
8	Chemical Process Technology	
9	Chemistry Laboratory	
10	Computer Laboratory	
11	Chemical Engineering Fluid Mechanics Laboratory (Shared)	
12	Project Laboratory	

31. Number of students receiving financial assistance from college, university, government or other agencies

Year	No of students			
	College	University	Government	other agencies
2014-15	Nil	Nil	165	13
2013-14	Nil	Nil	124	Nil
2012-13	Nil	Nil	134	Nil
2011-12	Nil	Nil	113	Nil

32. Details on student enrichment programmes (Special Lectures/ Workshops/ Seminar) with external experts

Sr. No.	Academic Year	Name of Enrichment programmes	Name of external Expert	Organization
1	2014-15	Guest Lecture	Dr. Khante	Shubhjyot Consultants, Pune
2	2014-15	Guest Lecture	Mr. Golwalkar	Project Consultant in Chemical Engineering, Nagpur
3	2014-15	Guest Lecture	Mr. Nilesh Sakpal	Techniche Engg. Pvt. Ltd., Pune

4	2014-15	Guest Lecture	Mr. Vishwas Shinde	Elixir Consultanta, Aberdeen, Scotland
5	2014-15	Guest Lecture	Mr. Saurabh Antani	HR Wallingford, Mumbai
6	2014-15	Guest Lecture	Dr. Omkar Deshmukh	University of Twente, Netherlands
7	2014-15	Guest Lecture	Mr. S.V. Naik	Anirudh Engineering Consultancy, Pune
8	2013-14	Guest Lecture	Mr. Pankaj Mathur	Aster technologies, Pune
9	2013-14	Guest Lecture	Mr. Rajesh Bhutani	Thermax India Ltd, Pune
10	2013-14	Guest Lecture	Dr. G.M. Chaphekar	Scientist (Retd.)NCL, Pune
11	2013-14	Guest Lecture	Mr. Pradeep Dhotey	Praj Industries Ltd.Pune
12	2013-14	Guest Lecture	Mr. Milind Talathi	Elantas Beck India Ltd
13	2013-14	Guest Lecture	Dr. S.D. Manjare	Birla Institute of Technology & Science, Goa
14	2013-14	Guest Lecture	Mr. Puneet Zaidu	Bharat Petroleum Corp. Ltd, Pune
15	2012-13	Guest Lecture	Mr. Prakash Patil	IICHe Pune regional chapter
16	2012-13	Guest Lecture	Mrs. Anita Patankar	Symbiosis School of liberal Arts, Pune
17	2012-13	Guest Lecture	Dr. Omkar Deshmukh	University of Twente, Netherlands
18	2012-13	Guest Lecture	Mr. Narendra Gadre	Napro Scientific, Pune
19	2011-12	Guest Lecture	Mr. Pranav Kshirsagar	Scientist Agarkar Research Institute Pune
20	2011-12	Guest Lecture	Dr. V. G. Gaikar	Professor, ICT, Mumbai.
21	2011-12	Guest Lecture	Mr. R. V. Patil	Lupin Ltd. Pune
22	2011-12	Guest Lecture	Dr. Naresh Tongay	Ex. GM Haffkines & presently as a consultant
23	2011-12	Guest Lecture	Mr. Umesh Sejkan	MD Global Management Consultancy and Technical Training Services
24	2011-12	Guest Lecture	Dr. Prasad Kankekar	Associate Staff Technologist, Praj Matrix – The Innovation Center, Pune

Sr. No	Title of the module	No. of hours	No. of students enrolled		
			2012-13	2013-14	2014-15
<b>Student Training Program (Module -I)</b>					
1	Personal and career goal setting	2	∞	73	81
2	SWOT Analysis	2	∞	73	81
3	Behavioral skills	2	∞	73	81
4	Public Speaking	2	∞	73	81
5	Presentation skills	2	∞	73	81
6	Resume writing	2	∞	73	81
7	Listening Skills	2	∞	73	81
8	Group Discussion	2	∞	73	81
9	Report Writing	2	∞	73	81
10	Letter / Application Writing	2	∞	73	81
<b>Student Training Program (Module -II)</b>					
1	Introduction	2	∞	73	81
2	Listening_01	2	∞	73	81
3	Listening_02	2	∞	73	81
4	Speaking_01	2	∞	73	81
5	Speaking_01	2	∞	73	81
6	Speaking_01	2	∞	73	81
7	Reading_01	2	∞	73	81
8	Reading_02	2	∞	73	81
9	Writing_01	2	∞	73	81
10	Writing_02	2	∞	73	81
<b>Student Training Program (Module -III)</b>					
1	Chemical Engineering materials	2	∞	97	85
2	Chemical Engineering Thermodynamics - I	2	∞	97	85
3	Principles of Design	2	∞	97	85
4	Process Calculations	2	∞	97	85
5	Mechanical Operations	2	∞	97	85
6	Heat Transfer	2	∞	97	85

7	Chemical Engineering Fluid Mechanics	2	`	97	85
8	Chemistry – I	2	`	97	85
9	Chemistry – II	2	`	97	85
<b>Student Training Program (Module -IV)</b>					
1	Introduction	2	`	97	85
2	Group Discussion _01	2	`	97	85
3	Group Discussion _02	2	`	97	85
4	Group Discussion _03	2	`	97	85
5	Personal Interview _01	2	`	97	85
6	Personal Interview _02	2	`	97	85
7	Personal Interview _03	2	`	97	85
8	Personal Interview _04	2	`	97	85

### 33. Teaching methods adopted to improve student learning

1. Regular black board teaching and practical sessions
2. All the classrooms are equipped with LCD and OHP and these facilities are regularly used.
3. Content delivery for some of the application oriented subjects, is through multimedia CD, models, charts and industrial visits.
4. Industrial visits are arranged for all the students twice in a year so that they come to know about the latest developments in the industry.
5. Expert lectures by the persons from industry on specified topics for all the classes.
6. Additional lectures and practical sessions for academically weaker students.
7. Tutorial sessions to increase the problem solving competency.
8. Assignments are provided to enhance the technical know-how of the subject.

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

PRAYAS is a social activity under which students takes part for various activities such as Computer Literacy, Vedic Mathematics, scientific toys, career counseling, blood donation, street play, various competition, General awareness, books and cloths donation.

### 35. SWOC analysis of the department and Future plans

#### Strengths:

- The faculty are getting higher qualifications.
- The retention ratio of the faculty is high.

#### Weaknesses:

- Lesser industry interaction,
- Lesser Consultancy based projects.

#### Opportunities:

- Good scope to improve the department standing in the educational space.

#### Challenges:

- The market conditions, growth rate in the chemical engineering sector are quite grim.
- The department shall overcome it by striving hard to raise the standard of education and research.

#### Future Plans

- To improve the interaction with industry,
- To increase the number of sponsored projects,
- To improve the areas/base of consultancy ,
- To establish the department as a center of excellence in the upcoming areas of Chemical engineering.



## CIVIL ENGINEERING

1. **Name of the department** : Civil Engineering
2. **Year of Establishment** : 2000
3. **Names of Programs/Courses offered**

Sr. No	Name of the programme	Year of Establishment
1	UG	2000
2	PG (Specialization)	
	Structural Engineering	2007
	Hydraulics	2010
	Environmental Engineering	2011
3	Ph.D.	2007

4. **Names of Inter disciplinary courses and the departments/units involved**

Sr. No	Name of the Inter disciplinary Courses	Departments/Units Involved
1	UG	NIL
2	PG (Specialization)	NIL

5. **Annual/semester/choice based credit system (programme wise)**

Sr. No	Name of the programme	Pattern/System (Annual/semester/choice based credit system)
1	UG	Semester
2	PG (Specialization)	Choice based credit system
3	Ph.D.	Choice based credit system

6. **Participation of the department in the courses offered by other departments**

Sr. No	Name of the Department	Class	Courses offered
1	Engineering Science	FE	Basics Civil and Environmental Engineering , Engineering Mechanics
2	IT	BE	Geographical Information System
3	PG (Specialization)	Nil	Nil
4	PhD -Course work	Ph.D	Research Methodology

7. **Courses in collaboration with other universities, industries, foreign institutions**

Sr. No	Certificate/Course Name	Collaborating Institution/Industry/Universities etc.
1	AutoCAD	M/s CADD Center Pune
2	ERP	Mr. Uday Betawadtar, Pune

3	Concrete Mix Design	M/s Ambuja Cement Pune
4	L&T designers training program	Asian Academy of Professional Training Pune
5	STAAD.Pro	M/s CADD center Pune
6	ANSYS	Mr. Sachin Matade, Consultant, Pune
7	Internship program for TE students	Builders Association of India, Pune

8. Details of courses/programs discontinued(if any)with reasons: Nil

9. Number of teaching posts

	Sanctioned	Filled
Professors	9	1
Associate Professors	15	5
Asst. Professors	30	29
Visiting/guest faculty	-	7

10. Faculty profile with name, qualification, designation, specialization.

Sr. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for last 4 years
1	Dr. S. S. Shastri	Ph. D.	Professor & Head	Environmental Engineering	20.5	0
2	Dr. (Mrs.) P. M. Alandkar	Ph. D.	Asso. Professor	Structural Engineering	18	0
3	Mrs. S. S. Jain	M. E.	Asso. Professor	Geotechnical Engineering	22	0
4	Mrs. J. P. Bhusari	M. E.	Asso. Professor	Structural Engineering	20	0
5	Mrs. V. S. Limaye	M. Tech.	Asso. Professor	Town Planning	26	0
6	Dr. S. S. Angalekar	Ph. D.	Asst. Professor	Structural Engineering	14	0
7	Dr. M. N. Bajad	Ph. D.	Asst. Professor	Structural Engineering	14	0
8	Mr. D. S. Aswar	M. E.	Asst. Professor	Geotechnical Engineering	15	0

9	Mr. M. V. Bhogone	M. Tech.	Asst. Professor	Structural Engineering	13	0
10	Mrs. D. R. Vaidya	M. E.	Asst. Professor	Structural Engineering	10	0
11	Mr. P. B. Kodag	M. E.	Asst. Professor	Structural Engineering	12	0
12	Mrs. M. M. Magdum	M. E.	Asst. Professor	Structural Engineering	10	0
13	Mrs. S. R. God	M. E.	Asst. Professor	Geotechnical Engineering	10	0
14	Mrs. S. P. Kulkarni	M. E.	Asst. Professor	Structural Engineering	12	0
15	Mrs. S. A. Mishra	M. E.	Asst. Professor	Structural Engineering	7	0
16	Mrs. V. U. Khanapure	M. E.	Asst. Professor	Geotechnical Engineering	14	0
17	Mrs. A. A. Taware	M. E.	Asst. Professor	Structural Engineering	5	0
18	Miss. S. S. Hailkar	M. E.	Asst. Professor	Hydraulics	12	0
19	Miss. A. D. Mamidwar	M. E.	Asst. Professor	Construction and management	3	0
20	Mrs. N. N. Dodal	M. E.	Asst. Professor	Structural Engineering	2	0
21	Mr. M. S. Injal	M. E.	Asst. Professor	Construction Management	4	0
22	Miss. R. S. More	M. E.	Asst. Professor	Hydraulics	3	0
23	Dr. V. R. Ghodake	PhD Geology	Asst. Professor	Geology	4	0
24	Mr. L. A. Bhangale	M. E.	Asst. Professor	Geotechnical Engineering	6	0
25	Miss. M. M. Sawant	M. E.	Asst. Professor	Environmental Engineering	4	0
26	Mrs. S. K. Patil	M. E.	Asst. Professor	Construction and Management	25	0
27	Mr. A. K. Marunmale	M. E.	Asst. Professor	Construction & Management	2	0
28	Mr. N. P. Patki	M. E.	Asst. Professor	Hydraulics	5	0
29	Mr. A. S. Attal	M. E.	Asst. Professor	Structural Engineering	7	0

30	Mrs. Anagha Deshpande	M. E.	Asst. Professor	Hydraulics	5	0
31	Mr. A. P. Kapare	M. E.	Asst. Professor	Geotechnical Engineering	3 months	0
32	Mr. M. M. Kapote	M. E.	Asst. Professor	Construction & Management	1	0
33	Mr. Abhishek Sinha	M. E.	Asst. Professor	Water Resources Engg.	3 months	0
34	Miss S. B. Patil	M. E.	Asst. Professor	Marine Structure	2	0
35	Mr. M. G. Saboji	M. E.	Asst. Professor	Environmental Engineering	2	0
36	Mr. M. N. Ranka	B. E.	Asst. Professor	Civil Engineering	10	0

### 11. List of senior visiting faculty

Sr. No.	Name	Affiliation	Subject
1	Mr. V. B. Joshi	Retired Chief Research Officer, CWPRS.	For M. E. Hydraulics (Coastal Engineering); Year 2012 -13; 2014-15
2	Mr. P. V. Deshpande	Retired Executive Engineer, Water Resources Department, Government of Maharashtra	For M. E. Hydraulics (Planning & Management of Water Resources); Year 2013 -14
3	Dr. G. A. Hinge	HoD- Civil, TSSM, BSCOE	For M. E. Hydraulics, Hydropower Engineering, Year 2015-16

### 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: Nil

### 13. Student-Teacher Ratio

Sr. No	Programme	Student-Teacher Ratio
1	UG	17:1
2	PG	12:1

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

Staff details	Sanctioned	Filled
Academic Support Staff	4	4

**15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG/ UG.**

Ph.D.	Ph.D. Pursuing	PG	UG
05	07	22	1

**16. Number of faculty with ongoing projects from National and International funding Agencies and grants received**

- a) National: 01
- b) International: Nil

S. No.	National/ International	Number of Faculty	Total Grant Received (Rs.)
1	National	2	1,40,000/-

**17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received**

Sr. No	Projects funded by	Total Number	Total Grants Received (Rs.)
1	AICTE (RPS+MODROB+FDP)	-	-
2	TEQIP (FDP. SDP, Workshop)	1	90,000/-
3	University (BCUD+ISRO)	4	7,40,000/-
4	Any other	-	-

**18. Research Centre / facility recognized by the University: Yes (Ref. No.: CA/4125, dated 6/12/12)**

Sr. No	Total Number of PhD students		Number of guides associated
	Registered	Completed	
1	23	11	10

**19. Publications**

- a) Publication per faculty: 5.14

Parameters	Number
Number of papers published in peer reviewed journals (National/International) by faculty and students	83
Number of publications listed in International Data base (For E.g.: Web of Science, Scopus, Humanities International Complete, Dare Database-International Social Sciences Directory, EBSCO host, etc.)	58

Monographs	Nil
Chapter in Books	Nil
Books Edited	Nil
Books with ISBN/ISS N numbers with details of publishers	43
Citation Index	62
SNIP	02
SJR	02
Impact factor	83
h-index	5

## 20. Areas of consultancy and income generated

Sr. No.	Details of Consultancy (Technical / Academic / Testing)	Name of Faculty	Revenue Generated Rs.
1	Testing of soil samples for sediment transport studies for Rohini Port in Rajpuri Creek, Raigad Dist.	Mrs. S. S. Jain, Mr. D. S. Aswar	5,500/-
2	Testing of soil samples for sediment transport studies for Jetty Construction near Alibaug	Mrs. S. S. Jain, Mr. S. T. Mali Mr. D. S. Aswar	12,000/-
3	Geotechnical Engineering Practical	Mrs. S. S. Jain, Mr. D. S. Aswar, Mrs. V. U. Khanapure, Mrs. S. R. God	55,500/-
4	L & T Designer's training programme	Various Faculties	1,16,640/-
5	L & T Designer's training programme	Various Faculties	1,06,000/-
6	Calibration of Tipping Bucket Rain gauge	Dr. (Mrs.) K. C. Khare, Mr. G. A. Hinge, Mr. V. R. Ingole	15,000/-
7	Determination of total organic content and hydrometer analysis	Mrs. S. S. Jain, Mr. D. S. Aswar, Mrs. S. R. God	81,000/-
8	Laboratory analysis of water samples to determine suspended concentration and oil content	Dr. S. S. Shastri, Dr. S. T. Mali	1,56,000/-
9	Feasibility studies for the use of dredged material in brick industry along with fly ash for Trombay Thermal Power Station	Mrs. S. S. Jain, Mr. D. S. Aswar	1,75,000/-

10	The testing and analysis of water and wastewater samples from various campuses of STES is being carried out for checking potability (water) and suitability for reuse (waste water)	Dr. S. S. Shastri Dr. S. T. Mali Ms. Maheshwari Sawant Mr. V. R. Ingole	Every year, min saving of Rs. 75000/- for STES
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## 21. Faculty as members in

### a) National committees

Sr. No	Name of the faculty	Name of the committee	Nature of work/description
1	Dr. S. S. Shastri	Member of BoS	BOS, Civil SPPU
2		MPSC	Paper setting and checking
3		Member faculty of engineering	To decide policies of working for faculty of engineering under SPPU
4		Member R. R. committee, DoT SPPU	Constituting various committees, PhD guide approval, Syllabus and course structure etc.
5	Mrs. S. S. Jain	IGS	Organizing seminars, workshops, conferences etc.

### b) International Committees

Sr. No	Name of the faculty	Name of the committee	Nature of work/description
1	Dr. S. T. Mali	Resource, Conservation and Recovery (Elsevier)	Blind review of papers submitted to the Journal and Conferences
2		Environmental Progress & Sustainable Energy	Blind review of papers submitted to the Journal and Conferences
3		African Journal of Environmental Science and Technology	Blind review of papers submitted to the Journal and Conferences
4		Journal of Environmental Science and Water Resource	Blind review of papers submitted to the Journal and Conferences
5		Journal of Agriculture and Food Science	Blind review of papers submitted to the Journal and Conferences
6		International Conference on Recent Trends in Engineering and Technology	Blind review of papers submitted to the Journal and Conferences

### C) Editorial Boards: Nil

Name of the faculty	Name of Journal/ conference/ magazine/ news paper
-	-

**d. Any other committee**

Sr. No	Name of the faculty	Name of the committee/Role	Nature of work/description
1	Dr. S. S. Shastri	LIC, SPPU	Course Evaluation of colleges under SPPU
2	Dr. S. T. Mali	LIC, SPPU	Course Evaluation of colleges under SPPU
3	Mrs. J. P. Bhusari	LIC, SPPU	Course Evaluation of colleges under SPPU
4	Mr. D. S. Aswar	Presiding officer	Election duty
5	Mr. P. B. Kodag	Presiding officer	Election duty
6	Mr. V. D. Patil	Presiding officer	Election duty
7	Mr. S. K. Kulkarni	Presiding officer	Election duty
8	Mr. P. M. Walunjkar	Presiding officer	Election duty
9	Mr. L. A. Bhangale	Presiding officer	Election duty
10	Mr. M. S. Injal	Presiding officer	Election duty
11	Ms. M. M. Sawant	Presiding officer	Election duty
12	Ms. R. S. More	Presiding officer	Election duty
13	Mr. R. C. Masuti	Presiding officer	Election duty
14	Mr. T. D. Bhosale	Presiding officer	Election duty
15	Mr. S. S. Kolapkar	Presiding officer	Election duty
16	Mr. Santosh Kumar	Presiding officer	Election duty

**22. Student projects**

- Percentage of students who have done in-house projects including interdepartmental/programme
- Percentage of students placed for project in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies

Programme	Academic Year	Percentage of in-house projects			Percentage of sponsored projects		
UG	2014-15	95.15			4.85		
	2013-14	93.72			6.28		
	2012-13	96.88			3.12		
	2011-12	97.43			2.57		
Programme	Academic Year	Percentage of in-house projects			Percentage of sponsored projects		
		S*	H#	E\$	S*	H#	E\$
PG	2014-15	96	79	82.4	4	21	17.6
	2013-14	96	94	94.5	4	6	5.5
	2012-13	100	67	90	0	33	10
	2011-12	100	55	100	0	45	0

S\* = Structures H# = Hydraulics E\$ = Environmental Engineering



### 23. Awards/Recognitions received by faculty and students

Total Number of students awards	Total Number of Faculty awards
108	15

### 24. List of eminent academicians and scientists/visitors to the department

Sr. No	Name of eminent academicians, scientists, visitors	Association/Affiliation	Purpose of visit
1	Er. Ramesh Kulkarni	Chairman IGS Pune chapter & CMD, Soiltech India Pvt. Ltd	Inauguration of IGS Students Chapter
2	Dr. Yashwant Kolekar	Secretary IGS Pune chapter & Associate Prof., COEP	Inauguration of IGS Students Chapter
3	Mr. Atul Gotsurve	Passport Officer, Pune	SE Welcome Function and Career Guidance
4	Mr. Sameer Jain	Asst. Prof., NICMAR	Speaker of Conference
5	Mr. Tanay Kulkarni	Global Water Sales team- South Asia	Guest Lecture
6	Mrs. Poorva Keskar	Director, V K E Environmental Pune.	Guest Lecture
7	Mr. Subhash Phatak	Plumbing Consultant	Guest Lecture
8	Ravindra Bapat	Project Management Consultant	Guest Lecture
9	Mr. V. R. Phadke	Retired Professor, MIT	Practical Guidance for QSCT
10	Mrs. Mrudula Ranade	Consulting Architect	Guest Lecture
11	Er. Manoj Deshmukh,	Managing Director, MD Consultant, Pune	Meeting Regarding Internship Program
12	Mr. Sanjay Deshpande	Promoters, Sanjivani Builders, Pune	Guest Lecture
13	Mr. M. R. Apte	Ex-Vice President AFCONS, Pune	Guest Lecture
14	Mr. Sanjay Agarwal	S. A. Consultants, Kothrud, Pune	Guest Lecture
15	Dr. R. C. Pathak	Ex. Principal, Director, Imperial C O E, Wagholi	Guest Lecture
16	Mr. S. D. Marulkar	Research Officer, CWPRS, Khadak wasala, Pune	Guest Lecture
17	Mr. Sachin Joshi	Promoter, S K Joshi Associates, Pune	Guest Lecture
18	Dr. Sachin Jain	Associate Professor, NICMAR, Pune	Guest Lecture
19	Dr. T. M. Parchure	Professor Emeritus, COE, Pune	Guest Lecture
20	Mr. A. S. Shelar	Professor, CWIT, Pune	Guest Lecture

21	Dr. A. D. Patwardhan	Retired Professor, VJTI, Mumbai	Guest Lecture
22	Ms. Soumya Upadhyay	Section Head Training, Pidilite Industry, Pune	Guest Lecture
23	Ar. Shirish Khembhavi	Director, Architectural firm, Pune	Guest Lecture
24	Dr. N. B. Chaphalkar	Assoc. Professor, COEP	Guest Lecture
25	Mr. Satish Marathe	Director, Marathe Consulting Firm	Guest Lecture
26	Dr. A. S. Garudkar	Asso. Professor, WALMI, Aurangabad	Guest Lecture
27	Mr. Vikas Thakar	President and Principal Consultant, Pave Tech Consultants, Pune	Guest Lecture
28	Mr. Sandeep Joshi	Tech. Director, Srishti Eco Research Int, Pune	Guest Lecture
29	Mr. V.A. Shikhare	Industrialist	Guest Lecture
30	Mr. M. A. Magdum	Senior Designer, Neilsoft Ltd	Guest Lecture
31	Mr. Advait Aundhkar	Director, Urban Ekistics Center, Mumbai,	Smarter Cities Conference Inauguration
32	Mr. Bal Kulkarni	Director, Delcons Consultants India Pvt. Ltd. Pune,	Smarter Cities Conference Inauguration
33	Prof. Vikas S. Patil	Managing Director, Savi Infrastructures & Properties Pvt. Ltd. Pune	Smarter Cities Conference Inauguration
34	Mr. Mahesh Pathak	Chairman & Managing Director, Unity Consultants Pvt. Ltd. Pune	Smarter Cities Conference Inauguration
35	Prof. S. Y. Patki	Ex. Faculty Member - Department of Civil Engineering, Government College of Engineering, Pune, India	Smarter Cities Conference Inauguration
36	Mr. V. M. Rande	Ex Secretary WRD GoM	Guest Lecture
37	Mr. R. J. Holani	Ex Secretary KJP, GoM	Guest Lecture
38	Dr. S. V. Mapuskar	Founder Appa Patwardhan Tantraniketana Dehugaon	Interaction with Faculty on Appropriate Sanitation Technologies for India
39	Dr. Dhananjay Pandit	Chief Consulting Engineer (Hydro informatics) DHI (India)	Guest Lecture
40	Mr. Hashim Pashtun	Water supply Engineer, Kabul Water Authority	Interaction with TE Students

## 25. Seminars/Conferences/Workshops organized & the source of funding

a) National: 13

Year	Sr. No	Name of FDP / SDP / STTP / Workshop / Webinar etc.	National/ International/ Other	Sponsoring / Funding Agency if any	Revenue generated Rs.
2014-15	1	Innovative Trends Towards Excellence in (CETP) Management	National	Self-Sponsored	1,500/-
	2	Smarter Cities – India 2015 : Smarter Solutions for a Better Tomorrow (SCI – 2015)	National	Self-Sponsored	2,500/-
2013-14	1	Application of Finite Element Method in Civil Engineering	National	BCUD	NIL
	2	Two Days Training Program on Practicals for Environmental Engineering I	SPPU	BCUD	1,000/-
	3	Three Days Training Program on Practicals for Environmental Engineering II	SPPU	BCUD	1,500/-
	4	80 hours Training Programme on STAAD.Pro	Institute	Self-Sponsored	2,000/-
2012-13	1	05 days FDP on “Appropriate Sanitation Practices for Indian Conditions”	National	TEQIP	8,000/-
	2	Two days Induction program for Basic Civil & Environmental Engineering	-	Self-Sponsored	2,500/-
2011-12	1	Training program for ANSYS Software	-	Self-Sponsored	Nil
	2	Training program for MIKE-11	-	DHI (India) Water and Environmental Pvt Ltd.	Nil
	3	Surveying Applications	-	Self-Sponsored	Nil

		Software CIVIL CAD 2010 & Total station			
	4	Training Program for L & T Design Engineers	-	Asian Academy Pune	35,000/-
	5	Training Program for L & T Design Engineers	-	Asian Academy Pune	32,000/-

b)International: Nil

### 26. Student profile programme/course wise

Name of the Course/programme		Applications received	Selected			Enrolled			Pass percentage			
Course	Year					*M	*F					
UG	2014-15	Admission process in the state is only through CAP and governed by Director of Technical Education (DTE), Government of Maharashtra. The Institute follows the rules, regulation & guidelines set by Savitribai Phule Pune University, State Government body.	188			149	39		Since the college wise application received is with DTE, pass percentage is Not available with the institute.			
	2013-14		186			157	29					
	2012-13		187			143	44					
	2011-12		126			109	17					
PG	<b>Year</b>		<b>S*</b>	<b>H#</b>	<b>E\$</b>	<b>S*</b>	<b>H#</b>	<b>E\$</b>		<b>S*</b>	<b>H#</b>	<b>E\$</b>
	2014-15		18	11	17	15	4	8		3	7	9
	2013-14		22	14	18	14	8	10		8	6	8
	2012-13		18	15	17	13	9	9		5	6	8
	2011-12		18	3	12	14	1	3		4	2	9

\*M=Male \*F=Female S\* = Structures H# = Hydraulics E\$ = Environmental Engineering

### 27. Diversity of Students

Name of the Course/programme		%of students from the same state	%of students from other States	%of students from abroad
Course	Year			
UG	2014-15	92	6	2
	2013-14	89	8	3
	2012-13	82	8	10
	2011-12	80	13	7

PG	Year	S*	H#	E\$	S*	H#	E\$	S*	H#	E\$
	2014-15	85	100	82.35	5	0	17.65	10	0	0
	2013-14	86.33	92.85	100	0	0	0	13.67	7.15	0
	2012-13	100	100	100	0	0	0	0	0	0
	2011-12	90	100	100	0	0	0	10	0	0

S\* = Structures H# = Hydraulics E\$ = Environmental Engineering

**28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc?**

Competitive Examinations / Academic Year	No of Students			
	2011-12	2012-13	2013-14	2014-15
GATE	18	26	11	8
GRE/TOEFL	2	6	2	4
GMAT/CMAT	2	-	-	-
NET/SET	-	-	-	-
Civil services	-	7	9	-
Defense services	-	-	-	-
Others(NICMAR)	2	2	2	1

**29. Student progression**

Student progression	Against % Enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	20	22	25	25
PG to Ph.D.	0.02	Nil	Nil	Nil
Ph.D. to Post-Doctoral	Nil	Nil	Nil	Nil
Employed				
• Campus selection	32	47	22	16
• Other than campus recruitment				
Entrepreneurship/Self-employment	10	5	5	Nil

**30. Details of infrastructural facilities**

**a) Library**

Sr. No	Particulars	Number
1	Titles	1425
2	Volumes	4641
3	National Journals	16
4	International Journals	-

5	CDs	1200
6	e-Books and e-Journals	-

- Apart from central library, department has departmental library with
  - 31 Titles,
  - 367 Volumes,
  - 16 Reference books,
  - 23 Journals,
  - 30 CDs and
  - Project and seminar reports of earlier students

**b) Internet facilities for Staff & Students**

- Staff cabins are fully furnished and equipped with internet connection.
- All laboratories and departmental office have EPABX system facility.
- Wi-Fi and wired network facility is available in the building and labs.
- Computer lab is equipped with power back-up.

**c) Class rooms with ICT facility**

- The department has total 6 classrooms, 13 laboratories and a seminar hall.
- All these rooms are equipped with required teaching aids, sufficient space, benches and proper ventilation to make teaching–learning process more efficient and effective.

**d) Laboratories**

Sr. No	Name of Lab	Major Equipment in the department
1	Basic Civil and Environmental Engineering Lab	Universal Testing Machine, Compression Testing Machine, Shake Table, Tri-axial Test apparatus, Benkelman Beam, UV Spectrometer, Wind Tunnel, Tilting Flume, Total Station are few of the major equipment available in the department.
2	Computer Lab	
3	Concrete Technology Lab	
4	Engineering Geology Lab	
5	Engineering Mechanics Lab	
6	Environmental Lab	
7	Environmental Research Lab	
8	Fluid Mechanics Lab	
9	Geotechnical Lab	
10	Structural Dynamics Lab	
11	Surveying Lab	
12	Testing of Materials Lab	
13	Transportation Lab	

**31. Number of students receiving financial assistance from college, university, government or other agencies**

Year	No of students			
	College	University	Government	Other agencies
2014-15	-	-	280	139
2013-14	-	-	219	89

2012-13	-	-	178	62
2011-12	-	-	133	50

**32. Details on student enrichment programmes (Special Lectures/workshops/Seminar) with external experts**

S. No.	Academic Year	Name of Enrichment programme	Name of external Expert	Organization
1	2014-15	Careers for Civil Engineers in Government jobs	Mr. Atul Gotsurve	Passport Officer, Pune
2		MIS For Construction Management	Mr. Sameer Jain	NICMAR
3		Water distribution system	Mr. Tanay Kulkarni	Global Water Sales team- South Asia
4		Application Engineer- Water and waste water solutions	Mr. Tanay Kulkarni	Global Water Sales team- South Asia
5		Environmental Clearance	Mrs. Poorva Keskar	Director, V K E Environmental Pune.
6		Contracts	Mr. Subhash Phatak	Consultant
7		Valuation	Ravindra Bapat	Consultant
8		Quantity Survey, Contracts & tenders	Mr. V. R. Phadke	Retired Prof. MIT
9		Deep beams	Mrs.Mrudula Ranade	Consultant
10		Project Management – MEP Services	Er. Manoj Deshmukh	Managing Director, MD Consultsant, Pune
1	2013-14	BTM-Habitat Development	Mr. Sanjay Deshpande	Promoters Sanjivani Builders, Pune
2		IECT, Const. Techniques & Instruments	Mr. M. R. Apte	Ex-Vice President AFCONS, Pune
3		Structural Design – III	Mr. Sanjay Agarwal	S. A. Consultants, Kothrud, Pune
4		Total Quality Management	Dr. R. C. Pathak	Member Indian Geotechnical Society

5		Geotechnical Engineering Advances	Mr. Ramesh Kulkarni	CMD, Soil Tech Pvt. Ltd. Pune
6		Fluid Mechanics II	Mr. S. D. Marulkar	Research Officer, CWPRS, Khadakwasala, Pune
7		Architectural Practices	Mr. Sachin Joshi	Promoter, S K Joshi Associates, Pune
8		Total Quality Management	Mr. Sachin Jain	Professor, NICMAR, Pune
9		Geotechnical Engineering	Dr. T. M. Parchure	Professor Emeritus, COE, Pune
10		Application of GIS	Mr. A. S. Shelar	Professor, CWIT, Pune
11		Environmental Engineering-II	Mr. Mahesh Pathak	CEO, Unity Consultants Pune
12		Environmental Engineering-II	Dr. A. D. Patwardhan	Retired Professor, VJTI, Mumbai
13		Advanced Concrete Technology	Ms. Soumya Upadhyay	Section Head Training, Pidilite Industry, Pune
14		Sustainable Architecture	Ar. Shirish Khembhavi	Director, Architectural Firm, Pune
15		Labour Laws in construction industry	Dr. N. B. Chaphalkar	Assoc. Professor COEP
1	2012-13	Structural Design: Code, Theory & Practice.	Mr. Satish Marathe	Director of Marathe Consulting Firm
2		Water Cooperation	Mr. Subhash Devi	MD Membrane Filtration
3		MS Project - A tool for project planning	Prof. Sachin Jain	NICMAR Pune
4		Recent Trends in Water Resources Engineering	Dr. A. S. Garudkar	Asso. Professor, WALMI, Aurangabad
5		Infrastructure Project Management	Mr. Vikas Thakar	President and Principal Consultant, Pave Tech Consultant
1	2011-12	Phytore mediation and its Application in Waste Water Treatment	Mr. Sandeep Joshi	Tech. Director, Srishti Eco Reasarch Int, Pune



2		Advances in construction equipment	Mr. V.A. Shikhare	Industrialist
3		Fundamentals of AutoCAD	Mr. M. A. Magdum	Senior Designer, Neilsoft Ltd
4		Use of coupler for splicing of rebar	Mr. Sandeep Patravale	Precast India Infrastructure Pvt. Ltd, Pune
5		Interaction with TE students	Mr. Hashim Pashtun	Water supply Engineer, Kabul Water Authority

• **Student Training Program (STP)**

Student training program is divided into five sub modules and it is implemented starting from second year to final year. All five modules are designed with specific objectives and contents are framed accordingly.

Module	Class / Year	Contents
STP I	SE (Semester I)	Soft skill modules designed to enhance basic skills of reading, listening, speaking and writing.
STP II	SE(Semester II)	Application oriented study of SE (Semester I) subjects.
STP III	TE (Semester I)	Application oriented study of SE (Semester II) subjects.
STP IV	TE (Semester II)	Application of Research Methodology concepts for enhancement of TE seminar work
STP V	BE (Semester I)	Value added program for skill improvement

**33. Teaching methods adopted to improve student learning**

- Civil Engineering being a field work oriented profession the faculty members thrive to impart perfect blend of theory and practice.
- Project Based Learning (PBL) technique is adopted by some faculties.
- Extensive internship programmes for the students right from 2<sup>nd</sup> year
- Videos related to innovative techniques in the subject are shown to students.
- Encouraging students to participate in various competitions, events organized by institutes of repute like IIT Bombay (Techfest) , are the few of the steps adopted by the department for the overall academic growth of the students
- Course material includes presentations, case studies, lecture notes, laboratory manuals.
- Educational visits to the construction sites, and guest lectures from experts.
- Joyful learning sessions conducted to train students for practical and oral examinations.

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- The faculty members and the students of the department are actively involved in various social activities.
- Social initiatives are taken by the Institutional Cell working towards noble cause.
- Our departmental students are part of various committees and social groups such as PRAYAAS, NSS and are actively involved in activities like arranging blood donation camps, tree plantations, traffic management etc.
- Apart from these central activities, the students and faculty members have helped some schools and ‘Anganwadis’ in village Palshi of Satara District and have also donated blankets to orphanage center in Pune.

### 35. SWOC analysis of the department and Future plans

#### Strengths

- Faculties from most of the sub streams in Civil Engineering are available with the department.
- All the faculties have master’s degree and some are pursuing Ph.D.
- Recognition as Ph. D. center.
- Three courses are available at M. E. level.
- Representation at SPPU in various committees on regular basis.
- Interaction of faculties with professional bodies.
- MoU’s carried out for internship and students’ projects.
- Good infrastructure is available for the students and faculty members.
- Providing internship for students through industry institute interaction.

#### Weaknesses

- Faculty Cadre ratio needs to be improved.
- Consultancy work needs strengthening.

#### Opportunities

- Strengthening of testing and consultancy with appropriate HR and allied infrastructure facilities.
- Industry Institute Interaction for latest updates will benefit the students at large.
- Incubation center development for aspiring entrepreneurs.
- Practical exposure to the students through job training.
- Organization of seminars- workshops- short term courses and conferences.
- Improvement in statistics of publication.

#### Challenges

- Faculties get less time for research and development activities due to changed examination pattern by SPPU.
- Economic slowdown of the market leads to inadequate placements.

#### Future Plans

- Funding from reputed institutions.
- Expansion of Consultancy activities.
- Collaboration with industries for more and more industry sponsored projects.

## COMPUTER ENGINEERING

1. Name of the department : **Computer Engineering**
2. Year of Establishment : **1996**
3. Names of Programs/Courses offered:

Sr. No	Name of the programme	Year of Establishment
1	UG- BE Computer Engineering	1996
2	PG –ME Computer Networks	2008
3	Ph.D.	Not Applicable

4. Names of Inter disciplinary courses and the departments/units involved:

Sr. No	Name of the Inter disciplinary Courses	Departments/Units Involved
1	UG- BE Computer Engineering	Nil
2	PG –ME Computer Networks	Nil

5. Annual/semester/choice based credit system (programme wise):

Sr. No	Name of the programme	Pattern/System(Annual/semester/choice based credit system)
1	UG- BE Computer Engineering	Semester
2	PG –ME Computer Networks	Choice Based
3	Ph.D.	Nil

6. Participation of the department in the courses offered by other departments:

Sr. No	Name of the Department	Class	Courses offered
1	Engineering Science	FE	FPL-I, FPL-II
2	E&TC	SE	Data Structure and Algorithms
3	PG (Specialization)	Nil	Nil
4	PhD -Course work	Research Center	Research Methodology

7. Courses in collaboration with other universities, industries, foreign institutions:

Sr. No	Certificate/Course Name	Collaborating Institution /Industry/Universities etc.
1	IIT Bombay Spoken Tutorial on <ul style="list-style-type: none"> <li>• Bash</li> <li>• C, Java &amp; Python</li> <li>• Latex</li> <li>• Php &amp; MYSQL</li> </ul>	IIT Bombay, Mumbai

	<ul style="list-style-type: none"> <li>• C++</li> </ul>	
2	EDX Online Courses <ul style="list-style-type: none"> <li>• Linux</li> </ul>	EDX online
3	Barclay's Training	Barclay's
4	Courses conducted on <ul style="list-style-type: none"> <li>• Soft skill</li> <li>• Core Java</li> <li>• SQL, DBMS, C &amp; Data structures</li> </ul>	Zensar
5	<ul style="list-style-type: none"> <li>• Training on "Machine Learning"</li> <li>• Basic Java Winter school for students (Introduction on APL, a Mathematical proglang named GOFER, assembly language and micro proc, LISP, etc)</li> </ul>	PSPL
6	Infosys Campus Connect	Infosys

8. Details of courses/programs discontinued (if any) with reasons: Nil

9. Number of teaching posts

	Sanctioned	Filled
Professors	5	1
Associate Professors	9	8
Asst. Professors	29	23
Visiting/guest faculty	-	2

10. Faculty profile with name, qualification, designation, specialization, D.Sc./D.Litt./Ph.D./M.Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Prof. P. R. Futane	Ph.D.	Professor	Computer Science & Engineering	18.9	-
Prof. J. R. Prasad	Ph.D.	Associate Professor	Computer Science & Engineering	19.5	
Prof. S. R. Hiray	Ph.D. (Pursuing)	Associate Professor	Computer	21.5	
Prof. S. A. Joshi	M.E. Electronics	Associate Professor	Computer Engineering	20	

Prof. C. A. Laukar	Ph.D. (Pursuing)	Associate Professor	Computer Engineering	17.2	
Prof. P.M. Kamde	Ph.D. (Pursuing)	Associate Professor	Computer Science & Engineering	21	
Prof. U. A. Mande	Ph.D. (Pursuing)	Associate Professor	Computer Science & Engineering-IT	22	
Prof. S. C. Mhatre	M.E.	Associate Professor	Computer Engineering	13.7	
Prof. M. P. Wankhade	Ph.D. (Pursuing)	Associate Professor	Information Technology	20	
Prof. G. G. Chiddarwar	Ph.D. (Pursuing)	Assistant Professor	Computer Engineering	15.6	
Prof. M. R. Dhage	Ph.D. (Pursuing)	Assistant Professor	Computer Science & Engineering	15.1	
Prof. G.T. Chavan	Ph.D. (Pursuing)	Assistant Professor	Computer Engineering	16.8	
Prof. D. D. Gatade	Ph.D. (Pursuing)	Assistant Professor	Computer Engineering	13	
Prof. A. R. Joshi	M.E.	Assistant Professor	Computer Engineering	17.5	
Prof. J. E. Kamalasekaran	Ph.D. (Pursuing)	Assistant Professor	Computer Networking	16	
Prof. J. B. Kulkarni	Ph.D. (Pursuing)	Assistant Professor	Computer Engineering	14	
Prof. S. P. Bholane	M.E.	Assistant Professor	Computer	14.7	
Prof. H.A. Bhute	Ph.D. (Pursuing)	Assistant Professor	Computer Networking	14.8	
Prof. S. C. Suryawanshi	M.E.	Assistant Professor	Computer Networking	11	
Prof. D. N. Patil	M.E.	Assistant Professor	Computer Engineering	9.7	
Prof. D. P. Salapurkar	M.E.	Assistant Professor	Computer Networking	10	
Prof. K. R. Pathak	Ph.D. (Pursuing)	Assistant Professor	Computer Engineering	12	
Prof. S.S. Pawar	Ph.D. (Pursuing)	Assistant Professor	Computer Networking	11.2	
Prof. M.B. Wagh	Ph.D. (Pursuing)	Assistant Professor	Computer Science & Engineering	10	
Prof. N.G. Bhojne	Ph.D. (Pursuing)	Assistant Professor	Computer Networking	15.3	
Prof. D. R. Pawar	M.E.	Assistant Professor	Computer	8.1	

Prof. N. S. Pharade	B.E.	Assistant Professor	Computer	6.3	
Prof. T. P. Vaidya	M.E.	Assistant Professor	Computer Networking	10	
Prof. A. S. Kalaskar	M. Tech.	Assistant Professor	Software Engineering	8	
Prof. M. D. Sale	Ph.D. (Pursuing)	Assistant Professor	Information Technology	10.5	
Prof. S. D. Wable	M.E.	Assistant Professor	Computer Networking	2.5	
Prof. M. R. Venu	Ph.D. (Pursuing)	Assistant Professor	Computer Science	6.4	

11. List of senior visiting faculty : Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty : 5.88%

13. Student-Teacher Ratio (programme wise) :

Sr. No	Programme	Student-Teacher Ratio
1	UG	16:1
2	PG	12:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Staff details	Sanctioned	Filled
Academic Support Staff	6	6

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.:

Ph.D.	Ph.D. Pursuing	PG	UG
02	18	11	3

16. Number of faculty with ongoing projects from National and International funding agencies and grants received

- a) National : 04  
b) International : Nil

Sr .	National/International	Number of Faculty	Total Grant Received (Rs.)
1	National	4	8,56,000

**17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received**

Sr. No	Projects funded by	Total Number	Total Grants Received Rs.
1	AICTE (RPS+MODROB+FDP)	1	5,10,000
2	TEQIP (FDP. SDP, Workshop)	-	-
3	University (BCUD+ISRO)	9	16,74,000
4	Any other- FDP on “Android Application Development” sponsored by BCUD	1	56,000

**18. Research Centre/facility recognized by the University : Nil**

**19. Publications:**

a) Publication per faculty :

Parameters	Number
Number of papers published in peer reviewed journals(National/International)by faculty and students	93
Number of publications listed in International Database(For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database-International Social Sciences Directory, EBSCO host, etc.)	03
Monographs	Nil
Chapter in Books	03
Books Edited	Nil
Books with ISBN/ISSN numbers with details of publishers	03
Citation Index	191
SNIP	01
SJR	01
Impact factor	07
h-index	13

**20. Areas of consultancy and income generated : Nil**

**21. Faculty as members in**

a)National committees : Nil

b)International Committees :

Name of the faculty	Name of the committee	Nature of work/description
Dr. P. R. Futane	IET Computer Vision International Journal 2015	Reviewer of Research Journal Papers
M. R. Dhage	Wireless Personal Communication Springer	Reviewer of International Journal

c)Editorial Boards : Nil

d. Any other committee:

Sr. No	Name of the faculty	Name of the committee/Role	Nature of work/description
1	Dr. P.R.Futane	LIC member, UGC	Representative from university to inspect academic activities
2	Dr. J.R.Prasad	Interview member	
3	Prof. S. R. Hiray	cPGCON	University level PG conference convener
4	Prof. C. A. Laukar	Image Processing and Machine Learning	STTP convener
5	Dr. J.R.Prasad	Machine Learning and Computational Intelligence	ISTE approved STTP convener
6	Prof. S. A. Joshi, Prof. G. G. Chiddarwar	NS-2	FDP convener

## 22. Student projects

- a) Percentage of students who had one in-house projects including interdepartmental/programme
- b) Percentage of students placed for project in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies

Programme	Academic Year	Percentage of in-house projects	Percentage of sponsored projects
UG	2014-15	87.43	12.56
	2013-14	77.29	22.70
	2012-13	78.72	21.27
	2011-12	87.66	12.33
PG	2014-15	100	0
	2013-14	100	0
	2012-13	100	0
	2011-12	100	0

## 23. Awards/Recognitions received by faculty and students :

Total Number of students awards	Total Number of Faculty awards
109	3



**24. List of eminent academicians and scientists/visitors to the department:**

Sr. No	Name of eminent academicians, scientists, visitors	Association/Affiliation	Purpose of visit
1	Dr. R.S. Prasad	NBNSOIE	Guest lecture
2	Mr. Yogesh Dandawate	Infosys Ltd	Guest lecture
3	Mr. Dhanjay Gatade	IBM, Pune	Fine pro
4	Mr. Anand Deshpande	IBM, Pune	Fine pro
5	Mr. Prashant Salapurkar	Cognizant, Pune	Fine pro
6	Mrs. Kavita Sanap	Persistent Ltd, Pune	Fine pro
7	Mr. Satish Ankalikar	IBM India Pvt Ltd	Fine pro
8	Govind Saraje	NDA, Pune	Fine pro
9	Mr. Sunil Deshpande	Mahindra Satyam, Pune	Finepro
10	Dr. Suhas Patil	Bharati Vidyapeeth	cPGCON
11	Dr. Sachin Kadam	Bharati Vidyapeeth	cPGCON
12	Dr. Sapkal	COEP	cPGCON
13	Dr. Mrs. Madhuri Joshi	COE,AWASARI	cPGCON
14	Dr. Sudeep Thepade	PCCOE	cPGCON
15	Dr. S.N. Mali	SAE Kondhava	cPGCON
16	Shrikant Jannu	Vernalis Systems	cPGCON
17	Sameer Joshi	Infosys Lab	cPGCON
18	R.D. Naik	TCS	cPGCON
19	Sandip Jadhav	Centre for Computational Technologies	cPGCON
20	Dr. Abhijit Ranjekar	Infosys Lab	cPGCON
21	Ashok Saraf	Battelle India	cPGCON
22	Sandeep Athavale	TCS	cPGCON
23	Anand Bhange	KPIT Cummins	cPGCON
24	Sanjiv Khadilkar	Persistent	cPGCON
25	Santosh Ubale	Wipro	cPGCON
26	Yogesh Dandawate	Infosys	cPGCON
27	Dr.Vaishali Sadaphale	TRDDC	cPGCON
28	Dr.Joshi Shashank	Bharati Vidyapeeth	cPGCON

## 25. Seminars/Conferences/Workshops organized & the source of funding

a) National :

b) International :

Year	Sr. No	Name of FDP / SDP / STTP / Workshop / Webinar etc.	National/ International	Sponsoring / Funding Agency if any	Revenue generated
2015-16	1	Android Application Development Workshop	National	BCUD,SPPU	-
2014-15	1	STTP on "Machine Learning and Computational Intelligence	National	ISTE	51,000
	2	Webinar series on "Big Data and Hadoop	National	-	-
2013-14	1	A Confluence on Research Opportunities in Pervasive and Ubiquitous Computing	National	Self-Sponsored	-
	2	STTP on "Image Processing and Machine Learning"	National	Self-Sponsored	-
	3	Webinar series on - • BI- Data Mining Tool • BI - What & Why? • Data Integration • Introduction to Data Modelling	National	-	-
2011-12	1	FDP on Network Simulator- 2	National	Self-Sponsored	-
	2	FDP on Research in Engineering	National	-	-

## 26. Student profile programme/course wise:

Name of the Course/programm		Applications received	Selected	Enrolled		Pass percentage
Course	Year			*M	*F	
UG	2014-15 Shift-I	Admission process in the state is only through CAP and governed by Director of Technical	126	89	37	Since the college wise application received is
	2014-15 Shift-II		60	44	16	
	2013-14		124	93	31	

	2013-14 Shift-II	Education (DTE), Government of Maharashtra.  The Institute follows the rules, regulation & guidelines set by Savitribai Phule Pune University, State Government body.	60	44	16	with DTE, pass percentage is not available with the institute.
	2012-13 Shift-I		127	99	28	
	2012-13 Shift-II		59	44	15	
	2011-12 Shift-I		126	97	29	
	2011-12 Shift-II		66	50	14	
PG	2014-15		19	10	09	
	2013-14		23	14	09	
	2012-13		24	11	13	
	2011-12		18	06	12	

\*M=Male \*F=Female

## 27. Diversity of Students

Name of the Course/programme		%of students from the same state	% of students from other States	%of students from abroad
Course	Year			
UG	2014-15 Shift-I	92.19	6.25	1.56
	2014-15 Shift-II	93.33	6.67	0
	2013-14 Shift-I	88.00	11.20	0.80
	2013-14 Shift-II	86.67	13.33	0
	2012-13 Shift-I	81.40	17.05	1.55
	2012-13 Shift-II	79.66	20.34	0
	2011-12 Shift-I	81.40	16.28	2.33
	2011-12 Shift-II	85.94	14.06	0
PG	2014-15	81.82	18.18	0
	2013-14	100	0	0
	2012-13	100	0	0
	2011-12	94.44	5.56	0

**28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?**

Competitive Examinations /Academic Year	No of Students			
	2011-12	2012-13	2013-14	2014-15
GATE	17	10	9	19
GRE/TOEFL	7	2	8	1
GMAT/CMAT	1	0	0	0
NET/SET	0	0	0	0
Civil services	0	0	0	0
Defense services	0	0	0	0
Others	0	1	3	1

**29. Student progression**

Student progression	Against % Enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	20.30	16.18	8.48	3.78
PG to M.Phil.	Nil	Nil	Nil	Nil
PG to Ph.D.	10.53	0	0	0
Ph.D. to Post-Doctoral	Nil	Nil	Nil	Nil
<b>Employed</b>				
• Campus selection	67.67	59.56	44.85	55.68
• Other than campus recruitment	7.52	4.41	3.64	0.54
Entrepreneurship/Self-employment	1.50	2.21	0.61	0.00

**30. Details of infrastructural facilities**

a) Library

Sr. No	Particulars	Number
1	Titles	1592
2	Volumes	7222
3	National Journals	07
4	International Journals	-
5	CDs	1200
6	e-Books and e-Journals	IEEE 145 Journals

- List of Periodicals/ Journals available Print format :  
Computer Engineering/I.T. Engineering

Sr. No.	National Journal Titles	Status
1.	Digit	National
2.	PC Quest	National
3.	Express Computer	National

4.	Indian Journal of Computer Engineering(Institution of Engineers)	National
5.	Journal of Software Engineering	National
6.	Digital Learning	National
7.	IUP Jr. of Computer Science	National
8.	Linux For You	National
9.	Voice & Data	National
10.	Journal of Intellectual Property Rights	National
11.	Annals of Library and Information Studies	National
12.	Embedded For You	National
13.	Data Quest	National
14.	International Jr. of Advanced Networking & Applications	National
15.	IUP Jr. of Organizational Behavior	National
16.	IUP Jr. of Information Technology	National

- Department library
  - Titles available:219
  - Previous years project reports and seminar reports are available to the students for reference.
  - Students and staff can issue books from departmental library.
  - E-resources of syllabus, question bank, assignments, and previous question papers are available on FTP server.

b) Internet facilities for Staff & Students

- Staff cabins are fully furnished and equipped with computers ,Internet connections, Laser Printer, Book Racks and Pin Board
- All staff rooms and department office have EPABX system facility.
- Wi-fi and wired network facility is available in the building, labs and classrooms.
- Power back-up is also provided in all labs for smooth conduction of practical and classes.

c) Class rooms with ICT facility

- 7-class rooms for lectures(core/electives), seminars, and tutorials with LCD projector and wired and wi-fi internet connections are available.
- 2- Seminar Halls with aforementioned facilities, one with a capacity of 250 is shared and another with a capacity of 80 is exclusively with the department of Computer engineering.

d)Laboratories

Sr. No	Name of Lab	Major Equipments in the department
1	Project Lab	Total computers 251: Core i5- 58, Core i3- 22, Core2Duo-123, Dual Core-01,
2	Computer Graphics Lab	
3	Advanced Development Tool Lab	
4	Post-Graduation Lab 1	
5	Computer Network Lab	

6	Database Lab	PIV- 47 Servers: 02
7	Software Engineering Lab	
8	Post-Graduation Lab -II	
9	Hardware Lab I	
10	Hardware Lab II	
11	Basic Computing Lab	
12	Unix Lab	
13	Digital Electronics & Logic Design Lab	
14	Server Room	

**31. Number of students receiving financial assistance from college, University, Government or other agencies**

Year	No of students			
	College	University	Government	Other agencies
2014-15	-	39	111	54
2013-14	-	18	103	3
2012-13	01	15	97	1
2011-12	01	25	95	2

**32. Details on student enrichment programmes (Special Lectures/workshops/Seminar) with external experts**

S. No.	Academic Year	Name of Enrichment programmes	Name of external Expert	Organization
1	2014-15	Advance Unix Tools	Shantanu Kulkarni	Freelancer
2		IPR and Patent Basics	Mr. HimmatSankhla	Manager Soft. Research & Development, MAS Design India Private Ltd
3		Mobile market and application testing	Dipesh Nilawar	Sears holdings corporation
4		Workshop on Advanced Java	Nilesh Raut	Software Engineer, Diaspark Infotech Private Ltd
5		Workshop on Hadoop	Nilesh Raut	Software Engineer, Diaspark Infotech Private Ltd
6		Image and signal processing applications	Ramakrishna	Wavelet Group
1	2013-14	Python Programming Language	Mr. C. Banchor	SCOE, IT Dept. Pune

2		PERL Programming Language	Mr. TridevSardesai	PSPL, Pune
3		Advanced Filters Design	Mrs. Pallavi Deshpande	SKNCOE, Pune
4		Mathematical modeling	Mr. Yogesh Dandawate	Infosys Ltd
5		Value Addition Course on .NET	Mr. Rajesh Rasal	ITGI Software , PUNE
6		Workshop on Ubiquitous Computing and Business Intelligence	Dr. S.A. Joshi	PICT, Pune
7		One day Workshop on LaTeX for	Mr Vikas Hazare	Cummins College of Engineering
8		Value Addition Course of Hadoop	Nilesh Raut	Alumni
9		One day Workshop on Animation using Flash	Piyush Duddulwar	Freelancer
10		Workshop on Hadoop Technology	Shridha Girme	MMCOE, Pune
1	2012-13	Networking and Linux	Mr. Sanjeev Sharma	Net tech Pvt. Ltd.
2		Hadoop	Mr. C. Banchor	SCOE, IT Dept. Pune
1	2011-12	Network Basics	Mr.Manoj Sisodiya	Zensar Technologies, Pune
2		Finance Management	Mr. Prasad Bhat,	SIOM, Pune
3		Memory Management	Mr. Sangave,	Zeal Institute of Technology, Narhe
4		Guest lecture on FPL-on line exam	Prof. Hidar Ali	HOD, JSPM, pune
5		Advancement in Digital filters and insight on Matlab	Mr.Ganesh Bhokare	Free Lancer
6		Eat Healthy ,Think Healthy	Mrs. Archana Rairikar	Health Consultant
7		Implementation of Design Patterns"	Mr.Kedar Tokekar	Free Lancer
8		Machine Learning	Prof N.J. Uke	SCOE, IT Dept. Pune
9		Guest lecture on un decidability Problem &	Dr. Dilip Sultania	Free lancer

		Enumerable Language		
10		cPGCON-2012, A Post Graduate Conference (UOP). In association with ACM India	More than 20 experts from Industries and academic	SCOE
11		Workshop on “Cloud Computing”	Mr. Sumitkumar Shingvi	Cloud Zeal
12		RMI using Java	Mr. C. Banchor	SCOE, IT Dept. Pune

- STP I, II, III ,IV information to be added here with respect to your department.

<b>STP-I</b>	<p><b>S.E. Semester –I</b></p> <ul style="list-style-type: none"> <li>• Modules: SWOT Analysis, Behavioral Scheme, Report Writing, Resume Writing, Public Speaking, Career Goal Settings etc.</li> <li>• Trainers were Ms. Priyanka Jain and Mr. Vishal Sharma</li> <li>• Few Faculties from the department also trained and conducted the Sessions</li> <li>• One AMCAT Test conducted by Ignited Minds</li> <li>• One Seminar on soft skill development was conducted under STP-I by Rajesh Chavan</li> </ul>
<b>STP-II</b>	<p><b>S.E.- Semester –II</b></p> <ul style="list-style-type: none"> <li>• Modules: Reading , Writing, Listening and Speaking</li> <li>• Two Sessions of TWO Hrs. per module conducted by our faculties</li> <li>• TWO QALR (Quantitative Aptitude and Logical Reasoning) online Tests conducted for all S.E. students, QALR test marks are recorded with Department coordinator</li> <li>• One AMCAT Test conducted by Ignited Minds</li> </ul>
<b>STP-III</b>	<p><b>T.E.- Semester-I</b></p> <ul style="list-style-type: none"> <li>• Three subjects selected at STES level by conducting central meeting</li> <li>• Then expert team for every subject is decided. After various reviews on the contents of every subject PPTs were prepared. And Finally distributed to every Engineering Institute under STES</li> <li>• Then Training of all faculties who are conducting those sessions at respective Institutes were undergone</li> <li>• TWO QALR (Quantitative Aptitude and Logical Reasoning) online Tests conducted for all T.E. students, QALR test marks are recorded with Department coordinator</li> <li>• One AMCAT Test conducted by Ignited Minds</li> </ul>
<b>STP-IV</b>	<p><b>T.E. Semester-II</b></p> <ul style="list-style-type: none"> <li>• Keeping in mind about research portion in academic this session is started</li> </ul>



	<ul style="list-style-type: none"> <li>• The Research Component has got two types of trainings. One is department faculty training</li> <li>• This was scheduled in the second week of December-2015. Three department faculty were attended the training organized at SIT, Lonawala.</li> <li>• The second training was of students, division wise, scheduled 2 Hrs/ week for 3 weeks by the faculties who have trained at Lonawala. The modules were Literature Survey, Research Component and Report writing</li> <li>• 4-QALR (Quantitative Aptitude and Logical Reasoning) online Tests conducted for all T.E. students, QALR test marks are recorded with Department coordinator</li> <li>• One AMCAT Test conducted by Ignited Minds at Campus. This score is valid for next 2-Years for T&amp;P activities</li> </ul>
<b>STP-V</b>	<p><b>B.E.- Semester-I</b></p> <ul style="list-style-type: none"> <li>• Value added course (Hands on) for all the students was conducted THREE domains were</li> <li>• Java &amp; Adv. Java- Trainer ( Mr. Nishant Nanware) Total Students: 66</li> <li>• Big Data and Hadoop- Trainer( Mr.Jayant Mohite) Total Students: 89</li> <li>• PHP and Web technology- Trainer( Mr. Prashant Fepale) Total Students: 54</li> <li>• All trainers were from Mass Technologies</li> <li>• Sessions conducted during 24 August to 26 August 2015 in Parallel</li> </ul>

### 33. Teaching methods adopted to improve student learning

- Mini project work and assignments for specific subjects
- Educational visits to the IT industries and guest lecturers from experts.
- Brainstorming sessions for electives offered for BE students.
- Mock practical, preliminary exams and written assignments are given to students for practice; before final examinations.
- Group assignment for modeling real systems using OOP and UML (Subject: OOMD)
- Assignment for modeling and implementation of real systems using OOP (Subject - PPL, JAVA)
- Animation, Video to explain concept of Stepper Motor, Memory management techniques, Paging concept, coprocessors in MIT
- Animation and Video to explain basic working of Internet in CN

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- PRAYAS is a social activity under which students takes part for various activities such as Computer Literacy, Vedic Mathematics, scientific toys, career counseling, blood donation, street play, various competition, General awareness, books and cloths donation.
- Students visited orphanage in 14-15.
- Star gazing workshop is organized in year 11-12.
- Various social activities like orphanage visit, plantation, plastic muktaabhiyan, Inspirational lectures, 7-days residential camp for “Swachha Bharat” etc. are conducted under NSS club.

### 35. SWOC analysis of the department and Future plans

#### Strengths

- Thrice accredited by NBA
- Demand for the course in market
- Every year attracting very good input quality of students across the India
- Conducive working and Learning leading to faculty and staff retention
- Well qualified, experienced and dedicated faculty members.
- Emphasis on holistic development of students
- Good placement record
- Excellent Infrastructure Facility
- Well-equipped classrooms and laboratories

#### Weaknesses

- Industry Institution Interaction needs to be strengthened further
- Faculties with industrial experience are less in number
- Market demand changes frequently; but Syllabus Changed after Five Years
- Lack of funded projects

#### Opportunities

- Fund raising through consultancy and project work
- Starting Ph.D research Center
- Recognition of inventions using IPR
- Industry oriented training
- Situated in Pune, where the multinational companies have set up their industries
- Enhancing number of students opting for entrepreneurship

#### Challenges

- Coping with rapid changing IT Industry and its requirements to improve the employability of the students
- Exposing the teaching faculty to the Industrial scenario and get them trained in an Industry

#### Future Plans

- To establish Research Centre in Computer Engineering for Ph.D. course
- To improve focus on research-based education
- To enhance Industry Institute Interaction

## ELECTRONICS AND TELECOMMUNICATION ENGINEERING

1. **Name of the department:** Electronics and Telecommunication Engineering
2. **Year of Establishment:** 1996
3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):**

Sr. No.	Name of the Programme	Year of Establishment
1	UG	1996-97
2	ME-Digital Systems	2004-05
3	ME-VLSI and Embedded Systems	2007-08
4	ME-Communication Networks	2010-11
5	ME-Signal Processing	2011-12
6	Ph. D.	2011-12

4. **Names of Interdisciplinary courses and the departments/units involved:**

Sr. No.	Name of the Interdisciplinary Courses	Departments / Units Involved
1	Engineering Mathematics - III	Applied Science
2	Data Structures and Files	Computer Engineering

5. **Annual/ semester/choice based credit system (programme wise):**

Sr. No.	Name of the Programme	Pattern/System (Annual/ semester/choice based credit system)
1	UG	Semester
2	PG (4 Specializations)	Credit System
3	Ph.D.	Credit System

6. **Participation of the department in the courses offered by other departments:**

Sr. No.	Name of the Department	Class	Courses offered
1	Engineering Science	FE	Basic Electronics Engineering
2	Computer Engineering	SE	Digital Electronics and Logic Design
3	Mechanical Engineering	TE	Electrical & Electronics Engineering
		ME	Sensors, Transducers and Interfacing Techniques

			Digital Principles and Logic Design
			Microcontroller Applications in Embedded Systems
			Fundamentals of DSP and Sampling
4	Mechanical Engineering, Civil Engineering, Chemical Engineering	Ph.D.	Research Methodology

**7. Courses in collaboration with other universities, industries, foreign institutions, etc.:**

Sr. No.	Certificate / Course Name	Collaborating Institution / Industry / Universities etc.
1	Workshop on ARM Processors	S.P.J. Systems
2	Workshop on LabVIEW	Trident TECHLABS
3	C++ certification by Spoken Tutorials by IIT Bombay	Spoken Tutorials by IIT Bombay
4	Java certification by Spoken Tutorials by IIT Bombay	
5	Latex certification by Spoken Tutorials by IIT Bombay	
6	C-certification by Spoken Tutorials by IIT Bombay	
7	Scilab certification by Spoken Tutorials by IIT Bombay	
8	Linux certification by Spoken Tutorials by IIT Bombay	
9	8051 Microcontroller	Edutech Learning solutions Pvt. Ltd.
10	ARM9 and Embedded Linux	
11	PIC and AVR Microcontrollers online tutorials	
12	Intel-FICE Certification Program on Intelligent Embedded System Design with Intel Galileo Board	Intel-FICE
13	Workshop on AMR11 and Raspberry Pi	Embedded Junkyard
14	Raspberry Pi Workshop	HYC Technologies
15	Workshop on ARM11 and Raspberry Pi	

**8. Details of courses/programmes discontinued (if any) with reasons: Nil**

**9. Number of teaching post:**

Post	Sanctioned	Filled
Professors	09	06
Associate Professors	15	04
Asst. Professors	46	41
Visiting/Guest Faculty	--	07

**10. Faculty profile with name, qualification, designation, specialization, (D.Sc. /D.Litt. /Ph.D. / M. Phil. etc.):**

Sr. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1	Dr. S. D. Lokhande	Ph.D.	Principal & Professor	Electronics	26	7
2	Dr. M. B. Mali	Ph.D.	Professor & Head	E&TC	24	4
3	Dr. R. S. Kawitkar	Ph.D.	Professor	E&TC	25	4
4	Dr. S. R. Ganorkar	Ph.D.	Professor	E&TC	26	5
5	Dr. Mrs. D. M. Bhalerao	Ph.D.	Professor	E&TC	24	--
6	Dr. Mrs. S. S. Lokhande	Ph.D.	Professor	Electronics	19	
7	Dr. V. V. Dixit	Ph.D.	Professor	E&TC	18	
8	Dr. Mrs. A. M. Deshmukh	Ph.D.	Asso. Professor	E&TC	20	
9	Prof. V. B. Baru	M.E.	Asso. Professor	E&TC	21	
10	Prof. S. O. Rajankar	M.E.	Asso. Professor	Electronics	21	
11	Prof. M. M. Jadhav	M.E.	Asso. Professor	E&TC	19	
12	Prof. M. N. Kakatkar	M. Tech.	Asst. Professor	Electronics	25	
13	Prof. S. A. Shirsat	M.E.	Asst. Professor	Electronics	15	
14	Prof. S. C. Badwaik	M.E.	Asst. Professor	Electronics	16	
15	Prof. S. B. Mule	M.E.	Asst. Professor	Electronics	17	
16	Prof. V. G. Raut	M.E.	Asst. Professor	Electronics	17	
17	Prof. U. R. More	M.E.	Asst. Professor	Electronics	15	
18	Prof. Y. D. Chincholkar	M.E.	Asst. Professor	E&TC	14	
19	Prof. M. M. Wankhade	M.E.	Asst. Professor	E&TC	11	
20	Prof. S. B. Patil	M.E.	Asst. Professor	Electronics	10	
21	Prof. S. B. Takale	M.E.	Asst. Professor	Electronics	10	

22	Prof. S. D. Mali	M.E.	Asst. Professor	Electronics	10
23	Prof. S. A. Koti	M.E.	Asst. Professor	Electronics	11
24	Prof. P. U. Bambel	M.E.	Asst. Professor	Electronics	9
25	Prof. P. M. Bangare	M.E.	Asst. Professor	Electronics	8
26	Prof. D. G. Ganage	M.E.	Asst. Professor	E&TC	9
27	Prof. G. N. Gaikwad	M.E.	Asst. Professor	E&TC	9
28	Prof. R. B. Dhumale	M. Tech.	Asst. Professor	Electronics	7
29	Prof. N. R. Dhumale	M. Tech.	Asst. Professor	Electronics	7
30	Prof. S. D. Bardale	M. Tech.	Asst. Professor	ECE	9
31	Prof. M. N. Namewar	M. Tech.	Asst. Professor	Electronics	3
32	Prof. P. M. Dahale	M. Tech.	Asst. Professor	E&TC	4
33	Prof. M. M. Sonkhaskar	M. Tech.	Asst. Professor	Electronics	11
34	Prof. D. R. Wasnik	M.E.	Asst. Professor	Electronics	3
35	Prof. S. D. Pahade	M.E.	Asst. Professor	E&TC	2
36	Prof. S. V. Tathe	M.E.	Asst. Professor	Electronics	2
37	Prof. M. S. Kakade	M.E.	Asst. Professor	E&TC	8
38	Prof. R. V. Bhagwat	M.E.	Asst. Professor	E&TC	4
39	Prof. V. H. Yadav	M.E.	Asst. Professor	Electronics	5
40	Prof. A. P. Sakhare	M.E.	Asst. Professor	Electronics	2
41	Prof. A. R. Yawale	B.E.	Asst. Professor	E&TC	2
42	Prof. V. G. Khetmalis	M.E.	Asst. Professor	E&TC	2
43	Prof. A.V. Bankar	M.E.	Asst. Professor	E&TC	2
44	Prof. R. R. Deshmukh	M.E.	Asst. Professor	E&TC	4
45	Prof. P. B. Jaybhaye	M.E.	Asst. Professor	E&TC	3
46	Prof. G. V. Madhikar	M.E.	Asst. Professor	E&TC	1
47	Prof. R. S. Gutte	M.E.	Asst. Professor	E&TC	3
48	Prof. A. A. Raut	M.E.	Asst. Professor	E&TC	6
49	Prof. V. K. Rajput	M. Tech	Asst. Professor	E&TC	1
50	Prof. A. V. Pasalkar	M.E.	Asst. Professor	E&TC	1
51	Prof. S. J. Desarada	M.E.	Asst. Professor	Electronics	9
52	Prof. N. P. Joshi	M.E.	Asst. Professor	E&TC	1

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: 3.75%

13. Student -Teacher Ratio (programme wise):

Sr. No.	Programme	Student -Teacher Ratio
1	UG	17:1
2	PG	12:1

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:**

Staff details	Sanctioned	Filled
Academic Support Staff	09	09

**15. Qualifications of teaching faculty with DSc/ D.Litt. / Ph.D. / MPhil / PG.:**

Ph.D.	Ph.D. Pursuing	PG	UG
06	19	25	08

**16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:**

Sr. No.	National / International	Number of Faculty	Total Grant Received (Rs.)
1	National	03	4,10,000/-

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:**

Sr. No.	Projects Funded by	Total Number	Total Grant Received Rs.
1.	University-BCUD	21	31,40,000/-
2.	AICTE	02	12,09,000/-
3.	TEQIP	02	2,19,578/-
4.	ARM & ST Microelectronics (UK)	01	9,40,000/-
5.	Texas Instruments	01	90,000/-

**18. Research Centre /facility recognized by the University:**

Sr. No.	Total Number of PhD students		Number of guides associated
	Registered	Completed	
1	59	04	18

**19. Publications:**

The faculties of the department have consistent record of publications in National / International Journals / Conferences. The summary is mentioned here.

**a) Publication per Faculty: 11.48**

Parameters	Number
Number of papers published in peer reviewed journals (National / International) by faculty and students	220

Number of publications listed in International Database (e.g.: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	198
Books with ISBN / ISSN numbers with details of publishers	03
Citation Index	88
SNIP	00
SJR	03
Impact factor	47
H-index	23

**20. Areas of consultancy and income generated:**

Sr. No.	Details of Consultancy (Technical / Academic / Testing)	Name of Faculty	Revenue Generated Rs.
1	Industry-Institute interaction and exchange of knowledge through corporate training to Nichrome India Ltd.	Prof. R. B. Dhumale	6000/-
2		Prof. D. G. Ganage	6000/-
3		Prof. G. N. Gaikwad	6000/-
4		Prof. M. S. Kakade	6000/-
5	Diagnosis and Troubleshooting of pouch packing machine dealing with three phase servos and high rating transformer for Nichrome India Ltd.	Prof. R. B. Dhumale	Not in the form of Monetary benefit
6		Prof. D. G. Ganage	
7		Prof. M. S. Kakade	

**21. Faculty as members in**

a) National Committees b) International Committees c) Editorial Board:

a) National Committees:

Name of the Faculty	Name of the Committee	Nature of work/description
Dr. S. D. Lokhande	Board of Studies	Member of BoS for Mechatronics Engineering
	Invitee - National Level Technical Symposium on ANFIS System	Invited talk
	Expert lecture -DSP Implementation on FPGA platform in IETE approved National level STTP	Expert Sessions
Dr. R. S. Kawitkar	Expert Lecture - ISTE Sponsored workshop on Advances in Wireless Communication	Expert Lecture



	Mentor- Institute for Research and Development India (IRD India)	Mentor
	Visiting Professor - Mewar University	Visiting Professor
	Guide - North Maharashtra University	Ph.D. guide
	Guide - Symbiosis International University	Ph.D. guide
	Ph. D. Scrutiny Committee member at Shivaji University	Ph. D. Scrutiny Committee member
	Expert lecture - AICTE Sponsored SDP on Software Application-LaTex	Expert lecture
Dr. D. M. Bhalerao	Resource person - National level seminar on: Cyber physical system –research areas and challenges	Resource person
Dr. V. V. Dixit	Representative -National educational programme at Kolkata	Representative of STES
	Representative -Times Education Expo at Kolkata	
	Representative - GETEX-2014, World Trade Center Dubai	
Dr. S. R. Ganorkar	Referee - Ph. D. Thesis at Rashtrasant Tukadoji Maharaj Nagpur University	Referee
	Exam panel of MPSC	Panel Member
Prof. V. B. Baru	Session judge - NCVSP-11	Session judge
Prof. M. M. Jadhav	Member -Communication Society (COMSOC)	Member
Prof. M. N. Kakatkar	Expert Guide - Intel-FICE Certification Programme	Expert Guide
	Trainer - Softbridge Center for Technology and communications	Trainer
Prof. Y. D. Chincholkar	Answer Script Evaluator - IGNOU (Indira Gandhi National Open University ) Regional Evaluation Centre, Pune for MCA course.	Evaluator
Prof. G. N. Gaikwad	Representative - Indian Science Congress, Kolkata	STES Representative
Prof. M. S. Kakade	Examiners' Panel - Tilak Maharashtra Vidyapeeth, Pune	Technical Advisor

**b) International Committees:**

Name of the faculty	Name of the Committee	Nature of work/ description
Dr. M. B. Mali	Reviewer Committee of First Global Conference On Wireless Computing And Networking-2014	Reviewer
	Reviewer Panel - IETE IJAT volume 1, issue 01 Dec. 2014	Reviewer
	Session Chair - 11th IEEE INDIA conference, INDICOM 2014	Session chair
	Technical program committee - International conference on computing , communication, control and automation (ICCUBEA-2015)	Technical Program Committee member

	Reviewer Committee - IEEE International Conference on Industrial Reviewer - Instrumentation and Control (ICIC-2015)	Reviewer
	Referee panel - International Conference on Recent Trends in Engineering & Technology,	Referee
Dr. R.S. Kawitkar	Reviewer - International Conference on Contemporary Computing and Informatics	Reviewer
	Reviewer - International Journal of Advanced Engineering and Innovative Technology	
	Reviewer - International Conference on Green Computing and Internet of Things	
	Reviewer - International Conference on Advances in Computing, Communication & Control	
Dr. A. D. Jadhav	Reviewer panel - Int. Conference ICAC3 2013	Reviewer
Dr. S. P. Narote	Selector - Who's Who in The World 2012.	Selection of Biography
Dr. V. V. Dixit	Representative - RWANDA, Africa	Representation of STES
Dr. S. R. Ganorkar	Reviewer panel - International Conference in Information Processing-ICIP 2015	Reviewer
	Reviewer panel - International Conference on Industrial Instrumentation & Control -ICIC 2015	Reviewer
Prof. M. M. Jadhav	Reviewer panel - International Conference ICIIS-2014	Reviewer
	Program Chair – IEEE International Conference INDICON-2014	Program Chair
Prof. M. N. Kakatkar	Session chair – International Conference on Pervasive Computing ICPC-2015	Session Chair
Prof. S. C. Badwaik	Program chair – International Conference on Pervasive Computing ICPC-2015	Program Chair
Prof. V. G. Raut	Reviewer - ICIC-2015	Reviewer

**c) Editorial Boards:**

Name of the faculty	Name of Journal/ conference/ magazine/ news paper
Dr. R. S. Kawitkar	VSRD International Journal of Electrical, Electronics & Communication Engineering
	Journal of Engineering Orbit
	STM Journals
	International Advance Journal of Engineering, Science & Management
	Spvryan's International Journal of Engineering Sciences & Technology

**d. Any other committee:**

Name of the faculty	Name of the Committee/Role	Nature of Work/Description
Dr. S. D. Lokhande	General Chair - of International Conference on Pervasive Computing	General Chair
	Convener - AICTE sponsored Staff Development Program on Soft Computing	Convener
	Referee panel - National conference "NCSEEE-15".	Referee

	Reviewer panel - National Conference “NCVSP-11”	Reviewer
Dr. M. B. Mali	Expert Invitee - Total 13 technical sessions in domains like VLSI Design, Electromagnetics, Antennas – Wave propagation, etc. at different colleges in SPPU.	Expert Lectures
	General Chair - International Conference on Pervasive Computing	General Chair
	Panel Member - Staff selection committee, PhD admission and progress reports process at different colleges in and outside SPPU.	Panel Member
	LIC Committee Member - G.H. Raisoni Pune	LIC Committee Member
	Coordinator- Project Exhibition and Syllabus Preparation committees under aegis of BOS SPPU.	Coordinator
	Judge - Various Technical Events	Judge
	Reviewer – National Conference on Modeling Optimization and Control (NCMOC-2015)	Reviewer for the manuscripts
	Referee panel - National Conference NCSEEE-15	Referee
	Reviewer panel - National Conference NCVSP-11	Reviewer
Dr. S. S. Lokhande	Coordinator- AICTE sponsored Staff Development Program on Soft Computing	Coordinator
	Co-coordinator- International Conference on Pervasive Computing (ICPC - 2015)	Co-coordinator
Dr. S. R. Ganorkar	Expert sessions - Total 4 sessions in domains like DSP and Soft Computing, etc. at different colleges in SPPU	Expert Lecture
Prof. V. V. Dixit	Co-coordinator - International Conference on Pervasive Computing (ICPC - 2015)	Co-coordinator
Dr. A. D. Jadhav	Reviewer for National conference NCCCNT 2013	Reviewer
Dr. S. P. Narote	Technical Resource - National Level Seminar on Recent Advancement & Innovations In Image Processing, Its Methods and Applications	Expert Session
	Expert lecture - National level workshop on MATLAB	Expert Session
Prof. S. O. Rajankar	Expert sessions – Total 6 sessions in domains like Network Theory and Wave Theory and Antenna, etc. at different colleges in University	Expert Lecture
	Co-coordinator - International Conference on Pervasive Computing (ICPC - 2015)	Co-coordinator
Prof. V. B. Baru	Expert sessions - Total 6 sessions on Electronics Product Design at different colleges in SPPU	Expert Lecture
	Coordinator - Faculty Development Program on Emerging Technologies in Audio and Video Engineering	Coordinator
Prof. M. N. Kakatkar	Expert sessions – Delivered 4 technical sessions on Microcontroller and Embedded Systems in different Faculty Orientation Workshops of SPPU	Expert Lecture
	Coordinator FDP on Embedded Image Processing	Coordinator
Prof. M. M. Jadhav	Organizer - Project competitions under IEEE as well Member for IEEE Com-Soc Chapter, Pune	Organizer

	Coordinator - International Conference on Pervasive Computing ICPC-2015	Coordinator
	Seminar on How to organize IEEE Conference	Seminar
Prof. S. C. Badwaik	Technical Speaker - 6 Expert Lectures on Digital Electronics and MEMS and SOC at different colleges in SPPU.	Expert Lectures
	Coordinator - Faculty oriented workshop for BE ENTC revised syllabus 2012 course under aegis of BOS SPPU on VLSI Design and Technology.	Coordinator
Prof. S. A. Shirsat	Co-coordinator - FDP on Embedded Image Processing	Co-coordinator
Prof. V. G. Raut	Co-coordinator - FDP on Embedded Image Processing.	Co-coordinator
Prof. U. R. More	Coordinator - Faculty oriented workshop for BE ENTC revised syllabus 2012 course under aegis of BOS SPPU on VLSI Design and technology.	Coordinator
Prof. M. M. Wankhade	Co-coordinator - Faculty Development Program on Emerging Technologies in Audio and Video Engineering	Co-coordinator
Prof. S. B. Takale	Coordinator - TEQIP Sponsored SDP on Troubleshooting and Maintenance of Electronic Instruments	Coordinator
	Co-coordinator - AICTE sponsored Staff Development Program on Soft Computing	Co-coordinator
Prof. S. B. Patil	Co-coordinator - TEQIP Sponsored SDP on Troubleshooting and Maintenance of Electronic Instruments	Co-coordinator
Prof. S. D. Mali	Coordinator - TEQIP sponsored National Symposium on Pervasive Computing	Coordinator
Prof. P.U. Bambil	Co-coordinator - TEQIP sponsored National Symposium on Pervasive Computing	Co-coordinator
Prof. P. M. Bangare	Organizer - BCUD SPPU sponsored National Conference on Latest Trends in Electronics and Telecommunication	Organizer
Prof. R. B. Dhumale	Organizer- BCUD SPPU sponsored National Conference on Latest Trends in Electronics and Telecommunication	Organizer
	Co-coordinator of AICTE sponsored Staff Development Program on Soft Computing	Co-coordinator
Prof. N. R. Dhumale	Organizer - BCUD SPPU sponsored National Conference on Latest Trends in Electronics and Telecommunication	Organizer
Prof. A. B. Kanwade	Co-coordinator of TEQIP sponsored National Symposium on Pervasive Computing	Co-coordinator
Prof. G. N. Gaikwad	Presiding Officer/Polling Officer/etc. – Government of India – Election Commission; Election process	Presiding Officer/Polling Officer/etc.
Prof. S. D. Mali		
Prof. M. S. Kakde		
Prof. P. M. Dahale		
Prof. S. V. Tathe		
Prof. R. V. Bhagwat		
Prof. A. R. Yawale		

Prof. P. B. Jayabhaye	Presiding Officer/Polling Officer/etc. – Government of India – Election Commission; Election process	Presiding Officer/Polling Officer/etc.
Prof. V. K. Rajput		
Prof. R. S. Gutte		
Prof. R. R. Deshmukh		
Prof. A. V. Bankar		
Prof. V. G. Khetmalis		
Prof. G. V. Madhikar		
Prof. A. A. Raut		

## 22. Student projects:

- Percentage of students who have done in-house projects including inter departmental/programme
- Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Programme	Academic Year	Percentage of In-house projects	Percentage of sponsored projects
UG	2014-15	83.8	16.2
	2013-14	84.6	15.4
	2012-13	73.9	26.1
	2011-12	67.35	32.65
PG Digital Systems	2014-15	88	12
	2013-14	83.33	16.67
	2012-13	100	00
	2011-12	88.46	11.54
PG VLSI & Embedded Systems	2014-15	100	00
	2013-14	75	25
	2012-13	95	5
	2011-12	100	00
PG Communication Networks	2014-15	95	5
	2013-14	90	10
	2012-13	100	00
	2011-12	100	00
PG Signal Processing	2014-15	60	40
	2013-14	92.85	7.15
	2012-13	100	00
	2011-12	83.33	16.67

## 23. Awards / Recognitions received by faculty and students:

Total Number of students awards	Total Number of Faculty awards
114	21

**24. List of eminent academicians and scientists / visitors to the department:**

Sr. No.	Name of Eminent Scientists / Professionals	Association	Purpose of Visit
1	Dr. Gopal Pingali	Distinguished Engineer and Executive Director, IBM Global Cloud Center of Excellence, Bangalore, India	Keynote address International Conference on Pervasive Computing ( ICPC – 2015)
2	Dr. Anil M. Shende	Dept. of Mathematics, Computer Science and Physics Roanoke College, Salem, VA	Distinguished Invitee in International Conference on Pervasive Computing ( ICPC – 2015)
3	Dr. Ram Kashi	Research Director, Avaya Labs Research, India Avaya Inc.	
4	Dr. P. Venkataram	Professor Dept. of Electrical Communication Engineering, Indian Institute of Science Bangalore	Formation of National Communication Society Congress
5	Dr. C. P. Ravikumar	Texas Instruments, Bangalore	To promote new processors to students
6	Dr. G. S. Mani	Vice-Chair, IEEE Pune Section	Member of Communication Society Congress Pune Section
7	Mr. Munir Mohammed	Program Specialist-ComSoc & eHealth, IEEE	Formation of National Communication Society Congress
8	Mr. Srikanth Chandrasekaran	Standards Senior Manager, IEEE	Formation of National Communication Society Congress and Invitee speaker in International Conference on Pervasive Computing ( ICPC – 2015)
9	Dr. P. K. Sinha	Programme Coordinator, C-DAC	Keynote address FDP on Soft Computing
10	Dr. Pradeep Chatterjee	Tata Motors, Pune	Expert Sessions
11	Dr. Narendra Chaudhari	Ex-Director, VNIT, India	Enrichment Seminar
12	Mr. Amit Doshi	Application Engineer-LTC Mathworks India Pvt. Ltd.	Distinguished Invitee in International Conference on Pervasive Computing ( ICPC – 2015)
13	Dr. Navin Kumar	Ex-Com Member, IEEE ComSoc Bangalore Chapter	Formation of National Communication Society Congress and to work as Session Chair in
14	Dr. Manoj B. S.	Chapter Chair, IEEE ComSoc Kerala Chapter	

15	Prof. P. Subramanian	Secretary, IEEE ComSoc Madras Chapter	International Conference on Pervasive Computing ( ICPC – 2015)
16	Prof. Alok Mukharji	Director, DRDO, Pune	Demonstration of Netra unguided Quadcopter
17	Dr. Neelesh Mehta	Members at Large, IEEE ComSoc Board of Governor	Chair person for Formation of National Communication Society Congress
18	Dr. Rajesh Ingle	Chair - IEEE Pune Section	Guest of Honor - Inauguration of International Conference on Pervasive Computing ( ICPC – 2015)
19	Mr. Mandar Khurjekar	Treasurer, IEEE Pune Section, Member IEEE ComSoc	Member and Ex-chairman of Communication Society Congress Pune Section
20	Mr. Sri Chandra	Staff, IEEE India Office	Formation of National Communication Society Congress
21	Mr. Venkatesh	Chapter Chair, IEEE Hyderabad Chapter	
22	Dr. Dipankar Nagchoudhuri	Ex-Professor: IIT-Delhi	Keynote address National Symposium on Pervasive Computing NSPC - 2013

**25. Seminars/ Conferences/Workshops organized & the source of funding:**

Year	Sr. No.	Name of Seminar / Conference / Workshop FDP / SDP / STTP / FoW / Webinar etc.	National / International	Sponsoring / Funding Agency if any	Revenue Generated
2014- 15	1	International Conference on Pervasive Computing ICPC - 2015	International	University - BCUD	4,38,055/-
	2	Workshop on Teaching Methodologies for university teachers of Sem IV of M.E (VLSI and Embedded)	Regional	Self-Sustainable	
	3	AICTE Sponsored ,Staff development program on Soft Computing	National	AICTE	1,38,000/-
	4	Workshop on ARM11 & Raspberry Pi	Regional	Self-Sustainable	
	5	Intel FICE Certification Program on Intelligent Embedded System Design with Intel Galileo- Atom Board	National		
	6	Faculty Orientation Workshop of VLSI Design and Technology	Regional		
2013- 14	1	National Conference on Latest Trends in Electronics (NCLTE)	National	BCUD	10,000/-

	2	FDP on Emerging Technologies in Audio and Video Engineering	National	Self-Sustainable	17,631/-
2012-13	1	FDP on Embedded Image Processing	National	Self-Sustainable	49,000/-
	2	Staff Development Program (SDP) on Troubleshooting & Maintenance of Electronic Instruments	National	TEQIP	6,000/-
	3	National Symposium on Pervasive Computing – NSPC 2013	National	TEQIP	1,08,000/-
2011-12	1	Matrix Reloaded (Workshop on Matlab)	Regional	IEEE Student Chapter & ETESA	--

**26. Student profile programme/course wise:**

Name of the Course / Programme		Applications Received	Selected	Enrolled		Pass Percentage
Course	Year			*M	*F	
UG	2014-15	Admission process in the state is only through CAP and governed by Director of Technical Education (DTE), Government of Maharashtra. The Institute follows the rules, regulation & guidelines set by Savitribai Phule Pune University, State Government body	248	168	80	Since the college wise application received is with DTE, pass percentage is Not available with the institute.
	2013-14		234	176	58	
	2012-13		248	191	57	
	2011-12		188	130	58	
PG Digital Systems	2014-15		24	14	10	
	2014-15		24	14	10	
	2013-14		24	14	10	
	2012-13		24	13	11	
PG VLSI & Embedded Systems	2011-12		25	13	12	
	2014-15		18	08	10	
	2013-14		18	12	06	
	2012-13		18	10	08	
PG Communication Networks	2011-12		18	08	10	
	2014-15		18	12	06	
	2013-14		16	07	09	
	2012-13		18	10	08	
PG Signal Processing	2011-12	18	9	9		
	2014-15	13	06	07		
	2013-14	17	09	08		
	2012-13	18	06	12		
	2011-12	18	13	05		

\*M = Male \*F = Female



## 27. Diversity of Students:

Name of Course	Year	% of students from the same state	% of students from other States	% of students from abroad
UG	2014-15	86	14	0
	2013-14	85	15	0
	2012-13	83	16	01
	2011-12	87	12	01
PG Digital Systems	2014-15	88	08	04
	2013-14	100	0	0
	2012-13	100	0	0
	2011-12	96	0	04
PG VLSI & Embedded Systems	2014-15	89	11	0
	2013-14	100	0	0
	2012-13	100	0	0
	2011-12	100	0	0
PG Communication Networks	2014-15	80	10	10
	2013-14	100	0	0
	2012-13	83	17	0
	2011-12	100	0	0
PG Signal Processing	2014-15	86	07	07
	2013-14	100	0	0
	2012-13	100	0	0
	2011-12	100	0	0

## 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?:

Competitive Examinations /Academic Year	Number of Students			
	2011-12	2012-13	2013-14	2014-15
GATE	12	13	11	8
GRE/TOEFL	0	1	2	6
GMAT/CMAT	1	4	2	0
Others (AFCAT, MAH-CET, CAT)	0	0	0	8

## 29. Student progression:

Student Progression	Against % enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	37.73	18.86	9.37	4.39
PG to M.Phil.	NA			
PG to Ph.D.	5.00	--		
Ph.D. to Post-Doctoral	--			

<b>Employed</b>				
• Campus selection	90.78	78.88	55.69	79.23
• Other than campus recruitment	18.46	10.16	4	2.15
Entrepreneurship/Self-employment	--	--	1.14	--

### 30. Details of Infrastructural facilities:

#### a) Library:

The Central Library consists of Books, Journals, CDs etc. as given in the following table.

Sr. No.	Particulars	Number
1	Titles	1910
2	volumes	7451
3	National Journals	13
4	International Journals	-
5	CDs	1200
6	e-Books and e-Journals	IEEE 145 Journals

- The Departmental library is equipped with internet connection, tubes, fans, tables, cupboards, chairs.
- Technical data sheets, manuals, books, journals etc. are available in the departmental library. Total number of book volumes is 470.

#### b) Internet facilities for Staff & Students:

- The complete department building is Wi-Fi enabled.
- Each faculty has cabin equipped with internet connection, whiteboard, table, chairs etc.
- The overall ambiance is highly professional and computers/Laptops are provided to the senior faculty.

#### c) Class rooms with ICT facility:

- All the classrooms are Wi-Fi enabled with enough light intensity, airy and have studious ambiance.

#### d) Laboratories:

Department has well equipped laboratories to conduct UG, PG and Ph.D. programmes. Actel Inc. USA, Texas Instruments, Intel-FICE, ARM-STMicroelectronics UK, have funded thrust domain laboratories. Similarly, laboratories are updated through removal of obsolescence under MODROB schemes of AICTE. Embedded Systems, Electronic Measurements and Communication laboratories are equipped by MODROBs.

Sr. No.	Name of Lab	Major Equipments in the Department
1.	Computer	<ul style="list-style-type: none"> <li>• 32 Channel Logic Analyzer</li> <li>• Spectrum analyzer</li> <li>• Microwave Test Bench</li> </ul>
2.	Soft computing	
3.	Embedded systems	
4.	Devices & Circuits	

5.	Integrated Circuits	<ul style="list-style-type: none"> <li>• Microstrip Antenna Trainer</li> <li>• Benchmark OFT optical fiber trainer</li> <li>• Benchmark OTDR set up</li> <li>• Digital LCR-Q meter</li> <li>• Wobbuloscope</li> <li>• Spartan-6 (Nexys3) Board</li> <li>• Digital Real time storage Oscilloscope</li> <li>• Arbitrary waveform Generator</li> <li>• Digital storage oscilloscope</li> <li>• STM32F4 Board</li> <li>• Netsim Standard version</li> <li>• MATLAB R2012a</li> <li>• ISE 11.1 System Edition</li> <li>• Keil MDK-ARM</li> <li>• Triton IDE software</li> <li>• Microwind Package DSCH 3.0</li> </ul>
6.	Basic Electronics	
7.	Networks	
8.	Microwave	
9.	Electronic Measurements	
10.	Optical Fiber Communication	
11.	ACTEL Advanced FPGA VLSI	
12.	Signal processing & circuit simulation	
13.	Reconfigurable Computing	
14.	Project	
15.	Modeling & Simulations	
16.	Analog Communication	
17.	Digital Communication	
18.	Digital Electronics I	
19.	Digital Electronics II	
20.	Circuits & Systems	
21.	Research Laboratory	

**31. Number of students receiving financial assistance from college, university, Government or other agencies:**

Year	Number of students			
	College	University	Government	other agencies
2014-15	--	04	510	65
2013-14	--	02	376	--
2012-13	--	02	338	--
2011-12	--	03	299	--

**32. Details on student enrichment programmes (Special lectures / Workshops/ Seminar) with external experts:**

- Enrichment programmes organized with the external experts

Sr. No.	Academic Year	Name of enrichment programmes	Name of External Expert	Organization
1	2014-15	Special lecture on Instrumentation	Mr. Ankur Sughandhi	Gill Instruments, Pune
		Special lecture on Embedded Systems and Applications	Mr. Umesh Jadhav	John Deer, Pune
		Special lecture on Smart Grid	Mr. Sandip Agrawal	Neil soft, Pune
		Special lecture on Applications of Image Processing	Mr. Jayant Jagtap	Dnyaganga Engg. , Pune

		Seminar on Education outside India	Mr. Bharat Ketkar	Overseas Education, Pune
		Seminar on “Embedded Linux and ARM 9 architecture”	Mr. Mangesh Edke	Micro embedded Technologies, Pune
		Seminar on “ RF Test analysers”	Mr. Nikhil Mitaliya	Tektronix India Pvt. Ltd. , Pune
		Seminar on “ Programmable Logic Controllers”	Mr. Abhijeet Thorat	AGC Pampac Machines Pvt. Ltd. , Pune
		Seminar on “ Vector Network Analysers”	Mr. Mahesh Kajave	Rhode & Schwarz India Ltd. , Pune
		Seminar on “ Test and Measuring Instruments”	Mr. Santosh Satpute	Rishabh Instruments Pvt. Ltd. , Pune
		Seminar on “ LATEX & Spice software”	Prof. K. C. Raut	VIIT College, Pune
		Seminar on “ Continuous time convolution made easier”	Prof. S. R. Mehta	Visiting Faculty VIT College, Pune
		Seminar on “ Talent Innovation Support for Innovative MNC”	Dr. Gowdara Pandu	Talent 21 Technologies, Pune
		Seminar on “ Electronic Product Design using Orcad”	Mr. Manoj Kumar	Entuple Technologies Pvt. Ltd. , Pune
		Seminar on “ Recent trends in 3G & 4G”	Mr. Munir Sayyad	Reliance communications
2	2013-14	Special lecture on SCADA and PLC	Mrs Sachin kadam	Sachin Kadam and Associates, Pune
		Seminar on Orientation towards Electronics Design	Mr.Sunil Desai	Maven systems Pvt. Ltd. , Pune
		Special lecture on Road map for Embedded system	Mr.Hemant Kamat	Shalaka Industries Pvt. Ltd
		Special lecture on Programming Language	Mr.Sachin Bangadkar	IFM Eng. Pvt Ltd. , Pune
		Special lecture on Industrial application of control system	Mr.Saurabh Bagaddeo	ATE Computer systems
		Special lecture on System on chip	Mr.Nitin Raverkar	LSI Logic India Pvt. Ltd. , Pune
		Special lecture on Project Management	Mr.Sashikant Kamthe	IFM Eng. Pvt Ltd
		Seminar on Employability Skills	Mr.Sanjay Ostwal Mrs.Tuhina Bhattacharya	SCOE, Pune
		Special lecture on Routing and switching	Mr.S.J Kadam	CIE ,Pune
		Seminar on Overseas Education	Mr.Ranjit More	Overseas Education

		Special lecture on CMOS VLSI logic	Dr. Dipankar Nagchoudhary	Ex. Professor IIT, Delhi
		Workshop on exploring Secrets of PCB	Mr. Shreyash Hagare	Student, SCOE
		Workshop on Code Arduino	Mr. Paresh Lomte	Student, SCOE
3	2012-13	Special lecture on Embedded System and Project Management	Mr. Hemant kamat	Shalaka Industries, Pune
		Special lecture on Fuzzy Logic	Dr. R. R. Mudholkar	Dept. of Electronics Shivaji University Kolhapur
		Seminar on How to select research topic	Dr. S. V. Dudul	Dept. of Electronics & Telecom. Amaravati University
		Special lecture on TI Processors	Dr. C. P. Ravikumar Prof. Dhananjay Gadre	Texas Instrument NIST New Delhi
		Seminar on Current trends in Communication Network	Mr. Ravikant Patil	Entrepreneur, Pune
		Special lecture on Innovations in Engg.	Dr. Ashok Prabhu	SARNOFF innovative Tech. Ltd. Bangalore
		Special lecture on Robotics	Mr. Aniket Pole	Square Robotics, Pune
		Seminar on Project management	Mr. Parag Karve	Prayas Edutech, Pune
		Workshop on LABVIEW	Mr. Pranit Pol	Trident Tech Lab, Pune
		Workshop on ARM processor	Mr. Jeevan Kataria	SPJ systems, Pune
		Workshop on MATLAB Matrix Reloaded	Mr. Kaustubh Sakhare	PICT, Pune
		Workshop on "Embedded system and Robotics"	Mr. Akhilesh Kumar Mr. Awadh Singh	Campus Component, Pune
		Student Awareness Contest	Prof. Mandar Khurjekar Dr. G. S. Mani	IEEE Communication Society chair, PuneSection
4	2011-12	Workshop on PCB Design	Mrs. Sangeeta Ingle	CAD Design, Pune
		Special lecture on Random Variables and Signal Processing	Mr. G. D. Bhokre	MMCOE Pune
		Special lecture on DSP and Application	Mr. G. D. Bhokre	MMCOE Pune
		Special lecture on Emb. Systems and Application	Mr. Kunal Patil	Renu Electronics, Pune
		Special lecture on System on Chip (STA/DTA)	Mr. Parikshit Godbole	C- DAC Pune

		Workshop on “Embedded system and Robotics”	Mr. Akhilesh Kumar, Mr. Awadh Singh	Campus Component, Pune
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- Department organizes Special Student Training Programmes to cultivate multidimensional abilities in the students. The details are given in the table.

Sr. No.	Title of the Module	No. of Hours	No of students enrolled			
			2011-12	2012-13	2013-14	2014-15
<b>Student Training Program (Module I)</b>						
1.	Personal and Career Goal setting	2	-	215	295	291
2.	SWOT Analysis	2	-	215	295	291
3.	Behavioral Skills	2	-	215	295	291
4.	Public Speaking	2	-	215	295	291
5.	Presentation Skills	2	-	215	295	291
6.	Resume Writing	2	-	215	295	291
7.	Listening Skills	2	-	215	295	291
8.	Group Discussion	2	-	215	295	291
9.	Report Writing	2	-	215	295	291
10.	Letter/Application writing	2	-	215	295	291
<b>Student Training Program (Module II)</b>						
1.	Introduction	2	-	214	295	290
2.	Listening Session- I	2	-	214	295	290
3.	Listening Session- II	2	-	214	295	290
4.	Reading Session- I	2	-	214	295	290
5.	Reading Session- II	2	-	214	295	290
6.	Writing Session- I	2	-	214	295	290
7.	Writing Session- II	2	-	214	295	290
8.	Speaking Session-I	2	-	214	295	290
9.	Speaking Session-II	2	-	214	295	290
10.	Speaking Session-III	2	-	214	295	290
<b>Student Training Program (Module III)</b>						
1.	Communication	2	-	-	242	285
2.	Advance Communication	2	-	-	242	285
3.	Programming-I	2	-	-	242	285
4.	Programming-II	2	-	-	242	285
5.	Electronic Design -I	2	-	-	242	285
6.	Electronic Design -II	2	-	-	242	285
7.	Digital Design	2	-	-	242	285
8.	Embedded Systems	2	-	-	242	285
9.	Signal Processing	2	-	-	242	285
<b>Student Training Program (Module IV)</b>						
1.	Introduction	2	-	-	-	285
2.	Introduction and Group Formation for Group	2	-	-	-	285

	Discussion and Personal Interview.					
3.	Group Discussion-I	2	-	-	-	285
4.	Group Discussion-II	2	-	-	-	285
5.	Group Discussion-III	2	-	-	-	285
6.	Personal Interview-I	2	-	-	-	285
7.	Personal Interview-II	2	-	-	-	285
8.	Personal Interview-III	2	-	-	-	285
9.	Personal Interview-IV	2	-	-	-	285

### 33. Teaching methods adopted to improve student learning -

Following methods are adopted to improve and maintain learning environment amongst the students-

- Continuous evaluation methods :
  - Tests, re-tests and Prelims examinations
  - Continues evaluation of practicals and mock practical examinations
  - Continues Projects evaluations by expert committees and maintenance of project workbooks.
- Arranging Seminars, Workshop, Conferences, Students Training Programs (STP), activities and hands on session by eminent personalities from industry and reputed academic organizations
- Training to faculty through workshops, FDP, STP has enriched performance in teaching. This has strengthened the teaching-learning process.
- Faculty seminars and Train The Trainers (TTT) programs are organized to ensure effective teaching skills.
- Usage of LCD projector, PPT, Animations, Quiz, Video, Real application co-relation, Case studies etc. has made the lectures more interesting, interactive, attentive and hence effective.
- Industrial visits to cater real-time applications.

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities-

Following measures/initiatives are taken to enhance social awareness -

- Students participate in various social activities such as 'PRAYAS', 'KSHITIJ', 'NSS', IEEE etc.
- Students have inherent self-motivation and willingness to work for common people particularly in villages. Various camps, workshops on general reading- writing, technology awareness and computer literacy were organized for rural school-children.
- IEEE - Student Awareness Contest (SAC) was held for social activity issues.
- Helping hand to traffic police in peak office-hours etc. is being given by the students in social context.

### **35. SWOC analysis of the department and Future plans - Strengths**

- Focused and competent Human Resource (HR).
- State of art laboratories funded by Multinational Companies (MNC) and AICTE
- University recognized Research Center and excellent research facilities
- High placement ratio
- Industry associated Incubation center and Cell
- Accredited by NBA for two times for 3 years and 5 years
- Pioneer of two PG programs in University

#### **Weaknesses**

- Revenue from external consultancy needs to be improved
- Less number of high economical return patents
- Less number of reputed transaction papers

#### **Opportunities**

- To have strong liaison with the automotive industry hub in and around Pune.
- To start new professional courses so as to cater the technological man-power need.

#### **Challenges**

- To achieve esteem success rate.
- To provide placement for every student.
- To produce more entrepreneurs.

#### **Future plans:**

- To upgrade each faculty with Ph. D. qualification.
- To establish department as Center of Excellence (CoE).
- To establish close association with state of the art Universities.



## INFORMATION TECHNOLOGY

1. Name of the department : **Information Technology**
2. Year of Establishment : **1999**
3. Names of Programs / Courses offered:

Sr. No	Name of the program	Year of Establishment
1	UG	1999
2	PG (Information Technology)	2007

4. Names of Interdisciplinary courses and the departments/units involved: Nil
5. Annual/ semester/choice based credit system (program wise) :

Sr. No	Name of the program	Pattern/System
1	UG	Semester
2	PG (Information Technology)	Choice Based Credit System

6. Participation of the department in the courses offered by other departments:

Sr. No	Name of the Department	Class	Courses offered
1	Engineering Science	FE	Fundamentals of Programming Languages-I & II
2	E&TC	SE	Data Structures and Files
3	PhD -Course work	Ph.D.	Seminar

7. Courses in collaboration with other universities, industries, foreign institutions:

Sr. No	Certificate/Course Name	Collaborating Institution /Industry/Universities etc.
1	Foundation Program 4.0 Training (Infosys Campus Connect)	Infosys Technologies Ltd

8. Details of courses/programs discontinued (if any) with reasons : Nil

9. Number of teaching posts

Post	Sanctioned	Filled
Professors	4	1
Associate Professors	9	7
Asst. Professors	15	15

**10. Faculty profile with name, qualification, designation, specialization, D.Sc./D.Litt./ Ph.D. / M. Phil. etc.,)**

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. N. J. Uke	PhD (CSE)	Professor	Computer Science & Engineering	19	3
Dr. K. S. Thakre	PhD (CSE)	Associate Professor	Computer Science & Engineering	21	-

**11. List of senior visiting faculty :**

Sr. No	Name of the faculty	Affiliation	Subject
1	Mr. Abhay Abhyankar	Sayali Academy, Pune	DSF

**12. Percentage of lectures delivered and practical classes handled (program wise) by temporary faculty : Nil**

**13. Student -Teacher Ratio (program wise) :**

Sr. No	Program	Student -Teacher Ratio
1	UG	16:1
2	PG	12:1

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

Staff details	Sanctioned	Filled
Academic Support Staff	6	6

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.:**

Ph.D.	Ph.D. Pursuing	PG	UG
02	13	07	1

**16. Number of faculty with ongoing projects from National and International funding Agencies and grants received**

- a) National : 01  
 b) International : Nil

Sr .No.	National/ International	Number of Faculty	Total Grant Received
1	National	1	1,70,000/-

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received**

Sr. No.	Projects funded by	Total Number	Total Grants Received
1	University	1	1,70,000/-

**18. Research Centre /facility recognized by the University** : Nil

**19. Publications:**

Publication per faculty : 7.75

Sr. No	Parameters	Number
1	Number of papers published in peer reviewed journals (National /International) by faculty and students	84
2	Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	06
3	Monographs	Nil
4	Chapter in Books	4
5	Books Edited	8
6	Books with ISBN/ISSN numbers with details of publishers	8
7	Citation Index	119
8	SNIP	05
9	SJR	05
10	Impact factor	8
11	h-index	1

**20. Areas of consultancy and income generated:**

Sr. No.	Details of Consultancy (Technical / Academic / Testing)	Name of Faculty	Revenue Generated Rs.
1.	HP Training	D. V. Medhane	1,64,000/-

**21. Faculty as members in**

- a) National committees : Nil  
 b) International Committees :

Name of the faculty	Name of the committee	Nature of work/description
Dr. N. J. Uke	Reviewer of International Journal and Conference	Blind review of papers submitted to the Journal and Conferences

Mr. G. R. Pathak	Reviewer of International Journal “Wireless Personal Communications”	Blind review of papers submitted to the Journal and Conferences
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c) Editorial Board:

Name of the faculty	Name of Journal/ conference/ magazine/ news paper
Dr. N. J. Uke	International Conference On Image Processing, Production And Computer Science (ICIPCS'2016) March 26-27, 2016 at London (United Kingdom)
Dr. N. J. Uke	Reviewer for book “Multimedia Technologies”, McGraw Hill Education Pvt. Ltd.
Mr. A. N. Bhute	Reviewer for book “Object oriented Programming”, Tata Mc Graw-Hill
Dr. N. J. Uke	Reviewer for book “Artificial Intelligence”, McGraw Hill Education Pvt. Ltd., India
Mr. A. N. Bhute	Reviewer for book “Object oriented Programming”, Tata Mc Graw-Hills
Dr. N. J. Uke	Reviewer for book “Principles of Multimedia”, R Parekh, McGraw Hill Education Pvt. Ltd., India
Mr. A. N. Bhute	Reviewer for book “Software Engineering”, McGraw-Hills
Mr. A. N. Bhute	Reviewer for book “Fundamentals of Information retrieval Techniques”, McGraw-Hills
Dr. N. J. Uke	Reviewer for book “Fundamentals of Multimedia Systems”, McGraw Hill Education Pvt. Ltd., India
Mr. G. R. Pathak	Reviewer for book “Mobile Computing”, McGraw Hill Education Pvt. Ltd., India

d. Any other committee :

Sr. No	Name of the faculty	Name of the committee/ Role	Nature of work/description
1	Dr. N. J. Uke	Local Inquiry Committee, SPPU Member of Interview Panel, UGC	Visit to various colleges and submit report to University
2	Mr. G. R. Pathak	Local Inquiry Committee, SPPU Member of Interview Panel, UGC	Visit to various colleges and submit report to University
3	Mr. M. V. Nimbalkar	Local Inquiry Committee, SPPU Member of Interview Panel, UGC	Visit to various colleges and submit report to University
4	Mr. M. V. Nimbalkar	Squad for SPPU Examination	Vigilance of University Exams

5	Mr. A. N. Bhute	Presiding Officer	Election duty for Assembly Elections
6	Mr. C. O. Banchhor	Presiding Officer	Election duty for Assembly Elections
7	Mrs. Y. A. Jakhade	Squad for SPPU Examination	Vigilance of University Exams
8	Mrs. A. A. Agarkar	Presiding Officer	Election duty for Assembly Elections
9	Mr. V. V. Puri	Presiding Officer	Election duty for Assembly Elections
10	Mr. A. A. Utikar	Presiding Officer	Election duty for Assembly Elections
11	Mr. R. P. Modi	Presiding Officer	Election duty for Assembly Elections
12	Mr. N. R. Gavai	Presiding Officer	Election duty for Assembly Elections
13	Mr. K. A. Hiwarekar	Presiding Officer	Election duty for Assembly Elections
14	Mr. N. H. Deshpande	Presiding Officer	Election duty for Assembly Elections

## 22. Student projects

- Percentage of students who have done in-house projects including inter departmental/project
- Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Program	Academic Year	Percentage of in-house projects	Percentage of sponsored projects
UG	2014-15	86%	14%
	2013-14	85%	15%
	2012-13	85%	15%
	2011-12	73%	27%
PG	2014-15	100%	0%
	2013-14	92%	8%
	2012-13	100%	0%
	2011-12	100%	0%

## 23. Awards / Recognitions received by faculty and students:

Total Number of students awards	Total Number of Faculty awards
61	6

**24. List of eminent academicians and scientists / visitors to the department :**

Sr. No	Name of eminent academicians, scientists, visitors	Association/Affiliation	Purpose of visit
1	Dr. Ravindra Jaybhaye	OSD ,BCUD	Avishkar oriented Lecture
2	Mr.Mangesh Bodhagire	Ecorise Software Solution, Pune	Research Awareness
3	Mr. Navjot Singh	EMC Noida	Seminar on Big Data Analytics
4	Mr Atul Kahate	PSPL,Pune	Speaker on Ethical Hacking
5	Mr. Mohhamaad Husain	Developer, Arizona Infotech	Speaker on Ethical Hacking
6	Mr. S. Thirukkumaran Mrs. Anjali Thirukkumaran	Diorector, SAT Infosys No.70,Gandhipuram, Coimbatore - 641 012	Workshop on NS3
7	Mr.Sachin Patil	Developer, CMC Software,Pune	Workshop on Advanced Java/ Database Management systems
8	Tushar Adheshara	Developer, PSPL Pune	Information Retrieval
9	Yogesh Dandawate	Developer, Infosys Lab	Practical approach in engineering
10	Rohan Kanojiya	IT Infrastructure Analyst, Barkley technology centre	Virtualization And Clustering
11	Swapnil Pande	HR consultant, Infosys	Seminar on Emotional Intelligence
12	Mr.Shivraj Jadhav	Software Developer,SQS pvt. limited ,Pune	Lecture on software Testing And Quality Assurance
13	Dr Aditya Abhyankar	Dean, R & D SPPU, Pune	Research Awareness
14	Mr. Shekhar Sahastrabuddhe	Regional Vice President, Maharashtra & Goa at Computer Society of India	CSI Awareness

## 25. Seminars/ Conferences/Workshops organized & the source of funding

a) National :

Year	Sr. No	Name of FDP / SDP / STTP / Workshop / Webinar etc.	National/ International	Sponsoring / Funding Agency if any	Revenue generated
2014-15	1	Cloud Computing, Big Data & its Components	University	BCUD	Nil
	2	Research in wireless sensor network using NS-3	University	BCUD	9638/-
	3	Big Data Analytics	National	Self Sponsored	
2012-13	1	Distributed Systems and Information Retrieval	National	TEQIP	7,470/-

b) International : Nil

## 26. Student profile program/course wise:

Name of the Course/program		Applications received	Selected	Enrolled		Pass percentage
Course	Year			*M	*F	
UG	2014-15	Admission process in the state is only through CAP and governed by Director of Technical Education (DTE), Government of Maharashtra. The Institute follows the rules, regulation & guidelines set by Savitribai Phule Pune University, State Government body.	122	79	43	Since the college wise application received is with DTE, pass percentage is not available with the institute.
	2013-14		125	85	40	
	2012-13		121	85	36	
	2011-12		126	90	36	
PG	2014-15	Admission process in the state is only through CAP and governed by Director of Technical Education (DTE), Government of Maharashtra. The Institute follows the rules, regulation & guidelines set by Savitribai Phule Pune University, State Government body.	18	12	06	
	2013-14		24	09	15	
	2012-13		23	10	13	
	2011-12		20	08	12	

\*M = Male \*F = Female

**27. Diversity of Students**

Name of the Course/program		% of students from the same state	% of students from other States	% of students from abroad
Course	Year	10	17	3
UG	2014-15	98	27	1
	2013-14	98	23	1
	2012-13	10	22	0
	2011-12	10	22	0
PG	2014-15	17	01	0
	2013-14	24	00	0
	2012-13	23	00	0
	2011-12	20	00	3

**28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.?**

Competitive Examinations /Academic Year	No of Students			
	2011-12	2012-13	2013-14	2014-15
GATE	11	23	30	3
GRE/TOEFL	21	18	19	6
GMAT/CMAT	3	17	21	1
NET/SET	3	18	19	--
Civil services	--	--	--	--
Defense services	--	--	--	--
Others	--	--	--	--

**29. Student progression**

Student progression	Against % Enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	25%	41.4%	50%	
PG to Ph.D.	16.7%	--	5%	--
<b>Employed</b>				
• Campus selection	98.8%	91.7%	73.8%	96.8%
• Other than campus recruitment	2%	5.7%	5%	
Entrepreneurship/Self-employment	2	3	3	2



### 30. Details of infrastructural facilities

#### a) Library

Sr. No	Particulars	Number
1	Titles	1453
2	Volumes	6449
3	National Journals	09
4	International Journals	-
5	CDs	1200
6	e-Books and e-Journals	IEEE 145 Journals

#### b) Internet facilities for Staff & Students

- Staff cabins are fully furnished and equipped with computers ,Internet connections, Laser Printer, Book Racks and Pin Board
- All staff rooms and department office have EPABX system facility.
- Wifi and wired network facility is available in the building, labs and classrooms.
- Power back-up is also provided in all labs for smooth conduction of practical and classes.

#### c) Class rooms with ICT facility

- Adequate number of class rooms for lectures (core/electives), seminars, and tutorials with LCD projector and wired and wi-fi internet connections.
- Two Seminar Halls with aforementioned facilities, one with a capacity of 250 is shared and another with a capacity of 120 is exclusively with the department of Information Technology

#### d) Laboratories

Sr. No	Name of Lab	Major Equipments in the department
1	Programming Lab-I	171 Computers with P4, D2D, Core I3 Processors, 22 Dlink 16/24 port Switches, 24 Dot Matrix Printer, 30 KVA Online UPS.
2	Programming Lab-II	
3	Information System Design Lab	
4	Software Engineering Lab	
5	Computer Graphics Lab	
6	Elective Lab	
7	Network Lab	
8	Digital Lab	Kits of microprocessor ,microcontroller, ADC & DAC, DMM, DSO, Computers, Printer.

### 31. Number of students receiving financial assistance from college, university, government or other agencies

Year	No of students			
	College	University	Government	other agencies
2014-15	--	--	326	17

2013-14	1	--	256	1
2012-13	--	--	270	3
2011-12	--	--	274	0

**32. Details on student enrichment program (Special Lectures/workshops/Seminar) with external experts**

Year	Name of Enrichment program	Name of External Expert	Organization
2014-15	Virtualization & Clustering	Mr. Rohan Kanojiya	IT Infrastructure Analyst
	NS2 for wireless & sensor networks	Mr. Pranav Pawar	Assistant Professor, SKNCOE
	Opportunities to Study in Abroad	Dr. Jayesh Minase	Assistant Professor, SCOE
	NFX & 3D Technologies in the industry	Mr. Wasim Attar	Design Analyst, School of media design
	Research Techniques in armament Electronics	Dr. Virendra verma	Joint Director at Defence ,R & D establishment
	Reducibility and Decidability	Mr. Sushant Gote	Assistant Professor, SITS, Narhe
	(Operating System) kernel programming in linux	Mr. Milind Penurkar	Associate Professor, MITCOE, Pune
	Wireless and Wireless Sensor Networks on NS2	Mr. Pranav Pawar	Assistant Professor, SKNCOE
	80386 Protected mode	Mr. S S Kulkarni	Associate Professor, SAE Kondava
	K Map	Mr. S S Kulkarni	Associate Professor, SAE Kondava
2013-14	Microsoft Sharepoint	Mr. Amit Phule	Senior Software Engineer
	IT Project Management	Mr. Sanjeev Wangi	Consultant
	Mobile Computing	Mr. Prashant Hinduja	Corporate Trainer and Consultant
	Enterprise Resource Management	Mr. Prashant Jagdale	Senior Software Engineer
	Emerging Trends in Wireless Communication	Ms. Tejaswini Hingmire	Consultant

	Visual Basic/Structured Query Language	Mr. Sachin Patil	Technical Director, Click in Computers
	OOPs Introduction	Mr. Aditya Parab	Senior Software Engineer, PSPL
	Python programming language	Mr. C. O. Banchhor	Assistant Professor, MITCOE, Pune
	Workshop on Testing tools QTP and test director	Mr. Shivraj Jadhav	Software Developer, SQS Ltd
	How to review research paper	Dr Aditya Abhyankar	Dean, R & D SPPU, Pune,
2012-13	VHDL Programming	Prof. Shailendra Badwaik	Assistant Professor

**Students Training Program (STP):** The Department grooms the students by giving extra coaching for improving their soft skills, spoken English, reading, writing, listening skills etc through STP. It also provides extensive training to the students in presentation and communication skills, prepares them to face corporate interviews by conducting effective GD/PI sessions and trains them for campus placements.

### 33. Teaching methods adopted to improve student learning

- Videos from The National Program on Technology Enhanced Learning (NPTEL) of the subject related topics are shown to enhance understanding.
- Mini project work and assignments for specific subjects
- Course material which includes presentations, case studies, lecture notes, lab manuals, code etc are provided in the form of CD.
- Educational visits to the IT industries and guest lectures from experts.
- Brainstorming sessions for electives offered for BE students.
- Group discussion, role plays, quizzes in regular and proxy lectures.
- Mock practical, preliminary exams and written assignments are given to students for practice; before final examinations.

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- PRAYAS is a social activity under which students take part for various activities such as Computer Literacy, Vedic Mathematics, scientific toys, career counseling, blood donation, street play, various competitions, General awareness, books and clothes donation.
- In September 2013, second year students visited blind school at Pune.
- second year students visited Orphanage at vadgaon, Pune

### 35. SWOC analysis of the department and Future plans

#### Strengths

- Dedicated and well-qualified faculty.
- Senior faculty with average experience of 12 years.

- The department has a healthy retention ratio.
- More than 50% faculty members are pursuing PhD in various domains of Information technology and computer science.
- Well equipped classrooms and laboratories

#### **Weaknesses**

- Inadequate private funding.
- Foreign Collaboration with respect to MoUs and faculty exchange

#### **Opportunities**

- Industry Linkages and Consultancy
- Conducting International/National level conference
- To publish more Books & good quality research papers in reputed journals

#### **Challenges**

- Increased competition for students to get employed.
- To provide a platform to the students by giving them an opportunity to face all the challenges in the competitive world.
- Adoption of innovative technique to cope up with recent IT demands.

#### **Future Plans**

- To establish research Centre in Information Technology for PhD course
- To improve focus on research-based projects
- To organize subject related conferences as the subject is dynamic and have practical relevance.
- To increase interaction with the professional bodies and social community.

## MECHANICAL ENGINEERING

**1. Name of the department** : Mechanical Engineering

**2. Year of Establishment** : 1996

**3. Names of Programs / Courses offered:**

Sr. No	Name of the programme	Year of Establishment
1	UG (Mechanical Engg.)	1996
2	ME (Mechanical Engg.) (Heat Power Engg.)	2005-06
3	ME (Mechanical Engg.) (Design Engg.)	2004-05
4	ME (Mechanical Engg.) (Mechatronics)	2009-10
5	ME (Mechanical Engg.) (Automotive)	2011-12
6	Ph.D. (Mechanical Engg.)	2007-08

**4. Names of Interdisciplinary courses and the departments/units involved: 3**

Sr. No	Name of the Interdisciplinary Courses	Departments/Units Involved
1	UG	Applied Science, E &TC, Electrical
2	PG (Mechatronics)	E &TC

**5. Annual/ semester/choice based credit system (programme wise)**

Sr. No	Name of the programme	Pattern/System (Annual/ semester/choice based credit system)
1	UG	Semester
2	PG (Heat Power)	Choice Based Credit System
3	PG (Design Engg.)	
4	PG (Automotive Engg.)	
5	PG (Mechatronics)	Not Applicable
6	Ph.D.	

**6. Participation of the department in the courses offered by other departments** : Nil

**7. Courses in collaboration with other universities, industries, foreign institutions: 2**

Sr. No	Certificate/Course Name	Collaborating Institution / Industry/Universities etc.
1	Thermax Graduate Programme (TGP) the course collaborated with Thermax Ltd.	Thermax Ltd. Pune

<b>2</b>	Distance Education Programme in Computer Integrated Manufacturing in collaboration with Indira Gandhi National open University, New Delhi.	Indira Gandhi National Open University (IGNOU)
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**8. Details of courses/programs discontinued (if any) with reasons : Nil**

**9. Number of teaching posts**

Designation	Sanctioned		Filled	
	UG	PG	UG	PG
Professors	08	04	04	01
Associate Professors	16	04	05	03
Asst. Professors	48	05	35	03
Guest faculty	14	04	14	02

**10. Faculty profile with name, qualification, designation, specialization, D.Sc. / D.Litt. /Ph.D. / M. Phil. etc)**

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. Y. P. Reddy	Ph.D.	Vice-Principal & HOD	Production Engg.	22	03 (On going)
Prof. M.G. Bhat	M.E.	Professor	Design Engg.	40	--
Prof. J.N. Pitambare	B.E., MBA	Professor	Mechanical	40	--
Prof. V. N. Kapatkar	ME	Professor	Production Engg.	30	--
Dr. P. J. Awasare	Ph.D.	Professor	Design Engg.	34	05
Dr. A. B. Kanase-Patil	Ph.D.	Asso. Professor	Thermal Engg.	10	--
Prof. T. A. Jadhav	ME	Asso. Professor	Design Engg.	22	--
Prof. S. B. Sanap	ME	Asso. Professor	Design Engg.	17	--
Prof. P.M. Khanwalkar	M. Tech.	Asso. Professor	Thermal Engg.	28	--
Prof. D. H. Burande	M Tech.	Asso. Professor	Design Engg.	20	--
Prof. A. P. Tadamalle	ME	Asso. Professor	Design Engg.	19	--
Prof. S. A. Kulkarni	ME	Asso. Professor	Production Engg.	25	--
Prof. N S Gohel	M Tech	Asso. Professor	Thermal Engg.	19	--
Dr. D. S Watvisave	Ph.D.	Asso. Professor	Design Engg.	20	--
Prof. P. S. Gajjal	ME	Asst. Professor	Design Engg.	12	--
Prof. S. B. Patil	M Tech	Asst. Professor	Design Engg.	1	--

Prof. P. N. Choudhari	M Tech	Asst. Professor	Thermal Engg.	7	--
Prof. M H Attal	M.Tech	Asst. Professor	Thermal Engg.	7	--
Prof. D. M. Gaikwad	ME	Asst. Professor	Thermal Engg.	7	--
Prof. S. H. Deshmukh	ME	Asst. Professor	Design Engg.	19	--
Prof. P. G. Patole	M. Tech.	Asst. Professor	Thermal Engg.	9.5	--
Prof. R. R. Gaikwad	M. Tech	Asst. Professor	Thermal Engg.	7	--
Dr. J. L. Minase	PhD	Asst. Professor	Mechatronics	10	--
Prof. V. D. Padalkar	M. Tech	Asst. Professor	Design Engg.	6	--
Prof. A. C. Bhure	ME	Asst. Professor	Thermal Engg.	6	--
Prof. A. P. Kaldate	ME	Asst. Professor	Mechatronics	6	--
Prof. D. B. Raut	M. Tech	Asst. Professor	Design Engg.	6	--
Prof. B. P. Kumbhare	ME	Asst. Professor	Thermal Engg.	6	--
Prof. V. C. Gunge	ME	Asst. Professor	Thermal Engg.	7	--
Prof. A. B. Korane	ME	Asst. Professor	Thermal Engg.	7	--
Prof. S. Venkat	M. Tech	Asst. Professor	Production Engg.	5	--
Prof. C. A. Joel	ME	Asst. Professor	Thermal Engg.	2.5	--
Prof. S. A. Phule	ME	Asst. Professor	Thermal Engg.	5.5	--
Prof. P. P. Suryawanshi	M. Tech	Asst. Professor	Design Engg.	3	--
Prof. U. H. Yadav	ME	Asst. Professor	Design Engg.	5	--
Prof. S. S.Jadhav	ME	Asst. Professor	Design Engg.	6	--
Prof. S. R. Bhawe	ME	Asst. Professor	Mechatronics	3	--
Prof. S .S. Ohol	M. Tech	Asst. Professor	Metallurgy Engg.	10	--
Prof. C. S .Kulkarni	ME	Asst. Professor	Design Engg.	1	--
Prof. M. M. Deshmukh	ME	Asst. Professor	Thermal Engg.	1	--
Prof. V. C. Khapper	ME	Asst. Professor	Design Engg.	1	--
Prof. S. N. Gundre	ME	Asst. Professor	Design Engg.	1	--
Prof. P. R. Lokhande	ME	Asst. Professor	Design Engg.	1	--
Prof. D. S. Chavan	M Tech	Asst. Professor	Production Engg.	1	--
Prof. S. G. Yebaji	M. Tech	Asst. Professor	Metallurgy	1	--
Prof. P. B. Ostwal	M. Tech	Asst. Professor	Production Engg.	1	--
Prof. S.M. Bahirwal	M. Tech	Asst. Professor	Production Engg.	1	--

Prof. E. B. Patil	M. Tech	Asst. Professor	Production Engg.	1	--
Prof. P. S. Yadav	M. Tech	Asst. Professor	Thermal Engg.	1	--

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: Nil

13. Student -Teacher Ratio (programme wise) :

Sr. No.	Program Name	Student Teacher Ratio
1	UG- Mechanical Engg.	17:1
2	PG-ME (Mechanical Engg.) (Heat Power Engg.)	12:1
3	PG-ME (Mechanical Engg.) (Design Engg.)	
4	PG-ME (Mechanical Engg.) (Mechatronics)	
5	PG-ME (Mechanical Engg.) (Automotive)	

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Staff details	Sanctioned	Filled
Academic Support Staff	7	Peon / Attendant: 03
		Lab Technicians, Lab Assistants: 04
		Computer Operators: 01

15. Qualifications of Teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.:

Ph.D.	Ph.D. Pursuing	PG	UG
05	11	44 (Including PhD Pursuing)	Nil

16. Number of faculty with ongoing projects from National and International funding Agencies and grants received

a) National : 02

b) International : Nil

Sr.	National/ International	Number of Faculty	Total Grant Received (Rs)
1	National	02	435000

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received

Sr. No	Projects funded by	Total Number	Total Grants Received (Rs)
1	AICTE (RPS+MODROB+FDP)	2	12,20,000
2	TEQIP (FDP. SDP, Workshop)	3	4,50,000
3	University (BCUD+ISRO)	3	10,85,000
4	Thermax Ltd, Pune	3 Years	60,00,000
5	Toshiba	1	35000



**18. Research Centre /facility recognized by the University : Yes**

Sr. No	Total Number of Ph.D. students		Number of guides associated
	Registered	Completed	
1	39	06	22

**19. Publications:**

**a) Publication per faculty:  $194/49 = 3.96$   
(Journals: 120, Conference: 74)**

Parameters	Number
Number of papers published in peer reviewed journals (National /International) by faculty and students	120
Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.	194
Monographs	Nil
Chapter in Books	Nil
Books Edited	Nil
Books with ISBN/ISSN numbers with details of publishers	Nil
Citation Index	406
SNIP	09
SJR	08
Impact factor	28
h-index	4

**20. Areas of consultancy and income generated:**

Sr. No.	Details of Consultancy (Technical/Academic/ Testing)	Name of Faculty	Revenue Generated Rs.
1	Academic	All the faculty from the department Dr. A.B. Kanase Patil (Coordinator)	Around 20 Lakhs per Year (for 6 years)
2	Technical	Dr. C.S. Pathak	2 Lakhs
3	Technical	Dr. C.S. Pathak	35,000
4	Technical	Prof. M. H. Attal	50,000

**21. Faculty as members in**

**a) National committees:**

Sr. No	Name of the faculty	Name of the committee	Nature of work/description
1	Dr. P J Awasare	BoS Chairman, SPPU	Curriculum setting , syllabus revision , examination co-ordination
2	Dr. Y. P. Reddy	Senate & BoS Member, SPPU	
3	Dr. S B Wadkar	BoS Member , SPPU	
4	Dr. H. V. Vankudre	Faculty & BOS Member, SPPU	

**b) International Committees: Nil**

c) Editorial Boards: :

Name of the faculty	Name of Journal/ conference/ magazine/ news paper
Dr. A B Kanse Patil	International Journal of Energy, Applied Energy

d. Any other committee:

Sr. No.	Name of the faculty	Name of the committee/Role	Nature of work/description
1	Dr. Y. P. Reddy	LIC Member, SPPU	Inspection of the Institutes under SPPU
2	Dr. P. J. Awasare		
3	Prof. D. H. Burande		
4	Prof. S. B. Sanap		
5	Prof. T. A. Jadhav		
6	Prof. V. N. Kapatkar		
7	Dr. H. V. Vankudre		

22. Student projects:

- Percentage of students who have done in-house projects including inter departmental/programme
- Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Programme	Academic Year	Percentage of in-house projects	Percentage of sponsored projects
UG	2014-15	64	35
	2013-14	40	60
	2012-13	33.3	66.7
	2011-12	57.9	42.1
P. G. (Design Engg.)	2014-15	55	45
	2013-14	37	63
	2012-13	50	50
	2011-12	44	66
P. G. (Automotive Engg.)	2014-15	70	30
	2013-14	41	59
	2012-13	81	19
	2011-12	39	61
PG (Mechatronics)	2014-15	93	07
	2013-14	95	5
	2012-13	81	19
	2011-12	50	50
PG (Heat Power Engg.)	2014-15	80	20
	2013-14	76.9	23.1
	2012-13	55.5	44.5
	2011-12	80	20

**23. Awards / Recognitions received by faculty and students :**

Total Number of students awards	Total Number of Faculty awards
75	3

**24. List of eminent academicians and scientists / visitors to the department:**

Sr. No.	Name of eminent academicians, scientists, visitors	Association/Affiliation	Purpose of visit Deliver lecture on
1	Mr. Srivatsa Kulkarni	Kalyani Carpenter Special Steels Ltd,	Biomimetics
2	Mr. Aslam Sayyad	Accurate sales & Services Pvt. Ltd.	Dimension Metrology
3	Mr. R. S.Jha	Senior Manager, Thermax Ltd., Pune	Heat Exchanger
4	Mr. Anand Bhise	Director Mechatol Pvt. Ltd	Dimensions and Tolerances
5	Mr. Anand Paranjape	Tata Thermal Power Plant, Mumbai	Trends in Power Plant Engg.
6	Dr. G. Balachandran	Chief Technical Officer, kalyani Carpenter Special Steels Ltd, Pune-36	Material Science
7	Prof Andre	Prof. Department of Educational Study, Germany	Higher studies in foreign Countries and FEM
8	Mr. Prashant Kale	Senior Manager, MIDC Pune	Automation in Industries
9	Mr. Arvind Paranjpe	EDGM Tata Power	Modern trends in power plant
10	Mr. Shailesh Kumar	Kristech Automation, Pune	Automation
11	Dr. Aditya Karnik	Development Engineer, CD Adapco, Pune	Computational Fluid Dynamics
12	Mr. Pankaj Jha	Manager, Thermax Ltd. Pune	Heat Transfer
13	Mr. H.D. Bandekar	Chief Engineer Nashik Thermal Power Station	Recent trends in power plant Engg
14	Mr. Ajay Tambwekar	Institute of Marine Studies	Opportunities in Marine Engg.
15	Mr. Tushar Gulhane	International Creative Academy of Design	Career Opportunities in CAD/CAM/CAE
16	Mr. Arvind Paranjape	AGM, Tata Thermal Power Station, Chembur.	Recent trends in Power Plant Engg
17	Dr. S. Mandaogane	DGM, Tata Motors	Case Studies in Industrial Engg.
18	Chris Wiseman	TWI, UK, Coventry University	Welding
19	Mr. Ajay Kapadia	TWI, UK	Composites
20	Prof. Sanjay Deshpande	Director, Asian Academy of Professional Training	Advances in Finite Element Methods
21	Dr. S. Mandaogane	DGM, Tata Motors	Industrial Engg.
22	Mr. Arvind Paranjape	AGM, Tata Thermal Power Station	Thermal Power Plant
23	Mr. Mangesh Tambe	Manager- Sales & Service, Pune	Virtual Manufacturing
24	Mr. Supreet Deshpande	CEO, Welife Sciences Pvt. Ltd	Entrepreneurship Development
25	Shital Joshi	Manager, Sr. Manager ANSYS	CFD
26	Nikesh Sharma	Manager, Bajaj Auto Ltd. Pune	Vehicle Dynamics
27	Mr. Chaitnya Ketkar	Toyo Engg. Mumbai	Advances In Centrifugal Pump
28	Mr. Swapnit Deshmukh	EDST, Pune	Edst Young Engineers Development Programme-13

29	Mr. Sanjay Deshpande	Director, Asian Academy of Professional Training	Opportunities in Design Engg. : Analysis
30	Mr. Sheetal Joshi	Manager, Sr.Manager ANSYS	Computational Fluid Dynamics
31	Mrs. Himani Deshmukh	Flow Analyst, Flow Dynamics Ltd.	Computational Fluid Dynamics
32	Mr. Prasanna Joshi	Director, CAD CAM GURU Institute	Carrier Opportunities in CAE/FEM
33	Mr. S.B. Bandekar	General Manager, Nashik Thermal Power Station, Nashik	Advances in Power Plant Engg.
34	Mr. S. D. Deshmukh	Assistant Manager, Faurecia Ltd., Pune	Recent Trends in Automobile Industry
35	Mr. ArvindParanjape	Assistant General Manager, TATA Power Co. Ltd.	Recent Trends in Power Plant Engg.
36	Mr.JavedkhanTamboli	Sr. Engineer, Eton, Pune	Advances in Industrial Hydraulics

## 25. Seminars/ Conferences/Workshops organized & the source of funding:

### a) National:

Year	Sr. No	Name of FDP / SDP / STTP / Workshop / Webinar etc.	National/ International	Sponsoring / Funding Agency if any	Revenue generated
2015-16	1	FDP on Entrepreneurship	State	SPPU, Pune	100000
	2	FDP on Advances in Cutting tools and Additive Manufacturing Processes	National	ISTE, New Delhi	50000
	3	Teaching methodology for Mechatronics of TE Mechanical Part-II, 2012 course	National	SPPU	--
	4	Syllabus revision workshop for Design of Pump, Blower and Compressor (B.E .Mechanical Elective-II)	State	SPPU	--
2014-15	1	Automobile Development Internship	National	Ezinith – Empowering Education, Navi Mumbai	25000
	2	Automobile Development Internship			25000
	3	National Conference on “Fluid Dynamics and Heat Transfer”		SPPU, Pune	200000
	4	Syllabus revision workshop for Robotics (B.E .Mechanical Elective-II)	State	SPPU, Pune	--
2013-14	1	One Week Workshop On Advances In Heat Exchanger Technologies	State	SPPU, Pune	100000
2012-13	1	One day seminar on “The art of Start-up in the context of Entrepreneur	National	Mechanical Engg.	--

**26. Student profile program /course wise:**

Name of the Course/programme		Applications received	Selected	Enrolled		Pass percentage
Course	Year			*M	*F	
UG	2011-12	Admission process in the state is only through CAP and governed by Director of Technical Education (DTE), Government of Maharashtra. The Institute follows the rules, regulation & guidelines set by Savitribai Phule Pune University, State Government body.	191	161	30	Since the college wise application received is with DTE, pass percentage is Not available with the institute.
	2012-13		254	213	41	
	2013-14		249	213	36	
	2014-15		253	213	40	
	2015-16		253	214	39	
PG Automotive Engg.	2011-12		18	16	2	
	2012-13		17	16	1	
	2013-14		17	14	3	
	2014-15		18	18	0	
	2015-16		17	16	1	
PG Mechatronics	2011-12		8	7	1	
	2012-13		17	15	2	
	2013-14		18	13	5	
	2014-15		12	10	2	
	2015-16		17	16	1	
PG Heat Power Engg.	2011-12	25	22	3		
	2012-13	24	23	1		
	2013-14	22	21	1		
	2014-15	23	19	4		
	2015-16	19	15	4		
PG Design Engg.	2011-12	18	16	2		
	2012-13	18	18	0		
	2013-14	18	15	3		
	2014-15	18	14	4		
	2015-16	18	15	3		

\*M = Male \*F = Female

**27. Diversity of Students :**

Name of the Course/programme		% of students from the same state	% of students from other States	% of students from abroad
Course	Year	10	17	2
UG	2014-15	98	27	5
	2013-14	98	23	3
	2012-13	10	22	3
	2011-12	10	22	3
PG	2014-15	17	01	0
	2013-14	24	00	0
	2012-13	23	00	0
	2011-12	20	00	3

**28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.:**

Competitive Examinations / Academic Year	No of Students			
	2011-12	2012-13	2013-14	2014-15
GATE	08	12	19	22
GRE/TOEFL	00	00	10	05
Civil services	01	00	00	00

**29. Student progression:**

Student progression	Against % Enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	8.3	7	4	3.14
PG to Ph.D.	Nil	Nil	Nil	Nil
Ph.D. to Post-Doctoral	Nil	Nil	Nil	Nil
Employed • Campus selection •Other than campus recruitment	40.2	27.77	27.77	26.17
	9.72	1.38	Nil	Nil
Entrepreneurship/Self-employment	Nil	1.38	1.38	Nil

**30. Details of infrastructural facilities:**

**a) Library:**

Sr. No	Particulars	Number
1	Titles	2538
2	Volumes	6772
3	National Journals	24
4	International Journals	-
5	CDs	1200
6	e-Books and e-Journals	Access to Elsevier, IEEE, open access journals

**b) Internet facilities for Staff & Students**

- Staff cabins are equipped with computers, Internet connections, Printer, Cupboard, Racks
- All staff rooms and department office have EPABX system facility.
- Internet facility with Wi-Fi available in the building, labs and classrooms.
- Power back-up to all labs for smooth conduction of practicals.

**c) Class rooms with ICT facility**

- Adequate numbers of class rooms are available for conduction of lectures and practicals, seminars, and tutorials with LCD projector and 2 MBPS internet connections.
- A seminar halls with seating capacity of 80
- Total number of class rooms in the department is 15 and 02 Tutorial classes

**d) Laboratories**

Sr. No	Name of Lab	Major Equipments in the department
1	Thermal Engineering	ORSAT Apparatus

2	Internal Combustion Engine	Variable Compression Ratio Engine
3	Refrigeration and Air-conditioning	Window AC, Thermal Imager
4	Dynamics of Machinery	FFT Analyzer
5	Computer Aided Engineering	High Performance Computing Lab.
6	Heat Transfer	Heat Exchanger
7	Theory of Machine	Friction Test Rig.
8	Computer Aided Design	All Major Softwares and High Configuration Computers
9	Metrology and Quality Control	Co-ordinate Measuring Machine
10	Industrial Fluid Power	Pneumatic and Hydraulic Trainers
11	Mechatronics	PLC
12	Turbo Machines	Turbines
13	Fluid Mechanics	Wind Tunnel
14	Strength of Materials	Torsion Test Rig.

**31. Number of students receiving financial assistance from college, university, government or other agencies:**

Year	No of students			
	College	University	Government	Other agencies
2015-16	Nil	00	--	--
2014-15	Nil	00	519	69
2013-14	Nil	00	386	01
2012-13	Nil	00	282	03
2011-12	Nil	00	171	00

**32. Details on student enrichment programme's (Special Lectures/workshops/Seminar) with external experts:**

S. No.	Academic Year	Name of Enrichment programme's	Name of external Expert	Organization
<b>Guest Lectures</b>				
1	2011-12	Opportunities in Design Engg.: Analysis	Mr. Sanjay Deshpande	Director, Asian Academy of Professional Training
2		Computational Fluid Dynamics	Mr. Sheetal Joshi	Manager, Sr.Manager ANSYS
3		Computational Fluid Dynamics	Mrs. Himani Deshmukh	Flow Analyst, Flow Dynamics Ltd.
4		Carrier Opportunities in CAE/FEM	Mr. Prasanna Joshi	Director, CAD CAM GURU Institute
5		Advances in Power Plant Engg.	Mr. S.B. Bandekar	General Manager, Nashik Thermal Power Station, Nashik

6		Recent Trends in Automobile Industry	Mr. S. D. Deshmukh	Assistant Manager, Faurecia Ltd., Pune
7		Recent Trends in Power Plant Engg.	Mr. Arvind Paranjape	Assistant General Manager, TATA Power Co. Ltd.
8		Advances in Industrial Hydraulics	Mr. Javedkhan Tamboli	Sr. Engineer, Eton, Pune
9	2012-13	Industrial Engg.	Dr.S. Mandaogane	DGM, Tata Motors
10		Thermal Power Plant	Mr.Arvind Paranjape	AGM, Tata Thermal Power Station, Chembur.
11		Virtual Manufacturing	Mr.Mangesh Tambe	Manager- Sales & Servic, Pune
12		Entrepreneurship Development	Mr.Supreet Deshpande	CEO, Welife Sciences Pvt. Ltd
13		CFD	Shital Joshi	Manager, Sr.Manager ANSYS
14		Vehicle Dynamics	Nikesh Sharma	--
15		Advances In Centrifugal Pump	Mr. Chaitnya Ketkar	Toyo Engg. Mumbai
16		Design and Development Of Pump and compressor	Mr.Santosh Thamake	--
17		Edst Young Engineers Development Programme-13	Mr.Swapnit Deshmukh	EDST, Pune
18	2013-14	Recent trends in Power Plant Engg	Mr. Arvind Paranjape	AGM, Tata Thermal Power Station, Chembur.
19		Case Studies in Industrial Engg.	Dr.S.Mandaogane	DGM,Tata Motors
20		Welding	Chris Wiseman	TWI,UK, Coventry University
21		Composites	Mr. Ajay Kapadia	TWI,UK
22		Advances in Finite Element Methods	Prof.Sanjay Deshpande	Director, Asian Academy of Professional Training
23	2014-15	Material Science	Dr. G. Balachandran	Chief Technical Officer, kalyani Carpenter Special Steels Ltd, Mundhwa, Pune
24		Higher studies in foreign Countries and FEM	Prof Andre, Germany	Prof. Department of Educational Study, Germany
25		Automation in Industries	Mr.Prashant Kale	Senior Manager, MIDC Pune



26		Modern trends in power plant engg	Mr. Arvind Paranjpe	EDGM Tata Power
27		Automation	Mr. Shailesh Kumar	Kristech Automation, Pune
28		Computational Fluid Dyanics	Dr. Aditya Karnik	Development Engineer, CD Adapco, Pune on Computational Fluid Dynamics - an Overview
29		Heat Transfer	Mr. Jha	Thermax Ltd. Pune
30		Recent trends in power plant Engg	Mr. H.D.Bandekar	Chief Engineer Nashik Thermal Power Station
31		Opportunities in Marine Engg.	Mr.Ajay Tambwekar	Prof. at Institute of Marine Studies
32		Career Opportunities in CAD/CAM/CAE	Mr.Tushar Gulhane	International Creative Academy of Design
33		Biomimetics	Mr. Srivatsa Kulkarni	kalyani Carpenter Special Steels Ltd, Mundhwa, Pune
34		Dimensional Metrology	Mr.Aslam Sayyad	Accurate sales & Services pvt Ltd., Pune
35		Heat Exchanger	Mr. R. S.Jha	Senior Manager, Global Innovation & Emerging Business C&H-Heating SBU, Thermax Ltd., Pune
36	2015-16	Reading Manufacturing Drawings with Geometric Tolerances and Manufacturing Symbol	Mr.Anand Bhise	Director, Mechatol Pvt.Ltd, Pune
37		Recent Trends in Power Plant Engg.,	Mr Anand Paranjpare	Tata Thermal Power Plant, Mumbai
38		Introduction to MOST and importance of Industrial Engg. in Automotive industries	Mr. Mayuresh Thorat and Mr. Nandkishor Musale	Mahindra Vehicle Manufacturers Limited, Chakan
<b>Workshops</b>				
1		Research Directions in FEM	Dr. Henrich Scwarzenbach	ESO CAT EROPE
2	2011-12	One week training Program on Engine Design Using CFD	Dr.C.S.Pathak	SCOE,Pune

		for GREAVES COTTON Ltd., Pune		
3		One week training program on Diamentional and Geometric Tolerances	Mr. Anand Apte ,	Professional Consultant
4		One week training program on Automotive Emissions and control technologies	Mr. N.V.Marathe, Dr. Yogesh Aghav, Dr.SS.Thipse	Consultant in Automobile Industry
5	2012-13	One Day Seminar On “Comsol Multiphysics Modeling”	Engineers from COMSOL	COMSOL
6		Training Program on MSC.Nastran Linear Static Analysis	Expert from MSC.Nastran	Nastran
7		One day seminar on “The art of Start-up in the context of Entrepreneur	Expert from NEN	NEN
8	2013-14	One week training program on MSC.Nastran Dynamics, MSC.Marc and MSC.Adams,	Expert from Nastron Inc.	Nastron Inc.
9	2014-15	Automobile Development Internship	Faculty from ARAI, Pune	Ezimuth – Empowering Education, Navi Mumbai
10		Workshop on solar Energy	Dr. A.B. Kanase-Patil	SCOE,Pune
<b>Industrial Visits</b>				
1	2011-12	Industrial Visit	Prof. V. N.Kapatkar	Rajgad Sugar Industry
2			Prof. S.A. Kulkarni	Kirloskar Brothers Ltd.
3			Prof. V. N.Kapatkar	Penguin Cold Storage, Bhore
4			Prof. S.A. Kulkarni	Mehta Enterprises
5	2012-13	Industrial Visit	Prof.P.M.Khanwalkar	Someshwar Sakhar Karkhana
6			Prof.A.P.Tadmalle, Prof.V.N.Kapatkar, Prof.S.B.Sanap	a)Klassic Wheels b)Indo Sculp
7			Prof.S.H.Deshmukh Prof.S.Gawade	Kalyani Carpenter Steels

8		Prof.S.H.Deshmukh Prof.P.G.Patole	Greaves Cotton Foundry	
9		Prof. S.A. Kulkarni Prof. V.N. Kaptkar	Ghatghar Power Station	
10		Prof. N.S. Gohel	Pandit Automotive	
11		Prof.S.H.Deshmukh Prof.S.Gawade	NS Precision Pvt.Ltd.	
12		Prof. P.Khanwalkar Prof. A.B. Korane	Ashok Leyland Automobile Service Station	
13		Prof.T.A.Jadhav	Precision Automation and Robotics India Lt.	
14		Dr.A.B.Kanase Patil	Kesanvir Satara Sahkari sahkar Karkhana	
15		Prof.S.S.Bhoyar Prof.D.B.Raut Prof.P.G.Anjankar	NS Precision Pvt.Ltd.	
16	2013-14	Prof. V.N.Kapatkar Prof.T.A.Jadhav Prof. N.S.Gohel Prof.A.C.Bhure	Tenbhu Irrigation Lift Project , Olagewadi,Satara	
17		Prof.P.Khanawalkar	Ashok Leyland Limited, Pune	
18		Prof.P.M.Khanwalkar Prof. M H Attal Prof. A B Korane	Katraj Dairy, Pune	
19		Prof.A.P.Tadmalle	Yamazki Mazak India Pvt. Limited ,Sanaswadi ,Pune	
20		Prof.K.V.Mali , Prof. B.P.kumbhare, Prof.P. G.Anjankar	Ecofresh Cold Storage & Warehousing Pvt. Ltd.	
21		Prof.K.V.Mali , Prof. B.P.kumbhare, Prof.P. G.Anjankar	Penguin Cold Storage, Pvt.Ltd, Pune	
22		Prof.S.H.Deshmukh	Greaves Cotton Foundry	
23		Prof.V N Kapatkar	Cooper Industries	
24		2014-15	Prof.S.R.Bhave , Prof.A.P.Kaldate	Adlabs Imagica Amusement park, Near Khopoli
25			Dr. A.B.Kanase-Patil	Green Elephant – PMC waste disposal system, Pune
26	Dr. A.B.Kanase-Patil		Shree Engg. Works Ltd, Narhe Industrial estate, Pune	
27	Dr. A.B.Kanase-Patil		Suzlon One Earth Green Building, Hadapsar, Pune	
28	Dr. A.B.Kanase-Patil		Fluids Control Pvt Ltd, T169, MIDC Bhosari, Pune	

29		Prof. M.H.Atal	Katraj Diary , Pune
30		Prof.V.C.Gunge	Samartha Engg., Shivne,Warje,Pune
31		Prof. S.H.Deshmukh, Prof. N.H.Goel	NS Precision Works,Bhosari
32		Prof. V. N.Kapatkar	Tata Motors and Beher India Ltd.
33		Prof. S.H.Deshmukh, Prof. U.H. Yadav, Prof. S.R. Bhawe	N.S. Presicion Ltd. Pune
34		Prof. V.N.Kapatkar, Prof. A.C.Bhure	Vindyachal Hydro Power Ltd. Bibi Tal. Rajgurunagar Dist. Pune 410513
35		Prof. V.N.Kapatkar,	CW&PRS
36		Prof. V.N.Kapatkar,	Ghatghar Hydro-Power Station
37		Prof. T.A. Jadhav, Dr. A.B. Kanse Patil, Prof V.C. Gunge	Kisanveer Sakhar Karkhana,Bhuinj (Satara)
38		Prod. V.D.Padalkar	Balaji Micron Crafts
39		Prof N S Gohel	Tembhu Irrigation Lift Project, Karad
40		Prof.P.M.Khanwalkar	M/S Ashok Leyland, Ambegaon,Pune
41		Prof. D. B. Raut	Ramani Precision Machines Pvt.Ltd.,Chandigarh
42	2015-16	Prof. V. C. Gunge	Parvati Industries, Narhe Industrial Estate, Infront of Dran Engg. Narhe, Pune-41
43		Prof. D. S. Chavan	Indosculp AutoComp Pvt. Ltd., Ahmednagar
44		Prof.Venkat.S	Balaji Microcraft Works,Khedekar Industrial Estate,Narhe
45		Prof.Venkat.S	Accurate Sales & Services Pvt Ltd,Hadapsar Industrial area
46		Prof.Venkat.S	Accurate Sales & Services Pvt Ltd, Hadapsar Industrial area
47		Prof. P.Khanwalkar	Katraj Dairy,Katraj,Pune
48		Prof M.M.Deshmukh	Jai Jinendra Cold Storage, Devachi Uruali
49		Prof.P.G.Patole	ICE age cold storage,Chakan

50			Prof.P.G.Patole Prof M.M. Deshmukh	AC plant , City Pride , Kothrud
51			Prof. A. B. Korane	Katraj Dairy,Katraj,Pune
52			Prof. S.H.Deshmukh	NS Precision works, Pune
53			Prof. (Mrs.) D. M. Gaikwad	Katraj Dairy,Katraj,Pune
54			Prof.V.N.Kapatkar	Adlabs Imagica, Khopoli, Raigad

Following Student Training Program (STP) are conducted for the all-round personality of the students:

Sr. No.	Student Training Program (STP)	Class	Details
1	STP1	SE	Soft Skills: Ten Sessions (2 Hrs each) of Soft Skills
2	STP2	SE	Communication Skill: Nine Sessions Four Pillars of Communication: Listening, Speaking, Reading and Writing.
3	STP3	TE	Technical Sessions: Nine Sessions (2 Hrs each) of SE and TE Subjects
4	STP4	TE	Group Discussion and Personal Interview, Seven Sessions of GD & PI
5	STP5	BE	Value Added Programs

**33. Teaching methods adopted to improve student learning:**

- Videos from The National Program on Technology Enhanced Learning (NPTEL) of the subject related topics are shown to enhance understanding.
- Models are used to demonstrate working mechanism and basic concepts of mechanical systems
- Course material which includes presentations, case studies, lecture notes, lab manuals, code etc are provided in the form of CD.
- Industries visits and guest lectures by experts from various fields.
- For better understanding of subjects before final examinations students has to get through assignments, Mock practical's and preliminary exams
- Teacher guardian scheme is adopted to identify and solve problems of the students

**34. Participation in Institutional Social Responsibility (ISR) and Extension activities:**

- PRAYAS is a social activity under which students takes part for various activities such as Computer Literacy, Vedic Mathematics, scientific toys, career counseling, blood donation, street play, various competition, General awareness, books and cloths donation.
- In September 2013, second year students visited blind school at Pune.  
BAJA SAE is an intercollegiate national level design competition run by the Society of Automotive Engineers (SAE) where in teams design, build and race an All Terrain Vehicle (ATV). Following is the gist of achievements over these four years:

- In BAJA SAE 2012-2013, our very first participation in this event, the team secured 13<sup>th</sup> position out of 120 teams, nationally.
- In BAJA SAE 2013-2014, we were awarded the 1<sup>st</sup> prize in Engg. Aesthetics and Ergonomics competition of the event.
- In BAJA SAE 2014-2015, we were awarded the 1<sup>st</sup> prize in Cost Analysis and 2<sup>nd</sup> Prize in Sales Presentation. Also, we stood 1<sup>st</sup> in Static Evaluation and were ranked 13<sup>th</sup> out of 117 teams, overall.
- In BAJA SAE 2015-2016, we stood 4<sup>th</sup> In suspension traction, 5<sup>th</sup> in Business Presentation, 7<sup>th</sup> in Design Evaluation, 8<sup>th</sup> in overall Dynamics and were in Top 10 in CAE

### **35. SWOC analysis of the department and Future plans:**

#### **Strengths**

- Dedicated and well-qualified faculty
- Faculty members are actively involved in University works such as subject BoS chairman, BoS members, Chairmen, Paper Setters, Moderators and Examiners and senior supervisors etc.
- More than 40% faculty members are pursuing PhD in various fields of Mechanical Engg..
- All laboratories are well equipped with latest and state of art instruments.
- Computational Laboratories are provided with latest softwares and also there is high performance computational (HPC) facility.
- Diversified expertise of faculty
- Department is Accredited three times by National Board of Accreditation (2006 -3 years, 2009-3 years and 2012-5 years)
- Experienced and dedicated faculty members with excellent retention ratio

#### **Weaknesses**

- Inadequate private funding and consultancy.
- Foreign Collaboration with respect to MoUs and faculty exchange

#### **Opportunities**

- To have strong liaison with the automotive industry and Consultancy services
- To publish more Books & research papers in reputed journals
- To develop overall personality and placement of the student

#### **Challenges**

- Employability of students in core companies.
- To provide a platform to face all kinds of challenges to become successful engineer/ entrepreneur.

#### **Future Plans**

- To establish state of art research facility
- To focus on research-based UG and PG project
- To increase interaction with the outside world.

## PRODUCTION ENGINEERING

1. Name of the department : **Production Engineering**
2. Year of Establishment : **1998**
3. Names of Programs / Courses offered:

Sr. No	Name of the programme	Year of Establishment
1	UG	1998

4. Names of Interdisciplinary courses and the departments/units involved: Nil
5. Annual/ semester/choice based credit system (programme wise):

Sr. No	Name of the programme	Pattern/System (Annual/ semester/choice based credit system)
1	UG	Semester

6. Participation of the department in the courses offered by other departments:

Sr. No	Name of the Department	Class	Courses offered
1	Workshop	FE	Workshop practicals
2	Workshop	S.E. (Mechanical)	Workshop practicals II
3	Workshop	T.E. (Mechanical)	Machine shop
4	Workshop	S.E.(Chemical)	Machine shop

7. Courses in collaboration with other universities, industries, foreign institutions:

Sr. No	Certificate/Course Name	Collaborating Institution /Industry/Universities etc.
1	ISO Internal Auditor Course	Quality Management Services, Pimpri-Chinchwad, Pune
2	CREO 2	IFS Academy Chinchwad Pune
3	'AUTOBOTZ AVR'. Robotic Course	Technophilia Systems pvt. Ltd. Institute of USA, Mumbai.
4	Supply Chain & Operation Management	ISTE Navi Delhi & NIT Bhopal
5	Value Stream Mapping & Toyota Production System	Satav Derivatives Pune

8. Details of courses/programs discontinued (if any) with reasons : Nil

**9. Number of teaching posts**

Designation	Sanctioned	Filled
Professors	1	Nil
Associate Professors	2	2
Asst. Professors	8	7
Visiting/guest faculty	1	1

**10. Faculty profile with name, qualification, designation, specialization, D.Sc./D.Litt. /Ph.D. /M. Phil. etc.,)**

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
R.S. Katikar	M.E.,MBA	Asso.Prof.	Production	27	Nil
S.S. Patil	M.Tech.	Asso.Prof.	Production	22	Nil
Y.A.Kakade	M.Tech.	Asst.Prof.	Production	28	Nil
V.S. Kasture	M.E.	Asst.Prof.	Production	13	Nil
J.H. Shinde	M.Tech.	Asst.Prof.	Production	15	Nil
D.R. Naole	M.E.	Asst.Prof.	Production	11	Nil
Mrs. A. M.Patki	M.Tech.	Asst.Prof.	Metallurgy	8	Nil
Mrs. A. S. Chavan	M.E.	Asst.Prof.	Production	7	Nil
D.V.Khankal	M.E.	Asst.Prof.	Production	3	Nil

**11. List of senior visiting faculty** : Nil

**12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty** : Nil

**13. Student -Teacher Ratio (programme wise):**

Sr. No	Programme	Student -Teacher Ratio
1	UG	17 : 1

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

Staff details	Sanctioned	Filled
Academic Support Staff	3	3



**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.:**

Ph.D.	Ph.D. Pursuing	PG	UG
00	04	5	1

**16. Number of faculty with ongoing projects from National and International funding agencies and grants received**

- a) National : 01  
b) International : Nil

Sr.	National/ International	Number of Faculty	Total Grant Received (Rs.)
1	Prof. D.R. Naole	BCUD,Pune	Rs.140000/-

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received**

Sr. No	Projects funded by	Total Number	Total Grants Received (Rs.)
1	AICTE (RPS+MODROB+FDP)	00	00
2	TEQIP (FDP. SDP, Workshop)	1	81821
3	University (BCUD+ISRO)	03	800000
4	Any other	00	00

**18. Research Centre /facility recognized by the University : Nil**

**19. Publications:**

- a) Publication per faculty : 2.5

Parameters	Number
Number of papers published in peer reviewed journals (National /International) by faculty and students	23
Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	08
Chapter in Books	1
Citation Index	5
Impact factor	8
h-index	1

**20. Areas of consultancy and income generated : Nil**

**21. Faculty as members in**

- a) National committees :

Sr. No	Name of the faculty	Name of the committee	Nature of work/description
1	Katkar R S	BoS in Production and Industrial Engg Board	To assist BoS chairman .

b) International Committees : Nil

c) Editorial Boards : Nil

d. Any other committee :

Sr. No	Name of the faculty	Name of the committee/Role	Nature of work/description
1	Katkar R.S	Organizer	Coordinator for FDP
2	Patil S.S	Organizer	Coordinator for VSM & TPS
3	Kasture V.S	Organizer	Coordinator for Prodzone
4	Mrs.Chavan A.S	Organizer	Coordinator for workshop on 'AUTOBOTZ AVR'. Robotic
5	Kakade Y.A	Organizer	Coordinator for ISO Internal Auditor Course

## 22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/programme

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Programme	Academic Year	Percentage of in-house projects	Percentage of sponsored projects
UG	2014-15	6	94
	2013-14	5	95
	2012-13	28	72
	2011-12	25	75

## 23. Awards / Recognitions received by faculty and students :

Total Number of students awards	Total Number of Faculty awards
51	1

## 24. List of eminent academicians and scientists / visitors to the department:

S.No	Name of eminent academicians, scientists, visitors	Association/Affiliation	Purpose of visit
1	Mr. Amol Nathu	Manager, Cummins India Ltd. Karve Road, Pune	Guest Lecture
2	Mr. Vikram Khedekar	GM, Corporate Sales India Soft Tech Pvt. Ltd, Pune	Guest Lecture
3	Mr. Cavas Bacha	Ex. Vice-president Bharat Forge Ltd. Mundwa, Pune.	Guest Lecture

4	Mr. Sanjay Deulgaonkar	Manager Bajaj Auto Ltd, Akurdi Pune	Guest Lecture
5	Mr.PrasadThakare.	DGM.Voltas Material Handling Pvt. Ltd. Pune	Seminar and Examiner
6	Mr. Vinit Marathe	Proprietor Vinarc Engineering Bhosari,Pune	Guest Lecture
7	Mr. Mahesh M. Jaydeokar	Consultant Division Productivity Council, Pune	Seminar
8	Mr.Nitin Gole,	Sr. Manager BEHR India Ltd. Pune	Guest Lecture
9	Mr. R. D. Kulkarni,	Manager Software Design,CAD & PLM Geometrics, Pune	Seminar

## 25. Seminars/ Conferences/Workshops organized & the source of funding

a) National :

b) International :

Year	Sr. No	Name of FDP / SDP / STTP / Workshop / Webinar etc.	National(N)/ International (IN)	Sponsoring / Funding Agency if any	Revenue generated
2015-16	1	One week STTP on supply chain and Operation management	N	1.Kores foundry, Pune, 2.Shri Dhaniram Laminates, Chattisgad, 3.FMPBW Bearings Pvt ltd,Rajkot, 4.KPCL Saswad, Pune 5.DISPAT, Chennai	114400
	2	Workshop on Value Stream Mapping & Toyota Production System	N	11dot CAD Tech Pune	10700
2014-15	1	Value Added Program on "CREO	N	Self- Finance	68000
2013-14	1	Two days Workshop on 'AUTOBOTZAVR'	N	--	18400
	2	One day workshop on syllabus implantation of S.E.(Production) 2012 Pattern	N	BCUD SPPU Pune	12000
	3	Value Added Program on "CREO-2	N	Self- Finance	72000
2012-13	1	One week FDP on resent trends in precision mechanical measurement	N	TEQIP and SCOE Pune	69500

**26. Student profile programme/course wise:**

Name of the Course/programm		Applications received	Selected	Enrolled		Pass percentage
Course	Year			*M	*F	
UG	2014-15	Admission process in the state is only through CAP and governed by Director of Technical Education (DTE), Government of Maharashtra.  The Institute follows the rules, regulation & guidelines set by Savitribai Phule Pune University, State Government body.	64	55	9	Since the college wise application received is with DTE, pass percentage is Not available with the institute.
	2013-14		63	54	9	
	2012-13		62	56	6	
	2011-12		56	50	6	

\*M = Male \*F = Female

**27. Diversity of Students**

Name of the Course/programme		% of students from the same state	% of students from other States	% of students from abroad
Course	Year			
UG	2014-15	91	9	0
	2013-14	100	0	0
	2012-13	97	3	0
	2011-12	90	10	0

**28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?**

Competitive Examinations /Academic Year	No of Students			
	2011-12	2012-13	2013-14	2014-15
GATE	3	9	8	4
GRE/TOEFL	9	3	8	4
GMAT/CMAT	1	1	-	-
Others	1	1	-	-

## 29. Student progression

Student progression	Against % Enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	10.76	15	15	12
<b>Employed</b>	20	23	17	15
• Campus selection				
• Other than campus	4	3	4	5
Entrepreneurship/Self-employment	1	-	3	1

## 30. Details of infrastructural facilities

### a) Library

Sr. No	Particulars	Number
1	Titles	1231
2	Volumes	4463
3	National Journals	07
4	e-Books and e-Journals	Science direct-48
		IEEE-12

Information related to department library

- Nine numbers of Handbooks and total number of books are 221
- Final year Project reports of Previous years
- Course material CDs

### b) Internet facilities for Staff & Students

- Staff cabins are fully furnished and equipped with computers ,Internet connections, Laser Printer, Book Racks and Pin Board
- All staff rooms and department office have EPABX system facility.
- Wifi and wired network facility is available in the building, labs and classrooms.
- Power back-up is also provided in all labs for smooth conduction of practical and classes.

### c) Class rooms with ICT facility

- Adequate number of class rooms for lectures (core/electives), seminars, and tutorials with LCD projector and wired and wi-fi internet connections.
- One Seminar Hall with aforementioned facilities, with a capacity of 80. is shared with Mechanical Engineering Department

### d) Laboratories

Sr. No	Name of Lab	Major Equipments in the department
1	Computer	<ul style="list-style-type: none"> <li>• Reliability software</li> <li>• AUTO CAD</li> <li>• CREO-2</li> <li>• Six-Axis Robot</li> <li>• 3D Co-ordinate measuring</li> </ul>
2	Machine Tool	
3	Metrology and Quality control	
4	Metallurgy	
5	Manufacturing Automation	
6	Welding and Foundry	

7	Theory of machines	Machine • CNC Mill and CNC Lathe • Lapping Machine • Tool Maker's Microscope • Radial Drilling Machine • Milling Machine
8	Robotics	
9	Thermal Engg	
10	Fluid Mechanics	
11	Workshop	

**31. Number of students receiving financial assistance from college, university, government or other agencies**

Year	Number of students			
	College	University	Government	Other agencies
2014-15	-	-	141	8
2013-14	-	-	133	-
2012-13	-	-	129	-
2011-12	-	-	126	-

**32. Details on student enrichment programmes (Special Lectures / workshops /Seminar) with external experts**

S. No.	Academic Year	Name of Enrichment programmes	Name of external Expert	Organization
1	2014-15	Special Lecture on Sensors and Actuators in Automobile Engineering	Mr. Makrand Pathak	Technical Service Engineer Henkel Adhesives Technologies India Hinjewadi, Pune.
		Special Lecture on 3D Printing	Mr. P. Joshi,	Director CAD/CAM Pune
		Special Lecture on Design for Manufacturing and assembly.	Mr. Sajit,Marketing	Manager DESPAT, Chennai
		Guest Lecture on GATE Preparation and Interview preparation for PSU	Mr. Mahesh Thorat	Assistant Manager, Larson and Turbo, Powai, Mumbai.
		Special Lecture on PLM Simulation	Mr. R. D. Kulkarni,	Manager Software Design,CAD & PLM Geometrics, Pune
		Guest Lecture on Fixture Design	Mr. Akshay More Hinjewadi, Pune.	Senior Engineer Design,TATA Technologies
		Guest Lecture on Design seat	Mr. Ameta Khambher	Manager CAD/CAM Guru Pune

		arrangement for Automobile using CATIA		
		Seminar on Opportunities In CAD/CAE	Mr. Ashish Satao	CAMTech. Solutions Pune
		Guest Lecture on Application of Mathematics in Engineering Research	Mr.Rohit Sinha,	GATE Coaching,Pune
		Guest Lecture on Testing of Welding (Mechanical Testing)	MR P.B.Hegde	Indian Institute of Welding,Pune
		Seminar on Surface Laying and Protective Coatings	Mr. Kishor Nikhal	Accurate Engineering Company, Pune
		Guest Lecture on Gear Manufacturing and Business Development	Mr. Vinay Gunjal	Sr.Engineer, Kirloskar Pneumatic Co. Ltd. Pune.
		Guest Lecture on Manufacturing Industries	Mr. Nitin Gole	Sr. Manager BEHR India Ltd. Pune
2	2013-14	Guest Lecture on CAD and CNC Programming	Mr.Shah Ojas	Production Engineer IONIA Pune.
		Seminar on Next Industrial Revolution	Ravi Patil Nikhil	Manager (National Technical Manager RP) Design Tech, Pune.
		Guest Lecture on CAD and CNC Programming (Milling)	Mr.Dagliya Klpash	IONIYA, Pune
		Seminar on Expectation From Engineers In the Industry	Mr.Paresh Rege,	Director, 11 Dot Tech Kothrud Pune.
		Guest Lecture on Advances in CAD/CAM	Mr.P.N.Avdalkar,	Sr. Engineer Venus Technology Pune.
		Guest Lecture on Applications of CAD	Mr. M. Joshi	Geometric Solutions Pune
		Geometric Dimensioning & Tolerances	Mr. Anand Bhise	Consultant, Shivajinagar Pune
3	2012-13	Guest Lecture on CAD-CAM	Mr.P.B.Kulkarni,	Senior Consultant Nihilet Technology Pvt, Ltd, Pune.

		Guest Lecture on Automation in Factory	Mr. Apoorve deshmukh,	Lotus Consultancy Baner, Pune
		Special Lecture on Heat Treatment	Mr. Vaz & Mr. Rahul Gupta	ASM Student Chapter Pune
		Guest Lecture on CAD CAE	Mr. Sameer Latkar	Director IFS Academy Pune
		Guest Lecture on Advance Welding Processes	Mr. Vinit Marathe.	Proprietor Vinarc Engineering Bhosari,Pune
		Guest Lecture on Controls in Machine Tool	Mr. Dushyant Bhat,	Asst Manager, Emitech Emission Control Technology Pvt, Ltd, Pune
4	2011-12	Guest Lecture on ASM activities and importance of materials	Mr. Rahul Gupta ASM	International Pune Chapter, Prabhat Road, Pune
		Guest Lecture on Enterprises	Dr. Ganesh Nikam	CEO, Medulla Recruitment, Ambegaon, Pune
		Guest Lecture on Composite Materials	Dr. S. M. Shendokar	Principal, BVU COE, Lavale.
		Guest Lecture on Advance Welding Processes	Mr. Vinit Marathe	Proprietor, Vinarc Engineering Bhosari,Pune.
		Guest Lecture on Career in CAD/CAM	Mr. Pradyumna Joshi	Project Manager, 3D PLM Software solution, Infopark, Pune
		Guest Lecture on Advance Metrology	Mr. Arunkumar Mishra	Manager, Accurate Sales and Services Pvt. Ltd, Pune
		Guest Lecture on Cutting Tools	Mr. Rahul Gupta and Mr. Datar	ASM International Pune Chapter, Pune
		Guest Lecture on Heat Treatment	Mr. Anand Andhale	Sr. Manager Unitherm India Pvt. Ltd, Pune
		Guest Lecture on Export - Import documentation and risk management in export	Prof. Chiney UM	Professor, SIOM, Pune
		Guest Lecture on Cutting Tools	Mr. Rahul Gupta and Mr. Datar	ASM International Pune Chapter, Pune
		Guest Lecture on FEA and its practical	Mr. Sameer Latkar	Director, IFS Academy Pune



		applications in Production Engg.		
		Guest Lecture on Quality Function Deployment	Mr. Amol Nathu	Manager, Cummins India Ltd. Karve Road, Pune

- STP I, II, III, IV information.

Sr. No	Title of the module	No. of hours	No. of students enrolled			
			2012	2013	2014	2015
<b>Student Training Program (Module -I)</b>						
1	Personal and career goal setting	2	^	77	64	72
2	SWOT Analysis	2	^	77	64	72
3	Behavioral skills	2	^	77	64	72
4	Public Speaking	2	^	77	64	72
5	Presentation skills	2	^	77	64	72
6	Resume writing	2	^	77	64	72
7	Listening Skills	2	^	77	64	72
8	Group Discussion	2	^	77	64	72
9	Report Writing	2	^	77	64	72
10	Letter / Application Writing	2	^	77	64	72
<b>Student Training Program (Module -II)</b>						
1	Introduction	2	^	77	64	72
2	Listening _01	2	^	77	64	72
3	Listening _02	2	^	77	64	72
4	Speaking _01	2	^	77	64	72
5	Speaking _01	2	^	77	64	72
6	Speaking _01	2	^	77	64	72
7	Reading _01	2	^	77	64	72
8	Reading _02	2	^	77	64	72
9	Writing _01	2	^	77	64	72
10	Writing _02	2	^	77	64	72
<b>Student Training Program (Module -III)</b>						
1	Material Science	2	^	^	84	64
2	Metallurgy	2	^	^	84	64
3	Machine Tool Operations	2	^	^	84	64
4	Design of machine Elements	2	^	^	84	64
5	Theory of Machines	2	^	^	84	64
6	Heat and Fluid Engineering	2	^	^	84	64
7	M/C Drg. and Comp.Graphics	2	^	^	84	64
8	Strength analysis of Machine Elements	2	^	^	84	64

9	Welding Foundry	2	`	`	84	64
<b>Student Training Program (Module -IV)</b>						
1	Introduction	2	`	`	84	64
2	Group Discussion _01	2	`	`	84	64
3	Group Discussion _02	2	`	`	84	64
4	Group Discussion _03	2	`	`	84	64
5	Personal Interview_01	2	`	`	84	64
6	Personal Interview_02	2	`	`	84	64
7	Personal Interview_03	2	`	`	84	64
8	Personal Interview_04	2	`	`	84	64

### 33. Teaching methods adopted to improve student learning

- Colorful wall charts are used to explain the concept of the topic.
- Topic wise PPT's are provided as a reference material of the lecture.
- In lectures for topics videos /CD's are used to demonstrate the concept.
- Details of URL links are provided to the students to learn more about the topic.
- Guest lectures, industrial visits are arranged to get in-depth knowledge about current topics.
- Value added programmes are organized periodically to improve employable skills.
- Motivating the students to participate in different events like paper presentation, debate competition, work shop, seminar to improve different skills.
- Results of class tests and prelims are used to know the depth of students understanding.
- Teacher guardian meetings are used to understand needs and problems of the students.

### 33. Participation in Institutional Social Responsibility (ISR) and Extension activities

- PRAYAS is a social activity under which students takes part for various activities such as Computer Literacy, Vedic Mathematics, scientific toys, career counseling, blood donation, street play, various competition, General awareness, books and cloths donation.

### 35. SWOC analysis of the department and Future plans

#### Strengths

- Experienced and committed faculty with good retention ratio.
- Well-equipped laboratories with equipment's.
- STPs are conducted for better opportunities of placement.
- Final year projects are industry sponsored.
- Accredited by NBA for two times for three years

### **Weaknesses**

- Industrial consultancy.
- Number of quality publications.

### **Opportunities**

- To start post graduate program.
- Enhance research activities through sponsored R & D Projects.
- Industry and Academic interaction through MOU's.
- Alumina networking for academic and placement activities.

### **Challenges**

- Continuous need to revise the course contents.
- Job Placement problem due to Industry recession.

### **Future Plans**

- To start P.G. course in Production and Industrial Engg.
- Enhancing industry Institute interaction for conducting value added programs to improve placements.

## ENGINEERING SCIENCES

1. Name of the department : Engineering Sciences
2. Year of Establishment : 1996
3. Names of Programs / Courses offered:

Sr. No	Name of the programme	Year of Establishment
1	UG (First Year Engineering*)	1996

\*First Year Engineering (FE) is common for all programs and it is governed by department of Engineering Sciences.

4. Names of Interdisciplinary courses and the departments/units involved:

Sr. No	Name of the Interdisciplinary Courses	Departments/Units Involved
1	UG (First Year Engineering)	Civil Engineering, Mechanical Engineering, Electronics & Telecommunication, Computer Engineering, Information Technology

5. Annual/ semester/choice based credit system (programme wise):

Sr. No	Name of the programme	Pattern/System (Annual/ semester/choice based credit system)
1	UG (First Year Engineering)	Semester Pattern

From Academic Year 2015-16, Savitribai Phule Pune University has adopted Choice Based Credit System.

6. Participation of the department in the courses offered by other departments:

Sr. No	Name of the Department	Class	Courses offered
1	Civil Engineering	ME (Environmental )	Environmental Chemistry and Microbiology
2	Mechanical Engineering	ME (Mechatronics )	Industrial Drives and Actuators
3	All Programs	SE	Engineering Mathematics-III

4	Biotechnology	SE	Applied Chemistry
5	Chemical Engineering	SE	Chemistry-I & II
6	Mechanical Engineering	SE	Electronics and Electrical Engineering
7	Production Engineering	SE	Electrical Technology

7. Courses in collaboration with other universities, industries, foreign institutions: Nil

8. Details of courses/programs discontinued (if any) with reasons : Nil

9. Number of teaching posts:

Designation	Sanctioned	Filled
Professors	04	0
Associate Professors	06	03
Asst. Professors	25	18
Visiting/guest faculty	--	03

10. Faculty profile with name, qualification, designation, specialization, D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Chaudhari Vivek Khushal	M. Sc.	Assttand Professor & HOD	Physics	22	Nil
Patil Vaishali Vikas	M. Sc.	Assistant Professor	Physics	17	Nil
Bhapkar Archana Haribhau	M. Sc.	Assistant Professor	Physics	9	Nil
Pawar Sambhaji Shivaji	Ph.D.	Assistant Professor	Physics	3	Nil
Madure Suvarna Rajendra	M. Sc.	Assistant Professor	Organic Chemistry	14	Nil

Charate Shrinivas Prakash	M. Sc.	Assistant Professor	Organic Chemistry	13	Nil
Diwan Aditi kalian	Ph.D.	Assistant Professor	Chemistry	9	Nil
Doss Veena Ravi	Ph.D.	Assistant Professor & FE Coordinator	Chemistry	15	Nil
Sarwade Avinash Namdeo	M. Tech.	Associate Professor	Power Systems	14	Nil
Thanekar Suresh Jotiram	M.E.	Associate Professor & FE Coordinator	Power Systems	15	Nil
Dhamne Atul Ramesh	M.E.	Assistant Professor	Power Systems	15	Nil
Dharmadhikari Niraj Meghsham	M.E.	Assistant Professor	Control Systems	10	Nil
Shewale Rupesh Suresh	Ph.D.	Associate Professor & FE Coordinator	Mathematics	13	Nil
Joshi Mukta Nandkishor	M. Sc.	Assistant Professor	Mathematics	14	Nil
Mane Suvarna Shaileshkumar	M. Sc.	Assistant Professor	Mathematics	11	Nil
Deshak Manjiri Madhav	M. Sc.	Assistant Professor	Mathematics	12	Nil
Diwate Machindranath	M. Sc. NET & SET	Assistant Professor	Mathematics	9	Nil
Bidwai Sachin Chandrakant	M. Sc.	Assistant Professor	Mathematics	8	Nil
Mhetre Nanasaheb Balu	M. Sc. SET	Assistant Professor	Mathematics	9	Nil
Chavan Nitin Sadashiv	Ph.D.	Assistant Professor	Mathematics	16	Nil
Yelam Pramod Balasaheb	M. Sc.	Assistant Professor	Mathematics	3	Nil
Rajput Pratibha V.	M. Sc.	Visiting Faculty	Mathematics	8	Nil
Phate Arti Shrirang	M.E.	Visiting Faculty	Power Systems	12	Nil
Miss. Nusrat Jahan Shafeek Mulla	M E (Pursuing)	Visiting Faculty	Communication Network	Nil	Nil

**11. List of senior visiting faculty:**

Sr. No	Name of the faculty	Affiliation	Subject
1	Prof. M.A. Chaudhari	M.E.	Electrical Engineering
2	Prof. Mrs. A. S. Phate	M.E.	Electrical Engineering
3	Prof. Mrs. P. B. Rajput	M. Sc.	Mathematics

**12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty : 6.59**

**13. Student -Teacher Ratio (programme wise): NA**

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

Staff details	Sanctioned	Filled
Academic Support Staff	3	3

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.:**

Ph.D.	Ph.D. Pursuing	PG	UG
5	6	10 (Excluding Ph.D. Pursuing)	0

**16. Number of faculty with ongoing projects from National and International funding agencies and grants received**

- a) National :  
b) International :

S.No.	National/ International	Number of Faculty	Total Grant Received (Rs.)
1	National	01	2,40,000.00

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:**

Sr. No	Projects funded by	Total Number	Total Grants Received
1	AICTE (RPS+MODROB+FDP)	Nil	Nil
2	TEQIP (FDP. SDP, Workshop)	Nil	Nil
3	University (BCUD+ISRO)	6	3,69,740
4	Any other	Nil	Nil

18. **Research Centre /facility recognized by the University** : NA

19. **Publications:**

a) Publication per faculty : 2.04

Parameters	Number
Number of papers published in peer reviewed journals (National /International) by faculty and students	18
Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	8
Monographs	Nil
Chapter in Books	Nil
Books Edited	Nil
Books with ISBN/ISSN numbers with details of publishers	Nil
Citation Index	32
SNIP	8
SJR	8
Impact factor	9
h-index	3

20. **Areas of consultancy and income generated** : Nil

21. **Faculty as members in**

a) National committees : Nil

b) International Committees:

Name of the faculty	Name of the committee	Nature of work/description
Dr. Mrs. V. R. Doss	Reviewer of Elsevier Journals (Chemical Engineering Journal & Journal of Hazardous Materials)	Review of papers submitted to the Journals

c) Editorial Boards : Nil

d) Any other committee :

Sr. No	Name of the faculty	Name of the committee/Role	Nature of work/description
1.	Mr. V. K. Chaudhari	University Selection Committee	Selection of suitable Teaching Faculty through interview
2.	Dr. Mrs. V. R. Doss	University Selection Committee	Selection of suitable Teaching Faculty through interview



3.	Mrs. S. R. Madure	University Selection Committee	Selection of suitable Teaching Faculty through interview
4.	Mr. A. N. Sarwade	University Selection Committee	Selection of suitable Teaching Faculty through interview
5.	Mr. A. R. Dhamne	i) University Selection Committee. ii) Election Duty Officers	i) Selection of suitable Teaching Faculty through interview ii) As a Presiding Officer
6.	Mr. S. J. Thanekar	Savitribai Phule Pune University Selection Committee	Selection of suitable Teaching Faculty through interview
7.	Mr. N. M. Dharmadhikari	Election Duty Officers	As a Presiding Officer
9.	Mr. S. P. Charate	Election Duty Officers	As a Presiding Officer
10.	Mr. M. B. Diwate	Election Duty Officers	As a Presiding Officer
11.	Mr. N. B. Mhetre	Election Duty Officers	As a Presiding Officer
12.	Mr. S. C. Bidwai	Election Duty Officers	As a Presiding Officer

## 22. Student projects: NA

- Percentage of students who have done in-house projects including inter departmental/programme
- Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

## 23. Awards / Recognitions received by faculty and students:

Total Number of students awards	Total Number of Faculty awards
Nil	02

## 24. List of eminent academicians and scientists / visitors to the department:

Sr.	Name of eminent academicians, scientists, visitors	Association/Affiliation	Purpose of visit
1	Dr. P. M. Rawal	Professor, College of Engineering, Pune	To deliver lecture in STTP
2	Dr. D. S. Bhatkhande	Professor, Vishwakarma Institute of Technology, Pune	To deliver lecture in STTP
3	Dr. S. N. Kaul	Scientist (Retired), NEERI, Nagpur	To deliver lecture in STTP

4	Dr. U. V. Desai	Professor, Dept. of Chemistry, Shivaji University, Kolhapur	To deliver lecture in STTP
5	Mr. Anand Bhise	Mech works Engineering, Pune	To deliver lecture for FE Mechanical Engg Students
6	Dr A R Patwardhan	Environmental Consultant	To deliver lecture in STTP
7	Prof. M. R. Gidde	Bharati Vidyapeeth Deemed University, Pune	To deliver lecture in STTP
8	Prof. Mrs. Deepali Nimbalkar	Vasantdada Sugar Institute, Manjari (Bk), Pune.	To deliver lecture in STTP
9	Dr. R. V. Saraf	Viraj Envirozing Pvt Ltd.	To deliver lecture in STTP

**25. Seminars/ Conferences/Workshops organized & the source of funding**

a) National : 02

b) International: Nil

Year	Name of FDP / SDP / STTP / Workshop / Webinar etc.	National/ International	Sponsoring / Funding Agency if any	Revenue generated (Rs.)
2014-15	Innovative trends towards excellence in CETP management	National	Self Sponsored	Nil
2011-12	Soft-Chem	National	BCUD	30233.00

**26. Student profile programme/course wise: NA**

**27. Diversity of Students: NA**

**28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? : NA**

**29. Student progression: NA**

**30. Details of infrastructural facilities:**

a) Library

Sr. No	Particulars	Number
1	Titles	2047

2	Volumes	4238
3	National Journals	23
4	International Journals	2
5	CDs	Nil
6	e-Books and e-Journals	Nil

b) Internet facilities for Staff & Students

- Staff cabins are fully furnished and equipped with computers ,Internet connections, Laser Printer, Book Racks and Pin Board
- All staff rooms and department office have EPABX system facility.
- Wifi and wired network facility is available in the building, labs and classrooms.
- Power back-up is also provided in all labs for smooth conduction of practical and classes.

c) Class rooms with ICT facility

- Provision of 13- class rooms for lectures, seminars, and tutorials with LCD projector and wired and wi-fi internet connections.

d) Laboratories: 05

Sr. No	Name of the Lab	Major Equipments in the department
1	Basic Electrical Engineering	Hall Effect Experimental Setup, He-Ne Laser, Spectrophotometer, Muffle Furnace, Rectifier Set, Induction Motor Generator Set.
2	Electrical Machines Laboratory	
3	Electrical Machines	
4	Engineering Physics	
5	Engineering Chemistry	

31. Number of students receiving financial assistance from college, university, government or other agencies: NA

32. Details on student enrichment programmes (Special Lectures/ workshops/ Seminar) with external experts

S. No.	Academic Year	Name of the Enrichment programme	Name of external Expert	Organization
1	2014-15	Vidyarthini Vyaktimatva Vikas Yojana	Dr.Sanjyot Deshpande (Clinical Psychologist)	Freelancer
2	2013-14		Mrs. Vidya Gargote (Finance & Account Officer)	Savitribai Phule Pune University

33. Teaching methods adopted to improve student learning

- Use of audio-visual aids to deliver lectures
- Assignment and additional numerical question bank
- Presentations by students on contents beyond syllabi

- Prepared audio recorded lectures for ready reference to students

### **34. Participation in Institutional Social Responsibility (ISR) and Extension activities**

- Visit to ‘Manavya’ a residential care centre for HIV/AIDS affected destitute orphan children.
- Visit to ‘Ishaprema’ a home for abandoned, lonely, destitute old men and women, physically handicapped girls, and the little ones of working mothers from the slums around.
- Visit to ‘Maher’ a home for destitute women, children and men from all over India.
- Blood donation camp in Sinhgad College of Engineering
- Parvati (a historical place in Pune) clean-up drive- A contribution towards 'Clean City'
- Paper bag campaign in the campus to create awareness about the misuse of plastic bags.

### **35. SWOC analysis of the department and Future plans**

#### **Strengths**

- Good faculty retention over long period with adequate experience.
- Diversified expertise of faculty.
- Consistent quality results in university examinations.

#### **Weaknesses**

- Inadequate interaction with industry.
- Insufficient involvement in research activities.

#### **Opportunities**

- More involvement of faculty in curriculum development of affiliated university.
- Support to core departments for guiding projects of students.

#### **Challenges**

- To acquire research based learning skills by faculty.
- To bridge the gap between Fundamental Science and Engineering.

#### **Future Plans**

- To prepare the students of first year engineering for comfortable transition to respective program of engineering through expert lectures and seminars.

## MANAGEMENT STUDIES

1. Name of the department : **Management Studies**
2. Year of Establishment : **2008**
3. Names of Programs / Courses offered: **MBA**

Sr. No	Name of the programme	Year of Establishment
1	UG	
2	PG (Marketing, Finance, HR, Operations, IB)	2008
3	Ph.D.	

4. Names of Interdisciplinary courses and the departments/units involved: **Nil**

Sr. No	Name of the Interdisciplinary Courses	Departments/Units Involved
1	UG	
2	PG (Specialization)	Nil

5. Annual/ semester/choice based credit system (programme wise) :

Sr. No	Name of the programme	Pattern/System (Annual/ semester/choice based credit system)
1	UG	-
2	PG (Specialization)	Choice Based Credit System
3	Ph.D.	

6. Participation of the department in the courses offered by other departments :

Sr. No	Name of the Department	Class	Courses offered
1	Computer Engineering	ME II	Skill Based Course- Human Rights Education
2	E&TC Engineering	ME II	Skill Based Course Human Rights Education
3	Civil Engineering	ME II	Skill Based Course Human Rights Education
4	Mechanical Engineering	ME II	Skill Based Course Human Rights Education
5	Information Technology	ME II	Skill Based Course Human Rights Education

**7. Courses in collaboration with other universities, industries, foreign institutions:**

Sr. No	Certificate/Course Name	Collaborating Institution /Industry/Universities etc.
1	Lean Six Sigma Green Belt Certification Course	Asian Institute of Quality Management

**8. Details of courses/programs discontinued (if any) with reasons : Nil**

**9. Number of teaching posts**

Designation	Sanctioned	Filled
Professors	1	0
Associate Professors	2	0
Asst. Professors	4	2
Visiting/guest	0	0

**10. Faculty profile with name, qualification, designation, specialization, D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. Mamta Mishra	MBA, (Mktg.) M. Sc (Chem) Ph. D.	Professor	Marketing	14.5 years	3
Dr. Irfan Siddiqui	M.Sc.( Stats) M.B.A.( Mktg) Ph.D.	Associate Professor	Marketing	15.5 years	-
Dr. Ujjwal Mishra	B.Com. MBA (Fin. & Mktg) Ph.D.	Associate Professor	Finance	10.5 years	-
Mrs. Swati Vijay	ME(Comp) MBA (HR)	Assistant Professor	Human Resource	19.9 years	-
Mr. Harish Naidu	B.Com M.B.A. (PM& IR Mktg).	Assistant Professor	Human Resource	11.5 years	-

**11. List of senior visiting faculty:**

Sr. No	Name of the faculty	Affiliation	Subject
1	Mrs. Sangita Shirole	Legal Consultant	Legal Aspects of Business
2	Mr. C.Y.Shende	Private Legal Practitioner	Labour Law
3	Mr. Shyam Keswani	Sandvik Asia Ltd.	Operations Management

**12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty : Nil**

**13. Student -Teacher Ratio (programme wise):**

Sr. No	Programme	Student -Teacher Ratio
1	UG	NA
2	PG	20:1

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

Staff details	Sanctioned	Filled
Academic Support Staff	1	1

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.:**

Ph.D.	Ph.D. Pursuing	PG	UG
03	01	01	0

**16. Number of faculty with ongoing projects from National and International funding agencies and grants received**

- a) National : 01  
b) International : Nil

S.No.	National/ International	Number of Faculty	Total Grant Received
-	-	-	-

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received**

S. No	Projects funded by	Total Number	Total Grants Received
1	AICTE (RPS+MODROB+FDP)	-	-
2	TEQIP (FDP. SDP, Workshop)	-	-
3	University (BCUD+ISRO)	2	145000
4	Any other	-	-

18. **Research Centre /facility recognized by the University** : No

19. **Publications:**

a) Publication per faculty : 5.4

Parameters	Number
Number of papers published in peer reviewed journals (National /International) by faculty and students	27
Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	08
Monographs	Nil
Chapter in Books	Nil
Books Edited	Nil
Books with ISBN/ISSN numbers with details of publishers	02
Citation Index	0
SNIP	1
SJR	2
Impact factor	27
h-index	0

20. **Areas of consultancy and income generated** :Nil

21. **Faculty as members in**

- a) National committees : Nil
- b) International Committees : Nil
- c) Editorial Boards : Nil
- d) Any other committee : Nil

22. **Student projects**

- a) Percentage of students who have done in-house projects including inter departmental/programme
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Programme	Academic Year	Percentage of in-house projects	Percentage of projects in outside institutions
PG	2014-15	NA	100
	2013-14	NA	100
	2012-13	NA	100
	2011-12	NA	100



**23. Awards / Recognitions received by faculty and students :**

Total Number of students awards	Total Number of Faculty awards
4	3

**24. List of eminent academicians and scientists / visitors to the department:**

S. No.	Name of eminent academicians, scientists, visitors	Association/Affiliation	Purpose of visit
1	Mr. Rajendra Dahale	Dy. Commissioner, Cyber Crime, Pune	Chief Guest for Valedictory Function of conference on IT in Service Industry
2	Mr. Arvind Talekar,	Mumbai Dabbawala	Session speaker for the conference on Current Trends in Management
3	Prof. Anil Dandekar	Retd. Principal, MIT College, Pune	Guest Lecture

**25. Seminars/ Conferences/Workshops organized & the source of funding**

a) National : Nil

b) International :

Year	Sr. No	Name of FDP / SDP / STTP / Workshop / Webinar etc.	National/ International	Sponsoring / Funding Agency if any	Revenue generated (in Rs.)
2015-16	1	Workshop on Micro Analysis of Financial statement	Regional Level	Self	Nil
	2	Workshop on Communication Skills Rum, Jump and Fly	Regional Level	Self	Nil
	3	Lean Six Sigma Green Belt Certification Course	Regional Level	Self	48723
2014-15	1	Seminar on Media Matrix	Inter Institute Level	Self	Nil
	2	Lean Six Sigma Green Belt Certification Course	Regional Level	Self	55249
2013-14	1	Lean Six Sigma Green Belt Certification Course	Regional Level	Self	220891
2012-13	1	Seminar on Quality Measurement Standards	Regional Level	Self	Nil
	2	Lean Six Sigma Green Belt Certification Course	Regional Level	Self	Nil

**26. Student profile programme/course wise:**

Name of the Course/programm		Applications received	Selected	Enrolled		Pass percentage
Course	Year			*M	*F	
UG	2014-15	Admission process in the state is only through CAP and governed by Director of Technical Education (DTE), Government of Maharashtra. The Institute follows the rules, regulation & guidelines set by Savitribai Phule Pune University, State Government body.		NA	NA	Since the college wise application received is with DTE, pass percentage is Not available with the institute.
	2013-14			NA	NA	
	2012-13			NA	NA	
	2011-12			NA	NA	
PG	2014-15		50	35	15	
	2013-14		54	40	14	
	2012-13		59	40	19	
	2011-12		61	44	17	

\*M = Male \*F = Female

**27. Diversity of Students**

Name of the Course/programme		% of students from the same state	% of students from other States	% of students from abroad
Course	Year			
UG	2014-15	NA	NA	NA
	2013-14	NA	NA	NA
	2012-13	NA	NA	NA
	2011-12	NA	NA	NA
PG	2014-15	38	12	Nil
	2013-14	44	10	Nil
	2012-13	48	11	Nil
	2011-12	54	07	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Competitive Examinations / Academic Year	No of Students			
	2011-12	2012-13	2013-14	2014-15
GATE				
GRE/TOEFL		1		
GMAT/CMAT				
NET/SET				
Civil services				
Defense services				
Others		1	1	

29. Student progression

Student progression	Against % Enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	NA	NA	NA	NA
PG to M.Phil.				
PG to Ph.D.			2	
Ph.D. to Post-Doctoral		1		
<b>Employed</b>				
• Campus selection	27	26	19	25
• Other than campus recruitment	12	10	17	03
Entrepreneurship/Self-employment	4	3	6	2

30. Details of infrastructural facilities

a) Library

Sr. No	Particulars	Number
1	Titles	528
2	Volumes	4408
3	National Journals	14
4	International Journals (HBR)	-
5	CDs	1200
6	e-Books and e-Journals	-

Department library is equipped with following:

- No. of Books : 361
- Harvard Business Review : 44
- Project Reports : 213
- Project CDs : 213

- Subject CDs : 5
- b) Internet facilities for Staff & Students
- Staff cabins are fully furnished and equipped with computers ,Internet connections, Laser Printer, Book Racks and Pin Board
  - The staff room and department office have EPABX system facility.
  - Wifi and wired network facility is available in the building, labs and classrooms.
  - Power back-up is also provided in all labs for smooth conduction of practical and classes.
- c) Class rooms with ICT facility
- Adequate number of class rooms for lectures (core/electives), seminars, and tutorials with LCD projector and wired and wi-fi internet connections.
  - One Seminar Hall with aforementioned facilities, with a capacity of 250 is shared with the department of Information Technology

d) Laboratories

Sr. No	Name of Lab	Major Equipment's in the department
1	Computer Lab	Computer

**31. Number of students receiving financial assistance from college, university, government or other agencies**

Year	No of students			
	College	University	Government	other agencies
2014-15	Nil	Nil	32	Nil
2013-14	Nil	Nil	46	Nil
2012-13	Nil	Nil	48	Nil
2011-12	Nil	Nil	55	Nil

**32. Details on student enrichment programmes (Special Lectures/ workshops/ Seminar) with external experts**

Sr. No.	Academic Year	Name of Enrichment programmes	Name of external Expert	Organization
1	2014-15	Six Sigma Green Belt Course	Mrs. Kawaljit Singh Mr. G.K.K. Singh	Asian Institute of Quality Management, Pune
2	2013-14		Mrs. Kawaljit Singh	
3	2012-13		Mrs. Kawaljit Singh Mr. G.K.K. Singh	
4	2011-12		Mrs. Kawaljit Singh	

**33. Teaching methods adopted to improve student learning**

- Case Studies
- Role plays
- Simulations

- Scrap Book
- Field Visits

#### **34. Participation in Institutional Social Responsibility (ISR) and Extension activities**

- Regular visit to Bal Gram, an orphanage near Lonavala to interact with orphan children, spread general awareness and distribute books and cloths
- Regular visit to Khadakwasla village for girl education – computer literacy, hygiene, Higher Education.
- Spreading awareness on environmental issues by tree plantation activity, water conservation & recycling, waste water management, prevention of soil erosion etc.
- Donation in kind and money to Matoshree Vrudh Aashram, Pune.

#### **35. SWOC analysis of the department and Future plans**

##### **Strengths**

- Dedicated and well-qualified faculty with good retention rate.
- Faculty members' active participation in University
- More than 50% faculty members with Ph.D. in various domains and one has submitted the report.
- Well set students' training programme giving good placement track record
- Well equipped classrooms

##### **Weaknesses**

- Foreign Collaboration with respect to MoUs and faculty exchange

##### **Opportunities**

- Industry Linkages and Consultancy
- Conducting International/National level conference
- Publication of Books with reputed publishers & good quality research papers in reputed journals

##### **Challenges**

- Increased competition for students to get employed.
- To provide a platform to the students by giving them an opportunity to face all the challenges in the competitive world.
- Adoption of innovative technique to cope up with recent IT demands.

##### **Future Plans**

- To establish a well set training centre for students for best placements
- To improve focus on research-based projects
- To collaborate with an institute for foreign language training to the students
- To organize subject related conferences for better exposure of faculty members and students
- To increase interaction with the professional bodies and social community.

## 7. Declaration by Head of the Institution



SINHGAD TECHNICAL EDUCATION SOCIETY'S<sup>®</sup>  
**SINHGAD COLLEGE OF ENGINEERING**

[ Affiliated to Savitribai Phule Pune University & Approved by AICTE (ID No. PU/PN/Engg./116 (1996) ]

S. No. 44/1, Vadgaon (Bk), Off Sinhgad Road, Pune - 411 041.

Tel. : 020 - 2435 4705  
Fax : 020 - 2435 7243

Website: www.sinhgad.edu  
E-mail : principal.scoe@sinhgad.edu

**Prof. M. N. Navale**  
M.E. (Elect.), MIE, MBA  
Founder-President

**Dr. (Mrs.) Sunanda M. Navale**  
B. A., M. P. M., Ph. D.  
Founder - Secretary

**Dr. S. D. Lokhande**  
M.E., Ph.D.(Electronics Engg.)  
Principal

### 7. Declaration by the head of the institution

I certify that the data included in this Self-study Report (SSR) are true to the best of my knowledge. This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced. I am aware that the peer team will validate the information provided in this SSR during the peer team visit.



Signature of the Head of the Institution



Date: 07/04/2016

Place: Pune- 411041.

## Certificate of Compliance



SINHGAD TECHNICAL EDUCATION SOCIETY'S  
**SINHGAD COLLEGE OF ENGINEERING**

[ Affiliated to Savitribai Phule Pune University & Approved by AICTE (ID No. PU/PN/Engg./116 (1996) ]

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**Prof. M. N. Navale**  
M.E. (Elect.), MIE, MBA  
Founder-President

**Dr. (Mrs.) Sunanda M. Navale**  
B. A., M. P. M., Ph. D.  
Founder - Secretary

**Dr. S. D. Lokhande**  
M.E., Ph.D.(Electronics Engg.)  
Principal


### Certificate of Compliance

This is to certify that Sinhgad College of Engineering fulfils all norms

1. Stipulated by the affiliating University and/or
2. Regulatory council/Body [Such as UGC,NCTE, AICTE, MCI, DCI, BCI, etc.] and
3. The affiliation and recognition is valid as on date.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.

  
**Dr. S. D. Lokhande**  
Principal



**Date: 07/04/2016**

**Place: Pune- 411041.**

## Annexure – 1

### Extension of Approval letter for Programmes from AICTE



*All India Council for Technical Education*  
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001  
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 [www.aicte-india.org](http://www.aicte-india.org)

F.No. Western/1-2452587956/2015/EOA

Date: 07-Apr-2015

To,  
The Secretary,  
Tech. & Higher Education Deptt.  
Govt. of Maharashtra, Mantralaya,  
Annexe Building, Mumbai-400032

**Sub: Extension of approval for the academic year 2015-16**

Ref: Application of the Institution for Extension of approval for the academic year 2015-16

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	Western	Application Id	1-2452587956
		Permanent Id	1-3674191
Name of the Institute	SINHGAD COLLEGE OF ENGINEERING	Institute Address	S. NO. 44/1, VADGAON (BUDARUK) OFF SINHGAD ROAD, PUNE, PUNE, PUNE, Maharashtra, 411041
Name of the Society/Trust	SINHGAD TECHNICAL EDUCATION SOCIETY	Society/Trust Address	S. NO. 44/1, VADGAON (BUADRUUK), OFF SINHGAD ROAD, PUNE, PUNE, PUNE, Maharashtra, 411041
Institute Type	Unaided - Private		

Opted for change from Women to Co-ed	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2015-16

Application Number: 1-2452587956\*

Page 1 of 6

Note: This is a Computer generated Letter of Approval.No signature is required.

Letter Printed On:11 April 2015

Printed By : ae338387



## Annexure – 1

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PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 [www.aicte-india.org](http://www.aicte-india.org)

Application Id: 1-2452587956			Course	Full/Part Time	Affiliating Body	Intake 2014-15	Intake Approved for 15-16	NRI Approval status	PIO Approval status	Foreign Collaboration Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	AUTOMOTIVE ENGINEERING	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	CHEMICAL ENGINEERING	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMMUNICATION NETWORKS	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER NETWORKS	FULL TIME	University of Pune, Pune	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DESIGN ENGINEERING	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DIGITAL SYSTEMS	FULL TIME	University of Pune, Pune	25	25	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	ENVIRONMENTAL ENGINEERING	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	HEAT POWER ENGINEERING	FULL TIME	University of Pune, Pune	25	25	NA	NA	NA

Application Number: 1-2452587956\*

Page 2 of 6

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Application Id: 1-2452587956			Course	Full/Part Time	Affiliating Body	Intake 2014-15	Intake Approved for 15-16	NRI Approval status	PIO Approval status	Foreign Collaboration Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	HYDRAULICS ENGINEERING	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	INFORMATION TECHNOLOGY	FULL TIME	University of Pune, Pune	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	MECHATRONICS	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	SIGNAL PROCESSING	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	STRUCTURAL ENGINEERING	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	VLSI AND EMBEDDED SYSTEMS	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	BIOTECHNOLOGY	FULL TIME	University of Pune, Pune	60	60	NA	Yes	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CHEMICAL ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	Yes	NA

Application Number: 1-2452587956\*

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Application Id: 1-2452587956			Course	Full/Part Time	Affiliating Body	Intake 2014-15	Intake Approved for 15-16	NRI Approval status	PIO Approval status	Foreign Collaboration Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	University of Pune, Pune	120	120	NA	Yes	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER ENGINEERING	FULL TIME	University of Pune, Pune	120	120	NA	Yes	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS & TELE-COMMUNICATION ENGINEERING	FULL TIME	University of Pune, Pune	180	180	NA	Yes	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION TECHNOLOGY	FULL TIME	University of Pune, Pune	120	120	NA	Yes	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	University of Pune, Pune	240	240	NA	Yes	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	PRODUCTION ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	Yes	NA
ENGINEERING AND TECHNOLOGY	2nd Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	2nd Shift	UNDER GRADUATE	COMPUTER ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA

Application Number: 1-2452587956\*

Page 4 of 6

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**Annexure – 1**

**Extension of Approval letter for Programmes from AICTE**



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Application Id: 1-2452587956			Course	Full/Part Time	Affiliating Body	Intake 2014-15	Intake Approved for 15-16	NRI Approval status	PIO Approval status	Foreign Collaboration Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	2nd Shift	UNDER GRADUATE	ELECTRONICS & TELE-COMMUNICATION ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	2nd Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
MANAGEMENT	1st Shift	POST GRADUATE	MASTERS IN BUSINESS ADMINISTRATION	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA

Note: Validity of the course details may be verified at [www.aicte-india.org>departments>approvals](http://www.aicte-india.org/departments>approvals)

The above mentioned approval is subject to the condition that SINHGAD COLLEGE OF ENGINEERING shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation: - Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

**Dr. Avinash S Pant**  
**Actg Chairman, AICTE**

Copy to:

Application Number: 1-2452587956\*

Page 5 of 6

Note: This is a Computer generated Letter of Approval.No signature is required.

Letter Printed On:11 April 2015

Printed By : ae338387

## Annexure – 1

### Extension of Approval letter for Programmes from AICTE



All India Council for Technical Education  
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001  
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 [www.aicte-india.org](http://www.aicte-india.org)

- 1. The Regional Officer,**  
All India Council for Technical Education  
Industrial Assurance Building  
2nd Floor, Nariman Road  
Mumbai - 400 020, Maharashtra
- 2. The Director Of Technical Education,**  
Maharashtra
- 3. The Registrar,**  
University of Pune, Pune
- 4. The Principal / Director,**  
SINHGAD COLLEGE OF ENGINEERING  
S. NO. 44/1, VADGAON (BUDARUK)  
OFF SINHGAD ROAD, PUNE,  
PUNE,PUNE,  
Maharashtra,411041
- 5. The Secretary / Chairman,**  
SINHGAD TECHNICAL EDUCATION SOCIETY  
S. NO. 44/1, VADGAON (BUADRUK), OFF SINHGAD ROAD, PUNE,  
PUNE,PUNE,  
Maharashtra,411041
- 6. Guard File(AICTE)**

Application Number: 1-2452587956\*

Page 6 of 6

Note: This is a Computer generated Letter of Approval.No signature is required.

Letter Printed On:11 April 2015

Printed By : ae338387

Annexure - 2

Extension of Approval Letter from University

दूरध्वनी क्रमांक :  
०२०-२५६९१२३३  
२५६०१२५७  
२५६०१२५८  
२५६०१२५९

सावित्रीबाई फुले पुणे विद्यापीठ  
(पूर्वीचे पुणे विद्यापीठ)

शैक्षणिक विभाग  
गणेशखिंड, पुणे-४११००७.

टेलिग्राफ : 'युनिपुणे'  
फॅक्स : ०२०-२५६९१२३३  
वेबसाइट : www.unipune.ac.in  
ई-मेल : dyracademic@unipune.ac.in

15010019

संदर्भ क्र.: सीए/२०१७ दि.: २९/०५/२०१५

प्रति,  
मा. प्राचार्य,  
सिंहगड टेक्निकल एजुकेशन सोसायटी सिंहगड कॉलेज  
ऑफ इंजिनियरिंग पता: ४४-१ वडगांव बु ता.: पुणे  
(महानगर पालिका हद्द) जि: पुणे

विषय:- अटीच्या पूर्ततेच्या पडताळणी अहवालबाबत...

महोदय,  
वरील विषयासंदर्भात विद्यापीठ अधिकार मंडळाने घेतलेल्या निर्णयानुसार आपणास कळविण्यात येते की, आपल्या महाविद्यालयास शैक्षणिक वर्ष २०१५-२०१६, या वर्षाकरिता खालील रकान्यात नमूद केलेल्या अभ्यासक्रमांच्या संलग्नीकरणच्या नूतनीकरण / नैसर्गिकवाटीस अखिल भारतीय तंत्रशिक्षण परिषद, नवी दिल्ली व तंत्रशिक्षण संचालनालय, महाराष्ट्र शासन यांचे अभ्यासक्रम व प्रवेश क्षमता मान्यतेच्या अधीन राहून अटी पूर्ततेचा पडताळणी अहवाल स्वीकारण्यात आलेला आहे.

अनु. क्र.	अभ्यासक्रमाचा तपशील	विद्यार्थी संख्या	प्रथमपाळी/द्वितीय पाळी	संलग्नीकरणाचा प्रकार
1	एम ई (ई अँड टी सी) सिग्नल प्रोसेसिंग	18	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
2	एम. ई. (इ अँड टीसी) एम्बेडेड सिस्टम्स अँड व्ही. एल. एस. आय. डिझाइन	18	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
3	एम. ई. (मेकॅनिकल) मेकाट्रॉनिक्स	18	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
4	एम.ई. (इन्फर्मेसन टेक्नॉलॉजी)	24	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
5	एम.ई. (इलेक्ट्रॉनिक्स) डिजिटल सिस्टम्स	25	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
6	एम.ई. (केमिकल)	18	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
7	एम.ई. (मेक.) हीट पॉवर इंजिनियरिंग	25	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
8	एम.ई. (मेकॅनिकल डिझाइन)	18	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
9	एम.ई. (सिविल) स्ट्रक्चरल इंजिनियरिंग	18	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण

1 Of 3

5/19/2015 11:37:31 AM

**Annexure – 2**

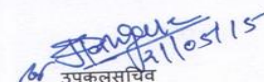
**Extension of Approval Letter from University**

10	एम.इ. (सिविल) हाइड्रॉलिक इंजिनियरिंग	18	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
11	एम.इ. कॉम्प्यूटर (कंप्यूटर नेटवर्क)	24	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
12	एम.इ. मेकॅनिकल (ऑटोमोटीव इंजीनियरिंग)	18	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
13	एम.इ. इलेक्ट्रॉनिक अँड टेली कॉम्युनिकेशन (कॉम्युनिकेशन नेटवर्किंग)	18	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
14	एम.इ. (सिविल) एन्वायरन्मेंटल इंजिनियरिंग	18	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
15	एम.बी.ए.	60	2015-2016 : - वर्ष प्रथम व द्वितीय- Div No.1,,	नूतनीकरण
16	बी.ई. (इन्फर्मेशन टेक्नॉलॉजी)	60	2015-2016 : - वर्ष पहिले ते चौथे- Div No.2,,	नूतनीकरण
17	बी.ई. (इलेक्ट्रॉनिक्स अँड टेलिकम्युनिकेशन)	180	2015-2016 : - वर्ष पहिले ते चौथे- Div No.2,- वर्ष पहिले ते चौथे- Div No.3,- वर्ष पहिले ते तिसरे- दुसरी पाळी Div No. 4,,	नूतनीकरण
18	बी.ई. (कॉम्प्यूटर)	120	2015-2016 : - वर्ष पहिले ते चौथे- Div No.2,- वर्ष पहिले ते चौथे- दुसरी पाळी Div No. 3,,	नूतनीकरण
19	बी.ई. (मेकॅनिकल)	240	2015-2016 : - वर्ष पहिले ते चौथे- Div No.2,- वर्ष प्रथम व द्वितीय- दुसरी पाळी Div No. 5,- वर्ष पहिले ते चौथे- Div No.3,- वर्ष पहिले ते तिसरे- Div No.4,,	नूतनीकरण
20	बी.ई. (सिविल)	120	2015-2016 : - वर्ष पहिले ते चौथे- दुसरी पाळी Div No. 2,- वर्ष पहिले ते तिसरे- Div No.3,,	नूतनीकरण
21	बी.टेक. बायोटेक्नॉलॉजी	60	2015-2016 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण
22	बी.ई. (इलेक्ट्रॉनिक्स अँड टेलिकम्युनिकेशन)	180	2015-2016 : - वर्ष चौथे- दुसरी पाळी Div No. 4,,	नैसर्गिकवाढ
23	बी.ई. (मेकॅनिकल)	240	2015-2016 : - वर्ष चौथे- Div No. 4,- वर्ष तिसरे- दुसरी पाळी Div No. 5,,	नैसर्गिकवाढ
24	बी.ई. (सिविल)	120	2015-2016 : - वर्ष चौथे- Div No. 3,,	नैसर्गिकवाढ

आपला,

कळावे,

2 Of 3

  
उपकुलसचिव  
शैक्षणिक विभाग

**Annexure – 3**

**Approval letter for NAAC from Affiliating University**

**Savitribai Phule Pune University**  
(Formerly University of Pune)

Telephone Nos. :  
020 – 25691233  
25601258  
25601259  
25601257



ACADEMIC SECTION  
Ganeshkhind, Pune – 411007, INDIA  
Telegraph : 'UNIPUNE'  
Fax : 020-25691233  
Website : [www.unipune.ac.in](http://www.unipune.ac.in)  
E -mail : [dyracademic@unipune.ac.in](mailto:dyracademic@unipune.ac.in)

Ref. No. : CA/830

Date : 18 / 04 / 2016

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that Sinhgad Technical Education Society's Sinhgad College of Engineering, S. No. 44/1, Vadgaon (Bk), Pune 411 041 is affiliated to the Savitribai Phule Pune University, since 1996 (PU/PN/Engg/116/1996) and the following courses are taught in the said college as per approval.

<b>Courses Under Graduate</b>	<b>Duration of the Course</b>	<b>Affiliation (Permanent / Temporary)</b>	<b>Validity Period</b>
Mechanical Engineering	04 Years	Permanent	From 2003-04
Electronics & Telecommunication Engineering	04 Years	Permanent	From 2003-04
Chemical Engineering	04 Years	Permanent	From 2003-04
Computer Engineering	04 Years	Permanent	From 2003-04
Civil Engineering	04 Years	Permanent	From 2007-08
Information Technology	04 Years	Permanent	From 2007-08
Production Engineering	04 Years	Permanent	From 2007-08
Computer Engineering	04 Years	Temporary	Upto 2015-16
Electronics & Telecommunication Engineering	04 Years	Temporary	Upto 2015-16
Information Technology	04 Years	Temporary	Upto 2015-16
Mechanical Engineering	04 Years	Temporary	Upto 2015-16
Civil Engineering	04 Years	Temporary	Upto 2015-16
B.Tech. Biotechnology	04 Years	Temporary	Upto 2015-16

2..




**Annexure – 3**

**Approval letter for NAAC from Affiliating University**

<b>Courses Post Graduate Master of Engineering</b>	<b>Duration of the Course</b>	<b>Affiliation (Permanent / Temporary)</b>	<b>Validity Period</b>
E & TC (Signal Processing)	02 Years	Temporary	Upto 2015-16
E & TC (VLSI & Embedded Systems)	02 Years	Temporary	Upto 2015-16
Mechanical (Mechatronics)	02 Years	Temporary	Upto 2015-16
Information Technology	02 Years	Temporary	Upto 2015-16
Electronics (Digital Systems)	02 Years	Temporary	Upto 2015-16
Chemical Engineering	02 Years	Temporary	Upto 2015-16
Mechanical (Heat Power Engineering)	02 Years	Temporary	Upto 2015-16
Mechanical (Design Engineering)	02 Years	Temporary	Upto 2015-16
Civil (Structural Engineering)	02 Years	Temporary	Upto 2015-16
Civil (Hydraulics)	02 Years	Temporary	Upto 2015-16
Computer (Computer Networks)	02 Years	Temporary	Upto 2015-16
Mechanical (Automotive)	02 Years	Temporary	Upto 2015-16
E & TC (Communication Networks)	02 Years	Temporary	Upto 2015-16
Civil (Environmental Engineering)	02 Years	Temporary	Upto 2015-16
M.B.A.	02 Years	Temporary	Upto 2015-16

The said certificate is issued as per the request application received from the Principal of the college Ref. No. SCOE/Exam./2015-16/1363, dated 28.03.2016 so as to submit it to the National Assessment and Accreditation Council (NAAC), Bangalore.

  
 Dr. V. B. Gaikwad  
 Director, B.C.U.D.


**Annexure - 4**

**Research Center Recognition Letter from University**

**INWARD**  
DATE: 07/12/2012

**पुणे विद्यापीठ**

दूरध्वनी क्रमांक :  
०२०-२५६९१२३३  
२५६०१२५८  
२५६०१२५९



शैक्षणिक विभाग  
गणेशखिंड, पुणे-४११ ००७  
टेलिग्राफ : 'युनिपुणे'  
फॅक्स : ०२०-२५६९१२३३  
वेबसाइट : [www.unipune.ac.in](http://www.unipune.ac.in)  
ई-मेल : [dycacademic@unipune.ac.in](mailto:dycacademic@unipune.ac.in)  
दिनांक : ०६/१२/१२

संदर्भ क्र. : CA/4125

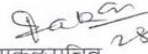
प्रति,  
मा. प्राचार्य  
एस.टी.ई. सोसायटीचे, सिहगड कॉलेज ऑफ इंजिनियरिंग,  
वडगांव बु पुणे ४१

विषय—संशोधन केंद्राच्या मान्यतेच्या नुतणीकरणाबाबत


महोदय,

उपरोक्त विषयानुसार कळविण्यात येते की, आपल्या महाविद्यालयातील शैक्षणिक वर्ष २०११-१२ पासून पाच वर्षाकरिता मॅकेनिकल इंजिनियरिंग आणि सिव्हिल इंजिनियरिंग या विषयातील तसेच शैक्षणिक वर्ष २००८-०९ पासून पाच वर्षाकरिता केमिकल इंजिनियरिंग या विषयातील पीएच. डी. संशोधन केंद्राच्या मान्यतेच्या नुतणीकरणास दर सहा महिन्यांच्या प्रोग्रेस रिपोर्ट देण्याच्या अटीवर परवानगी देण्यात येत आहे.

कळावे,

आपली विश्वासू  
  
उपकुलसचिव 28.10.12  
(शैक्षणिक विभाग)

सोबत—अहवाल

D/Nevas/reseach all file/Marathi letter Nevasepc  
Regisbar,  
copy to A meen / chemical / civil dep't  



**Annexure - 4**

**Research Center Recognition Letter from University**

**पुणे विद्यापीठ**

दूरध्वनी क्रमांक :

०२०-२५६९१२३३  
२५६०१२५७  
२५६०१२५८  
२५६०१२५९



शैक्षणिक विभाग  
गणेशखिंड, पुणे-४११००७.

टेलिग्राफ : 'युनिपुणे'  
फॅक्स : ०२०-२५६९१२३३  
वेबसाइट : www.unipune.ac.in  
इ-मेल : dyracademic@unipune.ac.in

संदर्भ क्र. : CA/ 4619

दिनांक : 14-12-10


प्रति,  
मा. प्राचार्य,  
सिंहगड टेक्निकल एज्युकेशन सोसायटीचे,  
सिंहगड कॉलेज ऑफ इंजिनिअरिंग,  
स.न.४४/१, वडगांव बु.॥, सिंहगड रोड,  
पुणे-४११ ०४१.

विषय:- संशोधन केंद्राच्या नव्याने मान्यतेबाबत...

महोदय,

उपरोक्त विषयानुसार आपल्या महाविद्यालयातील शैक्षणिक वर्ष २०१०-११ ते २०१२-१३ या तीन वर्षांकरिता इलेक्ट्रॉनिक्स अॅण्ड टेलिकम्युनिकेशन इंजिनिअरिंग या विषयातील पीएच. डी. संशोधन केंद्राच्या नव्याने मान्यतेस अहवालातील अटी व शर्तीची पूर्तता सहा महिन्यांच्या आत पूर्ण करण्याच्या तसेच दर सहा महिन्यांचा प्रोग्रेस रिपोर्ट देण्याच्या अटीवर परवागनी देण्यात येत आहे.

कळावे,

आपला विश्वासू  
  
उपकुलसचिव  
(शैक्षणिक विभाग)


सोबत -अहवाल

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**Annexure – 5**

**Accreditation Letter from NBA**

**NATIONAL BOARD OF ACCREDITATION**  
NBCC Place, East Tower, 4th Floor, Bhisham Pitamah Marg  
Pragati Vihar, New Delhi-110 003  
Tel: +91 11 2436 0620, 2436 0654 Telefax: +91 11 2436 0682

  
NATIONAL BOARD  
OF ACCREDITATION

File No.28-167/2010-NBA **INWARD** Date: 14-08-2013  
To DATE: 26/08/13/12

The Principal/Director  
Sinhgad College of Engineering,  
S.No. 44/1, Vadgaon (Bk.),  
Off Sinhgad Road,  
Pune-411 041, Maharashtra

**Sub: Accreditation status of programmes applied by Sinhgad College of Engineering, S.No. 44/1, Vadgaon (Bk.), Off Sinhgad Road, Pune-411 041, Maharashtra**

Dear Sir/ Madam

This has reference to your application dated 24-04-2010 seeking accreditation of National Board of Accreditation to various UG Programmes offered by your institution.

2. An Expert Committee conducted an on-site evaluation of the programmes during 18-01-2013 to 20-01-2013. The report submitted by the Expert Committee was considered by the Accreditation Evaluation Committee (AEC) at its meeting held on 16.02.2013. The Executive Committee of the National Board of Accreditation considered the recommendations of AEC at its meeting held on 05.08.2013. The Executive Committee approved the accreditation status of the programmes as given in the table below:

Sl. No	Name of the Programme	Accreditation Status	Period of validity w.e.f. 05-08-2013	Remarks
(1)	(2)	(3)	(4)	(5)
1	Mechanical Engineering	Accredited	5 Years	Accreditation Status granted is valid till the programme has the approval of the Competent Authority of the period given in Col. '4', whichever is earlier.
2	Computer Engineering	Provisionally Accredited	2 Years	

3. The accreditation status awarded to the programmes as indicated in the above table does not imply that the accreditation has been granted to Sinhgad College of Engineering, Pune, Maharashtra as a whole. **As such the institution should nowhere alongwith its name including on its letter head etc., write that it is accredited by NBA because it is programme accreditation and not institution accreditation. If such an instance comes to NBA's notice, this will be viewed seriously.** Complete name of the programme(s) accredited, level of programmes (UG or PG as the case may be) and the period of validity of accreditation, as well as the date from which the accreditation is effective, should be mentioned unambiguously whenever and wherever it is required to indicate the status of accreditation by NBA.

4. The accreditation status of the above programmes is subject to change on periodic review, if needed by the NBA. It is desired that the relevant information in respect of accredited programmes as indicated in the table in paragraph 2, appears on the website and information bulletin of your institution.

5. The accreditation status awarded to the programmes as indicated in table in paragraph 2 above is subject to maintenance of the current standards during the period of accreditation. If there are any changes in the status (major changes of faculty strength, organizational structure etc.), the same are required to be communicated to the NBA, with an appropriate explanatory note.

*Registrar*  
*Dr. V. Rao*  
*[Signature]*

*D. K. Bahin*

Contd/2-

## Annexure – 5

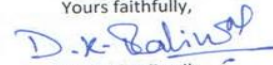
### Accreditation Letter from NBA

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6. Copies of the Comprehensive Report submitted by the Chairman of the Expert Committee along with the detailed reports submitted by the Expert team which visited your institution for the programme evaluated are enclosed for reference and to take necessary action to overcome the shortcomings, if any, pointed out by the Expert Team.

7. If the institution is not satisfied with the decision of NBA, it may appeal within thirty days of receipt of this communication giving reasons for the same and by paying the requisite fee.

Yours faithfully,



(Dr. D.K. Paliwal)  
Member Secretary

**Note:** Under Para 3.4.4 of Chapter 3 of the Manual of Accreditation, 2013, it is provided that the application for accreditation received in an academic year will be considered in next academic year. Therefore, the Institute may apply if it so desires, in the academic year 2014-15 for full accreditation of the provisionally accredited programme(s) in order to have continuation of accreditation.

**Encls:** 1. Copy of Report of Chairman of the Visiting Team  
2. Copies of Expert Report of the Visiting Team.

**Copy to:**

1. The Secretary,  
Higher & Technical Education & Employment Department  
Govt. of Maharashtra, Mantralaya,  
Mumbai-400 032

2. The Director  
Directorate of Technical Education  
Govt. of Maharashtra  
3, Mahapalika Marg  
Mumbai-400 001 (MS)

3. The Registrar  
University of Pune,  
Ganeshkhind  
Pune-411007

4. Member Secretary, AICTE  
All India Council for Technical Education  
7th Floor, Chanderlok Building  
Janpath, New Delhi-110 001

5. Accreditation File

6. Master accreditation file of the State.

**Annexure - 6**

**Master Plan of the Institution**

