



Sinhgad Institutes

**Sinhgad Technical Education Society's
NBN Sinhgad Technical Institutes Campus,
Ambegaon (Budruk), Pune**

SELF-STUDY REPORT

Submitted to

**National Assessment and Accreditation Council
Bangalore**



STES's NBN Sinhgad Technical Institutes Campus

Sr. No. 10/1, Ambegaon (Budruk),

Off Sinhgad Road, Pune- 411 041

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SELF-STUDY REPORT (SSR)

**For NAAC Accreditation of
STES's NBN Sinhgad Technical Institutes Campus**

Submitted to

**National Assessment and
Accreditation Council, Bangalore**



Submitted By

STES's NBN Sinhgad Technical Institutes Campus

Sr. No. 10/1, Ambegaon (Budruk),

Off Sinhgad Road, Pune- 411 041

Website: www.sinhgad.edu

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ABBREVIATIONS

AMC	Academic Monitoring Committee
ALMS	Auto Library Management Software
AMCAT	Aspiring Minds Computer Adaptive Test
ARAI	Automotive Research Association of India
BCUD	Board of College and University Development
BOS	Board of Studies
CAASR	Canadian Arena of Applied Scientific Research
CAE	Computer Aided Engineering
CCNA	Cisco Certified Network Associate
CEO	College Examination Officer
CNC	Computer Numerical Control
COB	Course Objectives
COP	Coefficient of Performance
COT	Course Outcomes
CPC	Central Placement Cell
CSI	Computer Society of India
CT	Class Teacher
CWPRS	Central Water and Power Research Station
DCS	Distributed Control System
DOM	Dynamics of Machinery
DRDO	Defense Research and Development Organization
DST	Department of Science And Technology
EBC	Economically Backward Class
EDC	Entrepreneurship Development Cell
EPABX	Electronic Private Automatic Branch Exchange
ERP	Enterprise Resource Planning
ET	Employability Test
FDP	Faculty Development Programme
FOSS	Free and Open Source Lab
GEMS	Governing Education Management System
H&P	Hydraulic and Pneumatic
HBR	Harvard Business Review
HBSP	Harvard Business School Publishing
HoD	Head of Department

I/O	Industrial-Organizational (I-O) Psychology
IACSIT	International Association of Computer Science and Information Technology
IAENG	International Association of Engineers
IBM	International Business Machines
ICDS	Integrated Child Development Services
ICT	Information and Communications Technology
IIIC	Industry Institute Interaction Cell
IITB	Indian Institute of Technology Bombay
IIW	International Institute of Welding
ILL	Inter Library Loan
IOTA	International Conference on Internet of Things and Applications
IPR	Intellectual Property Rights
IQAC	Internal Quality Assurance Cell
ISHRAE	Indian Society of Heating, Refrigerating and Air Conditioning Engineers
LMC	Local Management Committee
MAPRO	Meena Air Products Limited
MAT	Management Aptitude Test
MHT-CET	Maharashtra Health and Technical Common Entrance Test
MIDC	Maharashtra Industrial Development Corporation
MKCL	Maharashtra Knowledge Corporation Limited
NBNSSOCS	NBN Sinhgad School of Computer Studies
NBNSSOE	NBN Sinhgad School of Engineering
NBNSSOMS	NBN Sinhgad School of Management Studies
NBNSTIC	NBN Sinhgad Technical Institute Campus
NLE	Non-Linear Editing System
NME ICT	National Mission on Education Through Information and Communication Technology
NPTEL	National Programme on Technology Enhanced Learning
OPAC	Online Public Access Catalogue
OWC	Organic Waste Converter
PA System	Public Address System
PEOs	Programme Educational Objectives
PEST	Political, Economic, Social, Technological Tests
PGCON	Post Graduate Conference
PLC	Programmable Logic Controller

PLM	Product Lifecycle Management
PMPML	Pune Mahanagar Parivahan Mahamandal Ltd.
PMT	Pune Municipal Transport
POs	Programme Outcomes
PTC	Primary Teacher Class
PWD	Persons with Disabilities Act
QALR	Quantitative Aptitude Logical Reasoning
SAE	Society of Automotive Engineers
SCADA	Supervisory Control and Data Acquisition
SILC	Sinhgad International Learning Center
SKNCOE	Smt. Kashibai Navale College of Engineering
SLS	Self Learning Sessions
SOC	Student Overseas Cell
SOW	Statement of Work
SPPU	Savitribai Phule Pune University
SQC	Statistical Quality Control
SSC	Sinhgad Student Council
STC	Secondary Teacher Class
STES	Sinhgad Technical Education Society
STP	Student Training Program
STTP	Short Term Training Programme
SWD	Social Welfare Department
SWO	Sainik Welfare Organization
T&P	Training and Placement
TAP	Teacher Advancement Program
TG	Teacher Guardian
TTT	Train The Trainer
UTM	Universal Testing Machine
VAP	Value Addition Program
VLSI	Very Large Scale Integration

⌘ NAAC STEERING COMMITTEE ⌘

Sr. No.	Name of Staff Member	Designation	Designation for Steering Committee
1	Dr. R. S. Prasad	Principal	Chairman
2	Dr. Ms. V. S. Deshpande	Associate Professor & HoD Electrical	Coordinator
3	Dr. S. P. Ujagare	Dean MBA	Member
4	Dr. Ms. S. R. Chavan	Associate Director, MCA	Member
5	Dr. S. Y. Gajjal	Dean, Second Shift	Member
6	Prof. S. P. Patil	Professor & HoD IT	Member
7	Prof. M. M. Joshi	Asst. Professor & HoD Mechanical	Member
8	Prof. S. D. Sawant	Asst. Professor & HoD E&TC	Member
9	Prof. P. M. Gondkar	Asst. Professor & HoD Engg. Science	Member
10	Prof. Ms. S. A. Chiwhane	Asst. Professor & HoD Computer	Member
11	Prof. A. A. Patil	Asst. Professor	Member

A. COVERING LETTER FROM HEAD OF THE INSTITUTION



Sinhgad Institutes

Sinhgad Technical Education Society's®

NBN SINHGAD TECHNICAL INSTITUTES CAMPUS

Approved by AICTE, New Delhi, Recognized by Government of Maharashtra & Affiliated to Savitribai Phule Pune University (ID No. -PU/PN/Engg/432/2012)

S. No. 10/1, Ambegaon (Budruk), Off Sinhgad Road, Pune 411041

• Tel. : +91-20-24355042 / 46, +91-20-24610880/881 • Tele Fax : +91-20-24355042 • Website : www.sinhgad.edu
• Email : nbnssoe@sinhgad.edu / nbnsoms@sinhgad.edu / nbnsocs@sinhgad.edu

PROF. M. N. NAVALE
M.E. (Elect.) M.I.E., M.B.A.
FOUNDER PRESIDENT

DR. (MRS.) SUNANDA M. NAVALE
B.A., M.P.M., Ph.D.
FOUNDER SECRETARY

DR. RAJESH S. PRASAD
Ph. D. (Computer Sci. & Engg.), LMISTE, AMCSI, MIAENG
PRINCIPAL / DIRECTOR

Ref.No./NBNSTIC/Office/2016-17/47

Date - 21/04/2017

To,

The Director,
National Assessment and Accreditation Council,
P.O. BoxNo.1075, Opp: NLSIU
Nagabhavi, Banglore-560072

Subject: Submission of SSR

Ref: LOI bearing Track ID MHCOGN27130

Respected Sir,

With reference to LOI bearing Track ID MHCOGN27130 submitted on 27/03/2017 and acceptance of the same by NAAC on 17/04/2017, please find here with Self Study Report (SSR) of the institute **NBN Sinhgad Technical Institutes Campus**, Ambegaon, Pune-411041. The SSR is uploaded on institute website. Following are the details of the website and the link for your kind perusal.

The institute website is www.sinhgad.edu and the link is

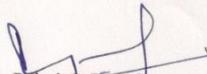
http://cms.sinhgad.edu/nbnssoe/NAAC_SSR_NBNSTIC.pdf

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 regards,

Date: 21 /04/2017
Place: Pune




(Dr. Rajesh S. Prasad)

DIRECTOR
NBN Sinhgad Technical Institutes
Campus, Ambegaon(Bk.), Pune - 41.

B. EXECUTIVE SUMMARY

Preface

NBN Sinhgad Technical Institutes Campus (NBNSTIC) is one of the new institutes which started in 2011 under the umbrella of Sinhgad Technical Education Society (STES), Pune. It is located in clean and pollution free campus.

Sinhgad Technical Education Society (STES) was established in the year 1993, and it has completed more than 25 years of valuable educational service to the society. It has always been a center of attraction for the students from various regions of Maharashtra and India as well. All the institutes under STES are recognized by the concerned statutory authorities and they fulfill the norms and standards laid down by these statutory authorities. The various institutes (more than 80) under STES provide quality education in the field of Engineering, Management, Architecture, Pharmacy, Medical Sciences, Hotel Management, Law and the basic school education.

NBNSTIC offers engineering degree programs in Computer, Electronics & Telecommunications, Mechanical, Electrical and Information Technology. It also offers post-graduate programs in Mechanical and Electronics & Telecommunication Engineering along with MBA and MCA programs under the faculty of management.

The aim of the institute is to imbibe students with academic proficiency, professional ethics, and desirable value system. To achieve the holistic development of students and to cope with the demands of the global industry scenario, institute nurtures sound academic culture, effective implementation of teaching learning process, motivates students for co-curricular as well as for extracurricular activities.

The management of the institute is committed to assure quality service to all its stakeholders, students, alumni, employees, employers and the community. It ensures to develop a strong foundation of ethical principles in the students and make them academically excellent to acquire global competencies with the help of state of art technology so that they can stand in the international market.

The next goal of NBNSTIC is to obtain excellence in academics by student-centric learning driven by problem and project based learning. Also, the teaching learning process will be supported by R&D and consultancy. This will make the students optimize their potential to become a good citizen of our country.

Criterion I: Curricular Aspects

The institute follows the curriculum designed by respective Board of Studies (BOS) in consultation with various stakeholders by Savitribai Phule Pune University (SPPU). Faculty members participate in the workshops, notified by

SPPU BOS regarding syllabus setting & syllabus implementation and give their inputs during these workshops. The feedback from employers, parents and alumni are discussed at the university level while framing or modifying the syllabus.

NBNSTIC has also hosted such workshops in college and contributed in curriculum designing as well as implementation. The focus of the curriculum is mainly on the fundamental aspects of engineering subjects and it incorporates new advancements in engineering.

Even though the institute is bound to follow the curriculum designed by the university, we enrich the curriculum by adding expert lectures, assignments from IITB spoken tutorial, training, seminars and value added courses on latest technologies.

The delivery of curriculum is also through the concept of flipped classroom. Faculty members use NDL, NPTEL and SWAYAM for preparation and delivery of course contents. All departments share study material with students in e-form.

Criterion II: Teaching-Learning and Evaluation

The planning and deployment of curriculum is done in a systematic manner. Prior to the commencement of the semester, teaching load distribution is done by considering the expertise of the faculty and choice of subject given by them. Academic calendar indicates schedule of unit tests, midterm submission, probable dates of online examination, in semester examination, end semester examination etc. Based upon the academic calendar, each department prepares its timetable & master timetable and allocates classroom, laboratory, faculty etc.

Monthly academic monitoring reports are sent to Principal after commencement of the curriculum, which highlights all-important activities completed in that month. Academic monitoring coordinators of department and HoD monitors the syllabus covered by individual faculty and finds if any lag between planned and actual syllabus coverage. Monthly cumulative attendance helps to identify the students having less attendance. Corrective action is taken by faculties to correct the performance of these students. The institute has academic quality assurance cell named as Academic Monitoring Committee (AMC). 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 HoDs.

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 (DTE), Mumbai. Aspirants from various regions of Maharashtra as well as from outside Maharashtra take admission in this institute.

The departments identify the poor performers by different evaluations and

arrange remedial and makeup lectures wherever is needed to make students par with other students. To create awareness about the recent trends in various fields of engineering and technology, professionals, academicians, industrialist and eminent research personalities are invited to interact with faculty and students. The institute always strives for signing MoU's with industries. It contributes towards various activities including training, placement, industry expert sessions, participation in technical events, industry visit and technology transfer.

The institute follows the reforms in the assessment and evaluation pattern as per the guidelines of SPPU. Institute has incorporated reforms in assessment and evaluations to fit into the reforms of SPPU. Latest techniques based on technology are used to evaluate attainment levels of student learning outcomes. The latest technological advancement and innovations in educational transactions are well undertaken by the institution to make a visible impact on academic development as well as on evaluation.

Criterion III: Research, Consultancy & Extension

Research plays a vital role in academics and acts as a backbone of technical institutes. The institute aims to inculcate research culture in the students and faculty by motivating and supporting them to participate in research activities in the field of engineering, science and technology. The institution has a central Research Committee (RC) to monitor and address the issues of research. The research committee is actively involved in developing awareness and creating interest about research among the students and faculties. Institute aims to create environment for research at each department by motivating faculty members for Ph.D. registration and pursue research in their area of interest.

Recently, institute has established a center of excellence lab in Cyber Forensics and Cyber Security to provide a novel platform for the research aspirants in the area of Cyber Forensics and Information security. Departments have initiated to have associations with industries in form of MoU to cultivate the culture of research and consultancy among faculty and students.

Institute provides support to the faculty in securing funds from funding agencies like UGC, SPPU, AICTE, DST, BCUD, ISRO and industries. Students are encouraged to pursue projects in association with industry, contribute in research projects and select projects of social importance. Faculty members and students are encouraged to publish research papers in National and International reputed peer reviewed Journals and conferences.

Laboratories under various departments are equipped with adequate hardware and software facilities to support research related activities. Library has subscription of various National and International journals and transactions and provides free access to IEEE and Science Direct research papers to faculty and students.

Various social activities such as blood donation camps, organ donation awareness program, gender equality awareness program etc. are organized

involving students for their holistic development. College is very much environmental conscious. Branch of National Service Scheme (NSS) is established in the campus, so that students can participate in various activities under NSS and can contribute in social developments and awareness.

Criterion IV: Infrastructure and Learning Resources

The institute provides basic infrastructural facilities required for healthy teaching-learning environment. The infrastructure facilities are in line with AICTE norms and SPPU. Physical facilities for curricular activities include classrooms equipped with LCD projector, laboratories with state of art equipment, and seminar hall equipped with PA system for every department.

Central library is located in a separate building, which has reading section, reference section, study section & cafeteria. Institute has a workshop with fitting shop, carpentry, welding section, machine shop etc. to support academic and other minor requirements of the institute.

Adequate administrative and circulation space has also been provided. Internet service has been made available to the faculty and students in department. The institute has upgraded the 18 Mbps leased line internet connectivity to 24 Mbps leased line over optical fiber cable, with high fault tolerance. Electricity generator backup of 500 KVA has been provided for the campus. Institute has provided necessary facilities including girls' common room, boys' common room, sick room, water coolers, firefighting facility, adequate number of toilets, and special facilities for physically challenged person.

Other major facilities in the campus include a separate residential facility for students and staff, guesthouse, swimming pool, playground, gymnasium, hygienic food canteens, medical store, general stores and campus clinic. Further post office and banking facility (banks & ATMs) is also available in the campus. Dedicated ambulance service is available in the campus 24X7.

Criterion V: Student Support and Progression

Apart from curriculum set by SPPU, students are exposed to Student Training Program (STP), Value Added Programs (VAP), industrial visits etc. STP is designed to improve their soft skills, and to prepare themselves for aptitude tests and interviews. It is focused on the overall personality development of the students. VAP helps students to identify job oriented courses in their discipline and they are triggered with the basic knowledge of these areas from industrial experts. Industrial visits help them to get exposure to industries. Certificate courses conducted at departmental level help them to upgrade skills in areas as per industry needs. Each department has developed Industry-Institute Interaction Cell (IIIC) with motivation to enhance institute industry interaction. Seminars and workshops, and guest lectures by industry personnel are conducted by IIIC. In plant training at industry helps students to make themselves industry ready by the time they end up their graduation. Students are encouraged to take part in competitions like BAJA, SUPRA etc., where they can enjoy the work of their interest.

The institute helps needy students through Earn & Learn scheme of SPPU. The institute offers all the scholarships offered by both the State and Central Government. Special preference is given for differently abled students for on-campus hostel accommodation.

Entrepreneurship Development Cell (EDC) organizes expert lectures by industrialists and experienced professionals to develop entrepreneurial skills among the students.

An active placement cell associated with central placement cell (CPC) provides training and placement opportunities to the students. It has a structured mechanism to make the students employable and help them to choose the career of their interest. Institute is committed to support the students for higher education. Guidance and support for GATE, GRE and other examinations are also provided to the needy students.

The institute has a student Grievance Redressal Cell, Internal Complaint Committee and Committee for SC/ST students as per the guidelines laid by AICTE. These committees are performing their duties to ensure the grievance free environment in the campus. Anti-Ragging committee is also constituted as per the norms and it is ensured that campus is ragging free. The Alumni association is newly formed to contribute in the growth of the institution through various contributions from Alumni.

Institute has Sinhgad Student Council (SSC) which is run by students in back up with faculty. Under SSC, there are many clubs of students' choice. Through these clubs, students get exposure to the field of their choice. Institute also gives importance to extra-curricular aspects to enhance all-round development and to impart social orientation among students. To motivate the students for extra-curricular activities, the institute provides various facilities. It includes a common playground for various outdoor games, space for various indoor games and gymnasium facility. The further institute has an open air theater having a capacity of 1500 for hosting various cultural activities.

The institute organizes annual cultural meet of students named as "Sinhgad Karandak" every year. The students under the supervision of faculty organize these events. Sinhgad Karandak is a combination of cultural (NEON) and technical exhibits and competitions (TECHTONIC / SPECTRUM / TECHDRILL). In addition, students are encouraged to participate in various national and international level events in cultural, sports and technical activities.

Criterion VI: Governance, Leadership and Management

NBNSTIC is approved by All India Council for Technical Education (AICTE) and also recognized by Directorate of Technical Education, Maharashtra State (DTE MS). It is affiliated to Savitribai Phule Pune University (SPPU), Pune. The institute has constituted Governing Body (GB) and Local Managing Committee (LMC) as per rules and guidelines of Government of Maharashtra and SPPU. GB decides the policies for the growth of institute in terms of academic, administrative and financial matters.

The Director administers all the activities and plays a leading role in governance and management of the institution. All HoDs are given with academic and administrative freedom in smooth functioning and development of the department. The institute provides opportunities for faculty to develop leadership skills at department and institute by giving them various portfolios.

The management of the institute is committed to assure quality service to all its stakeholders, students, alumni, employees, employers and the community. 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 institute provides many welfare schemes like Group Insurance Scheme, EMBF, PF, Gratuity, Accidental Insurance, Free medical facilities, maternity leave, and uniform for security guards, provision for qualification improvement and staff quarters for both teaching and non-teaching staff.

Criterion VII: Innovation and Best Practices

Institute adopts some Best Practice namely, Students Training Program (STP), Teacher Guardian Scheme to contribute to achieve institutional objectives. It also practices some innovative methods in teaching like use of NPTEL Lecture videos, E-Exam Portal, Moodle Tool etc. It conducts courses like Business English communication certificate courses from Cambridge University, German, Japanese Language training, online courses like IITB spoken tutorials etc. It has signed MoUs for Students Internship in International university, MoU with Harvard Business School Publishing HBSP) for using the Harvard case studies as a part of curriculum.

The institute uses in-house developed ERP system (named as “Governing Educational Management System” - GEMS) for administrative works like online feedback, appraisal report, training, and placement, leave management etc. of faculty and staff. Institute is aimed at extensive use of ERP for all administrative purpose and make office paperless as much as possible.

Various steps are taken to maintain the natural serenity of this picturesque campus. Various audits are conducted like green audit and electrical energy audit. Agencies are appointed for different types of waste management like solid waste management, e-waste management etc. The Sewage water treatment plant is also built up. Institute conducts awareness programs to make institute more eco-friendly. Many initiatives are taken by the college to make the campus eco-friendly, like most of the hostel buildings are equipped with solar water heaters; the wastewater is used for irrigating the extensive campus lawns and gardens. Administration takes measures in keeping the grounds green, solid and eco well disposed.

SWOC ANALYSIS OF THE INSTITUTE

Strengths

- Blend of experienced and young faculty members
- Good faculty and staff retention ratio
- Conducive and encouraging working environment for faculty and staff
- State of the art infrastructure and laboratories
- Spacious central library with sufficient collection of books and journals
- Digital library with access to national and international e-journals
- Use of IITB Spoken Tutorial project, NDL, SWAYAM, and NPTEL
- Well defined teacher guardian scheme for mentoring of students
- Strong student-centric teaching activities (Flipped classroom, PBL)
- Well established Student training program for enrichment of curriculum
- Better academic results compared to university results
- Well executed social activities through NSS
- In-house ERP system for effective administration
- Safe, secure and pollution free campus with sufficient essential amenities

Weaknesses

- Lack of Consultancy and extension activities
- An inadequate number of faculty members with Ph.D. qualification.
- Less number of publications and patents
- Moderate Industry Institute interaction
- Fewer placements in core companies
- Less contributions from Alumni

Opportunities

- Enhancement of industry institute interaction activities.
- Involvement of Alumni in academic and placement activities
- Start of Post-graduate programs and Ph.D. programs
- Expansion of Entrepreneurship Development Cell activities
- Improvement in Placements
- Deputing faculty for higher education
- Publications in reputed journals

Challenges

- Student employability in globally changing industrial scenario
- Adopting new techniques to meet the needs of industries
- Diverse socio economic backgrounds of students
- Achieving consultancy from industries

C. PROFILE OF THE AFFILIATED INSTITUTION

1. Name and address of the college:

Name:	NBN SINHGAD TECHNICAL INSTITUTES CAMPUS	
Address:	S. No.10/1 AMBEGAON (BK), TALUKA HAVELI, OFF SINHGAD ROAD	
City: PUNE	Pin code: 411041	State: MAHARASHTRA
Website:	www.sinhgad.edu	

2. For communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr. Rajesh S. Prasad	O:020-24355041 R:020-24369180	91-9823369180	020-24355042	nbnssoe@sinhgad.edu
Vice Principal					
Steering Committee Co-ordinator	Dr. Ms. V. S. Deshpande	O:020-24100000 Ext.946 R: 020-24619218	91-9011141740	020-24355042	hodelect.nbnssoe@sinhgad.edu

3. Status of the institution:

Affiliated College	<input checked="" type="checkbox"/>
Constituent College	<input type="checkbox"/>
Any other (specify)	<input type="checkbox"/>

4. Type of institution:

a. By Gender

i. For Men	<input type="checkbox"/>
ii. For Women	<input type="checkbox"/>
iii. Co-education	<input checked="" type="checkbox"/>

b. By Shift

i. Regular	<input checked="" type="checkbox"/>
ii. Day	<input type="checkbox"/>
iii. Evening	<input type="checkbox"/>

5. It is a recognized minority institution?

Yes	<input type="checkbox"/>
No	<input checked="" type="checkbox"/>

6. Source of funding:

Government
Grant-in-aid
Self-financing
Any other

✓

7. a. Date of establishment of the college: 19/08/2011

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

Savitribai Phule Pune University, Pune

c. Details of UGC recognition: Nil

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section/ clause	Recognition/ Approval details Institution/ Department Programme	Date, Month & Year	Validity	Remark
AICTE, NEW DELHI	Western/1- 2809447183/2016/EOA	05-04-2016	1 Year	Approval is extended Every year by submitting the approval process application along with the necessary fees to AICTE, New Delhi
	Western/1- 2453514185/2015/EOA	07-04-2015	1 Year	
	Western/1- 2013938985/2014/EOA	04-06-2014	1 Year	
	Western/1- 1471844564/2013/EOA	07-04-2013	1 Year	
	Western/1- 714289972/2012/EOA	10-05-2012	1 Year	
	Western/2011/1- 461491971	19-08-2011	1 Year	

(Enclose the recognition/approval letter)

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

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

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

Location *	Rural
Campus area in sq. mts.	71629.36
Built up area in sq. mts.	17700.8

(* 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.

Sr. No.	Facilities Available	Yes / No										
1	Auditorium/seminar complex with infrastructural facilities	Yes										
2	Sports facilities <ul style="list-style-type: none"> ➤ Play ground ➤ Swimming pool ➤ Gymnasium 	Yes Yes Yes										
3	Hostel - Boys' <ul style="list-style-type: none"> ➤ Number of hostels - 10 ➤ Number of inmates - 399. ➤ Facilities (mention available facilities) Fully furnished rooms, TV, secured Wi-Fi, dining hall, sufficient number of toilets, furniture and recreation area. Hostel - Girls' <ul style="list-style-type: none"> ➤ Number of hostels - 10 ➤ Number of inmates - 347 ➤ Facilities (mention available facilities) Fully furnished rooms, TV, secured Wi-Fi, dining hall, sufficient number of toilets, furniture and recreation area. 	Yes Yes										
4	Working women's hostel - <ul style="list-style-type: none"> ➤ Number of inmates – Not Applicable ➤ Facilities (mention available facilities) - Not Applicable 	No										
5	Residential facilities for teaching and non-teaching staff (give numbers available — cadre wise) <ul style="list-style-type: none"> ➤ Principal's quarters- 02 ➤ Staff quarters available - 2BHK=38, 1BHK=64, 1RK=154 	Yes										
6	Cafeteria Total available – 06	Yes										
7	Health centre: Campus Clinic available <ul style="list-style-type: none"> ➤ First aid, Inpatient, Outpatient, Emergency care facility, Ambulance: Available 	Yes										
8	Health centre staff – <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Qualified doctor</td> <td style="width: 20%;">Full time</td> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 20%;">Part time</td> <td style="width: 10%; text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Qualified doctor</td> <td>Full time</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Part time</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	Qualified doctor	Full time	<input checked="" type="checkbox"/>	Part time	<input type="checkbox"/>	Qualified doctor	Full time	<input checked="" type="checkbox"/>	Part time	<input type="checkbox"/>	Yes
Qualified doctor	Full time	<input checked="" type="checkbox"/>	Part time	<input type="checkbox"/>								
Qualified doctor	Full time	<input checked="" type="checkbox"/>	Part time	<input type="checkbox"/>								
9	Facilities like banking, post office, book shops, Banks	Yes										
10	Transport facilities to cater to the needs of students and staff	Yes										
11	Animal house	NA										

12	Biological waste disposal	Yes
13	Generator or other facility for management/regulation of electricity and voltage ➤ The college has the following facilities to manage power supply: • 500 KVA diesel generator • 09 KVA UPSs	Yes
14	Solid waste management facility	Yes
15	Waste water management	Yes
16	Water harvesting	No

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

Sr. No.	Programme Level	Name of the Programme / Course	Duration	Entry Qualification	Medium of instruction	Sanctioned /approved Student strength	No. of students admitted
1	Under-Graduate	B.E. Computer Engineering	04 years	XII std	English	120	120
2		B.E. Electronics & Telecommunication Engineering	04 years	XII std	English	60	60
3		B.E. Mechanical Engineering	04 years	XII std	English	120	120
4		B.E. Electrical Engineering	04 years	XII std	English	60	60
5		B.E. Information Technology	04 years	XII std	English	60	60
6		B.E. Mechanical Engineering (2 nd shift)	04 years	XII std	English	60	60
7	Post-Graduate	M.E. Mechanical Engineering (Design)	02 years	B.E. / B.Tech. with GATE Score	English	24	08
		M.E. Electronics & Telecommunication Engineering (Embedded Systems and VLSI)	02 years	B E / BTech with GATE Score	English	24	00
		M.B.A Master of Business Administration	02 years	Any Graduation	English	180	171
		MCA Master of Computer Application	03 years	Any Graduation	English	240	67

13. Does the college offer self-financed Programmes?

Yes No

If Yes how many?

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

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	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 (eg. Physics, Botany, History etc.)	UG	PG	Research
Engineering	Electronics & Telecommunication Engineering	Yes	Yes	Nil
	Computer Engineering	Yes	Nil	Nil
	Mechanical Engineering	Yes	Yes	Nil
	Electrical Engineering	Yes	Nil	Nil
	Information Technology	Yes	Nil	Nil
Management	MBA	Nil	Yes	Nil
	MCA	Nil	Yes	Nil

16. Number of Programmes offered under (Programme means a degree course like BA, BSc, MA, MCom...)

a. Annual system	<input type="text" value="Nil"/>
b. Semester system	<input type="text" value="07"/>
c. Trimester system	<input type="text" value="Nil"/>

17. Number of Programmes with

a. Choice Based Credit System	<input type="text" value="02"/>
b. Inter/Multidisciplinary Approach	<input type="text" value="Nil"/>
c. Any other (specify and provide details)	<input type="text" value="Nil"/>

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?

Yes No

20. Number of teaching and non-teaching positions in the Institution

Position	Teaching Faculty						Non-teaching Staff		Technical Staff	
	Professor		Associate Professor		Assistant Professor		*M	*F	*M	*F
	*M	*F	*M	*F	*M	*F				
Sectioned by the UGC/ University / State Government Recruited										
Yet to Recruit										
Sanctioned by the Management/ society or other authorized bodies Recruited	04	01	00	03	75	55	53	24	13	02
Yet to Recruit	09	04	25	08	-16	-7	-	-	-	-

*M-Male *F-Female

21. Qualification 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.	03	01	00	03	02	02	11
M. Phil.	-	-	-	-	01	03	04
PG	01	-	00	-	72	50	123
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.

39

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

Categories	Year 1 (2013-14)		Year 2 (2014-15)		Year 3 (2015-16)		Year 4 (2016-17)	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	40	08	43	10	44	12	32	11
ST	04	00	02	01	00	02	01	01
OBC	104	44	100	35	134	38	136	37
General	396	166	371	138	371	147	308	164
Others	48	13	41	19	44	10	52	11

24. Details of students enrollment in the college during the current academic year: (2016-17)

Types of students	UG	PG	M. Phil.	Ph. D.	Total
Students from the same state where the college is located	424	215	NA	NA	639
Students from other states of India	81	33	NA	NA	114
NRI students	NA	NA	NA	NA	NA
Foreign students	NA	NA	NA	NA	NA
Total	505	248	NA	NA	753

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 programmes in distance education mode (DEP)?

Yes

No

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

Sr. No.	Name of the UG Programme	Teacher – Student Ratio
1	Computer Engineering	1:18
2	Electronics & Telecommunication Engineering	1:18
3	Information Technology	1:17
4	Mechanical Engineering	1:19
5	Electrical Engineering	1:17

Sr. No.	Name of the PG Programme	Teacher – Student Ratio
1	Electronics & Telecommunication Engineering	1:16
2	Mechanical Engineering	1:24
3	MBA	1:28
4	MCA	1:12

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.

220 Days

32. Number of teaching days during the last academic year.

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

180 Days

33. Date of establishment of Internal Quality Assurance Cell (IQAC)

Not Applicable

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

D. CRITERIA-WISE ANALYTICAL REPORT

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, teachers, staff and other stakeholders.

Vision of the institution

"उत्तमपुरुषान् उत्तमाभियंतृन् निर्मातुं कटीबध्दाः 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 is 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:

- To improve upon **academic performance** of students by inculcating best teaching and learning processes.
- To impart **practical knowledge** to students by continuous upgrading programs like STP (Student Training Program), VAP (Value Addition Program), IIC (Industry Institute Interaction Cell), Industrial Visits.
- To provide **overall development of students** by motivating them in various activities like sports, Sinhgad Karandak, SSC (Sinhgad Student Council) activities, social activities like tree plantation, blood donation camps, activities like poster presentation competition etc.
- To **motivate faculties** to pursue higher education, to arrange programs like TTT (Train The Trainer), FDP (Faculty Development Programme) to hone their teaching skills.
- To **develop research culture** in the institute by arranging workshop and conferences.

Communication to Stake holders:

- The vision, mission and objectives of the institution are communicated to all the stakeholders viz. students, teachers, staff, industry and other stakeholders too. At the entrance of institute (near Principal's office), library, the mission and vision of the institute are displayed on the boards prominently. During induction program, it is communicated with the students and their parents. Also, the same is available on institute website; and through email signature, it is well communicated to the outside world.

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 example(s)?

The institute has meticulous process to develop and deploy the action plan for effective implementation of the curriculum.

Development of action plan

- The institution is affiliated to Savitribai Phule Pune University (SPPU), Pune. The university has fixed course structure (or syllabus). At the beginning, the Principal conduct a meeting and formulate a common **Academic calendar** fulfilling all the academic requirements from SPPU. For different years of Engineering, MBA, MCA, ME based upon academic calendar of SPPU, there are separate academic calendars matching their academic needs. This academic calendar is comprehensive and covers activities like unit tests/Mid Term Exam (Theory & Practical) and End Term Exam (Theory & Practical), University examination schedule, midterm submission, mock practical /oral sessions etc. Whenever there are changes in Academic Schedule by SPPU, corresponding changes are incorporated in academic calendar, detailed academic calendar, time table etc. We also communicate the same to students.
- The final year students are asked to give a **choice of elective** subjects listed in the university curriculum and accordingly departments allocate the faculty for teaching the electives. The senior faculty members help the students to opt the elective subjects.
- Teaching load distribution is done to the faculty taking into consideration, the Faculty qualifications, their subject specialization, experience and their willingness. Every teacher prepares a teaching plan in a common format. This teaching plan usually has two important columns viz. planned dates, actual dates of completion of syllabus points which makes academic monitoring fairly easy.
- Weekly time table of various departments are made. Laboratory wise time tables, Individual timetables, Master time table of department is also prepared. Weekly Time table, laboratory wise time table is displayed on notice board for students while Master time table and individual time table is given to HoD and faculty members by time table in charge of various departments. This weekly time table is as per the academic calendar prepared.
- Course file is prepared by each faculty for the subjects allocated to him/her which includes comprehensive class notes, other teaching material (viz. OHP transparencies, handouts etc.) Course files are meticulously checked by respective department heads and it is conveyed to Principal. Teaching plan and attendance sheets are verified and signed by the HoD periodically. Separate attendance sheets for theory lectures and Practical are maintained by all faculties for subject allotted to them.

Deployment of action plan

- The head of the departments monitor the progress of activities mentioned in academic calendar of the institute. The **academic monitoring** and conformance is also done by Academic Monitoring Committee (AMC) of the institute. The AMC of the institute monitors regularity in the

conduction of lectures and practical, syllabus coverage, students' academic progress, student's feedback and their grievances. The feedback of the AMC is discussed with HoD for corrective actions.

- **Student performance is monitored** closely by TG (Teacher Guardian). A TG is usually a faculty teaching to a particular class who is allotted with a batch of approximately 25 students and he/she mentors, guides, regulates the performance of the students allocated to him/her. Need based Phone calls/SMS are sent to parents of non performing students by their respective TG.
- The **attendance of the student** is maintained and monitored by the respective faculty members in a daily attendance sheet of theory/practical in hard copy and on ERP. Cumulative attendance is monitored by the department. Regular absent students are identified by the Teacher Guardian (TG) and the same is informed to the parents through telephonic conversation, email, SMS alert or if required by post.
- TG conducts periodic meetings with the students to know difficulties faced by the students and remedial actions are taken in case of problems. **Periodic tests** are taken following SPPU pattern to let the student and parent know where the student stands. Record of periodic tests is maintained.
- **Extra lectures** are assigned for all students who are admitted late to the institute. Mock practical and oral sessions are conducted by subject experts to make students aware about such examinations and to boost up their confidence levels.
- **Expert guest faculties** are invited for making provision of better understanding for the students about relatively tougher part of the curriculum. Learning beyond curriculum contents is achieved by arranging lectures by industry experts from various fields to increase student's professional expertise.
- **The monitoring of project** and seminar work is also done by the respective guides as per the time table of seminar and project. At the beginning of the semester, students select their project work or seminar work as per their specific interest. In addition to in-house projects, students are also encouraged to take up projects in collaboration with industries.
- **Feedback of every faculty** is taken at the end of first month in every semester from the students. The head of the department evaluates the feedback and conveys it to respective faculty for corrective measures if any.

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 institution follows the curriculum as prescribed by the Savitribai Phule Pune University. Being affiliated institute, it follows the latest norms and guidelines as and when laid down by the affiliating University. **Syllabus implementation workshops / Seminars / Syllabus setting workshops / training programs, faculty development programs**

- arranged by SPPU are attended by faculties to follow or to improve the teaching practices.
- Faculties are also motivated to attend the **quality improvement program** or **Short term training program** or industrial training organized by SPPU or different national and international organizations / institutes to enrich their own potential. The institute supports the faculty by providing registration fees of these training programs.
 - **Train the Trainers workshop** is arranged at Sinhgad Technical Education Society level. Here, initially all HoDs of different institutes come together to prepare a list of senior staff. They are allocated with one unit of SPPU syllabus of a particular subject. Here, this experienced faculty prepares teaching plan for the unit allotted to him/her, prepares notes, prepares power point presentations and shares content to all other faculty members who will be teaching the same subject. This sharing of knowledge especially helps new budding teachers to effectively deliver their contents. Train the trainers workshop brings a platform for all subject teachers to come together, share their views, ideas, tricks to each other and helps faculty members to translate the curriculum effectively their by improving teaching practices.
 - **Internet and digital library** provide supportive and readily available literature for all faculties. For management, faculties upload the Aptitude and Technical questions and evaluate the student by taking their online test on Aptitude Skills and Technical Skills which helps students for their campus recruitment.
 - Institute **library** provides ample books (more than 15000 volumes) and other teaching and reference materials like journals (136), magazines to enable its teachers to ensure effective delivery of curriculum. The institute also has tie up with Jayakar library of SPPU, Pune and library of Defense Institute of Advanced Technology, Pune.
 - Faculty members are encouraged to use the concept of Flipped class rooms for content delivery. The faculty members also have access to NPTEL (**National Programme on Technology Enhanced Learning**) resources, Virtual labs and National digital library.

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 is continuously taking efforts throughout the year to enhance the curriculum delivery quality. Following are the highlighted initiatives taken up by institution for effective curriculum delivery:

- Institute has an **academic calendar** in which all care is taken to complete the syllabus as prescribed by the university. The academic monitoring committee along with head of the departments ensures that the syllabus is completed as per academic calendar.
- The department also takes care that the curriculum should reach to the average and below average students by means of **extra lectures, remedial lectures** and extra practical sessions. Slow learners are identified after In-semester examination/online examinations, segregated and **remedial lectures** are scheduled for such weak students and problems faced by

these slow learners are addressed.

- Make up lectures on missed portion are arranged for second year direct admitted students who join late to their classes.
- All the classrooms are well equipped with modern teaching aids like LCD Projector supported by Wi-Fi facility in order to ensure quality teaching learning process.
- **Laboratory equipment** are purchased well in advance and maintained as per changing curriculum of SPPU.
- The content management software (K-Point) is subscribed by the institute and the content are in development stage. It will be surely helpful for the students to understand the subjects through audio supported PowerPoint presentations.
- The evaluation of laboratory assignments is done on a continuous basis. Separate attendance and evaluation sheets are provided for assessment of practical performance of the students.
- The institute ensures the capacity building in terms of practical knowledge in students by supplementing the assignments based on **IITB spoken tutorial projects**.
- Central library is open on all days for 24 hours except for a few holidays. Internet and digital library facility help students to gain additional knowledge.
- The **Language laboratory** in the institute promotes the use of computer applications. We have a language laboratory of 825 sq. ft. equipped with 30 computers with ETNL language lab software. It is a language learning solution with a specially equipped facility designed to train students in English language. The teacher delivers the methodology through an automated system that is adaptable to teaching a novice or a neophyte as well as brush-up the skills of a not-very-fluent speaker to not only speak it phonetically correct in a native accent but also learn it quickly and deliver it with clarity and confidence.
- The teaching process is reviewed by the student's electronic feedback about the teacher. Teachers having very poor feedback are replaced by the **AMC /IQAC** (Internal Quality Assurance Cell) or if the feedback is average then the parameters wherein the teachers are supposed to improve are analyzed, addressed to the teacher by very senior faculties from **AMC /IQAC** and the teacher is advised and demonstrated with the methodologies to improve upon teaching learning process.
- The Institute has introduced the **Teacher Guardian Scheme**. In this scheme, nearly 25 students are assigned to a faculty. The Teacher Guardian acts like a mentor and monitors the progress of the students and helps to resolve personal problems associated with students.
- Curriculum delivery is also enhanced by organizing **seminars, workshops and guest lectures**. For management students, **Harvard Business case studies** are used as one of the teaching pedagogy.

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 interacts with industry, University and with research people for

effective operationalization of curriculum. In addition to this, resource persons are called or consulted as and when required.

Networking and Interaction with Industry

- Industrial visits are arranged at departmental level to cope up with the curriculum prescribed by Savitribai Phule Pune University (SPPU).
- Guest lectures by industrial experts are arranged number of times to bring to the notice of student's latest developments in the particular field.
- Industry Institute Interaction Cell (IIIC) consisting of member from industry, alumni is formed in every department and member from industry interacts with students. Visit to industry, lectures on current technology are organized. Students are directed to industries for sponsored projects.

Networking and Interaction with Research bodies

- Research scholars and eminent personnel from various research organizations (like NCL (National Chemical Laboratory), ARAI (Automotive Research Association of India) etc.) are invited for guest lectures and seminars to encourage students as well as faculties for undertaking research projects and enhancing their research capabilities.
- Most of the PG students are doing their research in research organizations and have participated in projects which were undertaken by these research bodies.
- Faculty members are motivated to apply for research grants for their research works from reputed organizations like ISRO (Indian Space Research Organization), DST (Department Of Science & Technology), UGC (University Grants Commission) etc. These research activities enrich the capabilities of faculty members and make direct impact on quality teaching outcomes.

Networking and Interaction with University

- Professors from other Universities and renowned institutions (IIT, NIT etc.) are invited for discussions, workshops and professional interactions with the faculty members.
- Syllabus of (SPPU, Pune) framing and implementation workshops have been organized at our institute to effectively organize the curriculum.
- Students and faculty members are encouraged to take the advantages of research grants from SPPU and few of them have received grants for their project work.

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 college has earned its reputation as one of the renowned affiliated institutes under the SPPU. Almost all senior faculty members have worked as chairman or member in framing of new or revised syllabus of university. SPPU curriculum undergoes revisions after every five years. Subject teachers participate in all syllabus setting, syllabus implementation meetings; share their views along with discussion on PEOs (Program Education Objectives).
- One of the faculty members is co-opted member of Board of Studies of

- Mechanical Engineering SPPU and Member of faculty of Engineering.
- Few of the faculty members are also involved in setting of online question banks for online examination process of university.
 - Institute is very instrumental in organizing workshops and seminars for implementation and execution of changed or revised syllabus.
 - Almost all of the senior faculties of our institute have served in the university under various capacities like paper-setters for UG and PG, moderators, examiners and chairman of papers and practical. So, they better understand the issues in execution of the existing syllabus and they discuss to resolve those issues while framing or revising new syllabus.
 - Every semester feedback from stake holders (students, parents and alumni) is received in several forms and need based corrective actions are discussed and executed at the time of framing new syllabus or revising the syllabus.

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.

The institute is affiliated to SPPU and hence has no flexibility to develop the curriculum by its own; however the faculty members are proactive in deciding the subjects and designing the content of the subjects in particular syllabus.

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

- NBNSTIC is affiliated to SPPU. SPPU has clearly defined course outcomes and course objectives for each subject of every course in the detailed syllabus. Every Programme has PEOs (Program Education Objectives) and POs (Program Outcomes). All departments have mapped course outcomes, course objectives and detailed subject syllabus through SPPU guidelines and detailed discussion in the faculty meetings.
- The teaching learning process is in line with course outcomes and course objectives of SPPU. The course files prepared and lecture delivered by faculty members are in line with these objectives.
- Attendance of students is maintained and review of syllabus coverage is taken periodically. Mid-term work submission and final term work submission report of students are the indicators of practical performance of the students.
- Based upon analysis and evaluation of theory and practical, faculties perceive about accomplishment of stated objectives by the faculties.
- The content beyond syllabus is planned in advance and is covered through different activities like guest lectures, industrial visits and student training programs.
- Faculty members ensure that the stated objectives are achieved and it is evaluated through the feedback by students, results of In-semester and End - semester university exams.

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.

In addition to the syllabus of university, various short term courses and value addition programs are designed, keeping in view the growing demand and relevance of skill oriented courses. The objective behind these courses is to increase the employability of the students along with value to the knowledge.

- Soft Skills sessions on Goal Settings, Personality Development and Attitude, Integrity and Ethics, Team work and Communication Process are arranged for all students in the campus.
- To update the students on free and open source software, several courses by IITB Spoken Tutorial, Projects are also introduced and taught to the students.
- Training on state of art technologies are also provided to the students on regular basis. This state of art trainings (on Microsoft technologies, IBM technologies, Oracle, Big Data etc.) are also provided by several renowned training partners (ATS InfoTech, Barkleys etc.) with whom MOUs have been signed.
- Harvard Business Study program is a unique program, which is a part of our teaching process for management students.
- Several hands on workshops (on Electrical machines, MATLAB, PLM, Cyber security Embedded system etc.) are also arranged by the departments based on need of the students.
- Apart from the above, faculty and students are also encouraged and assisted in obtaining certifications through online course like (edX, Coursera, NPTEL etc.)
- To cultivate research culture among students, special sessions on Research Methodology (literature survey, mathematical modeling, technical paper writing, etc.) are arranged on regular basis.
- Courses on Japanese and German languages are also offered to make the students aware of foreign languages.

1.2.2 Does the institution offer Programmes that facilitate twinning/dual degree? If yes, give details.

The Institute doesn't provide any twinning / 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.

Institute has made following provisions with reference to academic flexibility which helps students in skill development, academic mobility, motivation to higher studies and better employability:

- **Range of elective subject's options for particular interest** – As per syllabus of SPPU, final year students are given chance to opt for various

elective subjects of their interest along with mandatory subjects. This option is mainly for developing generic attributes relevant to a career for the students. The institute also motivates and guides students to opt appropriate elective subjects to acquire knowledge and have a potential for benefitting academic development culminating into a career of their choice. The senior faculty members discuss the benefits and outcomes of the particular elective subjects. This provides the students with the strength necessary to achieve a competitive advantage in attaining their career goals.

- **Choice of Audit courses** – In 2015 pattern of syllabus of SPPU, university has made mandatory for all students to opt one audit course apart from mandatory subjects. These audit courses are based and intended to nurture the natural interest of the students and in particular for making them a healthy citizen of country. These audit courses offered by the respective faculties for the fulfillment of the curriculum are mostly selected by the students on the basis of their interest.
- **Need based extra assignments** - The laboratory assignments are conducted as per the University curriculum. In every laboratory practices we include some extra assignments beyond the syllabus which help students to broaden the horizon of understanding.
- **Content beyond syllabus-** Even though, faculty members discuss certain other aspects based on the current market needs during their class room sessions, workshops, seminars and guest lectures are also conducted by experts from the industry. Industrial visits are arranged for all students to help them understand the work culture of the industry.
- **Student training program** – Apart from regular curriculum delivery, Sinhgad Institutes has devised its own module of Student training program (STP) having focus on soft skill training, Value addition program (VAP), Aspiring Minds Computer Adaptive Test (AMCAT). Through various campus pool drives conducted by the industries, it was well identified that the companies are in want of students having good communication skills, fundamentals of curriculum, latest branch specific technologies. So, to fulfill these needs, institute has started student training program wherein from second year of the curriculum, the student is taught about communication skills, aptitude tests, logical reasoning, fundamentals are brushed up during the fifth semester of career of student, branch specific latest technologies are taught under Value Addition Program during end of the semester. AMCAT test scores are taken as valid for placements in the industries.
- **Higher education motivation** – Special sessions (on preparation for GATE, CAT/ MAT, GRE/TOEFL) are arranged for the students who aspire for higher education.
Institute has recently formed a forum for the same where these aspired students are guided on their requirements for higher education on regular basis.
- **Placement based activity** – Training and placement cell of the institute (along with central placement cell of STES) arranges various training programs and workshops to crack the tests conducted by various recruiters.
- **Enrichment courses** – students are also motivated to enrich their

technical skill sets by opting online courses on state of art technologies offered by various reputed universities across globe through edX, Coursera, NPTEL, IIT(Indian Institute of Technology) etc.

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, and fee structure, teacher qualification, salary etc.

Institute doesn't offer any self-financed programmes.

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.

Yes. Institute offers additional skill oriented programs relevant to regional and global employment markets. Pune is surrounded by various industries (mainly in IT and Automobile sector) and research organizations (like ARAI, NCL etc.). Institute interacts with all these industries to identify the regional and global employment needs, as well as, conducts skill oriented programs for its students to make them industry ready. Some of the regular programs are enlisted below:

- **IIT spoken tutorial project** intends to focus on free and open source software needed for technical proficiency. Institute has mapped some of the important tools from IITB Spoken tutorial to its regular subjects and engineering students are asked to use those tools in their regular assignments. IIT supports the institutes in arranging training sessions and evaluations online. Till now more than 3000 students are trained and evaluated on this project. Our institute is recognized as most promising institute by IIT Bombay.
- Every department arranges different **Value Addition Programs** for final year students and specialized training for second year and third year students through external agencies for enhancing the employability. These programs are designed to cope up with the requirement of the industries.
- Every department has their own rapport with local industries and students are motivated to do the final year projects from these industries. The **industry supported projects** help students in building technical confidence among them.
- Management students are trained specially on Case studies through **Harvard Case studies** program.
- Regular **trainings on specialized technology** (Microsoft tools, IBM tools, Oracle etc.) are arranged by the departments from reputed corporate trainers.
- Japanese Language Center is established in the institute which has relevance to global employment market. Institute offers Japanese language course to students which helps them to acquire added language certification.

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?

Institution does not offer any such courses.

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?

All the academic programs of institute follow the curriculum prescribed by Savitribai Phule Pune University. Academic calendar, time table, laboratory time table, individual and master time table, planning for lectures in the form of teaching plan, monitoring of academics by HoD and Principal through periodical academic monitoring reports, midterm submission reports, final submission reports ensure that SPPU curriculum is perfectly executed and also fulfills mission and vision of institute.

Additional efforts are taken by institute to ensure that the academic programmes and goals and objectives of the institute are integrated and achieved. Some of the efforts taken are enlisted below:

- Curriculum gaps, if any, are identified by the departments are supplemented through arranging guest lectures / workshops / training programs to fill up these curriculum gaps.
- Additional assignments are conducted apart from regular practical assignments to the curriculum by each department which enriches the thought process of the student.
- Department has certain process to identify weaker and slow learners and arranges extra and remedial lectures for them to bring them to mainstream.
- Value added Programs are conducted to strengthen the technical skill sets and make students employable. Training on soft skills is conducted for students.
- Students are encouraged to work in industries as interns during vacation and also take up industry sponsored projects. Institute and departments take special efforts to strengthen industry-academic relations.
- Students are encouraged for participating in competitions like BAJA, SUPRA, GO-KART, ROBOCON by allocating special project laboratory and providing resources in the form of space, equipment etc. and keeping the laboratory open for 24 hours.
- Arranging lectures of Entrepreneurs through Entrepreneurship development cell (EDC), Industry Institute Interaction Cell (IIC) and other agencies to develop entrepreneurship skills in students.
- To nurture natural likings in students by offering common platform in the form of Sinhgad Student council clubs viz. Mechanical, Automobile, Aeronautical, Energy etc.
- Institute encourages students to participate in various technical competition organized by other Institutes such as Programming Quiz, Project Development etc. to nurture their technical skills and it helps them to evaluate themselves at par with their peers in other institutes

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 up with the needs of the dynamic employment market?

The institute is committed to put its best efforts and initiatives to enrich and organize the curriculum, so that students cope up with the needs of dynamic employment market. Few of the efforts are listed below:

- Students are given freedom to opt the elective subjects as per their choice.
- Students are motivated and suggested to go for Internship in industries to have industry exposure. In plant training during vacation, industry associated projects help students to employ their skills in industries and helps them to understand the industry needs, problems, required skill sets on which the industrial problems are solved.
- Student club provide them independent platform to groom their leadership quality. Under this club, students organize and participate in various club activities. Sinhgad Student council has 32 clubs (like Mechanical Engineering club, Automobile Engineering club, Aero Club, Production club, Energy Audit club etc.).
- Students training program (STP) encompasses soft skills, value addition program and research methodology to make them competent in global market.
- AMCAT tests and Employability tests series guides them in opening up their strength and weaknesses.
- Expert sessions are arranged by inviting experts from various research organization and industries to highlights the current needs of industries and research community.
- Course contents are prepared and stored at 'K- point server' for the use by students from remote.

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?

The present curriculum has integrated above mentioned issues to some extent through Audit courses such as Environmental Engineering, Yoga, Climate change, Green energy etc. However, institute has its own mechanism to aware the students regarding cross cutting issues. Few of the efforts are listed below:

- **Gender Issues:** The institute has following mechanisms:
 - A committee is in force to observe the cases and complaints against any sexual harassment in the campus and conducts review meeting periodically.
 - Organization of several awareness seminars on gender issues, Child education, Save the Girl child, women empowerment etc. is part of regular activity in the institute.
 - Several important days (like Women day) are celebrated in the institute.
- **Climate change:** The institute has its own beauty due to its location in a lush green campus and following efforts are taken for its maintenance for reducing the adverse climatic changes due to pollution:

- Tree plantation drives are conducted in the institute.
 - Efforts for the paperless office through the ERP.
 - Students are made aware (through display boards) about benefits of saving electricity, water and stationery.
 - **Environmental Education:** Under Green audit program, institute has started following activities:
 - Waste Water Recycling and disposal of waste
 - A central switch for disconnecting the power supply
 - Efforts are made to promote internal communication through institutional e-mail and intercom in order to save paper
 - Saplings are presented (in place of Gifts or Mementos) 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 National Service Scheme (NSS).
 - **Human Rights:** We, at NBNSTIC, take this issue as one of the important issues and following efforts are taken on regular basis:
 - Seminar / lecture on Skill Development on Human Rights Education is arranged
 - Earn and Learn Scheme is implemented for the selective economically backward students
 - Scholarship schemes from Government of Maharashtra are implemented as per the norms.
 - Establishment of NSS, Grievance Cell, Anti ragging cell, Cell against Women sexual harassment
- Information Communication Technology (ICT):** few efforts are listed below:
- All Class rooms are equipped with LCD
 - Wi-Fi connectivity and Browsing Centre Use of ERP for paperless office
 - Communications through mails Use of e-resources (like NPTEL)
 - Implementation of flipped class room concept
 - Use of K-point software for the students who are missing the lectures (because of some or other reasons) or wish to access the content remotely.

1.3.4 What are the various value-added courses/enrichment Programmes offered to ensure holistic development of students? Moral and ethical values, employable and life skills, better career options, Community orientation.

NBNSTIC makes sure that appropriate enrichment programs are arranged for students to ensure holistic development of students.

Moral and Ethical values:

- Staff members and students have formed a committee called as 'Helping Hands Committee' which renders help to the weaker part of the society. Helping hands committee helped orphan and HIV positive children by donating them cupboards, stationary etc. Helping hands committee visited

‘Matoshri Vrudhashram’ (an old age home) and faculties and students from NBNSTIC contributed to arrange dinner for the senior citizens of old age home.

- Institute has started NSS unit in the institute. This NSS expands its wings to help the society by executing several social activities (like awareness camps on various issues in rural part, blood donation camps, environment awareness drive etc.).
- Faculties and student participate in various initiatives taken by central government like Tree plantation, Blood donation camp, organ donation initiatives, Yaad Karo Kurbaani poster presentation competition, Gender equality seminar; Yoga day celebration etc. activities are initiated in the institute to inculcate moral and ethical values.
- Institute also arranges visits to Old age homes, Orphanage and helps them with books and other material required for their betterment.
- Students have also donated ₹ 12,000 to NAAM foundation, the organization which is working for rehabilitation of Farmers in Drought affected Area.

Employable and Life Skills:

Institute understands the necessity of building soft skills amongst students. Few of the initiative are listed below:

- Institute has Student Training Program during the third semester and various skills like writing skills, listening skills etc. are taught to the students as well as practiced from students. Student training program is also designed for sixth semester students wherein students interact with each other and are taught about Group Discussions and Personal Interviews. Through this effort, student starts learning how to work in a team.
- Institute also organizes AMCAT test, QALR test and employability tests on regular basis which helps students to understand their shortcomings.
- Institute organizes a Tech fest ‘Techoctic’, every year. Student gets a chance to participate in various technical competitions, seminars, workshops under this tech fest.
- Several guest lectures, training programs and workshops are also arranged by the department and training and placement cell.
- Students of our institute participate in Sports Karandak organized by STES (Sinhgad Technical Education Society). Students also get a chance to participate in cultural event organized at STES level on annual basis.
- SSC comprises of various clubs. Each club arranges an event in the form of guest lectures, visits, Workshop to guide students in the area of their interest.

Better career options:

- Job fairs are arranged wherein senior faculties take efforts to arrange interviews to increase employability of the students.
- The institution has signed MoUs with various companies to conduct different value added certification courses, which will help them to explore new avenues in career.
- Various training program and seminars are also arranged to motivate the students for higher education and opportunities in government sectors.

- Entrepreneurship development cell organizes various programs for creating awareness about process involved in startup and new business.
- Faculty members help students to guide them for admissions in foreign universities. Institute has started Japanese language classes in campus on subsidize rate to train the students on Japanese language.

Community Orientation:

- Various blood donation camps are organized by the institute. Faculty and students participates in these camps.
- National Service Scheme (NSS) wing of university is established in institute. Various social activities are conducted by students.
- Important days are also celebrated by students in the campus. Awareness lectures on social issues are also arranged time to time.
- Social and community orientated activities are also conducted by PRAYAS (a group of students from Sinhgad Institutes). Institute helps and motivates this group for their honorary work.

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

Institute has formal mechanism to take feedback from its stake holders (students, parents, employers, alumni) and these feedbacks are critically analyzed for the improvement of infrastructure, teaching learning process and bridging the gap between institute and industries.

- Student feedback is taken online. Teaching methodology of a faculty is assessed on different set of parameters.
- Department takes feedback from Alumni, visiting the departments for various purposes. Feedback is taken from Alumni for improvements at all levels in the institution.
- Central Placement Cell (CPC) takes feedback from industry and provides this to steering committee to design Student training programs to enrich curriculum. Feedback is taken from recruiters, when they come for campus recruitments by T & P cell of the institute
- Parents also give feedback at the time of visit, which helps faculties to understand their point of view and satisfaction level.

1.3.6. How does the institution monitor and evaluate the quality of its enrichment Programmes?

The institution has a feedback system to monitor and evaluate the quality of its enrichment Programmes. These feedbacks from various stake holders are analyzed and used for maintaining excellence in various academic programs and value addition programs. Based on the feedback, following corrective and preventive actions are taken to maintain the quality in enrichment programs:

- Suggestions regarding curriculum are shared with the members who are framing the contents of syllabus.
- Value addition programs and training programs are arranged in the area of high demand.
- Seminar, workshops and industrial visits are organized to bridge the gap of industry expectations.

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 institute does not have the autonomy to frame or reframe the curriculum. Inputs from students, parents, alumni and employers are taken into consideration through feedback during Class teacher-students meet, Parent-Teacher meet, Industry-Institute Interactions, Alumni Meet, and at the time of placements. Some faculty members are on various bodies of the University. Institute faculties offer their suggestions regarding curriculum through these members to SPPU.

- Contributions of various faculty members are as follows :
 - Participation in syllabus design as well as implementation workshops. Online question bank generation for online tests conducted by university. Participation in Paper setting, paper checking activities.
 - Participation in faculty development program for content delivery according to new curriculum.

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?

Yes. There is a formal mechanism to obtain feedback from students and stakeholders on curriculum.

- Students give their feedback electronically. There are feedback forms available on ERP software. Students are given an opportunity to opine by making use of these feedback forms available online. Feedback forms are analyzed by ERP software viz. Gems which gives statistical results. This readily gives quantitative analysis of student's feedback. It is further analyzed by Academic monitoring committee, Principal, HoD and required corrections in teaching methodologies best suited to overcome the problems raised by students are conveyed to teachers. Implementation of corrective actions is checked further by Principal and HoD of various departments.
- Feedback from Industry is mainly obtained by Training and placement cell. All attempts are made to increase employability skills of students. Seminars and guest lectures are arranged for training of students to meet the industrial needs. Industry-institute interaction is established. CPC gives feedback from industry
- Professionals to incorporate latest technology.
- Alumni cells are formed. Interaction with Alumni is an ongoing process.
- Alumni feedback is sought and improvisation in existing set up is tried.
- SPPU is given feedback during curriculum setting and implementation by faculties participating in such workshops. Other faculties not involved directly in such curriculum setting work also register their views through these university representatives.

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?

Recognizing the need from student and demand from industry, following two postgraduate programmes were started in the institute since 2012-13:

- ME (Mechanical) – Design Engineering (Intake – 24)
- ME (E & TC) – VLSI Design (intake – 24)

The institute is committed to provide excellent technical education, and also to cater the needs of industries in and around Pune. This has helped the institute in establishing a research culture which in turn has enhanced the teaching-learning process.

CRITERION II: TEACHING-LEARNING AND EVALUATION

2.1 Student Enrollment and Profile

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

The admission process is totally transparent and strict as per the norms laid down by the regulatory bodies.

- The institute displays details of programs and number of seats in each program on its official website (<http://www.sinhgad.edu>). Publicity across the country is done through participation in education or admission fairs. The institute gives advertisement regarding admission in state, national and local newspapers. Mouth publicity is also done by current students, alumni and by their parents.
- Directorate of Technical Education (DTE), Maharashtra notifies the schedule for engineering and management admissions on its website (<http://www.dtemaharashtra.gov.in>). The institute is involved in Centralized Admission Process (CAP) of State Government. The institute follows admission rules, regulations, and guidelines set up by the State government. Institute level admissions are carried out as per the rules of DTE and State Government. Advertisement for the same is given in Times of India as well as in local newspapers. This implies transparency in admission process.

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 programs of the Institution.

- DTE provides details of the admission process and information brochure on its website: (www.dte.org). This brochure gives information regarding the eligibility and rules of admission for first year of engineering courses in the State of Maharashtra. This highlights information about invitation of applications for admission, preparation of merit list, distribution of seats, details of reservation and details of various rounds. It also provides diverse stages of Centralized Admission Process (CAP), admissions in institutional quota seats and vacant seats after CAP, refund of fees, etc.
- The actual admissions take place on the basis of allotment letter of DTE offered to the student. The students submit the required documents which are scrutinized in his/her presence. The basic information of the student is entered by him/her in the college ERP system. Subsequently, the admission is registered on the DTE website. The fees prescribed by Shikshan Shulk Samiti, (a Government committee) are collected from the student.
- Common Admission Procedure for First Year Engineering /ME/MBA/MCA/Second year Engineering is shown in **figure 2.a**.

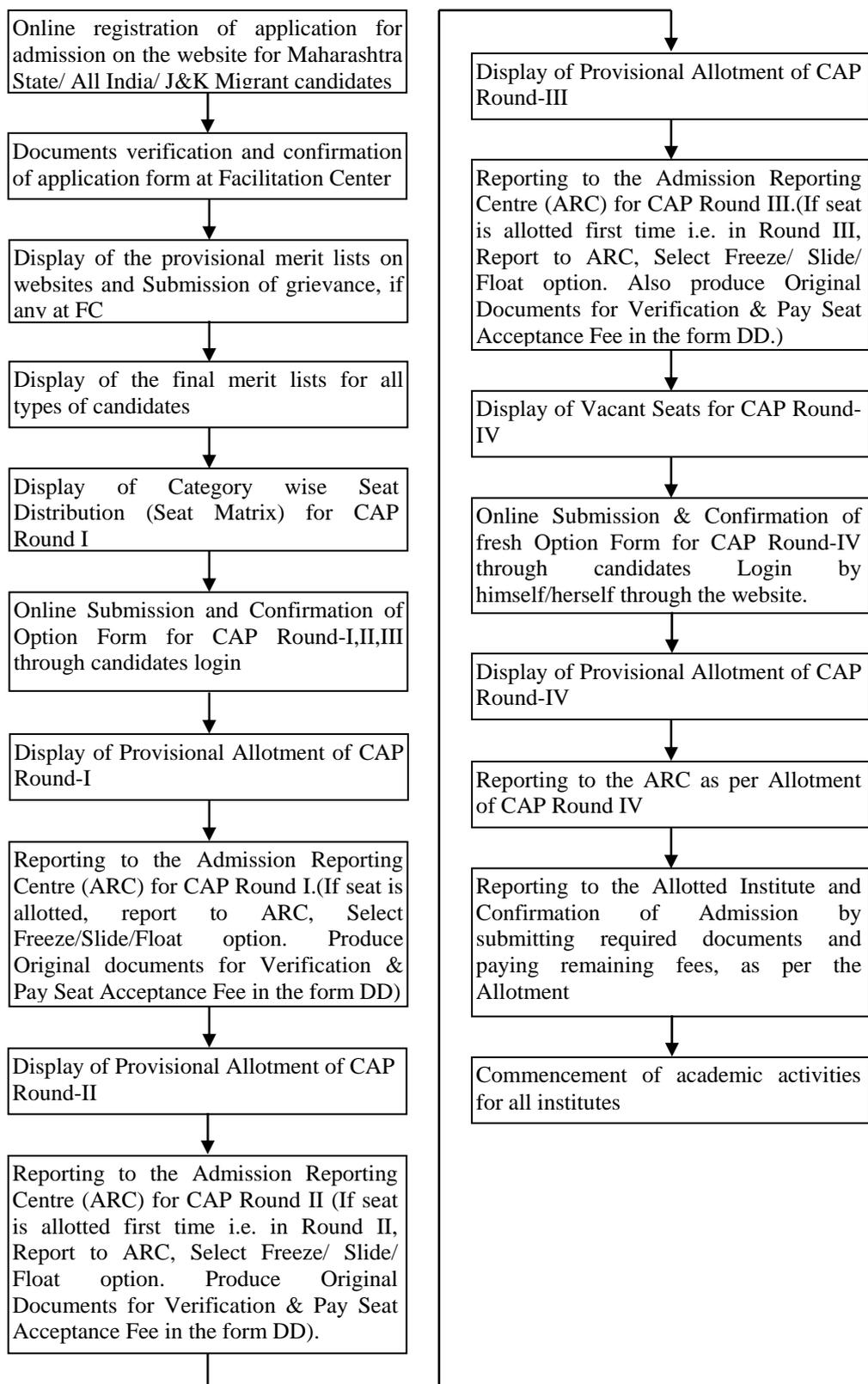


Figure 2.a: Common Admission Process for 2016-17

DTE Admission Website details:

The details of admission websites are as follows:

- Engineering
<http://www.dtemaharashtra.gov.in/fe2016/StaticPages/HomePage.aspx>
- MBA
<http://www.dtemaharashtra.gov.in/mba2016/StaticPages/HomePage.aspx>
- MCA
<http://www.dtemaharashtra.gov.in/mca2016/StaticPages/HomePage.aspx>
- ME
<http://www.dtemaharashtra.gov.in/ME2016/StaticPages/HomePage.aspx>

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

The admissions are carried out through centralized process by DTE Maharashtra, so the data for minimum and maximum percentage of marks with other colleges of the affiliating university are not available for comparison. The maximum and minimum marks (CET/JEE/AIEEE or equivalent) for admission at the entry level for each of the programmes offered by the college is mentioned in **Table 2.a**.

Table 2.a: Minimum and Maximum marks

UG Programme						
Sr. No.	Department	Year of Admission	Maximum Marks		Minimum Marks	
			CET (200)	AIEEE (432)/ JEE (360)	CET (200)	AIEEE(432)/ JEE (360)
1	Computer Engineering	2016-17	96	104	81	99
		2015-16	76.16	NA	31.58	NA
		2014-15	NA	71.89	NA	59.33
		2013-14	96	90	86	58
		2012-13	106	NA	48	NA
2	Electrical Engineering	2016-17	73	106	63	80
		2015-16	74.68	NA	13.72	NA
		2014-15	NA	73.05	NA	47.24
		2013-14	99	56	78	48
		2012-13	104	NA	50	NA
3	E&TC Engineering	2016-17	69	79	50	74
		2015-16	71.85	NA	29.39	NA
		2014-15	NA	59.49	NA	29.22
		2013-14	95	95	77	53
		2012-13	104	NA	54	NA
4	Information	2016-17	88	105	71	99

	Technology	2015-16	67.17	NA	61.04	NA
		2014-15	NA	64.73	NA	45.94
		2013-14	93	52	78	50
		2012-13	85	NA	42	NA
5	Mechanical Engineering	2016-17	92	106	57	95
		2015-16	84.50	NA	46.87	NA
		2014-15	NA	83.13	NA	35.56
		2013-14	122	125	81	75
		2012-13	123	NA	75	NA
PG Programme						
Sr. No.	Department	Year of Admission	Maximum Marks		Minimum Marks	
			MH CET (200)/ CMAT(200)		MH CET (200)/ CMAT(200)	
1	MBA	2016-17	89.9		0.32	
		2015-16	91.7		8.1	
		2014-15	76.26		5.9	
		2013-14	119		9	
2	MCA	Year of Admission	MH CET (200)		MH CET (200)	
		2016-17	135		9	
		2015-16	73		11	
		2014-15 -I	78		23	
		2014-15 - Direct-II	106		2.45	
		2013-14 -I	82		12	
2013-14 - Direct II	117		20			
Master of Engineering		Year of Admission	GATE (100)		GATE (100)	
3	ME (Design)	2016-17	16.40		09.24	
		2015-16	24.83		20.21	
		2014-15	372		20.51	
		2013-14	46		36	
4	ME (E&TC)	2016-17	85		65	
		2015-16	00		00	
		2014-15	17.40		10.87	
		2013-14	355		17.04	

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?

Since admission processes are laid down by DTE Government of Maharashtra and student's allotment is carried out by DTE Maharashtra, the institute does not have any rights to review the admission process.

However, to analyze the intake quality and to insure the 100% admissions, the institute has a mechanism to review the admission process and student profiles annually through admission cell. The review process also helps to understand the branch wise student's response, based on this analysis, the institute has increased intake of Computer Engineering and Mechanical Engineering.

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 institute stands by the national commitment to diversity and inclusion of students from all part of society. As admission process in the State is governed by Directorate Technical Education, the institute follows the rules, regulations, and guidelines set up by the State government body.

- It offers seats to SC (13 %), ST (7 %), OBC (19 %), woman and economically weaker students as per the government norms, rules and regulations.
- The Institute also offers admissions under the tuition fee waiver scheme which is mainly developed for Economically Weaker Section.
- There is a special reservation for the candidate of J&K and government of India.

The above strategies of diversity and inclusion can be verified with the admission data available with the institute. Diversity of students is shown in **Table 2.b**.

Table 2.b: Diversity of students

Categories	Year 1 (2013-14)		Year 2 (2014-15)		Year 3 (2015-16)		Year 4 (2016-17)	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	40	08	43	10	44	12	32	11
ST	04	00	02	01	00	02	01	01
OBC	104	44	100	35	134	38	136	37
General	396	166	371	138	371	147	308	164
Others	48	13	41	19	44	10	52	11

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 Programmes.

Since the admission process is totally governed by DTE, the students do not directly apply to the college but apply for admission to centralized admission process (CAP) conducted by DTE Government of Maharashtra (competent authority of admission), therefore the mentioned demand ratio cannot be computed.

However, the institute observes this pattern of demand ratio in terms of intake and admitted students. The reasons for increase / decrease in the admissions are due to national and global employment scenario, the change in student's interest towards course, self-employment opportunities, and course alternatives are available. The demand ratio based on intake and admitted students are shown in **Table 2.c**.

Table 2.c: Demand Ratio of NBN STIC

UG					
Sr. No.	Programme	Academic year	Number of applications	Number of students admitted	Demand ratio
1	Mechanical Engineering (Intake:180)	2016-2017	For given intake, admission process in the State is only through CAP and governed by Director Technical Education (DTE), Government of Maharashtra. The institute follows the rules, regulations and guidelines set by competent authority (DTE) for admission.	180	1
		2015-2016		180	1
		2014-2015		180	1
		2013-2014		180	1
2	Computer Engineering (Intake:120)	2016-2017		120	1
		2015-2016		120	1
		2014-2015		120	1
		2013-2014		120	1
3	Information Technology (Intake:60)	2016-2017		60	1
		2015-2016		60	1
		2014-2015		60	1
		2013-2014		60	1
4	Electrical Engineering (Intake:60)	2016-2017		60	1
		2015-2016		60	1
		2014-2015		60	1
		2013-2014		60	1
5	E&TC Engineering (Intake:60)	2016-2017	60	1	
		2015-2016	60	1	
		2014-2015	60	1	
		2013-2014	60	1	

6	MBA (Intake:180)	2016-2017	173	0.96
		2015-2016	176	0.98
		2014-2015	180	1.00
		2013-2014	164	0.91
7	MCA (Intake:240)	2016-2017	67	0.28
		2015-2016	91	0.38
		2014-2015-I	29	0.12
		2014-2015-II	172	0.88
		2013-14-I	44	0.18
		2013-14-II	62	1.00
8	ME (Design) (Intake:24)	2016-2017	24	0.33
		2015-2016	24	0.458
		2014-2015	24	1
		2013-2014	24	1
9	ME (E & TC) (Intake:24)	2016-2017	24	0
		2015-2016	24	0.625
		2014-2015	24	0.95
		2013-2014	24	1

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?

According to the 'Persons with Disabilities Act (PWD)', 1995 (amended in 2009), the institute caters to the needs of differently-abled students. The institute caters to the need of differently-abled students by providing following facilities and ensures adherence to the government policies:

- Western seating toilet in washroom;
- Ramp facility at the entrance;
- Wheelchair;
- Lift;
- Extra ½ hour in examinations as per the university guidelines;
- Free of cost medical facility in the campus; and
- Medical insurance scheme.

2.2.2 Does the institution assess the student's needs in terms of knowledge and skills before the commencement of the Program? If 'yes', give details on the process.

Needs in terms of knowledge and skills is assessed by the institution before the commencement of the program.

- The admissions are made on the basis of the entrance examination conducted by government agency either at the State or National Level (MHCET / JEE (main)). In addition, the admission process is carried out through the merit of AIEEE, which is an all India level entrance test. Thus, the admission process ensures the basic competencies of the admitted students.
- Institute organizes induction program for students admitted to First year of various courses. An Induction Program is organized on the first day to make the students familiar with the academic regulations of institute, examination and evaluation system, training and placements activities, co-curricular and extra-curricular activities at the institute, use of infrastructure and facilities, introduction with faculty and supporting staff of the college.
- During the Induction Program institute conducts various Ice Breaking Activities which mainly includes: Fire the Fear, Aptitude test, Group discussion, Personal interview and English proficiency test to assess the knowledge and skills of newly admitted students. Based on these needs, various value addition programs are conducted 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 students; and
 - 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 Program of their choice?

Institute adopts the following strategies to bridge the knowledge gap of the students to enable them to cope up with the program of their choice and to get excellence in academics:

- To bridge the gap between the actual syllabus and the prerequisite knowledge of the students, the subject teacher conducts a revision session on prerequisites as per the demand of the subject. Extra sessions are also conducted for academic wise weaker students and remedial lectures for failure students.
- Institute organizes seminars, workshops and guest lectures. It also encourages students to participate in paper presentation competitions and workshops conducted by other colleges. The institute has implemented Spoken Tutorial Project initiated by IIT Bombay.
- Industrial visits are arranged as per their curriculum to know the latest technologies in their fields. Students are encouraged to undergo internship in order to expose students to the actual need of industry.
- Institute runs a Student Training Program (STP) to groom the personality of the students in terms of behavioral skills, goal setting, presentation skills, public speaking, resume, report writing and group discussion. Institute conducts Aspiring Minds Computer Adaptive Test (AMCAT)

tests and Quantitative Aptitude and Logical Reasoning Tests (QALR).

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

By understanding the need of comfort, based on gender and environment, the institute takes all efforts to aware the staff and students of these issues. Institute treats all its students, faculty and staff on an equal footing irrespective of gender, class, creed or religion.

The institute sensitizes staff and students on these issues through the following:

- Institute celebrates Women's Day and organizes seminars on women empowerment, health, gender equality etc.
- Institute has set up Women Grievances Redressal Cell (Internal Complaints Committee) that functions separately for the benefit of the women employees and girl students.
- Institute also has a committee for SC/ST that functions for the inclusion of all SC/ST students uniformly.
- Institute provides equal opportunity for all the staff and students to participate in various activities and processes which include administrative activities, co-curricular and extra-curricular activities, sports, deputation to the courses, and higher studies, appointments, committees, placements etc. without any discrimination (gender, caste, religion).
- Institute carries out many activities regarding environmental protection and nourishment such as tree plantation and traffic awareness. Students opt for subjects related to the environment, pollution etc. from audit course at second year level.
- Institute motivates students to participate in social activities through NSS and PRAYAS. Institute also carries out various social activities like Blood Donation Camps.

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

Institute identifies and responds to special educational/ learning needs of advanced learners by the following procedure:

- The advanced learners are identified on the basis of their performance in tests, oral examination, university result, participation in classroom discussion and various departmental activities.
- The identified students are encouraged to participate in workshops and seminars to gain knowledge on the latest developments. The students are encouraged to take up industry based projects and mini projects on the advanced topics under the guidance of the faculty members.
- Advanced learners are motivated to participate in different project competitions/conferences/other competitions conducted by various professional institutes like Society of Automotive Engineer (SAE), IIT, IAENG, IEEE, ISTE, CSI etc.
- Advanced students are guided and encouraged to write research articles

and papers. Special seminars for Graduate Aptitude Test in Engineering (GATE) examination and higher studies are arranged.

- Institute encourages student to participate in RoboTryst, BAJA (intercollegiate design competition run by SAE), SUPRA, GOKART, AVISHKAR, INNOVATION, IIT Techfest, Mind spark, Mood indigo and edX.
- Apart from these, the NBN Sinhgad School of Management Studies has tie up with Harvard Business Publishing through which faculty members can access Harvard Business School study material in the form of case studies, online case study etc. The faculty members can share Harvard articles with advanced learners. The institute has developed modular courses for marketing specialization students e.g. Retail Marketing.

2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the Program 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)?

Encouragement and Sustenance are the backbones of the approach of the teachers. Here, we do not forget our mission and vision and always hope to bring up the 'disadvantaged'. It has been noticed that students coming from economically weaker section, rural area are sometimes at the risk of drop out. Institute obtains and analyzes information about students at the risk of dropout or having consistent poor academic performance in the following manner:

- Analysis of all types of results of unit tests, mock tests, preliminary exams and university exams;
- Continuous evaluation and interactions of course faculty with the students during class, and laboratory sessions; and
- Interactions of class teacher during periodic meetings with students held every month.

The above information about the students at risk of drop-out and having consistent poor performance is used for giving additional support in following ways:

- The department arranges extra classes (or make up classes) and self-learning sessions where individual attention is given to each student for the subjects in which more students failed.
- The department also organizes remedial sessions for theory and practical for the students who have failed in previous exams and / or likely to be failed in exams.
- Regular interaction with parents of slow learners and counseling of slow learners helps to know the requirements of such students. This also helps the students to improve their learning capabilities.
- The institute facilitates the students from the reserved categories (SC/ST/OBC, Minority, and EBC students) or financially weaker family in following ways:
 - Helping them in availing scholarships from the government of Maharashtra as per the policy of the Government. These schemes

include scholarship/ freeship, SC/ST, OBC, NT, VJ, EBC, SBC, Tuition Fee Waiver Scheme (TFWS), Minority State Govt., Minority State Central Govt., Handicap Student Scholarship, Prime Minister's Special Scholarship Scheme for Jammu and Kashmir, Pragati Scholarship for Girl Student, Bihar State Scholarship, , 10th and 12th 80% above Corporation Scholarship, NTS Scholarship, Zilla Sainik Kalyan Scholarship, etc.

- Assisting students to avail the benefits of social welfare schemes and provides guidance to the students to apply for these schemes.
- Earn and learn scheme of Savitribai Phule Pune University (SPPU) is implemented by the institute every year. Under this scheme, identified economically weak students are assigned library work after college hours for which remuneration is provided.
- The faculty is also ready to help the needy learners by making students aware about various scholarship schemes by a private organization (like Cummins, Sai Sansthan Shirdi, Rasiklal Manikchand Dhariwal Foundation Scholarship, Bhosale Trust Scholarship, Cummins Scholarship, BSNL Scholarship, Pawar Charitable Trust Scholarship, Oswal Bandhu Samaj etc.) or NGOs.
- Awareness about education loan is made, and institute provides all support to get the educational loans from banks.
- Students are allowed to pay fees in installments.
- Fee exemption is provided to needy students.

2.3 Teaching Learning Process

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

In order to ensure good quality of teaching and learning, the institute plans and organizes teaching learning and evaluation schedules as follows:

Teaching learning process:

- **Subject allocation (load distribution):** Head of the department calls the subject preferences from the faculties. Considering preferences, syllabus structure and as per the guidelines provided by academic monitoring committee, accordingly the HoD assigns subjects to the faculty members.
- **Academic Calendar:** Academic calendar of the institute is prepared in line with academic calendar of SPPU. It comprises of internal, university examinations, midterm submissions, STP, VAP, AMCAT tests, QALR tests, Industrial visits, seminars and guest lecturers etc.
- **Preparation of Course objectives and outcomes:** Once the subject is assigned to faculty members, he/she is responsible to prepare the course objective and outcomes. The faculty, also, prepares / updates course file (in accordance with objectives and outcomes) which includes detail teaching plan, hand written notes and other study material, experimental write-ups, previous year university question papers, assignments, e-learning material etc.

**NBN Sinhgad School of Engineering, (NBN SSOE), PUNE-411041
ACADEMIC CALENDER SE/ 2016-17/ SEMESTER – I**

Sr. No.	Particulars	Date and Day
1	Commencement of Teaching	15 June 2016 (Wed), 8.15 am
2	Unit Test-I (/&) Mock Online (30 Marks / 1hour / 2 Units)	21,22, 25 July 2016 (Thu, Fri and Mon)
	Declaration of Result of Unit Test-I	26 July 2016 (Tue) 10.30 am
3	Mid Term Submission *	28 July to 3 Aug 2016 (Thu To Wed)
4	Unit Test-II & Mock Online (30 Marks / 1 hour / 2 Units)	22 to 24 Aug 2016 (Mon to Wed)
5	Declaration of Result of Unit Test-II	25 Aug 2016 (Thu), 10.30 am
6	Mock Online Test - II (Unit 3 &4)	03 to 05 March 2016 (Thu to Sat)
7	Conclusion of Teaching	23 Sept 2016 (Fri)
8	On line Unit Test/ (50 Marks/ 1Hour/ Units I to IV) & Prelim Exam (30 Marks / 1 hour/ Units V & VI)	26 Sept to 30 Sept 2016 (Mon to Fri)
9	In Sem (On line)Exam of University of Pune (50 Marks/ 1Hour/ Units I to IV)	1 Dec 2016 (Thu)on wards Tentative Date w. r. t. Last year Academic Calendar.
10	Declaration of Result of Prelim Exam	03 Oct 2016 (Mon), 10.30 am
11	Mock Practical & Final Submission	03 Oct to 06 Oct 2016 (Mon to Thu)
12	Issue of Term Grant Certificate to All Clear Students in Prelim Exam & Mock Practical	07 Oct 2016 (Fri), 02.00 pm
13	University Examinations: a. Practical/Oral b. Theory c. Online examination	13 to 27 Oct 2016 (Thu to Thu) 04 Nov to 30 Nov 2016 (Fri to Wed) 1 Dec 2016(Thu) (Tentative)
14	Start of Second Term	15 Dec 2016 (Thu), 8.15 am

ACADEMIC CALENDER TE/BE/ 2016-17/ SEMESTER – I

Sr. No.	Particulars	Date and Day
1	Commencement of Teaching	15 June 2016 (Wed), 8.15 am
2	Unit Test-I (30 Marks / 1hour/2 Units- 1 st & 2 nd)	21 , 22, 25 July 2016 (Thu, Fri & Mon),
3	Declaration of Result of Unit Test-I	26 July 2016 (Tue) 10.30 am
4	Mid Term Submission*	28 July to 3 Aug 2016 (Thu To Wed)
5	Unit Test-II (30 Marks / 1 hour/(Unit - 1 st to 3 rd)	3 Aug to 5 Aug 2016 (Wed to Fri)
	Declaration of Result of Unit Test-II	8 Aug 2016 (Mon), 10.30 am
6	In Sem exam (30 marks / 03 units-1, 2 & 3) (Tentative)	22 Aug to 26 Aug (Mon to Fri)
7	Conclusion of Teaching	23 Sept 2016 (Fri)
8	Prelim Exam (70 Marks / 3 hours/ All 6 Units)**	26 Sept to 30 Sept 2016 (Mon to Fri)
	Declaration of Result of Prelim Exam	03 Oct 2016 (Mon), 10.30 am
9	Mock Practical & Final Submission	03 Oct to 06 Oct 2016 (Mon to Thu)
10	Issue of Term Grant Certificate to All Clear Students in Prelim Exam & Mock Practical	07 Oct 2016 (Fri), 02.00 pm
11	University Examinations: a. Practical/Oral b. Theory (End Sem)	13 to 27 Oct 2016 (Thu to Thu) 04 Nov to 30 Nov 2016 (Fri to Wed)
12	Start of Second Term	15 Dec 2016 (Thu), 8.15 am

* 50% Submission should be completed and duly certified by the Faculty and HoD.

** 20 marks for unit 1, 2, 3, and 50 marks for rest 3 units.

Holidays as per Circular from Savitribai Phule Pune University

Note: 1. AMCAT Test -TE - 2nd and 3rd week of July 2016

2. QA&LR Test- TE – 2nd week of July to 1st week of Aug 2016

3. QA&LR Test- BE – 5th week of June 2016

All these activities need to be incorporated in academic calendar of the department.

Figure 2.b: Academic Calendar for Semester-I 2016-17

- **Preparation of Time table:** Time table coordinator of the department prepares time table by considering syllabus, constraints, availability of

infrastructure (classroom and laboratory etc.).

- **Teaching Plan:** Each subject teacher prepares teaching plan by referring academic calendar and curriculum. Content beyond the syllabus is also planned to meet the objectives of the course.

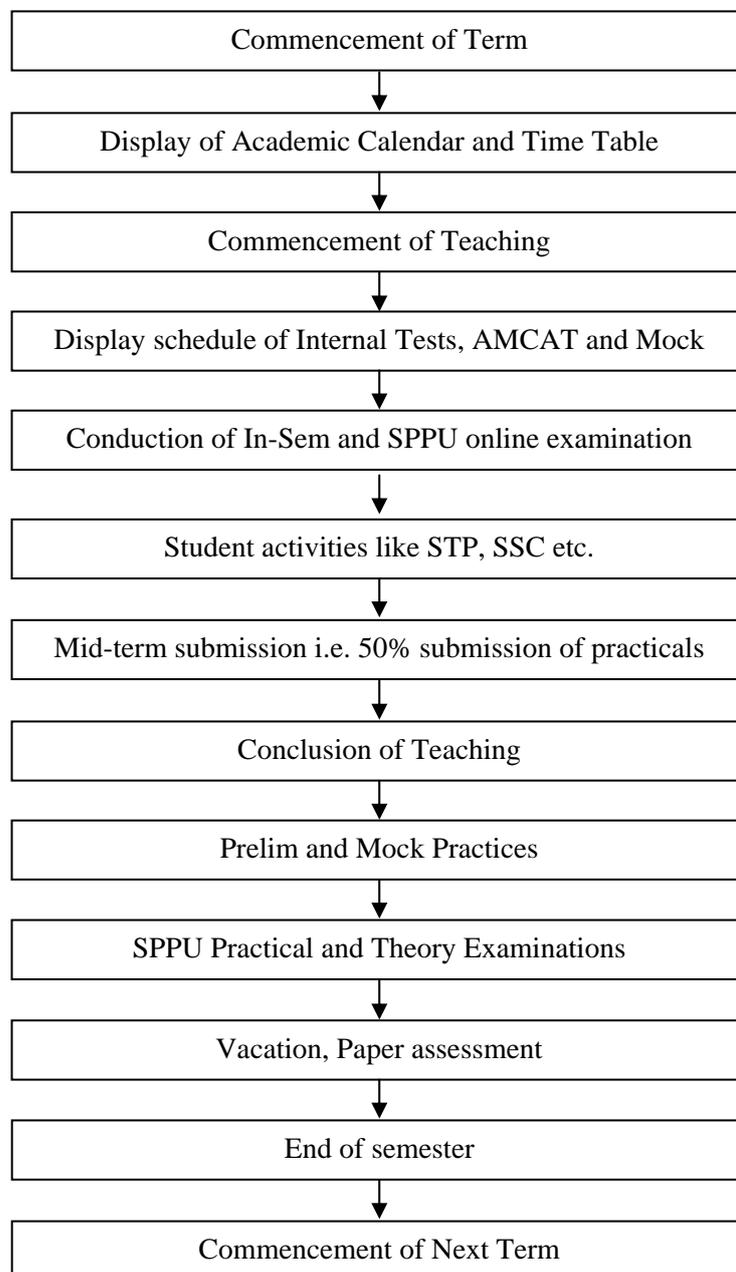


Figure 2.c: Academic Activity

- **Teaching execution:** Apart from regular method of teaching, faculty members use various innovative practices or methods (like flipped class room, virtual labs, project based learning etc.) for effective learning. Home assignments are given unit wise. Study material in hard and in e- form are also provided. Practice MCQ questions are also provided to the students.
- **Academic monitoring process:** Actual teaching commences as per the academic calendar. Curricular, co-curricular and extracurricular activities

are conducted which are essential and important components of teaching and learning process. Each department has an academic monitoring system which checks whether the planned activity (teaching, tests, other activities etc.) is executed as per the plan or not. If not, corrective actions are suggested.

- **Feedback:** Student feedbacks are collected periodically when teaching is in process. Head of the department reviews and discusses with faculty whose feedback is not up to the mark if any. This feedback really helps to improve his/her weakness as well as it helps to bridge the gap between faculty and students.

Evaluation process:

- **Attendance Monitoring:** Cumulative attendance of students is displayed monthly on the notice board. If needed TG interact with students if his/her attendance is not up to the mark, and the same is also communicated to their parents.
- **Continuous Evaluation:** The department monitors the attempt/participation of the students in laboratory work through a continuous evaluation process, accordingly the student gets internal marks (Term work marks).
- **Evaluation monitoring:** Unit Tests and Prelim Examinations are conducted in each term. The examination performance of the students is displayed on the notice board and also communicated to their parents. TG counsels the students about the academic performance. Mock online tests are conducted for SE students and results are disclosed to students. Mock practical and oral exams are also conducted and performance of the students is evaluated and informed to all students.
- **University Evaluation:** At the end of term, SPPU conducts examination and evaluates the student's performance and offers the marks/ grade for the same.

Extra efforts and remedial measures: After each internal test, mock test or university examinations, result analysis is done. Academically weak students are identified and extra sessions are scheduled for them. Head of the department takes a review of the result analysis. Remedial lectures are scheduled for failure students. AMC also takes review of result analysis as well as feedback and suggests corrections needed.

The flow of academic activity is shown in **Figure 2.c**.

2.3.2 How does IQAC contribute to improve the teaching–learning process? (Internal quality assurance cell)

The institute has its own Academic monitoring committee to evaluate and monitor the teaching learning process. The Academic Monitoring Committee contributes a lot in improving teaching-learning process by:

- Suggesting guidelines for subject distribution of the faculty;
- Ensuring the required infrastructure (equipment, computers etc.) as per syllabus;
- Checking of course file contents as per objectives and outcomes;
- Checking of continuous assessment sheet;

- Analysis of results (internal/mock/ university etc.); and
- Evaluating students' feedback about teaching-learning process;

After the above evaluation, the AMC committee discusses the preventive and corrective actions with the faculty member, head of the departments and Principal.

The details of academic monitoring committee are as follows:

Sr. No.	Name	Designation and affiliation
Chairperson		
1	Dr. R. S. Prasad	Director
Members from the Management		
2	Dr. A. V. Deshpande	Member – Campus Director
3	Prof. M. G. Bhat	Member – Director (Engineering)
Member from Local Societies		
4	Prof. S. B. Pharkute	Director (Academics)
Members from departments		
5	Dr. Ms. S. R. Chavan	Associate Director (MCA)
6	Dr. S. P. Ujagare	Dean (MBA)
7	Dr. S. Y. Gajjal	Dean – Second shift
8	Prof. S. P. Patil	Head – Information technology
9	Prof. M. M. Joshi	Head – Mechanical Engineering
10	Prof. S. D. Sawant	Head – Electronics & Telecommunication
11	Prof. Ms. S. A. Chiwhane	Head – Computer Engineering
12	Prof. P. M. Gondkar	Head – First Year
Administrative Officers		
13	Mr. Abhishek Pandey	Training and Placement Officer
14	Mr. Santosh Patole	Registrar
Academic Coordinator		
15	Dr. Ms. V. S. Deshpande	Head – Electrical Engineering

2.3.3 How learning is 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?

The institute is committed to make learning more student-centric and hence we are keen to provide support structures and systems for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students. The highlights of the efforts made by institute in this regard are listed below:

Interactive learning:

- The institute effectively implements 'Train The Trainers (TTT)' scheme where the teachers are trained by subject experts from the Sinhgad institutes. This type of training helps faculty to make subjects more

interesting and interactive.

- The faculty members are also motivated and supported to attend the training program or faculty development program at renowned organization or institutions which enrich the faculty to make subjects more interactive.
- The classrooms are fitted with black boards, LCD projectors which ease the job of faculty in delivering the content effectively. Seminar rooms are also equipped with internet, LCD projector, and audio systems.
- The faculty members are aware of the ICT tools (on line e-resource sharing through ERP, flipped class rooms, virtual lab, NPTEL etc.) to make use of animations and videos to make teaching-learning process more interactive.
- To enhance interactive teaching approach different case studies (Harvard Case study) are made available to faculty members and training for the same is given to faculty members.

Independent learning:

- The faculty members are supported by providing them a content building system (k-point server) by the institute, which helps them to prepare the audio sessions of their lecture. These audio capsules of lecture can be used by students at any time for independent learning.
- The students are registered through National Digital Library (NDL) and all other library facilities are also available in the campus for the enrichment of their knowledge independently.

Collaborative learning

- Faculty members are also making learning more collaborative by project /article based teaching. The institute makes availability of computer laboratory to organize group activity (like scan the Market Matrix, making models etc.).
- The faculty members can organize industry visits or site visits to provide practical insights of industry among the students for which institute supports.

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 is actively involved in nurturing critical thinking, creativity and scientific temper through organizing events and activities; the institute also motivates the students to participate in events organized by other institutes.

- The critical thinking is nurtured right from the commencement of the course by implementing the activity like 'Fire the Fear' and ice breaking sessions for First Year students. The aim of such activities is to remove the fear from the mind of students to let them interact freely with peers and faculty members.
- The competitions like Gear Head, BAJA, SUPRA, GO-KART, ROBOCON are placed to nurture innovative ideas and scientific temper among students. Students are motivated to participate in well-known competition organized by different colleges. This is the right platform for students to convert the ideas in reality through prototype or model development.

- In Robo Race Competition ‘Arcane’, the students handle their robot with speed and accuracy in a given area under predefined conditions like hurdles and slope, the competition Mind-doc is designed to develop technical writing skills amongst students.
- In a Punk d ‘Junk’ activity students have to make use of waste materials to convert it in useful product. The institute also organizes poster presentation, circuit design competition etc.; students also participate in activities like HACKATHON where the students get an opportunity to solve a problem statement in defined time frame.
- Students are working on weekly magazine ‘RAUCHEN’ and yearly magazine ‘VIVASWAN’. There are different clubs under Sinhgad Student Council which helps students to develop their creative thinking.
- The institute organizes Sanshodhan a purely business research based activity to inculcate the analytical and scientific thought process amongst the students. Exhaustive Case study analysis, discussion and presentation also aids in creative and analytical thinking.
- In sixth semester, students are exposed to research component. It makes them aware about research methodology, technical paper writing, proposal writing and presentation etc.
- Students are motivated to participate in Techfest event organized by IIT, Powai every year. This Techfest has featured varied topics like Autonomous Robotics, Forensics, Network Security, Ethical Hacking, Swarm Robotics, Haptics etc. Students are also encouraged and supported to participate in similar activities in other institutes.

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

Apart from the conventional method of chalk and duster teaching, following technologies and facilities are available and used for effective teaching:

- LCD Projector facility is made available in each classroom and seminar hall;
- Lectures are conducted through concept of Flipped classroom;
- Free and open source software (FOSS) for assignments;
- Use of virtual lab for some assignments;
- Video lectures through NPTEL, NDL, and YouTube;
- E-learning resources are made available through NDL and digital library;
- K-point capsules for missing lectures or revision purpose;
- E-Exam portal for mock online test and revision;
- Sharing of course notes, assignments through Google groups and GEMS (local ERP);
- SWAYAM and online courses through (edX, course era etc.) for additional skill set / certification; and
- Conduction of certification program on FOSS in FOSS lab is set up at the institute in consultation with IITB under NMEICT program.

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 students are exposed to advance level of knowledge and skills through:

- Expert lectures from renowned personalities from industries,
- Seminars, workshops, training program and Value addition courses on state of art technologies organized by institute;
- Specialization specific courses;
- Industrial training / soft skill training organized by training and placement department;
- Internship in industries;
- Industrial visits; and
- Motivation and support to attend the programs / events at other institutes;

The faculties are exposed to advance level of knowledge and skills through:

- Seminars, Workshops, FDP and STTPs organized by institute and also by other organizations;
- Motivation and support for skill up gradation through online courses; and
- Lectures and meetings on research related topics by the research committee.

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

The institute is committed to support students on academic, personal and psycho-social grounds. Various efforts taken by institute for the same are illustrated as follows:

Academic Support:

- The institute implements the concept of Teacher Guardian (TG) in which every teacher is assigned a batch of approximately 25 students. The TG maintains the record of their allocated students in every aspect including history card, academic performance of the student, permanent and temporary address etc. The TG conducts regular meetings with assigned students. The students can discuss the academic problems with the TG in the meeting.
- Based on the outcome of university and internal assessments, academically weaker students are listed. The institute organizes remedial and extra lectures for these students. This helps the students in understanding the basic concepts about the subject and makes the student more comfortable with the subject

Personal Support:

- The TG conducts regular meetings with assigned students. The students can discuss their personal problems with the TG in the meeting and /or he / she can discuss it in person. The TG is also in touch with the parents of the students. They are informed regarding the absenteeism/irregularity of the students. It also helps in understanding the family background of that student.

- Heads of departments are also talking to students individually and try to explore the problem of individual students. Heads counsel the students.
- Resolution of complaints and support by Grievances cell.
- Suggestion box is also kept in office for making any suggestion or complaint by students. The suggestions or complaint from students are dealt seriously.
- Medical facilities are also available in the campus for needy students.
- Problems related to hostel and mess is also attended and sorted out by hostel warden time to time.

Psycho-social Support:

- TG, HoD, and Principal are taking care of students who are seeking psychological support on case-to-case basis.
- A professional counselor is also available in the campus to solve student's problems and queries.

Guidance Services:

- Faculty members, TG, and Heads assist student seeking advice for
 - Higher education,
 - Selection of elective subjects in final year,
 - Selection of seminar topics and project domains; and
 - Career selection.
- Training and placement officer also guides students in their career path selection, preparation for aptitude test, interview skills etc.

Almost all students are availing the facility of academic support and guidance support, whereas few students also avail the Personal, and Psycho-social support.

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?

The faculty adopts various innovative methods for content delivery, content preparation, and content distribution.

- For effective content delivery, approaches like brainstorming, group discussions among the students, project based learning are used. Some of the concepts can effectively be explained by using the Z-A technique.
- For content preparation, the faculty refers to various NPTEL videos/lectures, animations, and different case studies. The faculty has developed K-point training capsules for their respective subjects. Faculty also uses flipped classroom concept.
- For distributing the contents among the students, digital resources like Google groups, web sites are used. All the study material is also available on GEMS.
- Faculty members at institute are using case based teaching method comprised of comprehensive case studies leading to diagnosis of a particular industry and concept based case studies leading to solution of

specific problem. Few of the subjects are conducted with the help of desk research.

Following efforts are made by the institute to encourage the faculty to adopt new and innovative approaches:

- The institute supports faculty member to attend the training / workshops for enhancement of their teaching approach.
- The institute has organized workshop on innovative teaching approach “Innovative E3 Approach in Professional Education and case based teaching approach”.
- The institute organizes Teacher Advancement Program (TAP) and TTT for personality grooming and for effective teaching and learning methods.
- The institute has provided facility to use NPTEL videos for effective teaching. NDL facility is made available to faculty members along with they are motivated to use flipped classroom concept.
- All the classrooms and seminar rooms are equipped with LCD projectors and PA system, which is used for audio video presentation of the subjects.
- Various modeling and simulation software like Xilinx, Multisim, ANSYS, Proteus etc. are also available in the institute.

The Impact of innovative practices on student learning is observed in the following forms

- The visualization capacity of students has increased to solve engineering problems. Hence, academic performance is gradually increasing.
- Number of participation in technical competitions has increased.
- Number of students appearing for other examinations like GATE has increased.
- The all-round confidence (communication, presentation etc.) among the students have increased, hence inter personal skills have increased.

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

To augment the teaching learning process, following library resources are available in the institute:

- Reading rooms are provided with proper seating arrangement, fans, tube, ventilation and water facilities;
- Library works for 24 hours and 365 days (except national holidays);
- Reference books and textbooks according to the syllabus are available in library;
- Sufficient number of national and international journals are also available in the library;
- Old university question papers and syllabus is also available with the library;
- Digital library having online access to DELNET, IEEE explore, Science-direct etc. is also available;
- NPTEL video repository is available with library;
- Library has a tie up with Jayakar library (library of Savitribai Phule Pune University, Pune), and library of Defense Institute of Advanced Technology, Pune;
- Subscription of National Digital Library (NDL) is also made available to

- all faculty and students;
- Facilities of newspapers and magazines in the library;
- Departmental library keeps some books, seminar and project reports of students for easy and immediate access;
- Easy book enquiry in central library through IP based “Slim software” access for students and faculties;
- Books and magazines on recent trends in socio and economic issues, general knowledge and competitive examination are also available in the library.

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

Institute prepares and executes the academic activities according to academic calendar prepared in the beginning of the semester.

However, the institute faces challenges in completing the curriculum within the planned time frame and calendar due to the late admission process of first year engineering and direct second year engineering.

Final year students also miss their academic sessions due to placement activities. Extra theory and practical sessions are conducted for them.

To overcome this issue, institute uses following approaches:

- Each department schedules extra lectures and lab sessions to complete the syllabus within the stipulate time frame;
- Sometimes additional lecture hour per subject per week are allocated to complete the syllabus;
- Laboratories are made available to the students beyond working hours.

A complete Plan, Development, Check and Analysis (PDCA) cycle is implemented and corrective and preventive actions are taken at department and institute level to complete the prescribed curriculum in the stipulated time despite the challenges encountered.

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

The institute takes utmost care to maintain the quality of teaching learning process. The institute monitors and evaluates the quality of teaching learning in the following ways:

- Faculties are assigned subjects based on their interest, guidelines by AMC and based on his / her results in last exams, so that faculty takes all care to maintain the quality level in his / her teaching;
- Heads along with senior faculty members regularly monitor teaching process adopted by course teachers. Regular meetings among head, senior faculty members, course coordinator and course teachers are conducted before commencement of the semester and in between the semester to monitor and assess the quality of teaching;

- Heads of the department takes monthly review of the completion of syllabus as per the university guidelines;
- Monthly meetings of the students with TGs are conducted. Issues are resolved by the Head of the department;
- Feedback about faculty is taken from the students through ERP, after 3-4 weeks of teaching. In this feedback, questions related to teaching competencies and attitude of the concerned faculty are asked. Based on the feedback, HoD gives necessary directions for improvement in the teaching methods. The Principal also monitors the feedback system and counsels the faculty with low feedback. Mentoring by heads or Principal is done to low performing faculty and their performance is reviewed regularly;
- Result analysis of university exams, in-semester exams, preliminary / unit test and online exams are analyzed and appropriate corrective actions are taken by the faculty in consultation with Principal;
- Feedback from stakeholders (Parent, Alumni and Employers) is taken periodically to review the facilities and status of teaching-learning process; and
- Academic monitoring committee reviews the entire process (above process) and discusses the preventive and corrective actions with Principal for further improvements.

2.4 Teacher Quality

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

Recruitment process of teachers is planned as per the academic necessities based on student strength and workload by complying the norms of Savitribai Phule Pune University and AICTE. University's selection committee selects the qualified and competent individuals through technical interviews and presentations by following well-grounded procedure.

Strategies are adapted by the institute for recruitment of human resource:

Human resources required for teaching are planned as per the academic requirements from time to time. The requirements of teaching staff are consolidated by establishment section before the start of new academic year. The staff is recruited as per guidelines of AICTE, New Delhi and SPPU.

For immediate / urgent requirement:

- The institute invites candidates (who have already applied) and demo lectures are organized and each candidate is rigorously checked through interview process during local selection, if found suitable, appointment order is issued; and also
- The institute invites visiting faculties to deal with newly introduced subjects or areas of prime concern where the suitable faculty is not available in the department.

For regular recruitments / selection by university selection committee:

- The institute prepares and submits total requirements (roaster) of the faculties to university and accordingly, university allocates number of vacancies for various categories as per rules and regulations;
- The roster is verified by the Assistant Commissioner, Reservation Cell, Pune as well as Maharashtra State Government;
- After the approval of roster from the Reservation Cell and SPPU, the advertisements are published in leading local newspapers and applications are invited from candidates;
- Applications are scrutinized according to SPPU/UGC/AICTE qualification rules 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; and
- Appointment letters are issued to the selected candidate through the interviews. List of selected candidates is submitted to the University for Approval.

Details of faculty qualification are provided in **Table 2.d**.

Table 2.d: Faculty Qualification

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
D.Sc. / D. Litt.	-	-	-	-	-	-	-
Ph.D.	03	01	00	03	02	02	11
M. Phil.	-	-	-	-	01	03	04
PG	01	-	00	-	72	50	123
Temporary teachers							
Ph.D.	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	-	-	-
Part-time teachers							
Ph.D.	-	-	-	-	-	-	-
M.Phil	-	-	-	-	-	-	-
PG	-	-	-	-	-	-	-

Strategies adopted by the institute for faculty retention:

The institute is keen to generate a sense of belonging and pride among faculty members towards institute through rational, transparent and constructive policies and practices. The institute supports and encourages faculty members through following ways due to which faculty retention is extremely good in the institute, which is presented below in **Table 2.c**:

Table 2.e: Faculty Retention Percentage

Academic Year	Total Staff	Relived Staff	Retention Percentage
2015-16	131	03	97.71
2014-15	129	03	97.67
2013-14	127	09	92.91
2012-13	98	11	88.78
2011-12	42	04	90.48

- Faculty members are encouraged and supported financially to attend the FDP's / STTPS/ workshops /seminar / conferences and course work organized by reputed institutes and universities viz. research course works, subject specific programs etc.
- Faculties are motivated and supported to write and publish research papers, research articles, books etc.
- Faculty members are given choices to select subject of their choice for teaching.
- Faculty members are provided facility for higher studies in Alborg University, Denmark.
- Faculty members are deputed to Rwanda for teaching subjects of the first year of engineering.
- There is a structured procedure for performance appraisal for promotion and annual increments. Salary and other allowances are paid time to time as per the State government policies with immediate effect.
- All leaves and vacation are given as per government rules and regulations particularly maternity leave for lady faculty and staff.
- Staff welfare activities are implemented through group insurance of all faculty and staff, provident fund, gratuity, service book maintenance etc.
- The medical treatment for faculty and their family is provided at free of cost at Campus clinic, SKN Medical College and Hospital, Narhe and also Sinhgad Dental College, Vadgaon.
- The faculty members are provided with staff quarters where priority is being given to out of Pune faculty members. The institute offers priority to faculty members for school admission of their children (eligible).

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.

The institute focuses on the development of present human resource in the form of faculty to meet emerging needs of academics and industry.

- The institute supports faculty to enhance their skill sets by attending courses / FDPs / STTPs etc.
- The institute promotes research-based teaching, workshops, faculty development programs, conferences, orientations to match with new frontiers of industry and new streams of academics.

- The faculty of management is armed with Harvard Business Publishing Material to access case study, articles, notes on current concepts. Faculty members are encouraged to register resource material from HBR and MIT Sloan.
- The subject specific experts are invited to share their experiences and thoughts on emerging trends (Eg. Digital Marketing), practices (Cloud Computing), programs (Cyber Security, Human Rights) etc.
- Faculty members are supported to pursue their Ph.D. in interdisciplinary research to gain expertise in newly introduced subjects.
- The table 2i, 2j and 2k specify the institute's efforts to cope with growing demand for emerging areas.

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.

With intense interest, the institute and management have selected certain tactics for empowering qualities of teachers in following ways, and details are also provided below:

- Organizing Train the Trainer programs in each semester for improving subject knowledge of faculty; Teacher Advancement Programs for enhancing soft skills of faculty;
- Short term training programs / Faculty development programs / Workshops about current emerging technologies;
- The institute has signed Memorandum of Understanding with various organizations to create an opportunity for faculty members to interact with industry people and follow industry practices; and
- Faculty members are also encouraged to pursue Ph.D. in abroad;

Nomination to staff development programs:

The faculty members attend orientation programs for newly structured subjects and staff training programs conducted by other institutes are also attended by faculty members. The staff development programs are summarized below in **Table 2.f**.

Table 2.f: Summary of staff development programs

Staff Development Programs	Number of faculty nominated			
	2016-17	2015-16	2014-15	2013-14
Refresher courses	18	02	49	56
HRD programs	46	07	107	12
Orientation programs	56	57	58	52
Staff training conducted by the university	65	36	10	02
Staff training conducted by other institutions	47	33	20	16
Summer / winter schools, Workshops, etc.	73	65	64	13

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

Institute has a proactive approach in organizing Workshops, seminars, technical events and lecture series for doing overall professional growth and development of faculty. Following table shows details of various faculty training programs organized in the institute detailed in **Table 2.g.**

Table 2.g: Faculty Training Programs

Sr. No.	Department	Program Title	Date	Focus
1	Computer Engineering	STTP on “Arduino Programming”	24/03/2017	The perspective of this STTP is to train the faculty, PhD. Pursuing, PhD. Aspirant and post graduate students from various institutes with an understanding of principal concepts, major issues, technologies and basic approaches in the area of IoT.
		STTP on “Routing in Internet of Things”	02/02/2016 to 06/02/2016	Training on IoT for helping the staff and research aspirants to find various research opportunities in the area of IoT
		FDP on “Computer Graphics “	21/12/2016	For discussing the syllabus content with all faculties interested in CG at university level and helping out new faculties to understand in outs of the subject.
		FDP on “Computer Organization and Architecture”	24/06/2016	For discussing the syllabus content with all faculties interested in COA at university level and helping out new faculties to understand in outs of the subject.
		BE Computer Engineering (2012 Course) Syllabus of Board of Studies	28/02/2015	Main focus of this workshop was discussing and revising the overall syllabus content with all participated faculties across the SPPU colleges

2	Electronics and Telecommunication	Faculty Orientation Workshop on Control System	15/12/2016 to 17/12/2016	For discussing the syllabus content with all faculties interested in Control Systems at university level and helping out new faculties to understand in outs of the subject.
		Two days workshop on 'CMOS IC Design using Empyrean EDA Tools'	29/06/2015 to 30/06/2015	The objective of the program is to make the participants understand the key principles, concepts and techniques involved in digital and analog IC design
		SPPU Sponsored & IETE Approved National Level Workshop on "SOC Design for DSP Applications"	27/01/2015 to 31/01/2015	The workshop aims at exploring the state of the art SOC Designs using FPGA
		Faculty Orientation Workshop on Embedded Processors	11/12/2014 to 13/12/2014	The objective of this workshop was to orient the entire faculty towards the revised syllabus of TE (E&TC/Elex) and to bring in uniformity in teaching across all the colleges under the Savitribai Phule Pune University.
		Controlling Robot using Brainwaves and Hand Gestures	19/12/2014 to 20/12/2014	It aims at building and controlling robots through power of mind
3	Information Technology	STTP on Internet of Things using Raspberry Pi 2	26/12/2016 to 30/12/2016	Training on IoT for helping the staff and research aspirants to find various research opportunities in the area of IoT
4	Electrical Engineering	Train The Trainers	13/06/2016 to 04/06/2016	Training Newly Joined Faculty and Discussing the Syllabus Contents
5	Mechanical Engineering	Workshop on Syllabus Detailing of SE Mechanical 2015 Pattern Course subject Electrical and Electronics Engineering	05/10/2016	The workshop was organized to discuss changes in the subject Electrical and Electronics Engineering and to brief about the included syllabus.

		Teaching Methodology Workshop on Manufacturing Process-II TE Mechanical 2012 Course	24/12/2014	The workshop was organized to discuss methods to be adapted while implementing the manufacturing process-II syllabus and addition of new topics in syllabus which has been recently developed in the field of manufacturing processes.
6	First year Engg	Train The Teacher Program(TTP) For Engg Maths, Engg Phy, EM,	16/12/2014 to 18/12/2014	Training Newly Joined Faculty and Discussing the Syllabus Contents
7	MCA	Cloud Computing using Google app engine	08/01/2016 to 09/01/2016	Workshop based on cloud computing technology
	MCA	Innovative E3 Approach in Professional Education	08/02/2013 to 09/02/2013	Workshop was based on theme of education, enrichment and engagement.
	MBA	Research Kaleidoscope	17/11/2016 to 18/11/2016	Quantitative Research Techniques, Questionnaire Design etc.
	MBA	De Nova Insights in Research	18/11/2013 to 19/11/2013	Literature Review, data analysis

Percentage of faculty;

- invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies
- participated in external Workshops / Seminars / Conferences recognized by national/ international professional bodies
- presented papers Conferences / journals

The year wise statistics on the percentage of faculty those were invited as resource person in Workshops/seminars, presented papers in National and International conferences organized by external professional agencies is shown in the **Table 2.h**.

Table 2.h: Faculty Achievements

Details of Faculty participation in Workshops / Seminars / Conferences	Percentage of Faculty			
	2016-17	2015-16	2014-15	2013-14
Invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies.	38	24	22	06
Participated in external Workshops/ Seminars / Conferences recognized by national /international professional bodies	111	30	33	43
Presented papers in Conferences / Journals	197	125	164	51

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

The management always lends support for any efforts that are taken towards empowerment of faculty. The institute always shows an encouraging approach for the professional growth of the faculty seeking the knowledge of recent technological developments.

- Research grants: Faculties are encouraged to apply for projects funded by Governmental Agencies such as BCUD, AICTE, UGC, ISRO etc. The seed money required to initiate the research work is provided to the faculty members. Eight faculty members have received such grants.
- Research committee organizes sessions on various topics related to research methodology and motivates faculty for research / Ph.D. The outcome of this motivation is that around 20% faculty of each department is pursuing Ph.D.
- Faculties interested in pursuing Ph.D. are supported by adjusting their teaching work load, leave for course work etc.
- The faculties are encouraged and supported financially for attending FDPs / STTPs/ workshop etc. related to research. Almost 80% faculty have availed this faculty.
- The institute supports faculty members to publish research papers in reputed journals. Faculty members are also encouraged to write books on different topics / subjects.
- The institute is having tie up with Alborg University. The faculty member is doing Ph.D. from Alborg University. Institute sponsors such faculty for Ph.D.

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 faculty members have outperformed in various academic milestones which is the output of liberal, supportive, value driven environment in the institute. The focused and target based culture is nurtured by an institute which brings academic and research rigor among faculty members.

The below mentioned details describes the awards, recognition at the State, national and international level for excellence in teaching during the last four years. The list is given in **Table 2.i**.

Table 2.i: Faculty Awards/Recognition received

Sr. No.	Awards/Recognition received	Number of Faculty
1	Recognition as a Ph.D. guide	05
2	Recognition as a PG Teacher	09
3	Best Teacher Awards	15
4	Best support award in International conference on ICIET'16	01

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?

- The institution has established a feedback system for evaluating the faculty by students. Students give feedback through ERP system in each semester. The feedback is analyzed by heads of department and Academic Monitoring Committee and the necessary guidelines are given to the faculty members to improve teaching learning process.
- The institute has also placed a system to collect feedback from alumni and parents of students.
- The institute also considers the feedback of recruiting organizations and industry experts visiting to institute; a part from this, feedback of academicians from other institutes (visiting for external project viva panel members, guest faculty) is also considered to evaluate the overall teaching performance.
- These feedbacks opened an avenue to faculty members for identification of discrepancies in teaching skills, subject knowledge, communication etc., and institute is also keen to wipe out the faculty loopholes through FDP's, workshops, seminars and establishment of language lab etc.

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 institute is affiliated to Savitribai Phule Pune University and hence, all evaluation processes guided by the university are followed rigorously in the institute.

- The circulars, notices issued by university are put up on institute's and department's notice board.
- The circulars and notices regarding examination and evaluation are sent to all departments through college examination officer.
- Students, faculty, staff and parents are also encouraged to visit SPPU website regularly.
- The evaluation process is also discussed with employers and industry during Training and Placement process by training and placement officer / heads.

Information for students

- Notices/circulars from SPPU regarding evaluation process are displayed on the notice boards and are also conveyed to the students by the respective TGs.
- During the induction program of first year / direct second year students, institute plans separate session on course structure in which concern faculty elaborates program objectives, choice based credit system, semester pattern, core and elective courses, generic and core subjects, specializations offered (if applicable), concurrent evaluation and university examination evaluation pattern, tentative time table for the same. The PG students are also briefed about their pattern by conducting

- an informal welcome session.
- The institute prepares academic calendar before the commencement semester, which is in line with SPPU academic calendar. This academic calendar is communicated to students. The academic calendar is comprised of plan of sessions, practical's, STP cycles, guest lectures, industry visits, components of concurrent evaluations, end term examinations, final examination etc.
 - The students are made aware of the marking scheme for term work like attendance, timely submission, punctuality, neatness, performance, understanding etc.
 - The institute and department have developed students email groups for email communication with students, through which students are communicated regarding evaluation schedules by respective faculty members.

Information for Faculty

- Notices/circulars are circulated to the faculties in departmental meetings which are displayed on notice boards and shared by emails.
- Continuous assessment evaluation scheme is discussed in departmental meetings.
- The institute encourages faculty members to attend course structure revision orientation programs.

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 major evaluation reforms of the university that the institution has adopted over the last four years are as follows:

For UG Program

- In 2008 pattern, the evaluation for theory was conducted through an examination at the end of the semester and for practical through term work (for FE to BE) that was assessed continuously in the term. In addition, oral, practical examinations, project and seminars (for SE to BE) were conducted by the university at the end of the semester.
- From the year 2012, the university has directed the institute to appoint College Examination Officer (CEO), who will be responsible to implement and execute all examinations and evaluations of the university effectively.
- In 2012 pattern, more elective subjects were introduced to incorporate more choices of state of art technology for the students.
- Pattern 2012–evaluation has been separated in two parts theory and online examination/in semester examination in which passing criteria is based on combine passing in both parts.
- In 2012 pattern, there was reformation in the evaluation system. The evaluation pattern now became continuous involving a combination of
 - MCQ based online and end semester examinations for F.E. and S.E. students.
 - In semester and end semester examinations for T.E. and B.E. students.

- In 2015 pattern, university has introduced Credit System for all programs beginning with first year engineering (FE) students. The passing criterion has been changed to minimum 20 marks in theory examination and combined 40 marks.

For PG Program

- University has introduced Choice Based Credit System (CBCS) from the academic year 2013-14. The evaluation involves in-semester and end-semester examinations and oral, practical examinations conducted by the University at the end of the semester.
- The revised syllabus is CBCS and grading system which offers a wide range of choice for students to opt for courses based on their aptitude and career goal. The system of awarding grades instead of marks provides a more realistic picture of learner's ability.

The major evaluation reforms initiated by the institution on its own are as follows:

- As directed by the university, the institute has appointed a CEO and under him, there is team of departmental examination coordinator, who takes care of the timely execution of all examinations and evaluation processes.
- The evaluation scheme reforms are comprised of concurrent evaluation i.e. continuous evaluation throughout the semester. The suggested components for concurrent evaluation are attendance, understanding of concept, case study, class test, field visit, role play, simulation, home assignment etc. The marks of term work / internal is based on continuous evaluation.
- The institute has implemented mock practice session through E-exam portal for first year and second year engineering students.
- The institute also conducts unit test / Preliminary test and mock practical sessions to make students aware about their preparations.
- The institute also takes mock presentations of seminar, mini projects and projects.
- The revised syllabus has incorporated the program structure and course contents with student's aspirations and recruiter's expectations so institute organizes various programs / events in view of these expectations.
- The teaching-learning process was shifted in interactive, project, and group based approach so as to make ease of answering the application based questions by students.

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 ensures the effective implementation of the evaluation reforms by:

- Providing all the required infrastructure to conduct theory, practical as well as online examinations. It also has the required internet and power backup for the smooth conduction of online and offline examination.
- Conducting all the examinations by deputing well qualified and experienced faculty members.
- Forming an examination committee, headed by CEO and under him there is team of departmental examination coordinator, who takes care of

- timely execution of all examinations and evaluation processes.
- Amalgamation of components of concurrent evaluation in academic calendar and faculty teaching plans. The institute conducts unit test examinations after completion of one month teaching and displays the result within a week.
 - Conducting unit test /tutorial / prelim exams test and results are declared within eight days. The non-performers have to reappear for the test.
 - Acquainting students with the online examination system, the institute provides practice Multiple Choice Questions (MCQ) through E-exam portal.
 - Ensuring the fulfillment of the parameters of continuous evaluation through completion of term work, conduction of mock practical and oral examination prior to university examinations, conduction of online, in semester and end semester examinations.

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.

The institute adopts certain methods to take care of achievements and performance of every student through formative and summative assessment. The institute assigns the role of TG, Class Teacher, and HoD to the experienced faculty members. They are responsible for monitoring and keeping track of assessments of the students.

Formative assessment approaches:

Formative assessment includes various components of continuous evaluations during the program of course. It comprises of followings:

- Class wise AMCAT, ET, QALR examinations,
- Case study evaluations through group brainstorming and presentations,
- Group project preparations and presentations,
- Home assignments,
- Sumer internship project viva voce and project competitions,
- Application based assignments,
- Industrial visits,
- Unit test / Prelim test, and
- Mock Practical / Oral examination.

These efforts for formative assessments build confidence among the students and they perform well in university examinations and also more participation has been seen by students in curricular and co-curricular activities inside and outside the institute.

Participation of students in various technical activities is presented in **Table 2.j:**

Table 2.j: Students participation in technical activities / events

Sr. No.	Year	No. of students participated in technical activities	
		Inside Institute	Outside Institute
1	2016-17	5016	1382

2	2015-16	6036	1051
3	2014-15	4171	1448

Summative Assessment approaches:

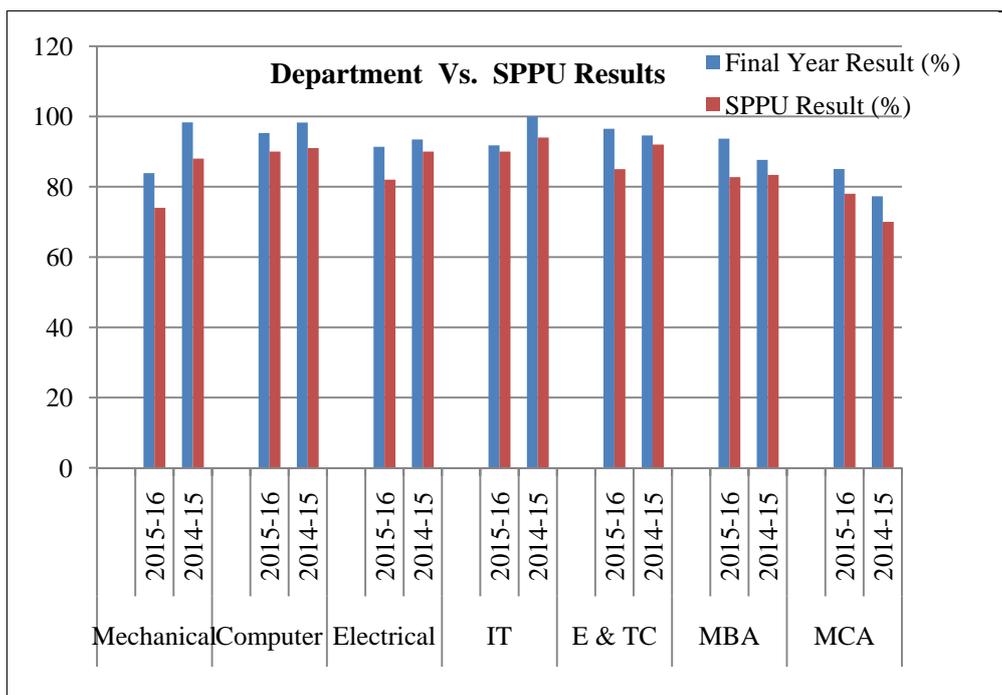
This approach includes evaluation at the end of Semester in the form of

- University theory examinations, and
- University online (MCQ) examinations,
- Practical / oral examinations,
- Seminar and project examinations

The efforts made for summative assessments make students more confident about the knowledge and right skill set they acquire during the course and which is reflected in their results (compared to overall university results), placements, cracking competitive examinations and interest in higher education. The few statistics in this regard is presented in **Table- 2.k, 2.l, 2.m, 2.n.**

Table 2.k: Result analysis of department vs. Overall university result analysis

Department	Year	Final Year Result (%)	SPPU Result (%)
Mechanical Engineering	2016-17	NA	NA
	2015-16	83.87	74
	2014-15	98.33	88
Computer Engineering	2016-17	NA	NA
	2015-16	95.3	90
	2014-15	98.27	91
Electrical Engineering	2016-17	NA	NA
	2015-16	91.36	82
	2014-15	93.48	90
Information Technology	2016-17	NA	NA
	2015-16	91.78	90
	2014-15	100	94
Electronics & Telecommunication	2016-17	NA	NA
	2015-16	96.51	85
	2014-15	94.59	92
MBA	2016-17	NA	NA
	2015-16	93.68	82.74
	2014-15	87.67	83.39
MCA	2016-17	NA	NA
	2015-16	85.06	78.00
	2014-15	77.30	70.00



Graph No. 2.a: Department Vs. SPPU Results

Table 2.1: Placement during last two years

Department	Year	Placements (%)
Mechanical	2015-16	44.70
	2014-15	45.76
Computer	2015-16	44.33
	2014-15	57.63
Electrical	2015-16	60.49
	2014-15	55.32
IT	2015-16	32.88
	2014-15	56.00
E&TC	2015-16	31.40
	2014-15	64.86
MBA	2015-16	70.69
	2014-15	40.24
MCA	2015-16	35.26
	2014-15	32.49

Table 2.m: Participation of students in competitive examination

Year	No. of students appeared for Competitive examinations (GATE/ GRE / TOEFL / IELTS / MPSC / UPSC / SSB etc.)
2016-17	276
2015-16	161

Table 2.n: Number of students went for higher education

Year	No. of students went for higher education
2016-17	27
2015-16	27

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

- Direct and indirect tools are used to internally assess and evaluate learning outcomes based on behavioral aspects, communication skills etc. Initially, internal assessment was merely based on mid-term, end term examinations; this system has changed with the adoption of several concurrent evaluation parameters and these are built on mandatory curriculum teaching and supported with added inputs and evaluations.
- The role play, management games, team projects, and presentations enhanced an opportunity to focus on behavioral aspects of students. The group discussions, personal interviews, elocution competitions help to develop and assess the student's communication skill. The application based questions, home assignments; case analysis by individual students encourage them for independent learning and assessment by faculty for the same.
- In each department, final year projects are evaluated continuously and students are given inputs on their weaknesses and scope for improvement. Students maintain log books or 'project progress books' with records of their project progress. These books are checked by guides on a regular basis.
- Assessment scheme is explained to the students to bring in transparency. They are assessed on the basis of following criteria-
 - Timely submission of assignments (punctuality)
 - Presentation (communication skills)
 - Understanding (independent learning)
 - Performance and attentiveness (behavior)
- This has ensured overall development of students and rigor in assessment. These evaluations are properly planned, communicated with students along with evaluation criteria and student performance is communicated to them through proper channel. The institute maintains transparency at class level, department level as well as institute level.
- The performance of the students in practical and other applicable components of continuous evaluation are closely monitored and the data of same is maintained in continuous evaluation sheet by each subject teacher.

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 university has defined certain graduate attributes based on Program

Objectives (POs) which shall be attained by the students. These graduate attributes are as follows:

- i. Conceptual Knowledge – The fundamentals of engineering principles and methods are taught to build a foundation for application development.
 - ii. Problem analysis– By applying rigorous research methods, mathematical formulae and tactics, identify the problems and suggest any abstract solutions for the problems.
 - iii. Engineering Knowledge– Analyze the complex engineering problem by applying knowledge of mathematics, science, technical concepts, and formulae. This knowledge is used to solve the problem.
 - iv. Project Management– By making teams (or groups) to design and develop certain application (or solve a complex problem) in stipulated time period by applying the basic principles of design and development with modern tools.
 - v. Uses of modern tools and techniques– Create, use and apply the techniques and IT tools for the simulation of complex problems. These modern tools are used to predict, simulate and evaluate the efficiency of the solutions.
 - vi. Personal development– The University has designed syllabus for the personal growth of the students so that they can understand the importance of communication, while solving complex engineering problems.
 - vii. Social Aspect– Understand the needs of the society, environments, public health and provides the technical solutions for the benefit of the society.
- The institute has applied certain effective measures and techniques, to take care of attainment of the graduate attributes. Institute ensures this by evaluating them internally and / or externally, which is mentioned in **Table 2.o.**

Table 2.o: Graduation Attributes

Attributes	Methods	Assurance
Conceptual knowledge	Conduction as per university curriculum	Internal and external examinations
Problem analysis	Arranging and motivating to participate in technical events and in house projects	Participation certificates
Engineering / Research Knowledge	Expert talk from industry, STP III and IV	Participation of students
Project management	Projects under the guidance of faculty, Participation in project competition / design competition	Presentation, Participation certificates
Modern tools and techniques	VAP (STP V) and Training on state of art technologies	Arranging trainers from outside
Personal development	STP I,II and GD and PI sessions	Response in placement session
Social Aspect	Arranging social activities through NSS	Participation in social events / activities

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

The mechanism for redressal of grievances with reference to evaluation at Institute level:

- Internal (unit test/ prelim examinations/mock online) evaluations - Students are made aware of the assessment methods at the beginning of the semester and whenever necessary. However, the complaints (if any) of such internal evaluations are resolved by respective subject teacher and head of the department.
- External evaluations- Redressal of grievances is permitted by University only for end semester examinations and not for online, term work/oral/practical, project, and seminar examination. However, the institute has an office superintendent who takes care of all the student examination related grievances (if any) and co-ordinate with the university. Grievances during the conduction of online/theory examination of students are solved by senior supervisors in coordination with CEO.

The mechanism for Redressal of grievances with reference to evaluation at university level:

- The University is responsible for verification and revaluation forms (Ordinance 149, 134 (a) and (b)) from the colleges or students make the arrangement for verification and revaluation of answer books.
- University sends the result of verification and revaluation to the colleges or students. It also resolves the issues related to unfair means, results, printing mistakes in marks etc.
- Link of ordinance for revaluation:
http://unipune.ac.in/administration_files/Ordinance%20Scan/reval_13-12-13.pdf
- If the student has grievance after receiving photo copy of answer sheet, then he/she can apply for revaluation by paying revaluation fees.

2.6 Student Performance and Learning Outcomes

2.6.1 Does the Institute have clearly stated learning outcomes? If yes, give details on how the students and staff are made aware of these?

- The institute has its Vision and Mission in line with well-defined learning outcomes. The vision and mission of the institute focuses on holistic development of students and teachers and to generate preserve and share knowledge for developing a vibrant society.
- The Learning outcomes indicated in terms of Program Outcomes and Course Outcomes are clearly stated for each program by Savitribai Phule Pune University (SPPU). SPPU has clearly defined Program Educational Objectives (PEOs), and Program Outcomes (POs) in the syllabus published by university.
- Program Outcomes (POs) and Course Outcomes (COs) are mapped by faculty members for Program and respective course. These mappings are done by every department through detailed discussion in faculty meetings.

- The faculties are aware of PEOs, and POs which are reflected in their course files. The PEOs and POs are discussed at the time of induction Program, TG meetings and parent meetings. Faculty members discuss the same with students while teaching the course.
- The POs and COs are evaluated with the help of tutorials, mid- term results, on-line exam results, and course feedback.

2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of course/Programme? (Programme/ Course wise for last four years) and explain the differences if any and patterns of achievement across the Programmes / courses offered.

There is a formal procedure to monitor and communicate the performance of student throughout the semester. Evaluation of student's performance happens at different levels, under different parameters going simultaneously.

Monitoring of progress and performance

- The broad areas under which performance monitoring happens throughout the course are continuous evaluations (concurrent evaluations), online examination, end term or mid- term examination, university theory examination etc. These components are monitored through subject wise, faculty wise plan, well designed formats, result analysis etc.
- A result analysis report is prepared based on university result by every department. It is compared with the reports of previous years to monitor the progress of department and take corrective actions whenever necessary.
- Cumulative attendance is prepared and displayed every month to track the attendance of the students. At the end of every semester, defaulter list is prepared and appropriate action is taken against defaulter students.
- The result analysis of internal test / mock online test is also done by faculty members to monitor the progress of the students.
- Mentoring of the student is done through TG Scheme. The teacher keeps close watch and track on the progress and performance of the students in terms of attendance, test marks, curricular and extra-curricular activities.

Communication of progress and performance

- The communication of student progress, performances, and attendance happens by mentor or TG, subject teacher, committee head through meetings with students and / or parents.
- The attendance and results of unit test / mock online test etc. is informed to parents through postal letters / emails. In case of severity, parents are called to meet the authorities in person.
- Sometimes, in case of urgent communication, SMS is sent to parents or 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?

The teaching, learning and assessment strategies of the institute are well defined and structured, which is aimed 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 and prepared by the institute;
- Allocation of the subject to faculty at the start of semester, study and discussion of the course objectives and outcomes by the respective faculty;
- Planning of lecture delivery according to the time table;
- Guiding students with list of text, reference books, question banks and previous question papers of university examination;
- Monthly review of lectures/ practical conducted and syllabus coverage by head of the department;
- Planning of extra sessions for the courses behind schedule;
- Monitoring attendance of the students during semester for effective dissemination of contents;
- Arranging guest / expert lectures on advanced topics;
- Explaining complex concepts through videos (from NPTEL, NDL etc.), and making classes more interactive and solving more problems through flipped classroom concept; and
- Arranging mock orals, practical and tutorial sessions to increase the effectiveness of the course delivered.

Learning strategies:

- Facility like online access to E-books, journals, and other teaching materials are made available to the students through library;
- K-Point capsules developed by the faculties is also available for students;
- Involving students in case based learning, project based learning, HBR article based learning, Role plays, management games and interactive sessions, and seminars;
- Mapping and guiding on IITB spoken tutorial courses with regular subjects;
- Arranging industrial visits;
- Motivating students for self-learning through MOOC (SWAYAM, EDX, NDL etc.);
- Ensuring participation of students in technical events (like Hackathon /Quiz/ Debates/ Group discussions);
- Motivating and guiding students to write and present papers; and
- Making them to go for Internship in relevant industries.

Assessment Strategies: The assessment strategies are useful to find out the gaps in planning and execution, which affects learning outcomes, and hence helps institute to take preventive and corrective actions.

Internal assessment

- Unit test / Prelim test of theory subjects;
- Mock oral and practical examinations;

- Mock online examinations;
- Internal evaluation of seminar / mini project / projects;
- Term work assessment; and
- AMCAT test.

External assessment

- University theory examinations;
- University oral and practical examinations;
- Seminar and project evaluations from university;
- Online examinations.
- Feedback from Alumni, Employers, and Parents

2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (quality jobs, entrepreneurship innovation and research aptitude) of the courses offered?

Even though our institute is relatively new, it is committed to enhance the social and economic relevance with respect to quality jobs, entrepreneurship, innovation and research attitude amongst the students. The gradual measures/initiatives taken up by the institution for the same are listed below.

Initiatives for quality jobs:

- The institute encourages students to participate in in-house and outside events, competitions and forums to enlarge their thinking horizon.
- The practice like Political, Economic, Social, Technological Tests (PEST) tests encourages the students to read the daily news-paper; HBR test puts them under review of new trends and concepts from management.
- Internship Project creates a platform for students to take practical exposure in industry.
- Pre-placement training by training and placement department generates awareness among students regarding industry environment. Central Placement cell conducts expert lectures, pre-placement talks, and guidance for higher studies.
- The institute conducts Student training programs (includes soft skills, training on state of art technologies, etc.) at various levels to increase their employability.
- The institute also ensures AMCAT test for evaluating students on their skill sets.
- The institute has signed MoU with various companies for training on various technologies.

Initiatives for entrepreneurship:

- Various lectures / seminars are arranged by the institute to create awareness of social and economic environment of business.
- Very recently, the Entrepreneurship development cell has been established in the institute with intention to encourage and support the interested students for becoming entrepreneurs.
- Workshops and training programs are arranged through this cell to make them aware about the avenues available for support to entrepreneurs.

Initiatives for innovations:

- Students are encouraged to attend various competitions like AVISHKAR, HACKATHON, ROBOCON, BAJA, SUPRA etc.
- Technical fest is arranged in the campus in which innovativeness is explored through various competitions like programming, design, testing, debate etc.

Initiatives for research aptitude:

- Under student training program of semester VI, lecture series on research methodology (covering literature survey, defining problems, designing research methodology etc.) is conducted.
- The institute support and motivate students to write and present papers on their seminar / project topic.
- Students of UG and PG are encouraged to take sponsored projects.

Initiatives for social relevance:

- The institute organizes various activities (like blood donation camp, visit to old homes and orphanages, cleanliness drives, voter awareness camp etc.) to realize social values among the students.
- Different important days (Ahnisha Divas, Ambedkar Jayanti, etc.) are also celebrated to make students aware about the importance of those days and understand the contributions by various personalities.
- Institute has established National Service Scheme (NSS) in association with SPPU, Pune, in which more than 100 students are members and they execute several activities of national values.
- Institute also supports social activities arranged by PRAYAS (a group of students from various institute under the umbrella of Sinhgad Institutes).

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

The institute has several processes for collecting and analyzing the data on student learning outcomes, which is used for planning and overcoming the learning barriers.

- The departments carry result analysis after every online and semester examination for all subjects. Results of unit tests are also analyzed to identify academic development of students and subject-wise weaker students. Special attention is given to lateral entry students. On the basis of this analysis, remedial classes are conducted for subjects where the percentage of failure is high. Extra lectures are conducted for weaker students. Counseling happens at TG level. TGs also send SMS to students for communication related to extra lectures, examination etc.
- Apart from this QALR, Employability Test (ET) and AMCAT results are also analyzed to check student's skill set development. The case where institute feels guidance of expert (industry /academician) is necessary to impart added academic inputs for students, the institute plans for guest lecture on identified areas.
- Apart from this STP data is maintained through structured booklets and compiled data is sent to STP chief coordinators for further analysis. STP data is used to design further STP modules and STP scores are used during final placements.

- The feedback of alumni, last semester students, recruiting organizations, visiting faculty is also measured to understand student learning outcomes.

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

All departments have well defined learning outcomes and ways to monitor and ensure the achievements of those learning outcomes.

The institute looks after smooth implementation of activities planned for achieving learning outcomes for which separate committees (like AMC committee, STP committee, end term exam committee, online exam committee, and university exam committee etc.) are constituted. There are separate committees for co-curricular and extra-curricular activities.

The performance of students under mentioned parameters decides their achievement of learning outcome.

The institute uses various means to monitor and ensure the achievement of learning outcomes as shown in **figure 2.d**.

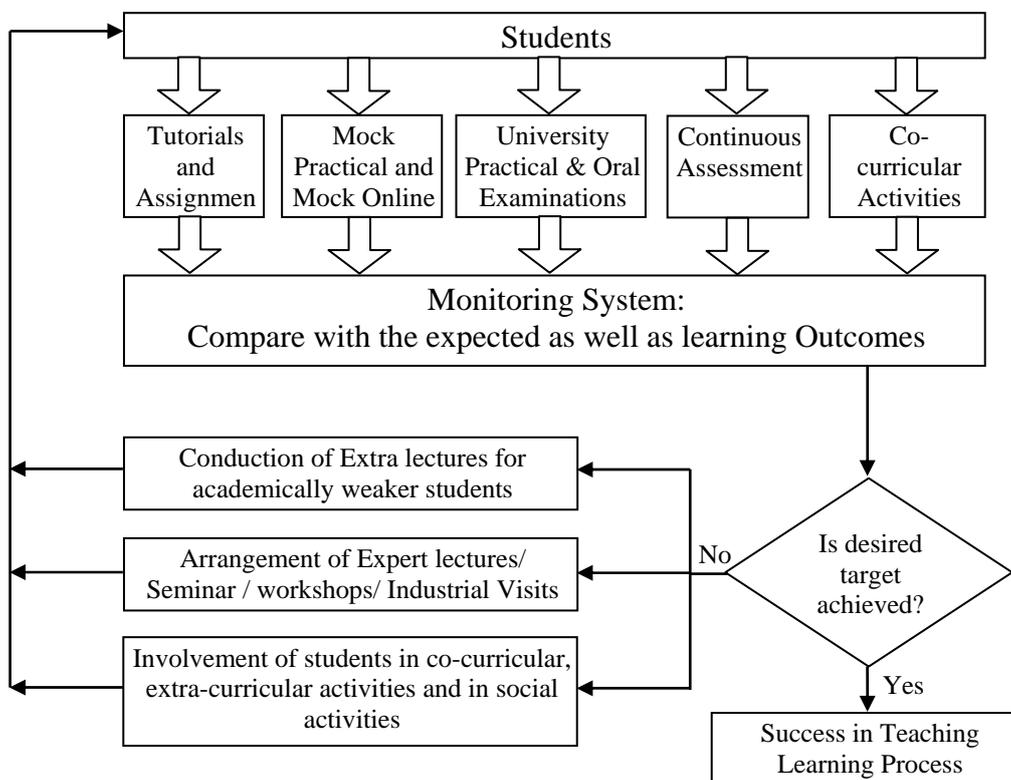


Figure 2.d: Monitoring System

2.6.7 Do 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.

Yes, the institution and individual teacher uses assessment or evaluation outcomes as an indicator for evaluating student's performance, achievement of learning objectives and planning.

Indicators to Institute:

- Program Educational Objectives (PEOs) of each department is in line with Vision and Mission of the institute, which in turn are mapped to Program outcomes. Therefore, attainment of POs and PEOs indicate the alignment of academic activities with the vision and mission of the Institute.
- POs are also aligned with the graduate attributes that a student is expected to develop on completion of the program. Attainment of these graduate attributes by students successfully is also an important indicator.

Indicators to teachers:

Results of internal and external assessments are the major indicators for evaluating student performance.

- The faculty member uses course objectives and outcomes for evaluation of student's performance throughout the semester under different academic parameters including unit tests, online examination, practical examinations, and case study etc.
- The student's performances in STP components, project presentations, tutorials/assignments, are also measured to understand student's performance.
- The students do participate in different competitions, seminars etc., their performance in such activities or competitions are also used as an indicator for achievement of learning outcomes and planning.
- The student's performance in any of the mentioned criterion are assessed, analyzed and used for further planning.

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

Institute is always positive and adaptive for the change in syllabus and industry requirements. Once the gap is identified and discussed, institute tries to fill the gap and strengthen the teaching-learning process.

CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

3.1 Promotion of Research

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

No, the institution is currently not eligible for the research center as per the norms of Savitribai Phule Pune University (SPPU). As per the norms, the institution should complete six years of existence to receive a research center. The institution will apply and establish the research center as soon as the eligibility criterion is met.

3.1.2 Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.

Yes, the institution has a Central Research Committee (RC) to monitor and address the issues of research. Research committee is responsible for coordinating the research activities of all the departments.

The composition of the central research committee is given in **Table 3.a**

Table 3.a: The Research Committee at NBNSTIC

Sr. No.	Name of faculty	Designation	Position
1	Dr. R. S. Prasad	Principal / Director, NBN STIC	Chairman
2	Dr. Ms. S. R. Chavan	Associate Director, NBNSOCS	Member
3	Dr. S. P. Ujagare	Dean, NBNSOCS	Member
4	Dr. S.Y. Gajjal	Professor and PG Head (Mech.), NBNSOE	Member
5	Dr. C.S. Pathak	Professor (Mech.), NBNSOE	Member
6	Dr. Ms. V. S. Deshpande	HoD (Electrical), NBNSOE	Member
7	Prof. S. P. Patil	HoD (IT), NBNSOE	Member
8	Prof. A. A. Patil	Academic Research Coordinator	Coordinator

Objectives of RC:

Important objectives of the Central Research Committee (RC) are as given below:

- To create awareness for research and development by organizing research activities including workshops, seminar and sensitization programs.
- To motivate students and faculty to publish technical papers in reputed National/ International Conferences/Journals.
- To encourage faculty for Ph.D. registration, postdoctoral research and professional body membership.
- To motivate faculty to undertake funded research activities in thrust areas of Science, Engineering and Management from reputed funding agencies.

- To provide support for smooth progress and implementation of research schemes/projects.
- To develop effective Industry Institute Interaction in order to keep abreast with technology trends.
- To create awareness among researcher about research ethics to avoid malpractices and plagiarism.

Important recommendation given by RC:

The major recommendations of the RC and its impact are given as follows,

- **Funded research projects:** Each department has to submit a research proposal to reputed funding agencies to take up funded research projects every year.
Impact: A strong sense of research has been created and potential project proposals in line with thrust areas have been submitted to external funding agencies. The institute has fetched substantial amount from BCUD, SPPU for carrying out minor research projects in last 3 years.
- **Publications:** RC recommends faculty and students to publish their research work in reputed peer reviewed journals and conferences in accordance with appropriate publication ethics.
Impact: This has created awareness about the publication process among the students and has enhanced faculty and the student's participation in conferences. The institute has good number of publications under its credit within the last few years.
- **Research Areas:** Identification of the research areas in engineering, science and management for organizing research activities at the institute and applying for funds at various agencies.
Impact: Activities related to thrust areas were organized in various departments with the support from the institute and external funding. It provided a platform for healthy interaction among academicians, researchers and industry experts resulting in many opportunities for the institute.
- **Industry Institute Interaction:** Each department has to set up an Industry Institute Interaction Cell (IIC) and conducts meetings with industry associates.
Impact: Improved participation of industry in academic and research activities, creating opportunities for collaborative arrangements such as MoU.
- **UG/PG Projects:** A team of expert faculty has to provide guidelines for rigorous monitoring for timely progress and fulfillment of the requirements specified by the affiliated university.
Impact: Effective monitoring and improvement in quality of project work was observed. It has enhanced timely submission of PG projects.

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

The institute extends its support to the researcher by providing;

- **Autonomy to the Principal Investigator**
Principal Investigator has the freedom to utilize received funds for procurement of the equipment, machines and consumables as per the

requirement of the project.

➤ **Timely availability or release of resources**

A separate Research and Development Grant account is maintained by the institution for all the funds received under research projects. The funds are released with immediate effect to principal investigators as and when the request is received from them.

➤ **Adequate infrastructure and human resources**

The institution has well equipped laboratories with basic equipments needed to initiate the research. The institute provides library resources such as books, e-journal and e-books. The institution also has adequate human resources to support the principal investigator at the laboratory, accounts office and library.

➤ **Time-off, reduced teaching load, special leave, etc. to teachers**

The principal investigator and co-investigator(s) are given on-duty leaves for field work, data collection, visiting the funding agency offices for audit and other formalities, attending the conferences and project exhibition etc.

➤ **Support in terms of technology and information needs**

The institute has necessary computing facilities and the latest software. The institution has a library with the latest subscription of e-journals and reference books required to support the research.

➤ **Facilitate timely auditing and other formalities**

The institution provides assistance in auditing and receiving the utilization certificate for the funds received for research from various funding agencies.

➤ **Any other**

The institution facilitates research by providing the laboratory beyond working hours. The library and reading hall are available for 24x7.

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

The institute conducts expert lectures by eminent speakers on various technical domains. Further, it organizes a three day technical event annually, which includes workshops, competitions and seminars. It helps to build a foundation for developing a scientific temper and research culture among students.

The institution has established various clubs including science, engineering, management and research club. These clubs organize activities such as design contest, project competitions, technical paper presentation competitions, etc. It helps to produce competent students to face the new challenges of today's globalized world.

Student Training Program (STP) includes a module for inculcating a research culture and aptitude among students. Students are trained to understand the basics of problem identification and literature review by accessing and referring standard e-resources and e-journals. A strong foundation is laid for their understanding of research methodology. With all these inputs, students are encouraged to write and present a technical paper at the platform provided at institutional level.

Students are also encouraged to participate in project competitions of national repute. To name a few, 'Digital India Hackathon' organized by Persistent

Systems, 'Avishkar' organized by SPPU and conferences organized by professional bodies including IEEE, IETE etc.

Students with research aptitude are encouraged to pursue their research interest by involving them in funded research projects. The industries and research organizations such as ARAI, CWPRS, and ISTC etc. are approached for opportunities of live project work and internships for students at undergraduate and postgraduate levels.

3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity, etc.)

Guiding student research

- Faculty of the institute is actively involved in guiding students for Ph.D. and UG/PG right from problem identification, objectives and optimum methodology to its outcomes.
- There are five recognized Ph.D. research guides under which seventeen students are pursuing Ph.D. from various universities.
- The faculty offers problem statements in line with their research area and recent issues. UG/PG students with research aptitude are offered a problem statement in line with the sanctioned funded projects to fulfill their academic requirement.
- Students are trained in writing technical papers and are prepared for participation in technical paper presentation competition and conference/journal publication. Suitable guidance is provided to potential project groups for participation in project competitions of national repute such as Avishkar.

Leading Research Projects, engaged in individual/collaborative research activity

The faculty is actively engaged in individual research activities. They are involved in own Ph.D. research, guiding Ph.D. research and funded research projects. Competent project proposals are regularly submitted to funding agencies of repute and faculty pursues them when sanctioned. The institute strongly encourages the faculty to undertake multidisciplinary projects. Details of faculty engaged in individual/collaborative research are as shown in **Table 3.b**.

Table 3.b:Details of the faculty engaged in individual research activity

Sr. No.	Title of Project	Name of Researcher	Collaborative/ Individual
1	IoT Based Intelligent Energy Monitoring System for Building	Prof. Ms. S. M. Jog, Prof. H. N. Lokhande	Individual
2	Prediction of Meteorological Drought in Indian Regions by Genetic Programming	Prof. A. U. Chavadekar	Individual
3	Optimal Context-aware Routing Algorithm for Wireless Sensor Network	Prof. A. V. Dhumane, Prof. Ms. N. K. Kadale	Individual
4	Hand Gesture Recognition Interface for Visually Impaired and Blind People	Prof. Ms. P. M. Morey	Individual

5	Content Based Image Retrieval using User Navigation Pattern and Users Log	Prof. P. S. Kulkarni	Individual
6	File Automation and Sharing on Mobile Devices using Ontology to the Stored Metadata for Semantic based search to existing framework	Ms. S. B. Guja, Ms. R. P. Karande	Individual
7	Analysis of Bathymetric Data in Remote Sensing	Dr. Ms. S. D. Shelke Prof. S. Y. Tamboli	Individual

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 students.

The institute organizes workshop, training programs to impart knowledge and inculcate research culture among faculty and students. The institute encourages faculty to organize activities with funding support from external agencies. Each department organizes such activities which provide opportunities to engage in learning, knowledge sharing, interaction and networking among the participants and expert speakers. **Table 3.c** shows number of activities held for staff and students during last four years.

Table 3.c: Activities held in the Institutes for staff and students

Sr. No.	Name of The Department	2016-17	2015-16	2014-15	2013-14
1	Mechanical Engineering	2	1	1	1
2	Electrical Engineering	1	1	1	1
3	Electronics and telecommunication Engineering	1	4	4	1
4	Computer Engineering	2	1	1	1
5	Information Technology	1	1	1	1
6	MBA	4	3	5	3
7	MCA	1	1	2	1

Details of activities are included in Point No. 32 of evaluation report of each department.

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

Prioritized research areas have been identified based on the faculty qualification, area of interest and their expertise. Guide allocation for seminars and project activities are done in line with area of interest. Faculty undertakes Ph.D. research work, funded research projects, student projects in their expert domain. The details of prioritized areas and the expertise available are given in **Table 3.d**.

Table 3.d: Research areas and expertise

Sr. No.	Area of Research	Name of Expert faculty
1	Organic and Inorganic Chemistry	Dr. Ms. J. D. Mane
2	Water Management, GIS and Remote Sensing	Prof. A. U. Chavadekar Prof. Ms. M.M. Joshi
3	Fatigue and Fracture Analysis	Dr. C. S. Pathak
4	Automation, Engineering Process Control.	Dr. S. Y. Gajjal Prof. V. R. Kagade
5	Composite Material	Prof. M. M. Joshi Prof. A. S. Thakare
6	Thermal Engineering	Prof. R. A. Solunke Prof. B. L. Patil
7	Active Suspension for Vehicles	Dr. Ms. V. S. Deshpande
8	Power System	Prof. Ms. P. P. Kulkarni
9	Embedded Systems	Prof. Ms. S. M. Jog, Prof. H. N. Lokhande
10	Image Processing	Prof. S. D. Sawant
11	Antenna Design	Prof. K. B. Kharat
12	VLSI Design	Prof. Ms. D. H. Gawali
13	Text Mining, Soft Computing, Speech Processing	Dr. R. S. Prasad
14	Internet of Things (IoT)	Prof. A. V. Dhumane
15	Computer Vision	Prof. Ms. S. A. Chiwhane, Prof. S. P. Patil
16	Data Mining and Information Retrieval	Dr. Ms. S. R. Chavan Prof. Ms. R. P. Karande Prof. R. M. Samant
17	Voluntary Retirement Scheme	Dr. S. P. Ujagare
18	Work-life Balance	Dr. Ms. R. R. Kabugade
19	Financial Management	Dr. Ms. D. Ingale Dr. P. V. Pise
20	Cloud Computing	Prof. A.G. Kudale
21	Internet Security	Prof. Ms. P. A. Kulkarni

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

The institute often invites industry professionals, academicians, scientists and distinguished personalities to deliver a talk, workshop session and training programs. In every department, 'Industry Institute Interaction Cell' (IIC) has been set up and industry professionals are invited to interact with faculty and students. Eminent persons in the field of Research and Development are invited as judges for competitions such as 'Sanshodhan', a Business Research Competition. Travel, hospitality and honorarium of these eminent persons are often borne by the institute. The details of eminent personalities visited the institute are given in **Table 3.e**.

Table 3.e: Details of eminent personalities visited the Institute

Sr. No.	Name and Affiliation of the researcher	Area of expertise
1	Dr. S.B. Kerur, Professor, Gulbarga University, Karnataka	Technical Computing with MATLAB
2	Dr. D. N. Malkhede, Professor, COEP, Pune	MATLAB and Simulink
3	Dr. Priyadarshini Karve, Director, ARTI Institute, Pune	Rural Technology
4	Dr. Vishwas Udpikar, Wavelet Technologies, Pune	DSP Applications
5	Dr. Manesh Kokare, SGGS IET, Nanded	Wavelet Transforms
6	Dr. Herold D'Costa CEO, Intelligent Quotient Security System,Pune	Cyber Security
7	Mr. Nathaji Shelke, Head of CAD/CAE Training, CADCAM Guru, Pune	3D Printing
8	Adv. Anand Mahurkar, Krishna andSaurastri Associates, Pune	IPR, Patents, Copyrights
9	Mr. Gitesh Mutha, Technical Director, IAV Automotive Engineering, Inc., Pune	Internal Combustion Engine
10	Mr. Rochan Kulkarni, Ex. Faculty NDA, Pune	Aerodynamics & Aero Modeling
11	Mr. Vikram Boralkar, Director, Winspire India, Pune	Design and Automation
12	Mr. Sachin Kadam, Sachin N. Kadam & Associates, Pune	PLC andSCADA
13	Mr. Vikrant A. P., Technocrats Pvt. Ltd., Pune	Rapid Prototyping
14	Ms. Anjali Chipalkatti, Project Leader, Zensar Technologies,Pune	Experiential Learning
15	Mr. Anand Bhаве, Owner at Anand Electromagnetics, Pune	Bioelectronics and Instrumentation
16	Mr. Yogesh Soman, Director, Soman Electromech Pvt. Ltd., Pune	Solar Power Station Installation
17	Mr. Bhavin Chandarana CTO, Phaneron Inc.,Pune	Internet of Things
18	Mr. Ashok Joshi President, Association of Indian Management Schools, Pune	Research Orientation
19	Mr. Ravi Patil General Manager-R & D Thermax Ltd., Pune	Project Management
20	Dr. E. B. Khedkar Dean MBA, SPPU	Research & Finance

3.1.9 What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

The institute has the facility of sabbatical leave for research activities. This facility is given to the faculty when the need arises. This facility has not been availed by the faculty as formal sabbatical leave. However seventy days of vacation including winter vacation and summer vacation per year are provided to faculty which can be availed for research work. Further, the faculty is supported for special leaves during academics if the need arises for research work.

The faculties are allowed to visit their research center during academics.

Total thirty nine faculties of the institute have been pursuing Ph.D. by availing this provision during working hours. By availing this facility four faculties have completed Ph.D.

3.1.10 Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land).

The institute takes initiatives for creating awareness, advocating and transfer of relative findings of research in various ways. The institute organizes technical competitions, project competitions, and poster presentation competitions to showcase research findings. Postgraduate students participate in project exhibitions and PG conferences organized by BCUD, SPPU to present their research work. Achievements in the form of innovation, rewards, publications, participation in reputed competitions are published in academic report of the institute annually.

Faculty and students file patents and copyrights to claim credit of their research findings. Also, research papers are published in peer reviewed journals and conferences of repute. Details of copyright and patent filed, publications by faculty and students, are given in **Table 3.o, 3.s** and **3.t** of Section 3.4.

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.

The institute assigns a certain amount of the total budget and is utilized for research activities. It is utilized for seed money for innovative projects, financial assistance for attending reputed conference and workshops, honorarium for eminent personalities, purchase of books, instruments.etc. **Table 3.f** and **3.g** show the details of budget allocation and utilization of research in last three years.

Table 3.f: Budget Allocation and Utilization for Research

Sr. No.	Academic Year	R & D Budget Allocated (in ₹)	% Allocation	%Utilization
1	2016-17	7,15,867	1.10	87.8
2	2015-16	17,25,000	6.52	58.60
3	2014-15	6,60,400	2.33	15.60
4	2013-14	35,50,000	9.03	52.00

Table 3.g: Major Heads of Expenditure for Research (in ₹)

Sr. No.	Name of Activity	2016-17	2015-16	2014-15	2013-14
1	Faculty Development	34,253	3,83,524	48,362	96,672
2	Periodical and Journals	5,02,051	2,72,947	0	2,17,411
3	Specialized Equipments (Identified in Table 3.1)	92,536	3,54,375	54,500	15,59,839

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, there is a provision at the institution to provide seed money to the faculty for research. Seed money is provided for innovative projects to initiate the work until funds are received from the funding agency. Also seed money is provided to organize research oriented workshop, training programs, etc. Student's projects having potential for product development can also be supported for seed money.

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

Yes, provision is made to provide financial support to the student for research. There is provision for seed money for innovative research projects. Financial assistance is provided for participating in highly reputed project competitions such as 'BAJA' competition, 'GO-KART' competition, Digital Pune 'Hackathon 2015' to name a few.

Further, students are supported for necessary infrastructure and facilities for doing the research.

- The institution has made available Single Stage CO₂ Regulator with Flow meterised gauge costing ₹ 1,08,000 for the students research.
- It consists of Auto K 400 power Source with PFC and used with ICO 32 B. The institution has also provided travelling allowance to students participating in competition like 'Avishkar' and 'Innovation'.
- IBM Rational Rose software for project development and testing is available which had a cost of ₹ 2,24,720.

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

Research Committee of the institute strongly encourages the faculty to engage in interdisciplinary projects. Faculty of Mechanical, Computer, IT and E&TC engineering departments have interactions on interdisciplinary research topics such as Internet of Things based research. Faculty interacts with various interdisciplinary organizations like NCL, CWPRS, ARAI, CSI, MAPRO etc. for research opportunities. Management faculty is associated with various professional institutions such as the Maratha Chamber of Commerce, National HRD etc. **Table 3.h and Table 3.i** show details of interdisciplinary research happening at the institute.

Table 3.h: Interdisciplinary projects in the institute

Sr. No.	Title of Interdisciplinary Projects	Participating Departments
1	GSM Based Home Automation	Computer Engineering, Electronics and Telecommunication
2	Home Automation using Raspberry Pi	Computer Engineering, Electronics and Telecommunication

Table 3.i: Interdisciplinary projects in the departments

Sr. No.	Title of Interdisciplinary Projects	Participating Units
1	Employer Branding and Profitability ratio	HR , Finance and marketing
2	Customer Relationship Management in Banking Sector	Marketing and HR

The faculty is actively engaged in students research oriented competitions such as ‘SAE-SUPRA’, ‘GO-KART’, ‘BAJA’, etc. These competitions are based on innovative engineering designs which often need multidisciplinary approach. For this inputs are provided from various departments such as Mechanical, Electrical and E&TC Engineering.

‘SAE-SUPRA’ is an event that challenges young minds to compete as teams in designing a formula category vehicle. It consists of various subsystems, meeting engineering specifications, timelines and above all, meeting safety standards and then a premium race track under gazing eyes of experienced technical experts. ‘GO-KART’ Design Challenge is an event to enhance the ability of engineering students about designing and fabricating of ‘GO-KART’ at very low cost. ‘BAJA’ is a competition for the engineering students, created by the Society of Automotive Engineers, USA. The ‘BAJA SAE’ ask the students to design, fabricate, and validate a single sitter four - wheeled off road vehicle to go through different road conditions.

The institution received 1st Runner-Up award in ‘Digital Pune Hackathon 2015’, a unique innovation competition followed by 24 hours non-stop Hackathon to identify new, disruptive and sustainable digital innovations for solving current challenges of Pune city. Computer and E&TC Engineering departments contributed to this activity. Recently few innovative, interdisciplinary project proposals have been submitted by the institute under SPPU - ISRO Joint Research Program.

Major challenges faced for interdisciplinary research includes short of expertise with knowledge of multiple domains, unavailability of the research infrastructure of few domains and bringing all members engaged in interdisciplinary research at the common platform of understanding.

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 institute tries hard to ensure optimal use of various equipment and research facilities of the institute. Faculty and students are informed about the availability of infrastructure facilities in the institution. Demonstrations for the optimal usage of equipments are arranged. User manuals are made available in the respective laboratories for the appropriate handling of an instrument and its optimal usage.

Free access is given to the laboratory and library facilities during and beyond working hours on request. In each laboratory, weekly time table is displayed so that faculty and student can avail the laboratory equipments in free slots. An issue register is maintained with laboratory for tracking the utilization of instruments. Repair and maintenance work is carried out as and when required.

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 received funding of ₹6,40,000 from BCUD, SPPU over the last three years for innovative research projects across various departments. Further funding of ₹ 3,40,000 for organizing workshops and training programs has also been received over the last few years.

The institution has received six Analog System Lab Kits from Edgate Technologies, Bangalore under the Texas Instruments University Program. It is helpful for building system level design skills and research aptitude among students.

Also the institute conducts annual technical competition in which the institute receives sponsorship and grants. **Table 3.j** gives details of special grant received.

Table 3.j: Grants received from industry or other beneficiary agency

Sr. No.	Academic Year	Industry or Other Beneficiary Agency	Amount (in ₹)
1	2016-17	BCUD of SPPU	3,25,000
2	2015-16	BCUD of SPPU	
3	2014-15	BCUD of SPPU	3,15,000
4	2013-14	BCUD of SPPU	

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 institute provides support to the faculty in securing funds from funding agencies like SPPU, AICTE, DRDO, ISRO and various industries. Research Committee creates awareness among faculty for various research schemes and notifies them for announcements and call for proposals. The faculty is educated in writing effective research project proposal, entire execution process and other formalities involved through expert lectures, workshops, etc. Suitable guidance is provided to potential innovative project proposals for improvements.

The institute promotes faculty for participation in programs such as conference, workshops and training programs to establish a professional network and to identify opportunities for research projects with funding from industry, collaborative research and creating research facilities at the institute. Eminent industrialist, scientists and researchers are invited for interaction at the institute to create research culture. Research projects, ongoing and completed, during the last four years are given in **Table 3.k**.

Table 3.k: List of ongoing and completed research projects during last four years

Nature of the Project	Duration Year From To	Title of the project	Name of the funding agency	Fund		Total grant received till date (in ₹)
				Sanctioned (in ₹)	Received (in ₹)	
Minor projects	2016 -18	IoT Based Intelligent Energy Monitoring System for Building	BCUD, SPPPU	1,40,000	70,000	1,62,500
		Optimal Context – Aware Routing Algorithm for Wireless Sensor Network	BCUD, SPPU	85,000	42,500	
		Prediction of Meteorological Drought in Indian Regions by using Genetic Programming and Copula.	BCUD, SPPU	1,00,000	50,000	
	2014-16	Analysis of Bathymetric Data in Remote Sensing	BCUD, SPPU	1,70,000	1,23,091	2,40,512
		Hand Gesture Recognition Interface for Visually Impaired and Blind People	BCUD, SPPU	60,000	51,000	
		Content Based Image Retrieval using User Navigation Pattern and Users Log	BCUD, SPPU	45,000	33,020	

		File Annotation and Sharing on Mobile Devices Using Ontology to the Stored Meta –Data for Semantic Bases Research to the Existing Framework	BCUD, SPPU	40,000	33,401	
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3.3 Research Facilities

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

- The institute has well equipped laboratories with essential hardware and software resources to initiate research work. Further necessary computing and internet facility is made available. Laboratories in the institute are available beyond the working hours to the students on request basis. Every department has a project lab for carrying out work related to research projects.
- The institute library is well stocked for reference and text books and open 24x7. The library has subscription of various national and international journals and proceedings. Further, all departments are having departmental library with sufficient number of books for ready reference.
- Financial assistance is provided for participation in research activities. Provision for seed money is made based on request. This helps in starting the project work.
- Expert guidance is provided by the RC members to the students carrying out research. The institute is aggressively involved in the simplification of sanction and purchase procedure related to research projects. Appropriate administrative assistance is provided for technical formalities. The major equipments available in the institute are given in **Table 3.1**

Table 3.1: Details of major equipments

Sr. No.	Name of Equipment /Lab	Research Facility
1	FFT Analyzer	<ul style="list-style-type: none"> ➤ Vibration Spectrum Analysis. ➤ Natural Frequency & Mode Shape Determination
2	ANSYS 15.0	Simulation of Thermal and Structural Analysis.
3	Creo Parametric	Product Design and Simulation
4	Cortex M3 Development Boards	Developing Embedded System
5	DSP Starter Kit	DSP Based Prototype System Development
6	Zynq 7000 SOC Development Board	Designing Reconfigurable Prototype System
7	Virtex 5 FPGA Development board	Designing Highly Integrated Prototype Circuit
8	Analog Discovery Kit	➤ Measurement of Circuit Parameters

		➤ Analysis of Analog and Digital Signals
9	Antenna Training Set-up	➤ Measurement of Antenna Parameters ➤ Characterization of Antenna Parameters.
10	Xilinx ISE 13.2	VLSI Circuit Modeling and Simulation
11	Power Analyzer	➤ Power Quality Analysis ➤ Energy Audit and Measurement
12	MATLAB and Simulink	Modeling and Simulation of Engineering Systems

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?

- The institute identifies funding schemes offered by various funding agencies such as BCUD, industries and other organizations. Further the institute identifies thrust areas in Science, Engineering and Management for planning infrastructural facilities. The institute encourages faculty working in emerging areas of research for submitting proposal to funding agencies to establish infrastructural facilities through funds received. The institute has a plan for setting up IoT lab, which has a potential to support new research initiatives.
- Necessary provision is made in the budget for upgrading the infrastructural facilities. The institute has recently upgraded the laboratory infrastructure required for project competitions such as 'BAJA', 'GO-KART' etc. Computing infrastructure is upgraded to new and latest software version compatibility issues.
- The institute makes constant efforts for creating infrastructural facilities useful for research in emerging areas. Part of the annual budget is utilized for procurement of modern equipments and consumables. The institute associates with the industry and other organizations such as ARAI, Tata Research Center, and CWPRS etc. to pursue state-of-the-art industry problem statements for projects at undergraduate and postgraduate levels. This enables for using an infrastructure facility at their premises.

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 institute has received special grants from industry and SPPU in last four years. This grant is utilized for research recourse like equipment's, books, softwares and other facilities.

- For the student competition 'BAJA', industry provided engine and engine parts.
- The institute has developed a 'Center of Excellence' lab which is dedicated to 'Cyber Security & Cyber Forensic' in association with Sedulity Solutions & Technologies, New Delhi.
- The institute has received six analog system lab kits from EdGate Technologies Pvt. Ltd., Banglore.

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

The institute is keen to provide exposure to students for research facilities beyond the institute. Students are encouraged to work on projects in association with industry. They are allowed to visit the industry regularly and work on-site. Students are also encouraged to visit research organizations like CWPRS, CDAC, NCL etc. to take valuable inputs from researchers useful in solving research problems. Industrial visits are arranged for the students regularly. Students are allowed to visit and access library resources at SPPU, IITB and DIAT. **Table 3.m** shows list of research facilities for UG and PG students outside the campus.

Table 3.m: Research Facilities Available to Students outside Campus

Sr. No.	Name of the organization providing research facility
1	ARAI, Pune
2	CWPRS, Pune
3	Cummins India, Pune
4	DRDO, Pune
5	Harbinger System Ltd, Pune
6	L&T Switchgear, Ahmednagar
7	NCL, Pune
8	Persistent Systems, Pune
9	Tata Research Development and Design Centre, Pune
10	Tech Mahindra, Pune
11	Advent Tooltech Pvt. Ltd, Pune
12	Atlas Copco, Pune
13	Bharat Forge Ltd., Pune
14	Chrome India Ltd., Pune
15	Forbes Marshall Pvt. Ltd. Chinchwad MIDC, Pune
16	Knorr-Bremse Systems for Commercial Vehicles India Pvt. Ltd., Pune
17	Plustech System and Solutions Pvt. Ltd, Pune
18	Ram TechLineage Software Pvt. Ltd., Pune
19	Saha Enterprises, Pune
20	Saptasati India Pvt. Ltd. Pune
21	Sintercom Ltd, Pune
22	Supertech Heavy Equipment Ltd., Pune
23	Terminal Technologies Pvt. Ltd., Pune
24	Think Smart, Pune
25	Vanaj Engg. Ltd., Pune
26	Xpertrix IT Solutions Pvt. Ltd., Pune

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

There is an institutional library and departmental libraries in various departments. The library has subscription of various national and international journals and transactions. The library provides free access to IEEE and Science Direct research papers to faculty and students. For Management courses, Harvard Business Review Subscription is available. There is also a central library which facilitates book loan from the library of sister the institute. The library has 15302 books, 2975 titles, 131 printed journals and online subscription for 3 database.

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

- The institute has signed MoU with EdGate Technologies Pvt. Ltd., Bangalore, on 25th May 2014 under Texas Instruments India University Program. Under this, the institute has set-up Analog Lab with six Analog System Lab Kits. It is helpful for building system level design skills and research aptitude among students.
- The institute has developed a 'Center of Excellence' lab which is dedicated to 'Cyber Security & Cyber Forensic' that helps the researchers, academicians, Govt. officials, and corporate professionals etc. to bring their technical issues/cyber security challenges and to get the excellent solutions for the better productivity in their respective domains in association with Sedulity Solutions & Technologies, New Delhi.
- The institute has developed Free Open Source Software (FOSS) lab under which research activities are proposed.

The details of collaborative research facilities are given in **Table 3.n**

Table 3.n: Collaborative Research Facilities

Sr. No.	Research Facility	Collaborating Agency
1	Free Open Source Software (FOSS) Lab	Spoken Tutorial Project Team Members, IIT Bombay.
2	Center of Excellence –Cyber Security & Cyber Forensic	Sedulity Solutions & Technologies, New Delhi

3.4 Research Publications 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 Research Committee motivates faculty and students to file patents and copyrights for inventive research which can be transformed into a process or product. The major Patents filed are as shown in **Table 3.o**.

Table 3.o: Copyrights /Patents Achieved

Sr. No.	Reward Type& Number	Name of the Applicant	Issuing Authority	Title of work
1	Patent Published 3716/MUM/2015 A	Dr. R. S. Prasad	Intellectual Property India	Intrusion Detection System for Mobile Ad-Hoc Network Based on Particle Swarm Optimization
2	Patent Filed 2444/MUM/2015	Prof. Ms. D. H. Gawali, Dr. V. M. Wadhai	Intellectual Property India	Fabrication and Design of ECG Electrode for Long Term Health Monitoring Applications
3	Copyright Filed 10637/2016-CO/L	Dr. R. S. Prasad	Registrars of Copyright, New Delhi	Particle Swarm Optimization: An Evolving Routing Protocol in Mobile Ad-hoc Network

➤ **Original research contributing to product improvement**

Table 3.p: Original research contributing to product improvement

Sr. No.	Name of Researcher	Research Topic	Contribution to product improvement
1	Dr. Ms. V. S. Deshpande	Active Suspension for Vehicles Using Uncertainty and Disturbance Estimation	Developed an active suspension system to enhance the comfort of passengers travelling in the vehicle
2	Dr. Ms. M.P. More	Comparative Study on HRD Audit in Selected service Industries	Designed syllabus for HRD Audit - PG students of HR specialization

➤ **Research studies or surveys benefiting the community or improving the services:**

Academic research is often useful for industry, government and overall society. Engineering and Management faculty engage themselves in research for benefiting the community or improving the services. **Table 3.q** shows details of the same.

Table 3.q: Research Benefitting the Community or Improving the Services

Sr. No.	Research Study	Research Benefits to the Society
1	Smart Garbage Collection	Cleaner Environment
2	Remote Health Monitoring of Pilgrims Using Wearable Sensors.	Crowd Management in Pilgrimage
3	Development of Agrobot for detection and prevention of plant disease	Improving Agriculture Production
4	Design and development of Wireless Power Supply for wearable medical device	Better Power Management of Wearable Medical Devices

➤ **Research inputs contributing to new initiatives and social development:**

The faculty and students are constantly involved in investigating ways to solve community problems. The institute strives to contribute for new initiatives and social developments such as Digital India initiative, Smart City etc. Details of contributing to new initiatives and social development are given in **Table 3.r**.

Table 3.r: Research Contributing to New Initiatives and Social Development

Sr. No.	Research study	Contributing to new initiatives and social development
1	Drought prediction for Indian Regions	Water Management and Drought Mitigation
2	Hydro pneumatic pump for vehicle washing	Water Conservation
3	Design and manufacturing of quad copter	➤ Disaster Management ➤ Military Surveillance Applications.
4	Hydraulic operated machinery moving skates	Improved Load Carrying Capacity of Transport Vehicle.
5	Phase Change Material (PCM) Compatible Domestic Refrigerator	Reduction of Harmful Effects of Refrigerant.
6	Design and Modification of Sugarcane Bud Scooping Machine	Improved Productivity of Sugar Factory
7	Conserving Electricity by using concentrated solar power for industrial heaters	Energy Conservation.
8	Optimization of parameters affecting the performance of single compartment CEDI Unit	Ultra pure Water Treatment
9	Mechanical Design and Stress Analysis of Threaded Dental Implants along the Implant-Bone Interface	Dental implants can be made available to hospitals
10	Smart Bracelet For visually impaired person	Improves mobility of blind person
12	Solid Waste Management	Optimization of Solid Waste Management
13	Digi-smart PMPL – Traffic Control System	Reduce Traffic Congestion

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:

Faculties engaged in research present their work in international and

national journal and conferences. Faculties also motivate and guide students in writing and presenting research outcomes in journals. The details of publications by faculty and students are given in **Table 3.s** and **Table 3.t**. The details of Books published by faculty with ISBN/ISSN are given in departmental evaluation report.

Table 3.s: Number of publications of the faculty in last four years

Sr. No.	Name of Department	Number of papers published in peer reviewed journals (National/International) by faculty and students	Number of publications listed in International Database	Monographs	Chapter in Books	Books Edited	Books with ISBN/ISSN	Citation Index		SNIP	SJR	Impact factor	Total h-index	
								Scopus	Google Scholar				Scopus	Google Scholar
1	Engineering Science	3	7	-	-	-	-	-	4	Min: 1.132 Max: 3.789	Min: 0.68 Max: 1.494	Min: 1.692 Max: 3.782	0	1
2	Mechanical Engineering	49	42	-	-	-	4	4	39	Min: 1.35 Max: 2.15	1.75	Min: 0.5 Max: 8.8	0	11
3	Electrical Engineering	10	12	-	-	1	1	61	83	Min: 1.132 Max: 3.789	Min: 0.68 Max: 1.494	Min: 0.81 Max: 4.88	5	5
4	Electronics and Telecommunications Engineering	10	16	-	-	-	1	-	22	-	-	Min: 2.7 Max: 5.3	2	6
5	Computer Engineering	79	52	-	-	2	34	-	20	-	0.17	Min: 0.65 Max: 6.5	-	8
6	Information Technology	32	0	-	-	-	05	-	-	-	-	Min: 0.75 Max: 5.33	-	6
7	MBA	19	10	1	-	-	1	1	3	-	-	Min: 1.01 Max: 8.19	1	1
8	MCA	16	2	-	-	-	3	0	5	-	-	Min: 1.01 Max: 5.83	0	0

➤ Publication Per student:

Table 3.t: Number of publications of the students in last four years

Sr. No.	Name of the Department	International Journal	National Journal	International Conference	National Conference	Total
1	Mechanical Engineering	51	02	12	26	91
2	Electronics and Telecommunication Engineering	20	02	47	08	77
3	Computer Engineering	61	0	0	0	61
4	Information Technology	23	0	0	0	23

3.4.4 Provide details (if any) of Research awards received by the faculty, Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally, Incentives given to faculty for receiving state, national and international recognitions for research contributions.

➤ **Research awards received by the faculty**

- Dr. R. S. Prasad received best support award in international conference in ICIET 16, CAASR, Malaysia dated 5th to 6th May 2016
- Prof. A. U. Chavadekar won 2nd prize in Avishkar Research Project competition of Solapur University

➤ **Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally**

Rewards, recognition and incentives for research keep the faculty motivated. Faculties of various departments have received recognition from reputed professional bodies and agencies nationally and internationally. Many faculties have worked as a PG recognition teacher, BoS, session chair and reviewer at various international conferences and guiding Ph.D. students. The details recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally are given in Point No. 23 of departmental evolution report.

3.5 Consultancy

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

The system and strategies for establishing institute industry interface are as follows:

➤ **Systems for establishing The Institute-Industry Interface**

The institute has developed its system for Industry Institute Interface with following main components.

- **Industry Institute Interaction Cell (IIIC)**

Every department of NBNSTIC has formulated Industry Institute Interaction Cell (IIIC) Management- III Cell enables the guest speakers from the industry to interact with the students and share the valuable inputs on every Thursday. Industry experts give technical support to the students in the summer internship projects

- **Training and Placement Cell (T&P)**

Training and Placement Cell organizes training sessions regularly for Quantitative Aptitude and interpersonal skills from industry experts such as Barclays, ACE, GoFigeto. T&P also has MoUs with industries which provide internship opportunities for academic projects for students.

- **Entrepreneurship Development Cell (EDC)**

Entrepreneur Development Cell (EDC) motivates the students to initiate an innovative idea which is converted to a new venture management.

- **Professional Clubs**

NBNSTIC motivates faculty to be a part of professional clubs and chapters like ISTE, IAENG, CSI, IACSIT, IEEE.

➤ **Strategies for establishing Institute-Industry interface:**

- Conduct Industry oriented workshop, FDP, training.
- Plan Industrial visits and training
- Motivate UG and PG students to complete industry sponsored project
- Facilitate live projects and guidance from industry

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

The institute has set up standard policy to promote consultancy. The resources, knowledge and expertise of faculty, laboratories are used for the benefits of society and industry. It is further used to generate income source for the development of student, faculty and the institute. A suitable platform is provided for maximum sharing of knowledge of experts for the benefit of student and faculty.

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

The institute motivates faculty to utilize their expertise and facility for consultancy services by various ways. In faculty appraisal, special attention is given for faculty involvement in consultancy work. Generated income is distributed to faculty involved in consultancy according to the institute policy. The institute provides resources, equipment, laboratories and accessories to faculty for consultancy. Adequate flexibility is provided to faculty involved in consultancy work to reduce their academic and administrative load.

3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.

The institute provides consultancy service to various institutes and industries by conducting FDPs in various areas and hand on session on available software. List of broad areas and major consultancy services provided by the institute are given in the **Table 3.u**.

Table 3.u: List of consultancy services provided by the institute

Sr. No.	Name of Department	Academic Year	Name of the Institute / Industry	Activity	Revenue generated (in ₹)
1	Electrical Engineering	2016-17	K. J. College of Engineering Management and Research	Utilization of power analyzer	25,875
2	Mechanical Engineering	2016-17	Keystone School of Engineering, Pune	Utilization of UTM and IC Engine	95,450
3		2015-16	Keystone School of Engineering, Pune	Utilization of UTM and IC Engine	80,000
4	Computer Engineering	2014-15	Sinhgad Institutes	German Language Training	31,500
5	MCA	2016-17	Sinhgad Institutes	Japanese Training and NAT-TEST	48,800

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 policy of the institution in sharing the income generated through consultancy and its use for institutional development are as follows.

- The generated revenue through consultancy is distributed in appropriate ratio between the involved staff and institute.
- The share of involved faculty changes as per agreement between institute and industry/ other institute.
- The institute share is mostly utilized for purchase of hardware, software or new equipment for laboratory as per guidance of higher authorities.
- Every department is asked to keep record of consultancy carried out in academic year.
- Financial audit of revenue generated is carried out at the end of academic year.

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?

The institute believes in student's engagement in community network helps them to learn ethical values and develop a sense of responsibility in contributing to good citizenship. Various social activities such as blood donation camps, organ donation awareness program, gender equality awareness program, computer awareness camp in a rural area etc. are organized involving students for their holistic development. Donation programs are organized wherein students participate to visit the social organizations and help them by donating the material as per need (food, notebooks, clothes, educational instruments, etc.)

To help economically weak students, the institute implements the Earn and Learn Scheme of the SPPU. This further helps the students to understand the value of hard-earned money. The institute strives for high quality education by inculcating moral values, scientific temper and employing state of the art technologies. Efforts are made to identify engineering problems of social importance and pursue them as research. It aims to pursue excellence towards creating students with a high degree of intellectual, professional and cultural development to meet the need of society.

NSS successfully organized seven day residential camp to conduct various social activities in Gorhe village, Pune. Activities organized by the institute are shown in **Table 3.v**.

Table 3.v: Activities Organized by the institute for contributing to Society

Sr. No.	Name of the activity
1	Celebration of 'Samata Evam Nyay Diwas' - Ambedkar's ideology and philosophy.
2	Independence at 70- a poster presentation Competition
3	'iVote' - a field trip for Voter Awareness
4	A field trip for Traffic Awareness Program
5	Matoshri Ashram Dan- Field visit to an old age home
6	Visit to Apla Ghar - Field visit to Orphanage.
7	Visit to 'ArpanVrudhashram' for celebrating Senior Citizen Day
8	Utthan – A field trip a village for nutrition awareness
9	Dhahasatwad and Hinsachar Virodhi Diwas – Seminar on Anti terrorism
10	Awareness program for Human Rights Education
11	Organ Donation awareness program
12	Seminar on 'Gender Equality'
13	' Yes +' meditation course under Art of Living
14	Guest Lecture on Healthy Diet for working women.
15	Yoga Day Celebration
16	Workshop on 'Sexual Harassment of Women at Workspace Act 2013'
17	Blood Donation Camp
18	Tree Plantation Programme
19	Donation to 'NAAM' foundation- Drought Relief Fund

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. In following ways the institute tries to track student's involvement in social events,

- The institute has developed Institute Social Responsibility Cell (ISR) under various activities are conducted.
- The management students are made aware about Business Ethics.
- Periodic and regular meetings are conducted for highlighting social and ethical values.
- Social activities are planned at the institute level and delegated to faculty advisors to the student team across all departments. This team motivates the students to participate in various social movement activities.
- Faculty advisors with student team ensure for the participation of students and continually monitor their progress in such extension activities.
- A student record file is maintained for all the students at the respective department, which includes their personal details, performance in technical and cultural events.

3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

The institute solicits stakeholder perception of overall performance and quality of appropriate feedback system. Stakeholders include Students, Parents, faculty members, University, Employers and the society. As a part of academic performance, the institute regularly informs the progress of ward to parents. Parent-Teachers meeting is organized to inform academic performance of their wards and to share constructive suggestions for the improvements of their wards. Feedback of parents is recorded about the institute and the respective department. Students feedback is recorded using various tools such as online and offline student feedback, alumni feedback, etc.

During alumni meets, alumni feedback is taken. Suggestions for improvements given by the Alumni are recorded. Employer feedback is also collected from companies who recruit students through campus placements to understand enhancing employability of our students. An exit survey for the final year students are conducted.

Further important suggestions from industry experts, eminent personalities visiting the institute are considered for improving curriculum enrichment and effective delivery.

The constructive feedback from all the stakeholders of education system is analyzed and constructive suggestions are incorporated in teaching-learning process in order to improve the overall performance and quality of the institution.

3.6.4 How does the institution plan and 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.

Various extension and outreach programmes are planned and executed every academic year. The impact of these extension and outreach programs helps in developing the social awareness amongst the students. This also plays an important role in developing responsible citizens.

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 institute organizes various activities of community development services. During first year induction programs, coordinators of the activities interact with the students and discuss about the benefits and scope of the activities. The information about the proposed activities and notifications of national agencies received are disseminated on the college notice board, academic calendar, circulars, web notifications and also spread by mouth publicity. Students are encouraged to participate in stage plays with social messages.

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?

The institute conducted various activities to ensure social justice and empower students from under-privileged and vulnerable sections of society:

- Students have also donated ₹12,000 to NAAM foundation, the organization which is working for rehabilitation of Farmers in Drought affected Area.
- Visit to Orphanage home .
- Visit to Old age home
- Blood Donation Camps
- Computer literacy program for rural school students.
- Visit tribal areas for understanding the problem of tribal people.
- The institute gives relaxation in fees to the students from underprivileged and vulnerable sections of society.
- NBNSTIC participated in the 'Vahatuk Janjagrti Din' (Traffic Awareness Program) organized by Traffic Police, Pune.
- Senior citizen day celebration with Arpan Vrudhashram
- No mobile day activity to save energy
- Celebration of Makar Sankranti event
- NSS organized social camp of ten days and conducted various activities at 'Gore Village', Pune District.

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. Thus, all these

activities play an important role in overall personality development of students to enable them to take part in the nation building process.

➤ Objectives

The objectives of the extension activities mainly includes the following,

- To become a socially responsible academic institution by creating socially responsible engineers sensitive to issues concerning the society and the environment.
- To expose students to critical issues such as poverty, social injustice, gender bias, pollution, etc. and create awareness for corrective measures to counter them. Being the backbone of a nation engineers must be aware of the weaknesses and strengths of a society and what reform is required to evolve as a better society.

➤ Outcomes

- Students become aware of community problems and their roles to be played as active agents of social change. Behavioral skills leading to ethical and moral responsibilities are developed amongst the students. These extension activities to boost the overall confidence of students, inculcate a sense of leadership and develop team building skills.
- The faculties of the institute are associated with various technical societies such as ISTE, ISHRE, IAENG, CSI, IACSIT, IEEE. With exposure to community related issues and changes required, helps in fostering lifelong learning skills in students. The details of activity conducted with objective and outcomes are given in **Table 3.w**

Table 3.w: Activities objectives and expected outcomes

Sr. No.	Activity	Objective	Outcome
1	Yoga Day Celebration	<ul style="list-style-type: none"> ➤ To celebrate International Yoga Day. ➤ To create awareness about Yoga. (Meditation) 	Students got awareness about Yoga and exercise
2	Blood Donation Camp	To help blood bank to meet the scarcity of blood.	Student got social awareness and donated blood.
3	Tree Plantation Program	To create awareness about environment	Students planted trees in the institute campus
4	Organ Donation awareness program	To motivate faculty and students for Organ donation	Faculty and Students gave consent form for organ donation
5	Helping Hand – Donation Program	To provide financial support to old age homes.	The student contributed towards donation of old age homes near the campus.
6	Roll The Energy	To build a model containing maximum conversions from one energy to another.	Students built models using waste material to demonstrate maximum energy conversions.

7	Seminar on Gender Equality	To create awareness on gender equality issues of the society	Students understood the importance gender equality
8	'Independence @ 70' - a poster presentation competition	To celebrate 70 th Independence Day	Students showcased their patriotism through poster presentation.

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 institute is involving communities to actively participate in all the extension activities. This has contributed to both community institution networking and development of the institute. The institution organizes various activities. The details of extension activity conducted by the institute and departments are given Point No. 34 of the departmental evaluation report.

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.

Following are the details on constructive relationships forged with other institutions for working on various outreach and extension activities.

- **NSS:** A seven days residential camp was organized at 'Gore village' Pune District in which various activities such as about Tree Plantation, awareness for voting, Health and Cleaning were successfully conducted. NSS cell of NBNSTIC also promotes and conducts various activities initiated by SPPU.
- **Blood donation:** Blood donation camps are organized in association with RMD Foundation and SKN Medical College and Hospital, Narhe.
- **Art of living:** Students participated in Art of living course along with other STES institute students.
- **Tree plantation:** Students and faculties actively participated in tree plantation program which was held in the institute.
- **Organ Donation awareness:** Organ donation awareness program was organized in association with RMD Foundation and Smt. Kashibai Navale Medical College and Hospital, Narhe.
- **Prayas:** Students participated in Prayas camp activities organized by Sinhgad College of engineering. 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.

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.

The institute encourages and provides support to students to participate in various extensive activities. Students also participate in cultural competition like 'Firodiya', 'Purushottam Karandak' where theme presented based on social problems. Student from NBNSTIC participates every year in a very prestigious competition such as 'BAJA' and 'Hackathon'. Further students from Computer Engineering Department won first prize in 'Hackthon-2015'. The highlights of the same have been presented in the departmental evaluation report.

3.7 Collaboration

3.7.1 How does the institution collaborate and interact with research laboratories, the 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 always taken wholehearted initiative to collaborate with the other research laboratories, institutes and industries to encourage research activities at the institute. These interactions have resulted in establishing the strong association in form of formal MoUs. Following are the initiatives taken by the institute to interact with the outside world and create opportunities for collaborative research.

- The institute has organized interactive seminars, workshops and training programs at state and national level to gather academicians, researchers and industry people to have a common platform for sharing ideas for potential collaborative research opportunities
- Industry visits were regularly organized for students to get exposure to industrial practice.
- The institute always strives to encourage industry sponsored projects.
- Faculty members and students are encouraged to attend various conferences, seminars and symposia sponsored or supported by industries and reputed institutes. Expert faculty members contribute as a resource person for research activities organized at other the institutes.

The institute has been benefited in following ways by above mentioned initiatives,

- The institute has signed MoUs with industries and institutions to promote collaborative research and consultancies.
- MoU has been signed with Alborg University, Denmark in order to carry out research activity and doctoral studies. Faculty members have contributed to research activities organized by other institutes.
- Student projects were sponsored by industries or research organizations at the institute.

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 various organizations. It contributes towards various activities including training, placement, industry expert sessions, participation in technical events, industry visit and technology transfer. The MoU details are presented in **Table 3.x**

Table 3.x: Details of MoUs/collaboration

Sr. No.	Organization / The Institute with which MOU is Signed/ Agreements	Contribution	Year of MoU
1	Harbinger System Ltd, Pune	<ul style="list-style-type: none"> ➤ Seminar on Recent Trends in IT Industry ➤ Sponsorship for UG projects 	2016-17
2	GoFigito , Pune	Training for QALR& GDPI	2016-17
3	PPS Energy Solution, Pune	Placement Support	2016-17
4	Skillup Edu Tech LLP, Pune	Workshop on Android programming	2016-17
5	True copy Credentials Pvt. Ltd., Pune	Workshop on Electronics Transcript Support	2016-17
6	Mersion School	Teaching and Learning Foreign Language	2016-17
7	Vinayak Energy Solutions, Pune	<ul style="list-style-type: none"> ➤ Student Internships, ➤ Placement Support ➤ Guest lecture on energy audit 	2016-17
8	Senmon Kyouiku Publishing Ltd.	Japanese Language NAT TEST	2016-17
9	Mechatol Engg Solution	Internship and in plant Training	2016-17
10	E Innovation Technology Pvt. Ltd	Marketing training	2016-17
11	Global Talent Track	Soft skill training	2016-17
12	IBG Fincon Pvt. Ltd	Finance	2016-17
13	I-MEDITA	Network Security	2016-17
14	Pariksha.co	Aptitude test	2016-17
15	EasyPass International, Hongkong	➤ Exposure to international environment to arrange international tours focused on innovations and startup.	2016-17
16	Nicrom India Ltd., Pune	Placement Support	2015-16
17	Dolphin Labs, Pune	Placement support	2015-16
18	Cyber Vault Securities Pvt. Ltd., Pune	<ul style="list-style-type: none"> ➤ Workshop on Cyber Security ➤ Seminar on Network Security ➤ Guest lecture on Ethical Hacking 	2015-16
19	The Chopra's, Pune	Seminar on GRE Examination	2015-16
20	RedMap Elearning Solution, Delhi	Workshop on CCNA Routing and Switching	2015-16
21	Geekslab Technology Pvt. Ltd.	Workshop on Big Data and	2015-16

	Bengaluru	Hadoop	
22	Persistent Systems, Pune	<ul style="list-style-type: none"> ➤ Seminar on Recent Trends in IT Industry ➤ Sponsorship for UG projects 	2015 -16
23	Brose	Research activity	2015-16
24	Educate to Automate	<ul style="list-style-type: none"> ➤ Workshop on PLC and SCADA ➤ UG project guidance 	2014-15
25	Zensar Technologies Ltd., Pune	Placement Support	2014-15
26	Paramount Foreign Education Consultancy Services	German Language Training	2014-15
27	EdGate Technologies Pvt. Ltd., Bangalore	<ul style="list-style-type: none"> ➤ Analog Lab setup ➤ TI Design Contest 	2013-14
28	Redmap eLearning Solution	Workshop on CCNA	2013-14
29	GKTCS, Pune	<ul style="list-style-type: none"> ➤ Workshop and Seminar on Python ➤ Workshop on IoT ➤ Workshop on Dyango 	2013-14
30	Aalborg University	Academic and research activity with a focus on Ph.D.	2009-10

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.

Activities such as industrial visits, seminars/guest lectures, workshops and placement provide the platform for interacting with industry experts and researchers. The institute has signed MoUs with various industries/institutions. Many leading industries visit the institute for placements and internships. Industry experts are invited to guide the students by sharing their experiences, offering them motivation, mentoring, and invaluable suggestions. The institute has Entrepreneur Development Cell. The details of industry interaction is given in **Table 3.y**

Table 3.y: Industry Institute Interaction

Sr. No.	Name of industry/ institution/ community	Activities Conducted	Contribution (Explain: Establishment of facilities, Students and staff support, Infrastructure facilities)
1	Soman Electromech Pvt. Ltd., Pune	Faculty Interaction	Guidance for Internship and Projects
2	Educate to Automate	Faculty and Student Interaction	Workshop and Project guidance in the field of Industrial Automation.
3	DRDO, Pune	Interaction of students with DRDO Scientist	Guidance for the design of Tubular Linear Induction Motor.

4	ITI, Bangalore	Industrial Visit	Live demonstration of through hole component assembly and CAD software
5	PrasarBharti DDK, Pune	Industrial Visit	Visited latest digital equipment in studio and NLE system for post-production.
6	BSNL Telephone Exchange, Pune	Industrial Visit	Exposure to telecommunication switching and networking infrastructure
7	Amit Capacitors Ltd., Goa	Industrial Visit	Study of manufacturing process of industrial capacitors
8	The Institute of Satellite Telecommunication, Pune	Guest lecture and Industrial Visit	Exposure to basic concepts of satellite communication with field installations and practical aspects
9	Film and Television The Institute of India, Pune	Industrial Visit	Exposure to different sections of studio and Prabhat Film museum with live film shooting
10	CDAC, Bangalore	Industrial Visit	Students learnt about various research groups, current research projects and technology development at CDAC
11	Service station Ashok Layland Ambegaon, Pune	Industrial Visit	Exposure of latest technologies in automobile industry
12	Katraj Dairy, Pune	Industrial Visit	Study of refrigeration system and dairy automation
13	Accurate sales Pvt. Ltd., Pune	Industrial Visit	Study of Auto Gauging Stations
14	Bhandardara Hydral Power Station, Nashik	Industrial Visit	Study of Hydral Power Plant
15	AdlabsImagica Pvt. Ltd., Khopoli	Industrial Visit	Study of Hydraulic and pneumatic actuator
16	Penguin Cold Storage, Pune	Industrial Visit	Student understood Technology behind storage with maintained temperature and humidity.
17	IndusInd Bank Ltd.	Industrial Visit	Discussion on opportunities in the banking sector.
18	Peeper Square Ltd. Bangalore.	Industrial visit	Interaction with the project manager.
19	Microsoft, Bengaluru	Industrial visit	Interaction with project manager for career opportunity in IT Industry.
20	Cotton King, Pvt. Ltd., Baramati	Industrial visit	Understanding the functions of the organization related to manufacturing and administration.
21	Barclays, Pune	Industrial visit	Placement Support.
22	Educational Multimedia Research Centre(EMRC), Mysore	Industrial visit	Interaction regarding research and new innovative approaches.
23	Brill Info Systems, Mohali Chandigarh	Industrial visit	Interact with the project manager regarding product development life cycle and various opportunities in IT sector.
24	IIC	Regular Interactions	➤ Providing industrial expertise to students and staff.

	between Academia, Industry and Alumni	➤ Entrepreneurship opportunities for students.
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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 organizes events such as workshops/seminars/ expert lectures on regular basis to inculcate research culture among the students and faculty. Industry experts, academicians and researchers from reputed organizations are invited to contribute for the activity. Details of the same are presented in **Table 3.z**

Table 3.z: Details on the eminent scientists/participants

Sr. No.	Name of Eminent scientists / Professors visited	Activity
1	Dr. D. N. Malkhede COEP, Pune	Seminar on “MATLAB and Simulink”
2	Dr. S.B. Kerur Gulbarga University, Karnataka	Seminar on “MATLAB and Simulink”
3	Dr. K. V. Mali Associate Professor, MIT Pune	Seminar on “MATLAB for Post Graduates”
4	Mr. Sanjay Deshpande Director, Asian Academy of Professional Training, Pune	Guest lecture on “Finite Element Method”
5	Dr. Mahesh Kulkarni Professor, JSPM, Pune.	Guest lecture on “How to write Research Proposal”
6	Mr. Sangram Deshpande Sr. Engineer, Inteliment Technologies India Pvt. Ltd., Pune	Guest lecture on “Industrial Automation”
7	Dr. Manesh Kokare SGGS IET, Nanded	Seminar on ‘Research paper writing’
8	Dr. Vishwas Udpikar Wavelet Technologies, Pune	Keynote speech at one week National workshop on ‘SOC Design for DSP Applications’
9	Dr. Priyadarshini Karve ARTI, Pune	Seminar on ‘Different perspectives of Energy’
10	Mr. Anand Bhave Owner at Anand Electromagnetics, Pune	Seminar on ‘Research going on in the field of Bio-electronics’
11	Mr. S. Panpaliya Director, GKTCS, Pune	Workshop on Internet of Things
12	Mr. H.Gune Director, Symbiosis Institute Pune	Workshop Python Programming
13	Ms. A. Prabhudesai, Founder Director, Bodhivriksha, Pune	Employability Skills Development.

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 –

The list of formal MoUs, activities and benefit to the stakeholders are shown in **Table 3.aa**.

Table 3.aa: List of Activities and Benefit to the Stakeholders

Sr. No.	Collaborating Industry/The Institute with formal MoU	Activity	List of activities benefitted (mention whichever are applicable)
1	Nicrom India Ltd., Pune	Research and Job Placement	<ul style="list-style-type: none"> ➤ Curriculum development /enrichment ➤ Internship/ On-the-job training ➤ Summer placement ➤ Research
2	Zensar Technologies Ltd., Pune	Employability Skill and placement	Student Placement
3	Industry Institute Interaction cell formation	Interaction between students and Industry Members.	<ul style="list-style-type: none"> ➤ Internship, BE projects guidance and sponsorship ➤ Entrepreneurship Development
4	Educate to Automate, Pune	Workshop on PLC & SCADA	Curriculum Development
5	PPS Energy Solutions, Pune	Placement support	Student Placement
6	EdGate Technologies Pvt. Ltd., Bengaluru	Set-up Analog Lab under TI University Program, A National level design contest	<ul style="list-style-type: none"> ➤ Curriculum development/enrichment
7	The Chopra's, Pune	GRE Exam relate session conducted	<ul style="list-style-type: none"> ➤ Consultancy ➤ Curriculum development/enrichment
8	Red Map E learning Solution LLP, Delhi	CCNA Routing And Switching Workshop	<ul style="list-style-type: none"> ➤ Curriculum development/enrichment ➤ Internship/ On-the-job training
9	Geek slab Technology Pvt. Ltd. , Bengaluru	Big Data & Hadoop workshop	<ul style="list-style-type: none"> ➤ Curriculum development/enrichment
10	Paramount Foreign Education Consultancy Services, Pune	German Language Training	<ul style="list-style-type: none"> ➤ Curriculum development/enrichment ➤ Internship/ On-the-job training
11	Skillup Edu Tech LLP, Pune	Student Training	<ul style="list-style-type: none"> ➤ Curriculum development/enrichment
12	Dolphin Labs, Pune	Student Training	<ul style="list-style-type: none"> ➤ Curriculum development/enrichment
13	Cyber Vault Securities Pvt. Ltd., Pune	Workshop on Cyber Security, Training on Network Securities	Curriculum enrichment
14	Harbinger System	Seminar on Recent	<ul style="list-style-type: none"> ➤ Student Sponsorship

	Ltd., Pune	Trends in IT Industry, Interviews and selection process for BE project sponsorship	➤ Curriculum enrichment
15	EduBridge Pvt. Ltd. , Pune	Seminar on Carrier in Information Technology and Communication Skills	➤ Curriculum development/enrichment
16	S2 Consultancy, Pune	Employability Skill Development Seminar on Business Intelligence	➤ Student Placement ➤ Curriculum development/enrichment
17	EasyPass International, Hongkong	Exposure to International Environment	➤ International tour focused on innovation and start up

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

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

The institute always maintains good relations with industry and research organization once it is linked. Systematic efforts are taken up by the institution in planning, establishing and implementing the initiatives of the linkages/collaborations. The faculty is promoted to identify the opportunities for collaborative research. Suitable industry/ institute of mutual benefits for social, educational, scientific, technical and other relations are approached. Activities such as seminars, workshops and/or symposia of mutual interest are organized. Students and faculty are engaged in all activities for capacity building. Monitoring of existing initiatives, research projects and extension activities is done for strengthening research, consultancy and extension.

CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

The institute provides good and adequate infrastructural facilities for healthy teaching- learning environment as per the norms of AICTE and affiliating SPPU.

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

The policy of the institute is to provide the infrastructure requirements specified by the SPPU, AICTE Norms and upgrade the infrastructure as per the growth of institute. A standard process has been established for creation and enhancement of infrastructure which facilitate effective teaching learning environment. The details are as given below:

- The infrastructure facilities have been created in proportion to the student strength in different streams. For creation and expansion of infrastructure facilities, the institute calls for the infrastructure requirements from various departments on regular basis.
- Infrastructure requirements in view of syllabus revisions, increase of intake, research committee recommendations etc. with appropriate justifications are put up to the Local Management Committee (LMC) by Principal for approval. After the approval from LMC, it is then put to governing body for final approval. Budget allocation is done after the final approval.
- Institute then directs the respective departments to follow the purchase with given guidelines for infrastructure creation and up gradation.
- In addition to that institute provides Wi-Fi facility and central library with digital library, so that student can easily access the study material. Reading room facility is also available.
- Any additional infrastructure and equipment required for enhancement can be discussed by HoD with the Principal and request the management for approval.

4.1.2 Details of Facilities available for

a) Curricular and co-curricular activities in terms of 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 institute has state of art infrastructural facilities for healthy teaching-learning environment to facilitate the curricular and co-curricular activities of the students. Sufficient space is available for hosting all curricular and co-curricular activities. It includes following facilities:

- Classrooms are available as per the norms. All the classrooms are equipped with a LCD projector and screen to facilitate effective teaching.

- Every department is equipped with sufficient number of laboratories and a seminar hall with LCD projector and public address system.
- Workshop including different sections such as fitting shop, carpentry, welding etc. is available.
 - Drawing halls with adequate drawing boards are available.
 - Libraries:
 - Central Library: Developed new concept in library area, which includes digital library, 24x7 reading hall and rooftop cafeteria.
 - Department Library: Each department runs its own library which issues books to needy students and staff.
 - Faculty room with internet facility is provided to every department.
 - All laboratories are equipped with necessary furniture, fixtures, equipments and good laboratory practices.
 - Adequate numbers of photocopy centers are available to the students.
 - Other Facilities:
 - Language Laboratory
 - Internet Laboratory
 - GEMS

Details of infrastructural facilities are given in **Table 4.a.**

Table 4.a: Infrastructure Facilities

Facilities	Details	Required Number as per AICTE	Available number	Required area in Sq. Mts.	Available Area in Sq. Mts.
Academic/ Instructional Areas	Classroom	33	37	2178	2699
	Laboratory	52	53	3432	3975
	Drawing Hall	01	01	132	156
	Seminar Hall	07	07	924	1363
	Tutorial Hall	10	10	132	280
	Workshop	01	01	200	375
	Computer Centre	01	02	150	227
	Library and Reading Room	01	01	600	2800
	Total				8474
Administrative area	Principal office	01	01	30	75
	Board room	01	01	20	118
	Office	01	01	300	150
	HoD cabin	08	08	80	234
	Faculty room	Adequate	Adequate	5	Adequate
	Store Room/ Housekeeping	01	01	30	58
	Maintenance	01	02	10	46

	Security	01	01	10	7
	Pantry of staff	01	01	10	10
	Exam control	01	02	30	99
	Placement office	01	03	30	61
	First Aid / Sick Room	01	01	10	16
	Total			585	1574
Amenities area	Boys common room	01	02	100	73
	Girls common room	01	02	100	73
	Boys hostel	01	10	Adequate	5213
	Girls hostel	01	09	Adequate	4589
	Cafeteria	01	01	150	224
	Ladies and Gents toilets	Adequate	Adequate	350	753
	Principal Quarter	01	01	150	160
	Guest house	01	01	30	50
	Sports/Gym	01	01	200	495
	Auditorium /Amphi Theatre	01	01	400	1800
	Total			1480	13430

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 motivates the students for various extra-curricular activities. Facilities for the same are as follows:

- The institute has a centralized cricket ground which is utilized for cricket and competitions. It also has a common playground for various outdoor games including kho-kho, handball, throw ball, volleyball, football etc. It has a facility for various indoor games such as chess, table tennis and carom. Gymnasium facility for boys and girls is available in the campus and in hostels.
- The institute has an open air theatre having a capacity of 1500 for hosting various cultural activities. It is equipped with a Dias, public address system and LCD projector. Every year a mega cultural event named 'SINHGAD KARNDAK' is organized to encourage student's participation in extracurricular activities. Further students are also encouraged and supported to participate in various inter-college competitions like Purshottam Karandak, Firodiya Karandak etc. They are provided with the required infrastructure for preparation of the same.

- As per the guidelines from SPPU, the institute has formed a NSS unit of students and staff. It provides various relevant social services such as creating awareness about natural disasters, social responsibility, blood donations etc. For carrying out such NSS activities, a separate space has been provided.
- To enhance the public speaking skills and communication skills with the help of language laboratory, analytical skills, leadership ability, aptitude skills etc. among the students, a STP is implemented rigorously. It includes various sessions by the experts in respective fields. STP activity is housed in the academic infrastructure.
- Yoga activities are organized, for which the required space is provided in campus.
- The institute takes due care to assure cleanliness and hygiene in the campus. Water cooler installed with purifier is available on every floor. They are maintained regularly. Clean washrooms are available for girls and boys. Special washroom for the physically handicapped is available on the ground floor.
- Health care center is available where a free medical treatment is provided to students and staff. Dental hospital is available for checkup and treatments for students, staff and public in campus. There are 24x7 medical care facilities available at Smt. Kashibai Navale Hospital, Narhe with ambulance.
- Vending machine for sanitary napkin is available in campus.
- Parking facility for vehicles has been made available in the campus for faculty, students and visitors.
- Adequate space has been provided for students activities under Art circle.
- Boys and Girls common room are available in campus.
- Student Activity Centre is available in the campus for cultural activities, project exhibitions and various competition purposes.

4.1.3 How does the institution plan and ensure that the available infrastructure is inline 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)

The institute has developed infrastructure as per the norms of AICTE, SPPU and State government. The classrooms, laboratories, seminar halls, tutorial rooms, workshop, faculty rooms, administrative office, board room, canteen and library etc. have been developed in line with academic growth and optimum utilization.

These facilities are also enhanced as per the increase in intake capacity and growth of Institute as follows:

- Adequate number of classrooms equipped with LCD projector has been provided to each department. Seminar Hall equipped with PA system has been provided to each department to support co-curricular activities. It can accommodate more than 120 students at a time. Seminar halls at management courses can accommodate more than 500 students. Campus is interconnected with LAN for sharing the resources. The IT infrastructure

is upgraded regularly to keep in pace with the latest developments. Institute has developed Digital Library and Departmental Libraries.

- To perform effective lab sessions, the necessary changes are made as per the need and requirement of laboratories. To enhance the research culture, management always supports to improve the infrastructure facility. The equipment recommended by research committee for research development are purchased in due time. For effective curriculum delivery the state of art equipment are purchased.
- The same academic infrastructure is utilized for STP activities which are helpful for the curriculum enrichment and soft skill development of the students.
- Annual budget is approved from the management for the maintenance of equipment. To maintain healthy environment, the importance is given to regular housekeeping.
- The up-gradation of computer laboratories, hardware laboratories, workshop and library has been done in last three years.

The experts from regulatory authorities monitor and visit the institute. This enables the institute to ensure the infrastructure adequacy and optimum use for academic growth. Apart from this, institute takes feedback from stakeholders for development of facilities. The details of the budget utilized are as shown in **Table 4.b.**

Table 4.b: Infrastructure investment for last four years (in ₹)

Items	2016 – 2017		2015-2016		2014-2015		2013-2014	
	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses
Building	NA	NA	NA	NA	NA	NA	NA	NA
Furniture	3,00,000	2,34,000	5,00,000	1,33,317	50,00,000	26,48,248	90,00,000	34,66,083
Equipment, Computers and other Hardware	10,00,000	91,000	40,00,000	29,11,169	1,00,00,000	95,22,509	1,60,00,000	1,41,46,224
Total	13,00,000	3,25,000	45,00,000	30,44,486	1,50,00,000	1,21,70,757	2,50,00,000	1,76,12,307

Building follows the structure as depicted in **Figure 4.a** throughout all floors.

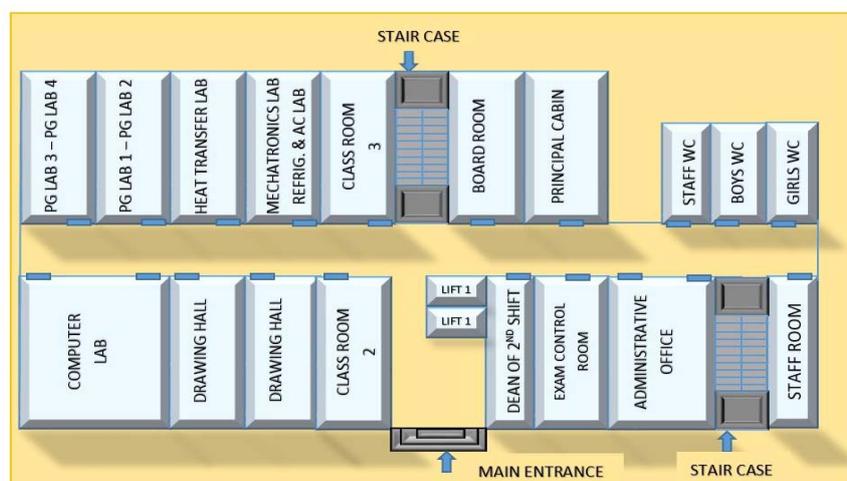


Figure 4.a: Layout of first floor.

Figure 4.b shows the Master Plan of NBN Sinhgad Technical Institute Campus, Ambegaon. It includes of Engineering institute building, Management institute buildin, central library and other amenities.

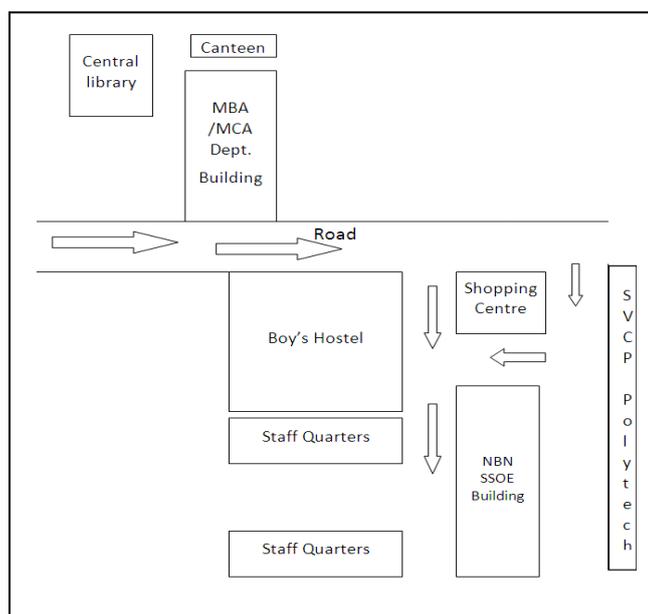


Figure 4.b: Master Plan of NBN STIC

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

As per the norms of AICTE and SPPU, the institute has taken care of handicapped/physically disabled students. The institute has a policy of providing class rooms and examination block on ground floor for the disabled students.

- Institute has provided ramp at appropriate entrance locations.
- Institute has made special provisions in washrooms and lifts.
- Institute ensures that the special arrangement with suitable chair and table is made for physically disabled students in internal as well as university examinations.
- The college ensures that infrastructure facilities are made friendly to provide the easy movement of disabled students.

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

The institute has provided the residential facilities for both students and staff. Following are the details of the same.

Residential Facility

a) Hostel Facilities

Institute provides separate hostels for boys and girls with solar water heater system, hygienic mess facility, and purified water supply. Central library along with 24x7 reading hall facility, 24x7 rooftop cafeteria and internet access through Wi-Fi gives easy access to ample resources of study material.

- Round the clock security has been provided in Hostels.
- Institute has appointed a separate doctor for regular checkup of boys and girls or in case of emergency. In case medical emergency occurs, 24x7 ambulance service is provided in campus.
- Other facilities such as common room, daily newspapers, TV hall, generator backup and indoor sports facility and well-equipped gymnasium have been provided to hostels.
- Laundry facility and utility shops are available in the campus.
- For financially weak students, dormitory facility is available with 40 % concession in hostel fees.
- Banking, ATM service is available in campus comprising of four banks and five ATM.
- Students can have access to central library facility in the campus for 24 hours for all 7 days. It is situated at walking distance and comfortably reachable from the hostels.

The details of Boys Hostels and Girls Hostels are as shown in **Table 4.c** and **Table 4.d**.

Table 4.c: Hostel details (For boys)

Boys Hostel No.	Name of Hostel	No. of Rooms	Built up Area (Sq. M.)	Student capacity/ hostel	No. of NBNSTIC Students	Occupancy per Rooms
1	Pratapgad	80	4348	320	45	3/4 Students
2	Rajgad	100	4364	384	43	
3	Panhala	120	5393	480	47	
4	Raigad	96	4734	400	69	
5	Shivneri	120	5393	480	67	
6	Vijaydurg	120	5393	480	67	
7	Sindudurg	60	3445	240	00	
8	Kaveri	112	3852	448	00	
9	Purandar	112	3852	448	17	
10	Sajjangad	96	4364	384	44	
Total		1,016	45,138	4,064	399	

Table 4.d: Hostel details (For girls)

Girls Hostel No.	Name of Hostel	No. of Rooms	Built up Area (Sq. Mt.)	Student capacity/ hostel	No. of NBNSTIC Students	Occupancy per Rooms
1	Vishalgad	112	5791	448	224	1/2/3/4 Students
2	Torana	112	5791	448	64	
3	Dev giri	40	1985	160	05	
4	Indrayani G-II	112	5845	432	14	
5	Saraswati G-I	120	4559	359	32	
6	Chandrabhaga	96	6050	352	04	
7	Payaswani A	119	4683	357	00	
8	Yamuna B	120	4683	360	01	

9	Godavari C	120	4683	360	01
10	Krishna D	120	4683	360	02
Total		1071	48,753	3,636	347

Each room of hostel is having arrangement for 1/2/3/4 students which includes bed, cupboard, study table and chair with attached wash room. The actual photograph of Hostel room is as shown in **Figure 4.c**.



Figure 4.c: Actual photo of Hostel Room

b) Residential Facility (Staff Quarters)

Institute also provides the residential facility for faculty members and supportive staff. It includes 1 BHK and 2 BHK flats. Following facilities have been made available for the same,

- Constant supply of purified drinking water.
- To support education needs of their wards, CBSE School is available in the college campus.
- Internet and Wi-Fi facility is available.
- Health care center is available where a free medical treatment is provided to faculty, supporting staff and public in campus. Dental hospital is available for checkup and treatments. There is 24x7 medical care facility available at Smt. Kashibai Navale Hospital, Narhe with ambulance.
- Banking, ATM service and post office are available in campus.
- Separate parking area is provided in staff quarter.
- Swimming pool and Gymnasium is available in campus.

Security

- Security Guards have been appointed on shift basis and are available 24X7. Two guards work in each shift i.e. morning, evening and night shift.
- Police station/booth is available in campus.

Others

- Firefighting facility is available at the institute, every hostel and staff quarters.
- Medical shop, laundry facility and utility shops are available in the campus.
- Hair dressing (parlor) for boys and girls is available in the campus.
- Two shopping complex with various accessories required for the students (boys and girls) are available.

- Hygienic canteens, Fruit stall and Fruit juice Centre are available in campus.
- Pune Municipal Transport (PMT) and auto Rickshaw stand is available in campus.
- Generator back up is available for 24 hours in case of emergency.
- Ambulance is available for 24 hours in case of emergency.

Recreation facilities

- Lush–green open space in the form of ground with proper fencing for outdoor games such as football/ cricket, basketball and volleyball game are available.
- For in-door recreation games, carom board, chess boards etc. are provided by the Institute.
- Yoga classes are organized for faculties and students. It includes Art of Living courses for meditation and yoga for youth empowerment.
- Following central facilities have been made available in the campus:
 - Auditorium and Open air theatre (Cultural Centre).
 - Swimming pool, indoor and outdoor sports
 - For lawn tennis separate courts are provided.

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?

In following ways provision for health care has been made on the campus,

- To facilitate health care of students and staff, first-aid facility is made available in the campus. Ambulance and doctors are made available on emergency call on and off campus as and when necessary. A doctor's clinic is available in campus. For off the campus health care requirements, services can be availed at SKN Medical and Hospital, Narhe and Sinhgad Dental College and Hospital, Vadgaon, Pune. All medical facilities are provided to students, faculty, supporting staff and public at free of cost.
- The students are covered under 'Unforeseen Calamity Scheme' introduced by the affiliating University. Under this scheme, students who need immediate financial help in case of any sort of mishap will be paid ₹ 50,000 provided by SPPU and ₹ 50,000 by the Insurance providers. The institute is encouraging students to adopt the Pradhan Mantri Suraksha Bima Yojana insurance scheme introduced by Hon. Prime Minister of India.
- Seminar on health awareness is conducted for students and staff.
- Medical shops are available in the campus.
- Cleanliness is maintained in campus. Water coolers are cleaned on regular basis.
- Hygienic canteens are available in campus.

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.

The institute provides the common facilities to students, faculty, and supporting staff. Details of the same are as follows in the **Table 4.e**. These facilities are very useful to develop their personality and enhance the confidence of students.

Table 4.e: Common Facilities available in campus

Sr. No.	Description	Area (Sq. M.)	Location
1	Academic Monitoring Committee	75	First Floor, Bldg 1, NBNSTIC
2	Grievance Redressal Unit	06	First Floor, Bldg 2, NBNSTIC
3	Women's Cell	06	First Floor, Bldg 2, NBNSTIC
4	Counseling and Carrier guidance cell	37	First Floor, Bldg 2, NBNSTIC
5	Training and placement Officer (TPO Office)	68	First Floor, Bldg 1 and 2, NBNSTIC
6	Health Centre (Gymnasium)	494.66	STES Vadgaon-Ambegaon Campus
7	Canteen	224	NBNSTIC Ambegaon
8	Student Activity Centre	700	STES Ambegaon Campus
9	Playground	Cricket-17167.03 Vadgaon-4946.53 Ambegaon-7186.5	STES Vadgaon-Ambegaon Campus
10	Central Library	9585	NBNSTIC Ambegaon
11	Computer Centre	227	First Floor, Bldg 1, NBNSTIC Third Floor, Bldg 2, NBNSTIC
12	Exam Control Room	50	First Floor, Bldg 1 and 2, NBNSTIC
13	Board Room/Meeting Room	75	First Floor, Bldg 1, NBNSTIC
14	Girls Common Room	100	Fourth Floor, Bldg 1, NBNSTIC First Floor, Bldg 2, NBNSTIC
15	Boys Common Room	100	Third Floor, Bldg 1, NBNSTIC First Floor, Bldg 2, NBNSTIC
16	Server Room	58	First Floor, Bldg 1, NBNSTIC
17	Police Station	91	STES Vadgaon-Ambegaon Campus
18	Post Office	39	STES Vadgaon-Ambegaon Campus
19	Store, Stationery, Xerox	1137	STES Vadgaon-Ambegaon Campus
20	Estate office	130	STES Vadgaon-Ambegaon Campus
21	Alumni Office	06	First Floor, Bldg 2, NBNSTIC
22	NSS Office	11	First Floor, Bldg 2, NBNSTIC
23	Entrepreneurship Development Cell	06	First Floor, Bldg 2, NBNSTIC
24	Auditorium /Amphi Theater	1800	STES Vadgaon-Ambegaon Campus
25	Earn and Learn Scheme	75	First Floor, Bldg 1, NBNSTIC
26	Lawn tennis court	196	STES Vadgaon-Ambegaon Campus

4.2 Library as a Learning Resource

4.2.1 Does the library have an 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, library has advisory committee which includes Principal, senior faculty members from each department, student coordinator and librarian. The details are as shown in **Table 4.f**.

Table 4.f: NBNSTIC Library Committee

Sr. No.	Name	Designation
1	Dr. R. S. Prasad	Chairman
2	Prof. Ms. M. M. Joshi	Library In-Charge
3	Prof. Ms. D. H. Gawali	Member (E&TC)
4	Prof. A. V. Dhumane	Member (Computer)
5	Prof. R. M. Samant	Member (IT)
6	Prof. Ms. N. R. Dagade	Member (Electrical)
7	Prof. D. A. Mahajan	Member (Mechanical)
8	Dr. Ms. R. R. Kabugade	Member (MBA)
9	Prof. Ms. D. D. Mokashi	Member (MCA)
10	Prof. B. D. Shingade	Librarian –Member Secretary

Minimum two meetings are arranged in an academic year. The library advisory committee approves all the proposed rules and takes major decisions regarding the functioning of library.

Significant Initiatives

Details of significant initiatives taken by the library committee are as follows:

- Procurement of quality books appropriate for the syllabus revisions of SPPU and AICTE norms
- Preparation of rules and regulations considering the students' needs for smooth functioning of library
- Encourage the students for the general reading by providing open access to library resources.
- Identification of library software and monitoring its functionality to facilitate document searching.
- Creation of departmental library facility including commonly referred books and some ready reference material – coordinated by the departmental representative of the library committee.
- Recommendation of Book Bank facility for needy students and Book reservation facility for faculty.
- General books are made available in library which includes historical story book, autobiographies, novels, magazines, spiritual books etc. Newspaper

and journals stand in the library to provide an access to research, news and other information to the students/readers.

- Separate internet leased line of 4Mbps is provided to library for accessing e-journals, eBooks, white papers, etc.
- Digital library of 30 nodes, through which the student can easily access the IEEE paper, Science Direct papers and other study material.
- NPTEL video lectures are made available to students and faculty.
- Library is made fully digital by using the Library Cards with Barcode.
- Reading room is available 24x7
- National Digital Library access is available.

4.2.2 Provide details of the following:

- **Total area of the library (in Sq. Mts.):** 6,870sq. m. Each floor area: 1145 sq. m.
- **Total seating capacity:** 1200 students.
- **Working Hours**

Working hours for library activities during working days, before examination, during examination and during vacation are as follows,

- Book issuing facility : From 08.00 AM to 12.00 mid Night
- Reading Hall Facility: 24X7 hrs.
- The library remains closed only on two National Holidays which includes republic day (26th January) and Independence Day (15th August).

Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)

Figure 4.d shows layout of the library, area for browsing and relaxed reading, IT zone for accessing e-resources etc.:

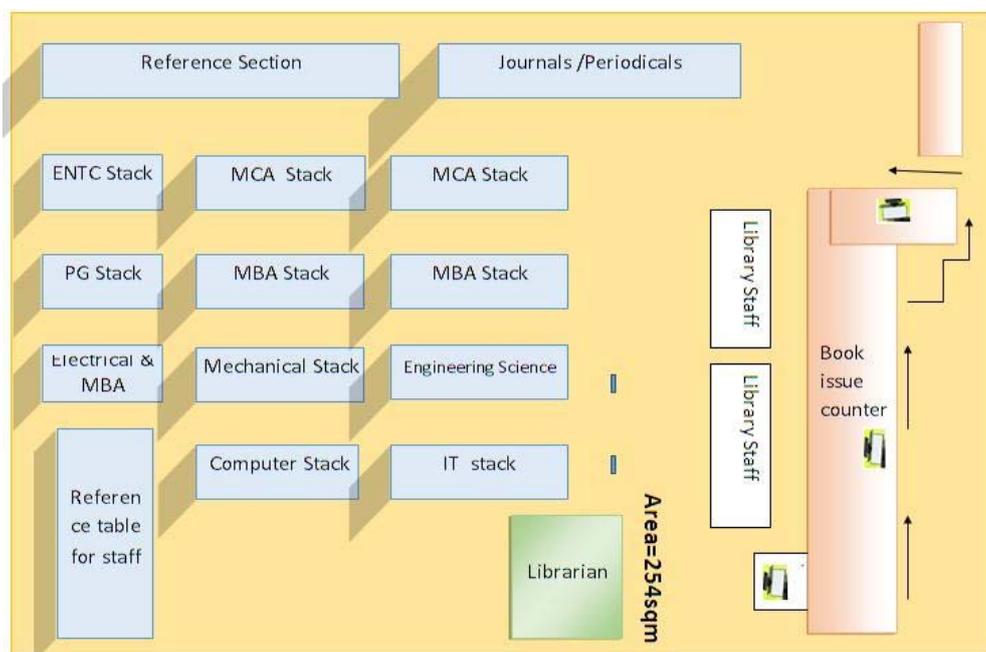


Figure 4.d: Layout of the library

Figure 4.e shows the actual photo of reading hall.



Figure 4.e: Actual photo of the Reading hall

The detail blue print of floor layout is as shown in Figure 4.f

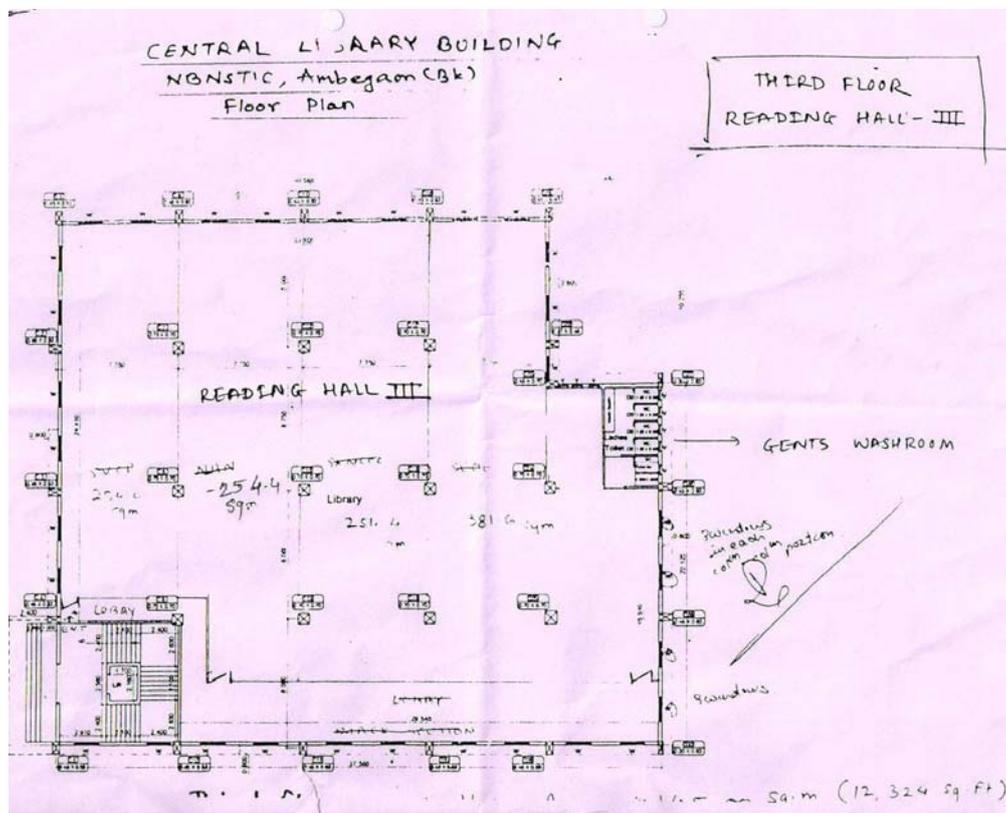


Figure 4.f: Floor layout of the central library

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 procuring new books, journals and e-resources during the last four years.

Purchase of library resources

Library Committee ensures purchase of current titles, print and e-journals and other reading materials by referring to AICTE norms. Purchase requisition for books from respective departments as per university syllabus, student intake and research committee recommendations are reviewed periodically. After review, library committee gives recommendation for purchase of books through librarian.

Library resources are augmented regularly with newer editions and titles.

Use of library resources

Institutional library is enriched with ample collection of reference books and e-resources. A separate reading hall and digital library is available for students and faculty. The library is facilitated with AUTOLIB software and barcode system for smooth accession of books.

Every student has four library cards for issuing 4 books. Overnight card gives facility to utilize one library book for one night. The details of amount spent on procuring new books, journals and e-resources during the last four years are shown in **Table 4.g**.

Table 4.g: Amount Spent on Procuring Library Resources (in ₹)

Year Library Holdings	2016-17		2015-16		2014-15		2013-14	
	Number	Total Cost (in ₹)						
Text books	140	80,851	424	2,96,099	750	4,48,683	871	4,42,985
Reference Books	27		89		102		15	
Journal/ Periodical, e-Resources	4569	5,02,051	4,433	2,72,947	00	00	4,433	2,17,411
Total cost invested per year	5,82,902		5,69,046		4,48,683		6,60,396	

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection? OPAC (Online Public Access Catalogue)

- **OPAC service is available:** Yes, library uses computer based OPAC to keep a record of the book and of the user who borrow the book. OPAC facility is made available through Auto Library Management Software (ALMS) to know the bibliographical details about the collection. Besides listing all the books and Journals available in the library, it allows the facility like reservation, fine calculations, status of particular books, particular students. It is searchable by Author, Title, Accession Number and several other fields.
- **Library automation:** AUTOLIB software and barcode system is adopted in library for the smooth accession of books.

- **Library information on website:** Summary of library information is available on institute website: <http://www.sinhgad.edu/sinhgadInstitutes-2013/Inner-pages/centrallibrary>
- **In-house/remote access to e-publications:** In house/Remote access to e-publications is made available through internet, Wi-Fi and Library Portal. A well-equipped Digital Library with 30 nodes having internet connectivity is housed in the Central Library for access to e-publications. As the access facility to e-journals is multiuser and IP address-based, the student can access the e-publication from anywhere in the campus.
- **Total number of computers for public access:** To access the e-journals and internet a digital library of 30 nodes is facilitated to the users in the Central Library. Apart from this, one separate node is made available to search OPAC.
- **Total numbers of printers / Copier for public access:2**
- **Electronic Resource Management package for e-journals:** Yes
In order to update users about the latest technology, library subscribes to e-resource packages of Elsevier e-journal (Science Direct). These e-resources are accessible from anywhere in the institute campus and link to all such e – resources is available on library webpage. In addition to that, link to scholarly open access journals is also available.

Provide details on the following terms:

- Average number of walk-ins: 300/day
- Average number of books issued/returned: 45/day
- Ratio of library books to students enrolled: 5:1
- Average number of books added during last three years: 4437
- Average number of login to OPAC: 100/day
- Average number of login to e-resources (per month): 1500
- Average number of e-resources downloaded/printed (per month): 650
- Number of information literacy trainings organized: Nil
- Details of “weeding out” of books and other materials: Nil

4.2.6 Give details of the specialized services provided by the library

The detailed services provided by the library to the students and faculty are as mentioned in **Table 4.h**.

Table 4.h: Specialized Services provided by library.

Sr. No.	Services	Description
1	Reference Books	A Separate reference section with rich collection of handbook manuals is available in the library. Number of reference books: 594
2	Inter Library Loan Service (ILL)	ILL service is used within STES group.
3	Reprography Section	Photocopy machines are made available in the library.
4	Information deployment and notification	Yes. Important notices, circulars and information related to library are displayed on notice board on regular basis. New arrivals are displayed to notify the user and motivate them for reading.

5	Download facility	E- Journals subscribed by the library, can be accessed by stakeholders in digital library and throughout the campus.
6	Printing	Yes – 1 printer is available in library.
7	Reading List/Bibliography compilation	Library has maintained digital catalogue (OPAC) which provides all the details about the book.
8	User Orientation and awareness	User orientation programs are conducted for first year and directly admitted to second year students.
9	Assistance in searching Databases	The library staff assists the users in searching desired information available with various sources. Training session for effective searching is also arranged to make the user aware about the advanced searching technique.

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

Manpower is asset of the institute. Well educated, hardworking and cooperative staff has been working with our library. Library is the heart of institute which provide services to students and faculty. Details of the same are as follows.

- New arrival books and journals are informed to all departments and displayed on notice board. Library conducts user awareness programs and training sessions for searching database.
- Library staff helps students and faculty members to locate books in the sections consisting of reference books, Journals and in online databases. Personal assistance for searching book and e-resources to the visually/physically challenged persons. Help is provided to students for downloading the research papers and printing.
- Book Bank facility.
- Issue-Return (Home Lending) of books.
- Interlibrary loan service. This service is provided to STES students and faculty.
- Previous year university Question papers and syllabus consultation facility.
- Overnight book issuing and book reservation facility.
- Newspapers, story books and competitive exam books are also available in library.

4.2.8 What are the special facilities offered by the library to the visually/physically challenged persons? Give details.

- The library staff gives extra attention to issue books for the physically challenged persons.
- The institute has a library on ground floor for physically challenged persons.
- Wheel chairs facility is provided.
- Ramp and lift facility is provided for physically challenged students.

4.2.9 Does the library get the 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, Institute has taken care regarding how to improve the performance of library and increase the users. It takes the feedback from the students and faculty. Library committee analyzes the feedbacks and recommends corrective measures, if any.
- The library has a suggestion box through which the feedback is collected. Library committee members interact with students and corrective actions are taken as follows.
 - a) Student dissatisfaction reading material is reduced.
 - b) Good books are increased by number of copies.

4.3 IT Infrastructure

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

- **Number of computers with Configuration (provide actual number with exact configuration of each available system)**
 - **Computer-student ratio**
 - **Stand-alone facility**
 - **LAN facility**
 - **Wi-Fi facility**
 - **Licensed software**
 - **Number of nodes/ computers with Internet facility**
 - **Any other**
- As per the norms of AICTE and SPPU, the necessary computing facilities have been provided by the institute. Latest computer configurations and necessary licensed software are available in the institute. Institute also uses the system software like Microsoft Windows, Ubuntu, Fedora-19 and open source software like Scilab, NS-2, C, C++, JAVA, .Net etc.
 - For the proper and timely dissemination of important information and notices to the students the institute makes effective use of various services provided by Google like Google groups, Google Drive, Google spreadsheets etc. Institute also makes use of SMS facility for the same.
 - To achieve this purpose, the institute has formed the separate Google groups of students as per their department / specialization and academic year batch.
 - Google groups of faculty members are also formed department wise to facilitate the smooth flow of academic information amongst faculty members. WhatsApp groups of faculty members and students are also formed for circulation of important and urgent information.

- To support the 24x7 power supply for flawless implementation of all academic activities/events and tasks, the institute also uses Uninterrupted Power Supply (UPS) and Diesel Generator Backup (DG Backup).
- STES has also designed an extremely appealing and informative website www.sinhgad.edu for communicating with the outside world. Here, the separate links are provided for each institute/college/school under the STES umbrella.

The institute facilitates computer-to-student ratio of **1:4** against the AICTE norm of **1:6**.

Table 4.i shows the details of supporting hardware facilities.

Table 4.i: List of Hardware Available

Sr. No.	Description	Quantity
1	Server	10
2	Desktop Computers	725
4	Printers	63
5	Plotter	01
6	LCD Projector	56
7	Scanners	16

Number of computers with configuration (provide actual number with exact configuration of each available system).

The detail information of computer facility available in campus is as shown in **Table 4.j**.

Table 4.j: Computer facility available in campus

Sr. No.	Configuration	Number of Computers (Number)
1	Dell 3020: Intel i5 3.00GHz, 500GB SATA Hard Disk, 4GB DDR3 RAM, 18.5" LCD Monitor, USB Keyboard and USB Mouse, etc.	135
2	HP 280 G1: Intel i5 3.00GHz, 500GB SATA Hard Disk, 4GB DDR3 RAM, 18.5" LCD Monitor, USB Keyboard and USB Mouse, etc.	30
3	Dell 390: Intel i3 3.00GHz, 500GB SATA Hard Disk, 2GB DDR3 RAM, 17" LCD Monitor, USB Keyboard and USB Mouse, etc.	90
4	Dell 3010: Intel i3 3.00GHz, 500GB SATA Hard Disk, 2GB DDR3 RAM, 17" LCD Monitor, USB Keyboard and USB Mouse, etc.	140
5	Dell 390: Intel i3 3.00GHz, 500GB SATA Hard Disk, 2GB DDR3 RAM, 17" LCD Monitor, USB Keyboard and USB Mouse, etc.	120
6	Dell 380: Intel C2D 2.4GHz, 320GB SATA Hard Disk, 2GB DDR3 RAM, 17" LCD Monitor, USB Keyboard and USB Mouse, etc.	125
7	Dell 380: Intel C2D 2.4GHz, 320GB SATA Hard Disk,	85

	2GB DDR3 RAM, 17" LCD Monitor, USB Keyboard and USB Mouse, etc.	
Total No. of Computers:		725

Server configuration

The detail information of server configuration available in campus is as shown in **table 4.k**.

Table 4.k: Server Configuration available in campus

Sr. No.	Server Type	Server Configuration
1	Proxy Server	Dell Optiplex 3010, Core i3 3.30GHz, 8GB DDR3RAM, 500 GB Hard disk
2	Software Server	Dell 110T Power Edge Intel Xeon 3.10GHz, 8GB DDR3RAM, 500 GB Hard disk
3	Antivirus Server (Quick Heal Consol)	Dell Optiplex 3010, Core i3 3.30GHz, 8GB DDR3RAM, 500 GB Hard disk
4	SPPU Engineering Online Exam Server Software Server	Dell 110T Power Edge Intel Xeon 3.10GHz, 8GB DDR3RAM, 500 GB Hard disk
5	SPPU MBA Online Exam Server	Dell Optiplex 3010, Core i3 3.30GHz, 8GB DDR3RAM, 500 GB Hard disk
6	EEXAM Mock Exam Server	Dell Optiplex 3010, Core i3 3.30GHz, 4GB DDR3RAM, 500 GB Hard disk
7	QLAR Exam Server	Dell Optiplex 3020, Core i5 3.30GHz, 4GB DDR3RAM, 500 GB Hard disk
8	K-point Server	Dell 110T Power Edge Intel Xeon 5.10GHz, 16GB DDR3RAM, 4TB Hard disk

Standalone facility

The institute also provides the stand alone facility to students and staff. Details of the same are as follows in the **Table 4.l**.

Table 4.l: Standalone facility

Sr. No.	Description	Quantity
1	Photocopy machine	4
2	Overhead Projector	3
3	Public Address System	6
4	UPS	3
5	Fax machine	2
6	EPABX	1

LAN facility

Available and the entire campus is LAN connected.

Wi-Fi facility - Yes, entire campus has Wi-Fi facility.

List of software

Following **Table 4.m** shows the details of software available.

Table 4.m: Licensed Software

Sr. No.	Name of software	Type of software	No. of users	Purpose
1	ANSYS 15.0	Application Software	25	Design Analysis
2	MATLAB 13a		25	Mathematical Modeling and Simulation exercise
3	Creo 1.0		12	Product Modeling
4	Catia V6		20	Product Modeling and Analysis
5	Mastercam X9		10	CNC Machining Simulation
6	MSC Software 12.0		50	Analysis of Mechanical Parts
7	Multisim V12.0		10	Circuit simulation and design
8	Xilinx ISE System Edition 13.2		25	VLSI Design
9	Microwind Package		10	IC Design
10	IDE Triton		10	Simulation tool
11	SCADA (RS View 32)		01	System Automation and Design
12	PLC (Rockwell Software)		02	System Automation
13	Communication Skill software		25	Improvement in communication skill of students
14	IBM Rational Rose Tool		30	Object Oriented Analysis and Design
15	Microsoft Windows of all products	System Software	NA	Operating System
16	Ubuntu	Open Source Software	NA	Operating System
17	Fedora-19			
18	C			Programming Language
19	C++			
20	Visual Basic			
21	Dot Net			
22	JAVA			
23	Scilab	Programming and Simulation exercise		

No. of nodes/ computers with internet facility

All computers in the institute are connected to internet.

Any Other

- Proxy service for wired and Wi-Fi connectivity.

- Total Backup Electric supply of 500 KVA for the campus.
- Generator backup of 9 KVA for 4 hours in office and servers for Server room.
- Institution Website.
- Public IP address – 6 Nos.
- 2 Mbps broadband connection along with 24 Mbps (1:1) Leased Line over Optical Fiber cable with 100 Mbps speed to each node.
- Layer three manageable switch.
- Twenty-nine Wi-Fi points throughout the campus (covers STES Vadgaon and Ambegaon campus).
- K-Point server provides off line audio-video learning facility for all the lectures.
- Central MOODLE server.

4.3.2 Detail on the computer and Internet facility made available to the faculty and Students on the campus and off-campus?

Following are the details of Computer and Internet Facility made available to the faculty and students on the campus and off-campus:

- Internet service, GEMS and Wi-Fi facility has been made available to the faculty and students in laboratory and faculty room. The institute has provided internet and Wi-Fi facility in the campus for digital library access. Twenty-nine Wi-Fi points are made available in campus which provides internet connectivity to students and faculty. Central computing facility with 90 nodes is available for faculty and students. The internet facility has been extended to all the departments including Library.
- Entire campus is LAN connected.
- The institute has upgraded the 18 Mbps leased line internet connectivity to 24 Mbps leased line over optical fiber cable, with high fault tolerance. Firewall has been installed to maintain security and privacy of data for internet users.

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

The institute always strives for better IT infrastructure and associated facilities as per AICTE and SPPU norms. The institute upgrades the IT infrastructure and required software with the revision in university syllabus, technology upgrades, increase in student intake and research project requirements. The institute incorporates changes in networking system so as to be in line with latest innovations in networking field. Institute ensures that the power back up requirements of IT infrastructure is being fulfilled. Department wise requirements for IT infrastructure are put for the approval of LMC and further governing body of the institute. Appropriate provision is made in the annual budget for purchase, up-gradation and maintenance of IT infrastructure.

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 accessories in the Institution (Year wise for last four years)

The institute has made necessary provision in the annual budget for procurement, up gradation, deployment, and maintenance of computers and their accessories. **Table 4.n** shows the details of year wise budget for last four years.

Table 4.n: Details of year wise budget for last four years

Sr. No.	Financial Year	Provision in the Budget (in ₹)	Total Expenditure (in ₹)	Expenditure Details (in ₹)	Remarks
1	2016-17	5,00,000	4,68,000	2,48,000	Procurement of computers and UPS system
				2,20,000	Internet Leased Line
2	2015-16	14,00,000	13,99,831	11,24,200	Procurement of computers and UPS system
				3,06,200	Internet Leased Line
3	2014-15	50,00,000	53,06,101	50,89,554	Procurement of computers and UPS system
				2,16,547	Internet Leased Line
4	2013-14	35,00,000	42,38,173	39,90,000	Procurement of computers and UPS system
				2,48,173	Internet Leased Line
5	2012-13	32,80,000	30,30,097	26,59,254	Procurement of computers and UPS system
				3,70,843	Internet Leased Line
6	2011-12	20,96,500	21,63,444	20,96,500	Procurement of computers and UPS system
				66,944	Internet Leased Line

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?

The institute facilitates extensive use of ICT resources by its staff and students in following ways:

- All faculty rooms have sufficient computing facility with internet connections. Staff and students participate in certified courses conducted online by foreign universities such as edX, online workshops/trainings for learning FOSS (Free and Open Source Software) offered by Spoken tutorial initiative for IIT Bombay. Further, they avail the facilities of photocopying, scanning, printing and CD writing in the institute premises.
- Faculty members make extensive use of the multimedia tools for effective lecture delivery. It includes power point presentations, online or offline

educational videos etc. They also refer NPTEL video lectures and educational videos downloaded from YouTube for effective delivery of course material.

- LCD projectors are installed in all classrooms and few computer laboratories for on-line demonstrations of the practical course material. Lecture notes and study material is made available to students on e-portal.
- K-Point – presentation modules based on university syllabus are made available to the students. Students and faculties access e-resources / e-journals subscribed by the institute.
- e-Exam portal provides multiple choice question banks for getting command over online examinations.
- Japanese language course is conducted for students under VAP initiative by the institute.
- Institute level email server is available
- Faculty members make use of NDL and Flipped classroom.

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 space etc.) by the institution place the student at the center of teaching-learning process and render the role of a facilitator for the teacher.

Institute provides the entire necessary IT infrastructure like PCs, LAN connectivity, projectors etc. to conduct teaching-learning process effectively.

- PPTs/videos/audio/webinars/spoken tutorials are used for effective teaching-learning process. K-Point server provides off line audio-video learning facility for all the lectures. NPTEL video lectures are made available to students. Learning resources includes lesson plan, course notes, question papers, question bank and other reference material are made available online to all the students over e-portal.
- Student and Staff are given membership of NDL to access e-resources such as books, articles, thesis, manuscripts, audio lectures and video lectures related to the subjects. This is useful for independent learning and strengthening subject knowledge.
- Online certification courses like EDX conducted by foreign universities are used for self-learning. Students and faculty are encouraged to participate in Spoken tutorials program -an initiative by IIT Mumbai for independent learning.
- Students and faculty make use of online Virtual Lab (MHRD, Govt. of India Initiative) for better understanding the technical concepts of engineering subjects.
- Teacher Guardian faculty notifies attendance and academic performance of the student to the parents through SMS system and telephone. The same can be accessed by the students through e-portal.
- Mock tests are conducted online for better preparations of the students for university examinations.
- STP is an extensive program designed and implemented to enhance the employability skills like soft skills, communication skills, technical fundamentals and aptitude. It makes use of relevant videos, online and

offline tests and other multimedia resources for its implementation. STP also strives to inculcate research attitude in students. They are trained to access and use e-resources and e-journals to understand literature survey and further research methodology. VAP under STP often includes hands on sessions to keep abreast with latest technology trends.

- AMCAT, the benchmarking test widely recognized by major MNCs like Accenture, Cognizant, SunGard, Oracle etc. is conducted twice in a semester for second year to final year students to enhance their employability.

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?

- Yes. The institute avails the national knowledge network connectivity directly through the facility provided by NDL and Virtual Labs. They are used for self-learning and lecture notes preparation by faculty and same is made available to students for reference.
- IIT Spoken tutorial is an initiative of national mission on education through ICT, MHRD and Govt. of India to promote IT literacy through open source software. Staff and students participate in such online workshops and trainings for learning FOSS.

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).

The institution ensures optimal allocation and utilization of the available financial resources for maintenance of campus facilities. A review of the requirements of infrastructure is done before the commencement of each academic year. The detail budget for last four years is listed in **Table 4.o**.

Table 4.o: Budget for Maintenance of Campus Facilities (in ₹)

Items	2016 – 2017		2015 – 2016		2014 – 2015		2013 – 2014	
	Allocated	Utilized	Allocated	Utilized	Allocated	Utilized	Allocated	Utilized
Building	2,00,000	1,98,145	25,00,000	24,60,439	8,605	8,605	7,823	7,823
Furniture	3,207	1,603	4,027	4,027	1,902	1,902	1,729	1,729
Equipment, Computers and other Hardware	1,50,300	90,975	50,000	31,668	1,50,000	2,46,818	1,22,251	1,84,326
Vehicles	NA	NA	12,229	12,229	1,134	1,134	1,031	1,031
Total	13,17,296	13,48,946	25,66,256	25,08,363	1,61,641	2,47,952	1,32,834	1,94,909

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

Institute takes due care of maintenance and upkeep of infrastructure including electrical, computers, mechanical machines, facilities, and furniture etc. in following ways,

- Classrooms, Laboratories, Tutorial rooms, Seminar Hall etc. are cleaned on regular basis and this activity is monitored by the departmental technical assistant.
- Faculty in-charge and technical assistant look after the maintenance of respective laboratory. The funds available from budget are utilized for repair of breakdown items. Dead stock verification is scheduled on regular basis to review equipment status.
- Estate office carries out maintenance of infrastructural facilities. Housekeeping services are regularly executed and monitored by estate office. Electrical maintenance is carried out from expert electrician staff of our institute.
- The team of lab technician, lab assistant and system administrator takes care for maintenance of electrical instruments, electronic equipment and mechanical machines.
- The institute has a team of qualified technical staff for maintaining computers and networking facilities. Few members are identified for the same and it is ensured that they are available at short notice.
- The institute has a carpentry section which takes care of minor repairs (sanitation, carpentry) required on a day to day basis. Team of skilled and semiskilled persons look after the regular maintenance of civil works such as furniture repairs, masonry and plaster works, painting carpentry, plumbing, gardening and house-keeping work.

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

The laboratory equipment are maintained and calibrated through budget allotted for the same to respective department from institute development fund. The calibration of selective equipment is undertaken periodically by the respective departments.

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

The steps undertaken for location, upkeep and maintenance of sensitive equipment are as follows:

- There is separate staff in-charge with responsibility of overall electric works, which has a team of electrician working under him.
- A Service Engineer (Maintenance Department) has been appointed who keeps the record of Annual Maintenance Contract for water purifiers and monitors the timely servicing of the purifier equipment.

- The Lab in-charge along with the lab assistants keep a strict vigil over the smooth working of the sensitive equipment in their respective labs and get them repaired within or beyond budget allocations.

Any other relevant information regarding Infrastructure and Learning Resources which the college would like to include.

- The Institute was established in year 2011 and has steadily progressed as one of the premier institute with five UG programs plus four PG programs.
- The Institute is situated on a beautifully contoured piece of land of nearly 30,000 Sq. meters with decentralized departments and has always strived to preserve the natural features by identifying the buildings around these natural features.
- There is a large open air theatre with a seating capacity of 1500, which has on several occasions seen distinguish personalities addressing the young students of our college.
- The high vantage ground, naturally contoured, landscaped features along with 24 hours unrestricted and unlimited high speed Wi-Fi Internet facilities are exclusive features of the institute, which compels the student not to leave the campus even on non-working hours and days.

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1 Student Mentoring and Support

5.1.1 Does the institution publish its updated prospectus/hand book 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 institution publishes the prospectus annually. The copy of the prospectus is given along with the application form to every prospective student who applies for programmes of the institute. The prospectus reflects the entire scope of the college profile. Starting from a brief history of the institution, it consists of Vision and Mission of college, total intake of UG and PG programmes, information regarding infrastructure, laboratory facilities, internet facilities and departmental activities. Information regarding Training & Placement Cell is also included in the prospectus. The students can find information regarding various co-curricular and extra-curricular activities conducted throughout the year in the institution. Most of the information available in the prospectus is also available online on college website [http://cms.sinhgad.edu/sinhgad_engineering_institutes/nbn-ssoe.-ambegaon-\(bk\)/institute-details.aspx](http://cms.sinhgad.edu/sinhgad_engineering_institutes/nbn-ssoe.-ambegaon-(bk)/institute-details.aspx)

We are committed to all guidelines given by competent authority and we are accountable for the same.

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

We have provision for various scholarships/free-ship schemes as follows:

- Scholarships/free-ships are given by Government of Maharashtra (GoM) on the basis of parental annual income and based on reservation policies of the government. GATE scholarship is also availed by eligible students. All such scholarships/free ships schemes are implemented as per the rules and regulations of GoM and AICTE. Details are given in **Table 5.a**.
- Few students who are economically weak receives fee waiver from STES.
- Few NGOs offer scholarships/free-ships to the students. To name a few, Mahindra finance, RM Dhariwal foundation and Indian oil corporation.
- The information regarding thescholarships is notified to the students through the institute’s office. Applications from the deserving students are given to Social Welfare Department (SWD) through their on-line portal.
- The office staff ensures that all deserving studentsfiletheir applications to SWD or NGOs and Scholarships/free-ships amounts are disbursed in time to the students.
- Some companies also offer Scholarships to our students like Persistent Foundation Girls Scholarship Program (Scholarship of ₹ 40,000 per year from FE to BE), Atlas Copco Krutika Award (Scholarship of ₹ 50000 and Job Offer is given TE Mechanical Girl Topper).

5.1.3 What percentage of students receives financial assistance from state government, Central Government and other national agencies?

Various financial assistance schemes available to the students from State Government of Maharashtra (GoM) and Central government are as follows:

- Scholarships/free-ships given by GoM on the basis of parent's annual income and reservation policies. Details are provided in **Table 5.a and 5.b.**
- GATE scholarships provided by AICTE to PG engineering students.
- TFW scheme of GoM. Details are provided in **Table 5.c.**
- Scholarship from Govt. of Bihar is given to the students from that state.
- Central Government J&K quota admission scheme.
- Earn and learn scheme of SPPU: This scheme being implemented by the institute in association with the SPPU that enables the socially and economically weaker students to earn money by working in various departments and library.
- Book bank scheme of SWD.

Total percentage of getting the financial assistance to SC/ST/NT/SBC category is 100 %

Table 5.a: Information about financial schemes for students

Academic Year	Details	Financial Schemes									
		EBC	%	Minority students	%	STC/PTC scholarships	%	Central Sector	%	Free-ship / Scholarship	%
2016-17* (Total Admitted students 2745)	No. of Students	438	15.95	9	0.32	18	0.7	0	0	479	17.44
	Amount in ₹	1,65,77,378		22,5000		72,000		0	0	2,73,00,984	
2015-16 (Total Admitted students 3046)	No. of students	407	13.36	10	0.36	24	0.8	3	0.09	925	30.36
	Amount in ₹	1,48,79,515		25,0000		96,000		2,37,525		5,29,88,830	
2014-15 (Total Admitted students 2717)	No. of Students	364	13.39	10	0.36	17	0.6	6	0.22	825	30.36
	Amount in ₹	1,27,36,866		25,0000		68,000		4,40,202		4,66,72,762	
2013-14 (Total Admitted students 2283)	No. of Students	288	12.61	0		17	0.7	0		637	27.9
	Amount in ₹	1,03,87,509		0		68,000		0		3,53,93,223	

*Verification Pending

Table 5.b: Information about category wise financial assistance for students

Academic Year	Details	SC	%	ST	%	NT	%	OBC	%	SBC	%	Total	%
2016-17* (Total Admitted students 2745)	No. of Students	172	6.26	6	0.21	55	2	217	7.79	35	0.93	485	17.66
	Amount (in ₹)	1,48,42,412		4,63,808		43,04,064		89,64,054		27,72,393		3,13,46,731	
2015-16(Total Admitted students 3046)	No. of Students	230	7.55	9	0.29	183	6	463	15.2	49	1.6	934	30.66
	Amount (in ₹)	1,83,10,199		6,76,094		1,36,10,748		1,71,86,219		36,57,674		5,34,40,934	
2014-15(Total Admitted students 2717)	No. of Students	182	6.69	10	0.36	152	5.59	431	15.86	49	1.8	824	30.32
	Amount (in ₹)	1,43,21,653		7,54,575		1,12,93,637		1,59,49,187		62,71,088		4,85,90,140	
2013-14 (Total Admitted students 2283)	No. of Students	136	5.95	7	0.3	123	5.38	337	14.76	34	1.48	637	27.9
	Amount (in ₹)	1,04,66,759		5,09,305		90,26,125		1,23,10,710		24,93,245		3,48,06,144	

*Verification Pending

[Note: EBC: Economically Backward Class, PTC: Primary Teacher Class, STC: Secondary Teacher Class, J&K: Jammu & Kashmir]

Table 5.c: Information about institutional free-ships and scholarships

Institutional scholarships given to students under TFWS			
A.Y.	Number of TFWS students	Percentage of TFWS students	Total Amount in ₹
2016-17	21	These students are admitted over and above the sanctioned intake.	Tuition fees waver by AICTE Circular dtd. 28/07/2011
2015-16	21		
2014-15	19		
2013-14	21		

5.1.4 What are the specific support services/facilities available for Students from –

1) Students from SC/ST, OBC and economically weaker sections

The institute provides following support services for the students from SC/ST, OBC and economically weaker sections as per Government norms as given below.

- The students belonging to SC/ST, OBC and the economic weaker sections are identified during the process of admission. These students are made aware of Government scholarships and support services. All possible help is provided to get the scholarships.
- Institute helps economically weaker students for getting financial assistance from different agencies. (e.g. BARTI, Nationalized Banks)
- Book bank scheme is provided to SC/ST students by SWD.

- Scholarship is also available under EBC scheme.
- Earn and Learn Scheme: This scheme is implemented by the institute in association with the SPPU that enables the socially and economically weaker students to earn money by working in various departments and library.
- The Institute admits students under TFWS of Government of Maharashtra.
- The Institute allows students to pay their fees in installments.

2) Students with physical disabilities

The institute is providing the following facilities to the differently-abled students.

- Support for getting admission in SWD Boys hostel at Swargate and Government ladies hostel for disabled students.
- Special Toilets, Wheel chair, Ramp is provided.
- Preference is given for hostel accommodation.
- Extra time is given for examination of theory paper and practical, as per the norms of university.

3) Overseas students

Institute does not have admission quota for overseas students.

4) Students to participate in various competitions/National and International:

The students are encouraged to participate in various competitions at national/ international level to explore their talent to enhance their skillset.

Financial support and sponsorship facility is given to all the teams of students to participate in various activities like SUPRA, BAJA, GO-KART, ROBOTICS, SPECTRUM, TECHDRILL, TECHTONIC, NNSC (National Network Security Championship) etc.

- Student participates in extra-curricular and co-curricular activities such as technical fests, cultural events, and sports events etc. Necessary support and services are provided by the institute like financial assistance, Wi-Fi facility, and library facility. Faculty members and TGs are deputed to help and guide the students.
- Cultural activities like Purushhottam Karandak, Firodiya Karandak, Sakal Karandak, Sinhgad Karandak, Business Research competition (Sanshodhan), Spectrum, NEON etc. are well supported by the institute with financial assistance.
- Information about various competitions is displayed on notice board. Also, the information desks of students of other institutes are allowed for campaigning their activities.
- Students are also participating in competitions like AVISHKAR, Innovation(national level research conferences).
- Students are provided with necessary guidance for the competitions / conferences by the faculty members from various specialization (HR, Marketing, IT, Operation, IB etc.)

5) Medical assistance to students: health center, health insurance etc.

The necessary medical assistance and required facilities are made available to the students by the institute.

- All types of necessary medical help and 24 x 7 assistance is given to the students at SKN Medical College & Hospital, Sinhgad Dental College & Hospital and Campus Clinic. The medical store is located in the institute campus.
- First aid boxes are available at central workshop and in administrative office.
- The students are covered under accident insurance policy. Insurance fees @ ₹ 25/- is collected from every student. In case of death, compensation of ₹ 1, 00,000/- will be given.
- Ambulance service is available in the campus for emergency medical need.
- Medical checkup, blood donation camps and organ donation awareness session are arranged in the institute.

6) Organizing coaching classes for competitive exams

We support these activities by taking following initiatives for preparing students for competitive exams.

- Training & Placement (T&P) helps in organizing activities on GD/PI, personality development, soft skill development, etc.
- Guest Lectures / Seminars / Workshops of eminent professional institutes are organized for GATE, GRE, CAT, TOEFL, IBPS, RRB etc. for guidance, & preparation.
- Study material related to GATE, IBPS, RRB and other competitive examinations is available in the institute library.
- We conduct Aspiring Minds Computer Adaptive Test (AMCAT), QALR test for SE to BE students. Language laboratory facility is available.
- University Entry Scheme Induction program from Navy personnel is conducted.

7) Skill development (Spoken English, Personality Development Program, Technical Certifications etc.)

Our society, STES has designed a comprehensive program for all round development of students with the input from all the important stake-holders in engineering and management education. The program is called as STP – Student Training Program. STP covers following aspects:

- Soft skills (STP1)–SWOT Analysis, Goal setting, personality and stress management, behavioral skills and communication skills.
- Communication skills (STP2) - Listening, reading, writing (letter, resume, CV, report), speaking (public speaking, group discussion). To enhance the communication skill set of the students, we have a language laboratory.
- Technical fundamentals and aptitude training (STP3) - Technical training on: Data structures and algorithms, Object oriented programming and problem solving. Aptitude training.
- Research Methodology (STP4) - Research methodology training and aptitude training. AMCAT test, employability tests.

- Interview preparation and Value addition program (STP5) – Value addition program on computing foundation and IT security. Group discussion and interview preparation.
 - Barclays Global Youth Employability Program in Association with GTT, NASSCOM, NSDC is successfully conducted for 1000+ students.
 - Zensar Employability Skill Development Program (Technical and Soft Skill Development) for TE COMP and IT students is regularly conducted every year.
 - Cognizant Evolve Sessions, a program to enhance interview skills of the students is conducted every year.
 - Accenture Career Day, a program to guide the students to select right career path.
 - Tech Mahindra Rise Together, a series of expert lectures to guide the students on various upcoming technologies.
 - Ask Corporate Training (ACT), a program to uplift the motivation of the student to face the campus placement.
 - We provide Japanese and German language learning program.
- These programs are taken up by professionals and internal faculties.

The number of students enrolled for various modules of STP during last four years is shown in **Table 5.d&5.e**.

Table 5.d: Number of Students Enrolled for STP-Engineering

Sr. No.	Title of STP	No. of Hours	No. of students enrolled			
			2016-17	2015-16	2014-15	2013-14
1	STP-I	22	622	594	623	617
2	STP-II	26	608	586	614	617
3	STP-III	22	556	646	614	NA
4	STP-IV	18	521	644	614	NA
5	STP-V	32	592	621	NA	NA

Table 5.e: Number of Students Enrolled for STP-Management

Sr. No.	Title of STP	No. of Hours	No. of students enrolled			
			2016-17	2015-16	2014-15	2013-14
1	STP Cycle I – Aptitude Test , Group Discussion, Harvard Business Review Quiz	3	174	180	166	165
2	Weekly Test I – Aptitude Test , Domain Test, GKCA Test	3	174	180	166	165
3	STP Cycle II – Aptitude Test , Group Discussion, Harvard Business Review Quiz	3	174	180	166	165
4	Weekly Test II – Aptitude Test , Domain Test, GKCA Test	3	174	180	166	165

5	Excel in Power Excel Intra Class Competition	3	174	180	166	165
6	Excel in Power Excel Inter Class Competition	1	6	6	6	6
7	Excel in Power Excel Inter Institute Competition	1.5	2	2	2	2
8	Alumni Challenge Intra Class Competition	6	174	180	166	165
9	Alumni Challenge Inter Class Competition	2	27	27	21	21
10	Alumni Challenge Inter Institute Competition	3	9/10	9/10	9/10	9/10
11	PEST (20)	10	174	180	166	165

- For MCA course institute organizes Value Addition Programs, instead of STP, based on technical skills, employment skills etc. Details are given in **Table 5.f.**

Table 5.f: Students Enrolled for value addition program.

Sr. No.	Title of Value Added Program	No. of Hours	Year	No. of students enrolled
1	Career Opportunities & Current Trends in IT	3	2016-17	73
2	Internet of Things on IBM Bluemix	7		100
3	Employability Skills Development	8		22
4	Boot Strap	2	2015-16	142
5	Career opportunities In Current Trends of IT	2		172
6	Personality Development Skills	2		67
7	Importance of News Paper Reading	2		46
8	Spring –Hibernnet	7		38
9	Business Intelligence & Analytics Software	7		71
10	Introduction to ERP System	2	2014-15	92
11	Agile Methodology	2		113
12	Internet of Things	7		104
13	Python Course Training	7		24
14	Django Course Training	7		21
15	Stress Management	2		114
16	Bigdata & Hadoop	2	2013-14	99
17	Session on News Paper Reading	2		149
18	Foreign Language Training (JALTAP)	4		85
19	Workshop on Big Data & Hadoop	7		78

- Students and faculty members are encouraged to use NPTEL learning resources.

- Departments are taking special interest for students to appear for edX certification as well as certification through IIT spoken tutorials. Details are provided in **Table 5.g**

Table 5.g: Students enrolled for IIT spoken program

Sr. No	Course/Test Name	No. of Students enrolled			
		2016-17	2015-16	2014-15	2013-14
1	C	283	546	695	85
2	Advance C	99	-	-	-
3	C++	208	266	347	-
4	Advanced C++	190	5	197	-
5	Java BusinessApplication	160	223	-	-
6	Java	146	252	-	139
7	Linux	114	136	61	
8	Latex	54	280	485	23
9	PHP & MySQL	60	294	143	-
10	Scilab	186	242	308	59
11	GEOGEBRA (TR)	35	81	-	-
12	LIBRE OFFICE	34	-	437	
13	Python	-	145	-	80
14	PERL	-	79	55	-

8) Support for Slow learners

- Slow learners/students who are at risk of failure and dropout are identified based on their academic performance in the first half of the semester. These students are provided counseling for academic performance enhancement.
- Teacher Guardian (TG) scheme is available in each department, wherein the Guardian Teacher acts as Friend – Philosopher – Guide to each student. TG meetings are organized periodically to understand the personal growth and performance of the student, through which TG identifies slow learners.
- Question bank & set of question papers of previous university examinations are provided along with model answers for all core subjects.
- Extra practical sessions are conducted for such students to improve their performance in practical skills.
- Provisions are made in weekly time table for conducting additional / remedial lectures for slow learners, poor performers.
- Special placement assistance is provided to slow learner.

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

- STES provides the platform for student exchange and experimental education in world's top universities, through MoU with Mersion.

Students having excellent academics are assisted and supported by Student Overseas Cell (SOC) of STES.

- We strongly recommend our students for their higher education (MS, M.Tech, M.E. and MBA programs). We encourage and support students for GATE, GRE and TOEFL.
- Students are encouraged and guided to participate in events organized by the institute and other institutions by giving them specific instructions and notifications.
- Students are encouraged to take internship / sponsored projects with various renowned industries / firms and organizations.
- Workshops and seminars are organized frequently on recent developments in technology. III cell is actively organizing such activities for students.
- Industrial visits and expert talks of professionals from industry are arranged for practical exposure in every semester. Few prominent industries are EATON, BROSE INDIA, PERSISTENT, COGNIZANT, BARCLAYS etc.

10) Publication of Student Magazine

- The institute publishes an annual magazine “VIVASWAN” where the students are encouraged to publish their articles, poems, technical content, jokes, experiences, art etc. The magazine provides a platform for the students to showcase their creative talents. Also provision for wall magazine is provided in the institute.
- We publish institute’s newsletter, once in a semester. We publish e-magazine named “ENGINEER” for engineering stream and “RAUCHEN” for management stream.

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 recently established Entrepreneurship Development cell (EDC). Through this cell, seminars/expert lecture/workshop for our students is arranged. Details are furnished in **Table 5.h1**.

Table 5.h1: Data of EDC Sessions

Year	Number of Sessions Arranged
2016-17	4
2015-16	5
2014-15	2

The institute has established Industry Institute Interaction Cell (IIIC) under all academic departments to facilitate growth of entrepreneurial skills and early awareness of work culture of industries. Eminent industry personnel are invited for interaction with students under IIIC activities.

STES has MoU with De ASARA Foundations, an NGO. It is an initiative of PersistentLtd. to inculcate entrepreneurship spirit among the students.

In SSC, we have an entrepreneur club, specially created for entrepreneurial skill development.

- We are happy to state here that, due to these efforts our few students are ventured in entrepreneurship, mentioned in **Table 5.h2** and they are doing well.

Table 5.h2: Student entrepreneur list

Sr. No.	Name of Student	Designation	Company	Website	Industry
1	Mr. A. P. Ambatwar	Director	CodeLeaper IT Solutions Pvt. Ltd.	www.codeleaper.com	IT
2	Mr. O. A. Mahabadi	Director	SanShell InfoTech	www.sanshellinfo.com	IT
3	Mr. K. D. Gore	Director	Dench Technologies Pvt. Ltd	www.denchtechnologies.com	IT
4	Mr. B. L. Chandra	CEO	Enter Software	www.enterssoftwares.com	IT
5	Mr. D. K. Bhosale	Director	JIT Solutions	www.jitsolutions.in	IT
6	Mr. Atul Pawar	Director	Hotel Sakosa	--	Hospitality
7	Mr. Sachin Kendre	Director	FTPE Affairs	www.ftpeaffairs.com	Hospitality
8	Mr. Himalya Leekha	Director	Cadets Cafe	--	Hospitality
9	Mr. Abhilash More	Managing Partner	High Tech 24	--	IT
10	Mr. Tushar Gote	Co-Founder	VGLO	www.vglosoftwares.com	IT

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 has following policies to promote participation of students in extracurricular and co-curricular activities such as sports, games, quiz competitions, debate and discussions, cultural activities etc.

- Sinhgad Student Council (SSC) is a driving force behind the students for extra-curricular and cultural activities.
- Awareness lectures on importance & role of extracurricular activities in Career building.
- Identification of talent among students through TG Scheme.

- Encouragement to the students to participate in events organized at Zonal level, State level, and National level.
- Every department considers such participation of students as part of their regular calendar activities and submit an activity report to the head of the institute.
- Institute will give financial support to conduct various activities within the campus and for the students of other institutes.
- We ensure the involvement of every teacher in promoting these extra activities with their innovative ideas and effective implementation.
- No registration fees for participation in Sinhgad Karandak activities.
- The institute provides sports kits and sports material for students who participate in Inter-State/National Level, Lead College, Zonal, Inter-zonal, All India Inter University Tournament and many other different types of game and sports.

Additional academic support, flexibility in examinations

The following provisions are made:

- We provide support to students in line with the ordinance number 163 of Savitribai Phule Pune University. Sports advisor gets TA – DA for SPPU level sports activity.
- Participating students gets benefit in terms of Term Work marks as per the policy guideline set at the institute level. They also get flexibility in conduction of internal tests/ examinations for participants.
- Allowance like TA-DA, registration fees, additional expenses are provided. Institute vehicle is available for students 24 x 7 on demand.
- Institute supports students financially for Purushottam & Firodiya Karandak activities.

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 support and guidance provided by the Institute to the students in preparing for the competitive examinations is as follows:

- Orientation & guidance lectures are organized every year. Details are given in **Table 5.j1**. Students who are interested and willing to appear in various competitive examinations are helped by the teachers by providing study material and counseling for preparation.

Table 5.j1: Counselling Sessions for Career Enhancement

Sr. No.	Year	GATE	GRE	GMAT	Others(like Central/State services)
1	2016-17	9	3	1	5
2	2015-16	4	2	2	5
3	2014-15	3	2	1	3

- AMCAT, QALR examinations are conducted for the students to do their SWOT analysis and understand need based training.
- Students are allowed to have access to library and to refer books related to entrance tests.

Table 5.j2: Data of number of students appeared and qualified for the exams

Sr. No.	Year	Exam	Appeared	Qualified
1	2016-17	IBPS	7	-
		GATE	247	24
		GRE	18	4
		GMAT	4	0
		Central/State services	4	1
2	2015-16	IBPS	10	1
		GATE	142	15
		GRE	17	13
		GMAT	6	1
		NET/SET	1	-
		Central/State services	5	0
3	2014-15	IBPS	12	-
		GATE	43	18
		GRE	15	12
		GMAT	0	0
		Central/State services	2	2

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

The institute provides regular counseling to the students to address issues relating to their academic shortfalls, obstacles along with their personal problems.

Academic counseling

The institute has a TG/Mentor scheme where a group of students are placed under the guidance of Guardian Teacher. The teacher renders guidance in studies, career planning and also address personal and psycho social issues. If issue still persists, HOD helps in solving the problem.

Personal counseling

The Guardian Teacher has regular interaction with the students placed under their guardianship at a one to one level. A friendly environment is provided to make them comfortable to share their personal problems. The Guardian Teacher maintains secrecy of any personal information and takes necessary corrective steps in consultation with senior official staffs, thereby addressing personal problems. We also provide institute level counselor.

Career counseling

The institute encourages students towards taking up higher studies and research. The following notable steps are taken:

- Special training for preparation in GATE Examination
- Counseling for Govt. Service Examination
- Aptitude, STP, soft skill and technical skill lectures are arranged for the students apart from their regular classes.
- AMCAT report to the individual students also gives career guidance and the strength of the students wherein he or she can perform the best in his or her life.
- Career guidance lectures are organized by Society's International Overseas Cell

Psycho-social counseling

Institute has understood that students having psychosocial disorders frequently have difficulty in coping up with social situations. The problems related to social factors affecting student's mental health e.g. peer pressure, parental support, cultural and religious background, socioeconomic status, and interpersonal relationships etc. are addressed through their Guardian Teachers. Many times the senior faculty members of Institute also get involved to control problems relating to above factors, special committees are also set up in this matter to help strengthen student's personality and psychological makeup.

Apart from this Principal, HODs help in personal counseling whenever required. Psychological counseling is done especially to:

- Handle crises in relationships
- Deal with stress and other pressures
- Resolve fears, panics and anxieties
- Cope with continuing family problems
- Work through difficult decisions
- Break through depression and sadness

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.

Yes, the Institute has a structured mechanism for career guidance and placement for its students.

CPC (Central Placement Cell)

- The unique feature of the NBNSTIC for placement of students is CPC activity. An ERP called as Governing Educational Management System (GEMS) is used by the Central Placement Cell (CPC), on which all the students who are interested for placements register themselves. All the communication regarding Job opportunities and placement activities are communicated to the students using GEMS. We have also come up with

an app for the same ERP. Transparent and well-structured mechanism of CPC gives equal opportunity of placement to all the eligible students through their set rules and regulations.

- CPC also grooms all the students about job ethics and work culture in corporate life style and the role of students in a company when they will join as a employee.
- CPC also give preferential opportunity to the companies in campus placement considering their package, domain area (core or IT), research or marketing etc.

Under the guidance of the Principal, CPC officer in coordination with departmental CPC coordinators carry out structured activities related to both career guidance and placement of the students as below:

- Awareness of importance of communication and soft skill in corporate world through STP: This activity begins at first year to all the students. Preparation of history file (looked after by TG) of the students from FE to BE consisting of academic records, activity participation certificates, information of training programs, publications etc.
- Help in preparing Curriculum Vitae (CV) of each student. Arranging for training activities (STPs) to enhance research attitude, aptitude and soft skills. Arranging group discussions and mock interviews.
- Arranging expert / guest lecturers of industry personnel for career guidance. Conduction of VAP to give awareness of latest technologies. Awareness of competitive examinations of civil services is provided. Career guidance for higher studies through International Overseas Cell is done.
- Activities like BARCLAYS Global Youth Employability Initiative, COGNIZANT Certified Student Program (CCSP), ACCENTURE Career Day, Zensar Employability Skill Development Program (ESD) are also conducted to enhance the employability of the students. Arranging industrial training and industrial visits to understand corporate world, some of them are EATON, BROSE INDIA, PERSISTENT, COGNIZANT, BARCLAYS etc.

The following services are provided in the placement:

Information of job opportunities

- Employability and QALR tests are conducted to give practice of aptitude test examinations conducted by various industries for short listing the eligible students. Pre-placement talks are conducted to all the students to give information about industry.
- The students are informed regarding the vacancies offered by government and other agencies. Official registration is carried out through GEMS for interested and eligible students from all the departments for placement of specific industry.
- The notice of the advertisements is put up on GEMS. The students are informed regarding all necessary information and important dates for such vacancies. Also, campus placement plan consisting of sequence of

industries going to visit the campus are transparently communicated to all the students through GEM's.

Campus selection process

- The training and placement cell organizes lectures on career opportunities.
- Interactions are conducted between the training and placement personnel/ invited experts and the students to brief them about exam module and pattern, the syllabus, and the methodology of attempting the aptitude tests.
- Mock tests are held to facilitate them in this pursuit. Their performance is analyzed after every test and then a brain storming session is organized to assess their strengths and weaknesses.

Follow up

- AMCAT examination is conducted for SE and TE students once in a semester. The AMCAT report gives students guidelines for their personal growth and specifies areas for their self-improvement.
- During the campus placement activity, placement cell keeps track of the post examination developments. As and when the result is declared, the cell informs the students regarding the result through GEMS. The results are analyzed and then the next process of helping the successful candidates is taken up.

GD/PI guidance

- The Institute organizes training sessions of Group Discussions by professional industry personalities and mock personal interviews for the students.
- The drilling exercise takes place till the candidate is totally confident regarding his performance for the final interview.

Effect of above mechanism on employment is shown in **Table 5.k.**

- Highest Package nVIDIA: 7.3LPA.
- Average Package : 3.4 LPA

Table 5.k: Percentage of Placement (Engineering,MCA and MBA)

Year	Total No. of Students	No. of Student Placed	% Placement
2016-17	801	169	21.09
2015-16	971	393	40.47
2014-15	687	243	35.37
2013-14*	285	107	37.54

*MBA & MCA students only.

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 institution has a student grievance redressal cell. The mechanism of this cell consists of two subcommittees:

Grievance redressal committee: It consists of the members mentioned in **Table 5.m**. The formal procedures for the settlement of the grievances are as follows:

- A suggestion & complaint box is placed in central library & the office of the Institute. Students may give their complaints or suggestions to TG, HOD or Principal either orally or in writing. Committee acquires the necessary information either from students or parents or faculty to understand the ground reality with reference to the complaint received. The information is further analyzed with the context of the complaint.
- The reports of the Grievance redressal /Suggestion/ feedback are prepared by the committee. Corrective measures are taken on all such cases by the committee after the discussion with the Principal considering the benefit of the students and the institute.
- The Management also suggests corrective measures to be taken through the principal and HODs for serious issues if any.

Table 5.m: Grievance Redressal committee

Sr. No.	Name	Designation	Mobile No.	Email ID
1	Dr. R. S. Prasad	Head	9823369180	rajesh.prasad@sinhgad.edu
2	Dr. S. P. Ujagare	Member	9850176348	sunil.ujagare@sinhgad.edu
3	Prof. Ms. A. A. Deshpande	Female Member	9960696545	avani.deshpande@sinhgad.edu

Internal Complaint Committee

This committee, given in **Table 5.n1** is formed to examine the ladies harassment related cases. For extreme cases members examine & scrutinize all types of complaint letters and grievance representation of aggrieved students, staff, faculty & others and take up these matters with the Chairperson for redressal.

Table 5.n1: Internal Complaint Committee

Sr. No.	Name	Designation	Mobile No.	Email Id
1	Dr. Ms. S. R. Chavan	Presiding Officer	9552569851	smita.chavan@sinhgad.edu
2	Prof. Ms. N. S. Gujar	Member (committed for women cause & experience in social work)	9881232045	nandini.gujar@sinhgad.edu
3	Dr. Ms. D. R. Ingale	Member (legal knowledge)	9766311616	devyaniingale@sinhgad.edu
4	Prof. Ms. D. D. Mokashi	Member (teaching staff)	9823714123	dipashri.mokashi@sinhgad.edu
5	Prof. Ms. R. G. Bankar	Member (non – teaching staff)	8483013994	reshma.bankar@sinhgad.edu
6	Prof. Ms. S. B. Thaware	Member (non – teaching staff)	8149252406	sonali.thaware@sinhgad.edu
7	Ms. S. Mishra	Member (Student)	8796378597	swaranjalimishra@gmail.com
8	Ms. A. M. Chavan	Member (Student)	8605198998	archavan8@gmail.com
9	Ms. S. Vaidya	Member (Non-Governmental organization / Association)	9011069138	22sarika@gmail.com

Committee for SC/ST

This committee, given in **Table 5.n2** is formed to resolve all matters related to SC/ST faculty and students. For extreme cases members examine & scrutinize all type of complaint letters and grievance representation of aggrieved students, staff, faculty & others and take up these matters with the Chairperson for redressal.

Table 5.n2: SC/ST grievance committee

Sr. No.	Name	Designation	Mobile No.	Email ID
1	Dr. R.S. Prasad	Chairman	9823369180	rajesh.prasad@sinhgad.edu
2	Dr. S. P. Ujagare	Secretary	9850176348	sunil.ujagare@sinhgad.edu
3	Dr. Ms. S. R. Chavan	Member	9552569851	Smita.chavan@sinhgad.edu
4	Prof. J. Howale	Member	8390160500	jyoti.howale@sinhgad.edu
5	Ms. S. Gore	Member	9623319176	sonali.gore@sinhgad.edu

➤ No major grievances have been reported to the any of the redressal cells.

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

College has an Internal Complaint Committee (**Table 5.n**) as per the norms of SPPU/AICTE for combating the violence against women employees and students. Cell takes necessary steps if the incidents pertaining to sexual harassment require the intervention of the law. Cell is headed by a senior lady faculty.

To prevent this harassment, counseling is done by senior ladies faculties. Continuous vigilance of college authority and strict punishment provisions prevent sexual harassment of students. CCTV camera system installed in the institute helps to avoid such cases.

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 college has an Anti-Ragging Committee, given in **Table 5.o**. Anti-Ragging Squad, **Table 5.p** as well as other Student Counseling Committees as provisioned in UGC/AICTE regulation 2009. Constitution of the Committee and the progress report sent to the University.

Few minor incidences were reported in the past, which has been resolved by anti-ragging committee meeting at institute level.

Table 5.o: Antiragging Committee

Sr. No.	Name	Designation	Mobile No.
1	Dr. R. S. Prasad	Principal/Director	9823369180
2	Dr. Ms. S. R. Chavan	Associate Director	9552569851
3	Dr. S. P. Ujagare	Dean	9850176348

4	Ms. S. Bhagvat	NGO ARPAN	9890623573
5	Mr. P. V. Diwakar	PSI	9766485210
6	Mr. A. Ghanwat	Local Media Navbharat Times	9850272923
7	Mr. S. M. Pharande	Local Member	9096545518
8	Ms. S. M. Gore	Office Superintendent	9623319176
9	Dr. Ms. V. S. Deshpande	Faculty Member	9011141740
10	Prof. M. M. Joshi	Faculty Member	9766539761
11	Prof. R. P. Pune	Faculty Member	9960114489
12	Mr. S. D. Bhamre	Student Representative	9421380469

Table 5.p: Antiragging Squad

Sr. No.	Name	Designation	Mobile No.
1	Prof. P. M. Gondkar	Chairman	9011014042
2	Prof. Ms. A. S. Kulkarni	Member	9922431650
3	Prof. Ms. P. S. Ingle	Member	9763425703
4	Prof. Ms. S. S. Kabadi	Member	9822621156
5	Mr. R. D. Kale	Member	9822193097

5.1.13 Enumerate the welfare schemes made available to students by the institution.

The welfare schemes made available to students by the institution are as follows:

➤ **Book bank scheme**

Book bank scheme is provided to SC/ST students by SWD. In this scheme the books that are needed for the semester are given to the students for the entire semester.

➤ **Student group insurance scheme**

The students are covered under accident insurance policy given by United India Insurance Company Ltd. Insurance fees of D 25/- is collected from every student. In case of death, compensation of D 1,00,000/- is given to the deceased.

➤ **Overseas Educational Support Scheme**

Institute gives support in preparing students for PG/PhD program in universities, abroad through SOC and e-transcripts.

➤ **Earn and learn scheme**

College has appointed a welfare officer to monitor various activities of earn and learn scheme. Under the SPPU's Earn and Learn Scheme; College provides financial aid to economically weaker students. Details are given in **Table 5.q**.

Table 5.q: Earn and Learn scheme details

Sr. No.	Year	Number of beneficiary students	Received amount (in ₹)
1	2016-17	17	1,69,300*
2	2015-16	33	1,46,500
3	2014-15	26	2,48,691
4	2013-14	19	2,07,900

Note: * Unaudited.

- Payment of Fees in installments is permitted to economically weaker students. Also, some students gets fee waiver from STES.
- **Welfare expenses**
Student welfare fund amount gets collected from students in University pro-rata contribution and paid to SPPU as per prescribed norms of SPPU.

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 applied for alumni association registration under society registration act 1860, on 8th March 2017. General body of association is given in **Table 5.r**.

Major contributions of alumni are

- Placement activities,
- Invited as resource persons on areas of their expertise,
- Participation in organizing events
- Invited as judge for national contests/conferences organized at the Institute.
- Industrial training & visits to their industries.
- Arrange alumni meet.
- Our alumni are brand ambassadors of the institute.

Governing body of alumni consists of seven members consisting of the President, the Honorary Secretary, and Honorary Treasurer. The Secretary shall keep the records of processing of the association and Treasurer of the association shall prepare a statement of accounts, income expenditure account and balance sheets.

Alumni Activities

The association conducts meets at Institute level and at department level every year. Some of the activities conducted by alumni are as follows:

- Personality development program
- Career guidance
- Industry Institute Interaction
- Mentoring

- Placement assistance
- Project sponsorship
- Arranging seminars for students

Table 5.r: General Body of ALUMNI ASSOCIATION OF NBNSTIC

Sr. No.	Name of members	Designation
1	Prof. M. N. Navale	President
2	Dr. R. S. Prasad	Secretary
3	Prof. S. J. Thorat	Treasurer
4	Mr. N. N. Nangare	Member
5	Mr. H. D. Bhusari	Member
6	Mr. A. B. Diwate	Member
7	Ms. A. N. Ausekar	Member
8	Mr. H. Leekha	Member
9	Ms. V. S. Sundaraju	Member

5.2 Student Progression

5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlights the trends observed.

The data about the percentage of students progressing to higher education and employment (for the last three batches) is tabulated in **Table 5.s** as below:

Table 5.s: Students progression to higher education and employment

Department Name	No. of Students	Student Progression	No. of Student Progress	% Progression
Electrical	2012-2016 Batch			
	81	UG to PG	03	3.70
		Employed		
		➤ Campus Selection	24	29.62
	➤ Other than Campus Selection	25	30.86	
	2011-2015 Batch			
47	UG to PG	02	4.25	
	Employed			
	➤ Campus Selection	02	4.25	
➤ Other than Campus Selection	24	51.06		
Computer Engineering	2012 – 2016 Batch			
	150	UG to PG	12	08
		Employed	49	32.66
➤ Campus Selection		16	10.66	

		➤ Other Than Campus Selection		
	2011 – 2015 Batch			
	59	UG to PG	12	20.33
		Employed	24	40.67
		➤ Campus Selection ➤ Other Than Campus Selection	10	16.94
Information Technology	2012 – 2016 Batch			
		UG to PG	3	4.10
	73	Employed	22	30.13
		➤ Campus Selection ➤ Other Than Campus Selection	2	02.73
		2011 – 2015 Batch		
		UG to PG	1	02
	50	Employed		
		➤ Campus Selection ➤ Other Than Campus Selection	14 14	28 28
2012 – 2016 Batch				
Electronics and Telecommunication		UG to PG	2	2.32
	86	Employed		
		➤ Campus Selection ➤ Other Than Campus Selection	19 8	22.09 9.30
		2011 – 2015 Batch		
		UG to PG	2	5.40
	37	Employed		
		➤ Campus Selection ➤ Other Than Campus Selection	11 13	29.72 35.13
		2012 – 2016 Batch		
Mechanical		UG to PG	7	3.24
	216	Employed		
		➤ Campus Selection ➤ Other Than Campus Selection	48 49	22.12 22.58
		2011 – 2015 Batch		
		UG to PG	9	15.25
	59	Employed		
		➤ Campus Selection ➤ Other Than Campus Selection	16 11	27.11 18.64
		2014– 2016 Batch		
MBA		UG to PG	N.A	N.A
	174	Employed		
		➤ Campus Selection	109	62.64

		➤ Other Than Campus Selection	14	8.05	
	2013 – 2015 Batch				
		UG to PG	N.A	N.A	
	158	Employed			
		➤ Campus Selection	51	31.10	
		➤ Other Than Campus Selection	15	9.15	
	2012– 2014 Batch				
		UG to PG	N.A	N.A	
	170	Employed			
		➤ Campus Selection	58	34.12	
		➤ Other Than Campus Selection	12	7.06	
MCA	2013-2016 Batch				
		UG to PG	N.A	N.A	
		Employed			
		➤ Campus Selection	25	13.15	
		➤ Other than Campus Selection	42	22.11	
		2012-2015 Batch			
		UG to PG	N.A	N.A	
		Employed			
		➤ Campus Selection	34	12.27	
		➤ Other than Campus Selection	56	20.22	
	2011-2014 Batch				
		UG to PG	N.A	N.A	
	115	Employed			
		➤ Campus Selection	11	9.57	
		➤ Other than Campus Selection	25	21.74	

The trends observed in recent years are that

- 60 to 80% of the students are opting for employment.
- 10 to 15% of students are opting for higher education like ME/MS/MBA.
- 1% of students are starting their own companies.

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 Colleges of the affiliating University within the city/district.

The data about the percentage of students pass percentage and completion rate and comparative data (for the last four batches) is tabulated in **Table 5.t** as below:

Table 5.t: Description of Completion Rate

Sr.No.	Batch	Branch	No. of student admitted in First Year	Passing Percentage			Completion Rate (%)
				Appeared	Passed	Passing%	
1	2012-2016	MECH	281	217	182	83.87	64.34
	2011-2015		99	60	59	98.33	56.56
2	2012-2016	IT	97	73	69	94.52	71.13
	2011-2015		92	50	50	100	54.14
3	2012-2016	COMP	181	150	142	95.30	78.45
	2011-2015		91	58	57	98.27	63.30
4	2012-2016	ELECT	93	81	74	91.35	79.56
	2011-2015		95	47	43	91.48	45.26
5	2012-2016	E&TC	77	86	83	96.51	62.33
	2011-2015		87	37	35	94.59	40.20
6	2014-2016	MBA	206	200	179	89.50	85.43
7	2013-2015		195	185	159	85.94	81.53
8	2012-2014		177	170	139	81.76	78.53
9	2013-2016	MCA	201	174	148	85.06	74.05
10	2012-2015		293	282	218	77.30	68.25
11	2011-2014		120	114	103	90.35	85.83

Table 5.u: Data of comparison with other colleges

Sr. No.	Year	Branch	Passing Percentage of other institutes (University Result)	Passing Percentage (NBNSTIC)
1	2015-16	MECH	74	83.87
2	2014-15		88	98.33
3	2015-16	IT	90	94.52
4	2014-15		94	100
5	2015-16	COMP	90	95.30
6	2014-15		91	98.27
7	2015-16	ELECT	82	91.35
8	2014-15		90	91.48
9	2015-16	E&TC	85	96.51
10	2014-15		92	94.59

It is observed from **Table 5.u**, pass percentage and completion rate of our institute is better than average university result.

5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?

The modern and interactive teaching learning academic programmes (VAPs) targeted towards job oriented skill set development are organized by arranging campus drives every year for final year students. The personality and skill development programmes are also conducted to prepare students for competition or for value addition to their knowledge. College placement cell is proactively taking efforts to enhance students' chances of placement in the industry. The thrust of the placement cell is to create maximum job opportunities for them in the market by establishing good relationship with the Industry. Entrepreneurship awareness camp for final year students is also arranged. Following are the highlights of the facilities provided to the students.

- AMCAT : Aspiring Minds Computer Adaptive Test is an employability assessment test to assess the aptitude, reasoning and technical skills of students
- QALR Test : Quantitative Aptitude & Logical Reasoning Test
- STP (I to V): Student Training Program is an additional integrated input systematically spread over all the four years of engineering studies. It includes training on soft-skills, training on communication skills, and training on technical skills, value addition programmes and interview-Group discussion (GD/PI) preparation.
- Moodle (free and open-source software learning management system) tests: We organize various online aptitude and technical tests to improve the employment rate of students.
- Student overseas cell (SOC) give support through various programs for students progression to higher level of education.
- Seminar on GATE is also arranged for aspiring students.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

The Institute provides academic support for the students who are at the risk of failure; some of the initiatives are as follows:

- Personalized counseling is being provided through TG's to students to reduce the risk of dropout.
- Special counseling and teaching by experts from inhouse and outside resources.
- The slow learners are motivated to attend extra lectures after college working hours.
- The failed students are encouraged to attend remedial classes.
- Unit by unit preparation and practice, self-simplified internal test questions, self-learning sessions, and tutorial benefits are given to such students.
- Faculties provide model solutions of university question papers.
- Conduction of mock practical for practice
- Online e-Exam portal is available for students for online examination practice.
- If dropout is due to financial conditions, we give special consideration for these category students.

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 programme calendar.

The institute has a wide range of sports, games, cultural and extra-curricular activities like Neon, Sinhgad Karandak, Dandiya, Marathon, Techtonic, Techdrill, etc.

- The institute provides world class sports facilities to students. It has one state of the art Cricket ground and athletics track. The sports amenities also comprise of two football grounds, one hockey, two lawn tennis courts, two basketball courts and two volleyball courts.
- The institute, since long time has been participating in various Inter-University and University Level Tournaments.
- Various cultural and extracurricular activities like solo dance, group dance, solo singing, duet singing, street play, fashion show, Mr. and Ms. Sinhgad, fine arts programmes like Rangoli, recipe competition are held to bring out the aesthetic and creativity of the students. Intercollegiate cultural fest titled NEON is being held, and students enthusiastically participate in it. Trophies are awarded to the best performers in these events.

The data is tabulated in **Table 5.v**:

Table 5.v: Data about Sport and Cultural Events

Sr. No.	Year	Count of conducted events
1	2016-17	08(till date)
2	2015-16	29
3	2014-15	22
4	2013-14	19

Table 5.v: Sport event and Participation

Sr. No.	Year of Participation	Level of Sport Event	No. of Students participated
1	2016-17	College Level	28(till date)
		District Level	28 (till date)
2	2015-16	College Level	89
		District Level	66
3	2014-15	College Level	90
		District Level	66
4	2013-14	College Level	94
		District Level	66

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.

Various teams of the institute participate in different sports and cultural activities. There excellent performance is reflected in Table 5.w.

Table 5.w: Students achievement data(extracurricular)

Sr. No.	Year	Name of Student	Event Name	Level	Description
1	2016-17	Mr. S. Pawar and Team	Kabbadi (Boys)	University	Winner
		Mr. O. Thatte and Team	Football (Boys)	State	Winner
		Mr. K. Gandhi Ms. H. Duche Ms. S. Patil Ms. I. Roy Mr. S. Solanki	Treasure Hunt	State	First
		Mr.Himanshu Shekar & team	Cricket	National	Winner
2	2015-16	Mr. R. Panchal	Lawn Tennis (Boys)	State	Runner Up
		Mr. O. Thatte and team	Football (Boys)	University & National	Winner
		Mr. K. Ranade	Body Building (Boys) Aundh Banershree	District	Fifth
		Mr. K. Ranade	Body Building (Boys) (60 -65 Weight)	University	Runner Up
		Mr. S. Pawar and Team	Kabbadi (Boys)	University	Runner Up
		Mr. K. Ranade	Body Building (Boys) Rajshree 2016	District	First
3	2014-15	Mr. R. Panchal	Lawn Tennis (Boys)	Zonal Level	Runner up
		Ms. S. Jadhav	Discuss	Zonal Level	Runner Up
		Ms. S. Jadhav	Shot put	Zonal Level	Runner Up
		Mr. K. Hagawane	Best Physique	Zonal Level	Runner Up
		Ms. S. R. Deshpande	Fencing	Zonal Level	Runner Up
		Mr. O. Thatte and team	Football (Boys)	University	Runner Up
		Mr. T. Sawant	Snooker	State	First
		Mr. S. Rajput	Chess	State	First

			Competition		
		Mr. V. Shirke	Carrom	State	First
4	2013-14	Mr. A. Natu and Team	Football (Boys)	State	Winner
		Mr. V. Shirke	Carrom	University	First
		Mr. V. Shirke Mr. A. Bikule	Carrom (Team)	University	First
		Mr. K. Sharma	Amazing Race	State	First
		Mr. H. Mirchandani and Team	Business Bazigar	University	First
		Mr. H. Leekha	Indian Student Parliament	National	Participated

Table 5.w: Students achievements data (Cultural)

Sr. No.	Year	Name of Student	Event Name	Level	Description
1	2016-17	Mr. V. Thakkar	Purushottam Karandak - 2016	State	Consolation Prize for Acting
2	2015-16	Mr. K. Gandhi and Team	Arohan-15 Group Dance	University	Winner
		Mr. K. Gandhi and Team	Neev-15	University	Second Runner Up
		Mr. V. Thakkar	Sinhgad Karandak Neon-16 solo dance	State	Winner
		Mr. A. Chaudhari and Team	Sinhgad Karandak Neon-16 Group dance	State	Winner
		Mr. A. Chaudhari and Team	Panache-2016	University	First Runner Up
		Mr. A. Chaudhari and Team	Jalasa-2016	University	Second Runner Up
		Mr. A. Bhalchndani Ms. K. Joshi Ms. N. Shaikh	Elocution	University	2 nd Winner
Mr. Kumar A. Mr. V. Nagpal Mr. P. Ostwal Mr. H. Shah	Dexterity (Ad Zap)	University	2 nd Winner		
3	2014-15	Mr. M. Karle	Firodia-2015	State	Consolation Prize for Singing
4	2013-14	Ms. S. Dali	Sinhgad	State	Runner

			Karandak Neon-14 solo dance		
		Mr.C.Tirthgirikar	Footloose- Melange 2014	National	Finalist

Table 5.w: Students achievement data(Co-curricular)

Sr. No.	Year	Student Name	Event Name	Level	Position
1	2016-17	Mr. S. Solanki	Logica	State	First
		Mr. O. Mahajan	Inspiria	State	Second
		Mr. R. Sonawadekar	Java Programming	State	First
		Mr. Kaushik Gupta	Seed IT Idol	State	Twelfth
2	2015-16	Mr. V. Tapadiya Mr. S. Kaiche	Code Battle	State	Second
		Abhishek Patel	Melange Programming Contest: Byte Code	National Level	Second
3	2014-15	Mr. D. Nanaware	Java Programming Contest	State	Second
		Mr. P.Upadhye, Mr. A. Fernandes, Mr. A. Veer	Software Project Contest	State	Second
		Mr. A. Sharma	Logica	University	First
		Prasanna Deshmukh	Campus2Corporate Pro 2014	National Level	Fifth
		Abhishek Patel	Campus2Corporate Pro 2014	State Level	second
4	2013-14	Mr. A. Padolkar	Creative Designing	University	First
		Mr. A. Padolkar	Web Designing	University	First
		Surabhi Mutha	Quiz- Brainstorm	National Level	First
		Jeevan Agre	Quiz- Brainstorm	National Level	First
		Mr.S.Kulkarni Mr.Himalaya Leekha	IIIT Allahabad- 6th Science Conclave 2013	National	Participated
		Mr.P.Pallewar Mr.A.Veer Ms. S.Patange Mr.O.Kajale Mr.C.Tirthgirikar Mr.P.Bajwa	Google AdClass 2014 Edition 2	National	Participated

		Mr.S.Sahoo	10th National IT Aptitude Test	National	Rank: 3220/73666
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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?

Institute collects feedback from the employers in the prescribed format during campus interviews, formal meetings and from alumni during alumni meets conducted department wise. Feedback contains information regarding institutional provisions about the quality of students, students’ performance in the interview, curriculum improvement, employers, and graduates, etc.

- The feedback helps in designing the training modules prepared by T & P cell for the current students. Employers and alumni give valuable suggestions on curriculum development, infrastructure facilities as well as latest technological trends in industry.
- Online suggestions are taken from graduates. These suggestions are reviewed by AMC. Adequate measures are taken depending on committee recommendations to improve the performance.

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 publishes its yearly magazine, named —VIVASWAN. This magazine is a space to showcase student’s literary creativity. Students submit their creations like articles (research, literary), stories, poetry, paintings, and photography for English, Hindi, and Marathi section of the magazine. The editorial board consists of staffs and students are tabulated in **Table 5.x**.

- The students are encouraged to design event posters and brochures for Technical Student Symposia – TECHTONIC conducted annually.
- Students are motivated to publish their technical ideas, creative art and poetry in the college magazine.
- ‘Socio Tech’ poster presentation competition under Techtonic.

Table 5.x: Details of the college magazine

Year	Theme of the magazine	Staff Coordinators	Student editor	Student co-editor	No. of students in the Editorial Team
2016-17	Dreams	1. Prof. Ms. P. P. Kulkarni 2. Prof. Ms. S.D. Deo 3. Prof. O.A. Dhumal 4. Prof. Ms. S. S. Kabadi 5. Prof. Ms. P. Ingale	Ms. Shravani Vittalapuram	Mr. Satyajeet Gargori	18
2015-	Writers	1. Prof. Ms. P. P.	Mr. Kapil	Mr. Anup	14

16	and authors	Kulkarni 2. Prof. Ms. S.D. Deo 3. Prof. Ms. S. S. Kabadi Prof. Ms. S. Pharande	Kharche	Shembde	
2014-15	Dance	1. Dr. Ms. S. R. Chavan 2. Prof. Ms. P. P. Kulkarni 3. Prof. Ms. P. Ingale 4. Prof. V. Pawar	Mr. Mahesh Washikar	Ms. Rujuta Raykar	15
2013-14	Shades of India	1. Dr. Ms. S. R. Chavan 2. Prof. Ms. P. P. Kulkarni 3. Prof. A. A. Patil 4. Prof. Ms. S. D. Deo 5. Prof. V. Pawar 6. Prof. Ms. S. Patil	Mr. Adwaita Joshi	Mr. Vivek Shirke Mr. Mayank Washimkar	17

5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

Yes, as per the UGC act 1994 (40/2/B) Students Council is established in year 2012. Details are given in **Table 5.y**. The student's council(SSC) consists of one faculty member from each department, Class Representatives (CRs/LRs) from all departments. All these members are selected / elected every year by the guidelines given by STES.

The objectives of forming student council are to:

- Acquire leadership qualities
- Learn event managements
- Interact with Institute management to resolve difficulties
- Organize institute level / department level events
- Improve academics, co-curricular and extra-curricular activities
- Motivate the students for teamwork.

Activities of Students Council are to:

- Motivate students to participate in technical and soft skill events
- Organize yearly society level activity SINHGAD KARANDAK
- Celebrate Independence Day, Republic Day, Teacher Day & Engineers Day.
- Organize blood donation camp, tree plantation, voter's awareness, road Safety programs etc.
- To organize University level activities

Table 5.y: Students Council

Student council executive committee	2016-17	2015-16	2014-15
President	Mr. A. Oswal	Ms. A. Dhanwat	Mr. G. Jha
Vice President (Student Activities)	Mr. G. Gujar	Mr. P. Suryawanshi	Mr. V. Ayer

Vice President (Student Affairs)	Mr. M. Pardeshi	Ms. M. Kaul	Mr. R. Kotak
Secretary	Ms. A. Kiwlekar	Ms. S. Jadhav	Ms. S. Thorat
Treasurer	Ms. G. Rathore	Ms. A. Kiwlekar	Ms. S. Kormchandni
Foreign Student Representative	Ms. I. Sadik	Mr. G. Gujar	Mr. Mehsul-ul-naq
Council member-Engineering Club	Mr. A. Rathod	Mr. A. Osawal	Mr. V. Bhole
Council member-Management Club	Mr. Sumant	Mr. M. Pardeshi	Mr. V. Singh
Council member-Social Media and Public Relation Club	Mr. P. Suryavansi	Mr. S. Modak	Mr. A. Thormote
Council member- Social Welfare Club	Mr. R. Pawar	Mr. V. Shirsath	Mr. A. Thormote
Council member- Student Welfare Club	Mr. A. Shewale	Mr. O. Kondhalkar	Mr. O. Kondalkar
Council member-Placement Club	Mr. A. Shewale	Ms. S. Priya	Mr. S. Tithe
Council member-Alumni Club	Mr. G. Kadambande	Ms. J. Kaira	Mr. S. Jhoar
Council member- Science Club	Mr. S. Singh	Mr. A. Ade	Mr. G. Gujar
Council member-Research Club	Mr. S. Rangari	Harshal maru	Mr. V. Dhavade
Council member-Architectural Club	Mr. H. Patil	Mr. Heramb Patil	Mr. H. Patil
Council member- Event Club	Mr. N. Sharma	Mr. S. Date	Mr. A. Lodha
Council member- Cultural Club	Mr. P. Hatte	Mr. A. Thormote	Mr. A. Somkuwar
Council member- Sports Club	Mr. A. Shinde	Mr. S. Vignesh	Mr. S. More

Selection of SSC Members

- 1) Circular for application to various posts of Sinhgad Student Council.
- 2) Enrollment and form filling
- 3) Short listing of students from applications for Group discussion.
- 4) Personal interview for various posts from selected candidates from group discussion.

Funding Details

- There is no funding from any Government body.
- Student registration fees and remaining fund is supported by STES Management.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

The students representatives serve in almost all academic and administrative bodies of the Institute such as Industry Institute Interaction cell (IIC), departmental associations and various clubs of SSC, student's council, Anti Ragging Cell, etc. The various institutional and departmental associations/bodies formed are as follows:

- Students Council: Consist of UR, GS, LR, ALR and CRs
- Cultural committee
- Sports Committee
- Subject CR(Name & contact no., meeting with Dean/ course coordinator)
- NSS Committee as per SPPU
- BAJA and Robo club
- Magazine Committee
- Anti-ragging Committee and Anti-ragging squad
- SSC(Sinhgad Students Council)

5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution. Any other relevant information regarding Student Support and progression which the college would like to include.

We have a strong network with alumni through 'alumni association' in the institute. Alumni meetings are conducted annually in departments and in the institute. Institute arranges lectures, seminars, workshops, and conferences by alumni. The IIC has alumni as a committee member. First year induction program and Tech tonic are the events where alumni member and former faculty are invited as guests and judges. Former faculty members are invited for conducting guest lectures, participation in seminars and conferences as reviewers or session chairs.

We also support our alumni for their higher education by providing them LOR (letter of recommendation).

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.?

Vision

"उत्तमपुरुषान् उत्तमाभियंतृन् निर्मातुं कटीबध्दाः 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 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.

Distinctive Characteristics of Mission

Sinhgad Technical Education Society (STES) was established in the year 1993 with an objective to provide quality education from school to Post graduation programmes in all disciplines. The location of these campuses is in pollution free, green and clean environment conducive to learning. It enjoys the services of a vast intellectual capital that comprises of eminent faculties, drawn from the field of education and industry.

The Institute has hand-picked eminent personalities from the field of education and industry as members of the management committee who are committed to provide necessary guidance on academic and professional fronts from time to time. To serve the interest of the student community as well as the corporate and industrial sectors, institute maintains a close liaison with the industry and other leading organizations. Institute has its own separate placement cells along with a centralized placement cell established by STES in Pune campus. There are experts from different fields contributing their valuable experiences to build the Institution as a place of learning and discipline.

STES organizes many events in order to achieve excellent academic and physical environment conducive to learning, creativity and technology transfer. One of them is Sinhgad Neon - Cultural Fest which is conducted every year. It provides the platform to the students, where they exhibit their talent and skills. Under the "Neon" cultural fest, particularly for management

students we have the event called Spectrum. The events aim is to have participation from management students. Events such as AdZill, Investors Gala, and Shark Tank are organized. Similarly Tech Drill is also a management event organized for computer students under which Java Programming Contest and Project Competition called “Prakalp”, and other similar events are organized. This serves as a platform to showcase talent and give the students an opportunity to prove their mettle. A zealous avenue, where classic creativity, innovative intellect and a plethora of skill sets would be challenged to make it happened.

The Institute has correctly understood the importance of the sports and extra-curricular activities with academics for the holistic development of the students. Institute has paid special attention to all-round development of the students by ensuring their active participation in the activities like Sports, Culture, and Recreation etc. The excellent sports facilities, both out-door and in-door are available at each campus. STES has maintained an excellent cricket ground of international standards and also well-equipped Tennis Courts. This facility is utilized by the institute. STES also organizes a sports event called SINHGAD KARANDAK in which sport competitions for inter and intra college students are held.

The institute has student’s population from various parts of India which makes cross-cultural exchange very interesting. The students are also very well aware of the fact that music is the Universal language of mankind. The Sinhgad Cultural Centre which is common to every institute, nurtures and nourishes the cultural activities which include music, drama, and dance etc. to help students to understand the rich Indian culture. It also holds various cultural and sports inter-college competitions throughout the year which culminates into “Sinhgad Karandak”. Renowned artists are invited from various fields whose performances give immense pleasure and inspiration to the students.

Institute also recognizes its role towards the society and also gives importance in imbibing the same qualities in the students. For this, institute organizes Blood donation camp, Organ Donation Awareness Sessions, Celebration of earth day, creating awareness among faculty and students regarding traffic, tree plantation ceremony and conducting green marathon. Under the corporate social responsibility faculties are arranging students visit to different NGOs who are involved in social services. These are the some efforts taken by the institute to create social awareness among the faculties and students. Some of the activities carried out by the institute in this regard have been mentioned in Criterion - III, Point No. 3.6.1.

All these events are organized by keeping in mind the mission statement of the institute, for overall development of the students.

6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

The role of top management, Principal and faculty in design and implementation of quality policy and plans are detailed below:

The management sets objectives in consonance with the quality policies and shares its vision through periodic Governing Body (GB), Academic Monitoring Committee (AMC), and Local Management Committee (LMC) meetings. Management hires competent, dedicated individuals to implement teaching learning process effectively to realize the vision and mission of the institute. Managements focus is always on creating an atmosphere that is fair, transparent, motivating and conducive to faculty and staff to realize their potential. It always tries to make financial provisions to provide infrastructure, facilities suitable for effective services and to cater to further requirements as per growing needs. They regularly interact with the Principal to review the implementation process of the quality plans. The Management committees frequently take overview of various academic functions, administrative functions and other functions ongoing in the entire organization.

The Principal shares the vision of the management and decisions taken by the management in the fortnightly meetings conducted with Deans and heads for academics. The Principal plays a key role in making communication in between the top management and the lower management. He actively plans the various activities as per the expectation and vision of top management. He also ensures through his Dean, Associate Director and Departmental Heads, the perfect implementation of the planned activity.

The Principal intends to develop and ensure effective conduction of educational programs and promotes the improvement of teaching learning process in the college. He also monitors the various activities as and when required, and suggests some controlling measures. He always designs the feedback system to ensure the complete achievement of the institute goals. He always believes and tries to delegate the authority to Dean, Associate Director and HoDs with enough freedom to take the decisions regarding institutes good interest. He always tries to conduct such things which support the quality policies of the institute.

The Dean MBA, Associate Director MCA and HoDs report to the Principal / Director (NBNSTIC). They are working closely with the course coordinators and class coordinators. They decide the course coordinator and class coordinator as per the capability of the faculty. This responsibility is given on rotation basis for each academic year.

They all are responsible to plan the entire academic year's activities. All are appreciating the active participation from the faculties in preparing the academic calendar. All concern heads take the particular plans from the respective faculties well in advance and provide their valuable inputs / suggestions for the betterment of the same.

They verify the plan with the actual performance and if any difference is found then it is brought to the notice of the concern person. In between they give the feedback and provide the equal opportunity for the improvement.

The responsibilities undertaken by them are like,

- Allocate workload to the faculties,
- Provide the guidance for the preparation of academic calendar including co-curricular and extracurricular activities, timetable etc.
- To get the semester teaching plan lecture-wise for each theory and practical course done by each faculty,
- Monitor the progress according to the teaching plan periodically, to formulate departmental budget and procurement proposals, propose faculty and staff requirements, to promote research oriented activities and faculty development initiatives, seminar and conference participation and research publication,
- Establish a strong rapport with industry / business for live case studies / projects, to keep the principal well informed about the activities of the department, to monitor the daily attendance and lectures, practical of all classes in the department.

The faculty is the most important link between the management and the student. He is the one who practically carries out the policies and plans along with the students. Some of the means by which they try to design and implement quality policy in the respective department to fulfill the quality policy of the institute are

- The faculties of the institute are having complete freedom for choosing the subject for teaching. Once the subject is selected, all the faculties plan their semester with the help of Teaching Plan (TP). This teaching plan prepared day wise and lecture wise. Academic calendar is always provided in advance to the faculties.
- They guide the students in the subject related matters as well as in the other areas which are necessary for student's overall development. Every faculty has to mentor the specific number of students every year. This is known as TG Programme. This is the initiative taken by the institute to create strong bond between faculty and student.
- Faculties monitor the performance of the students through unit test, midterm, Student Training Program (STP) activities, Case Studies and provide the required feedback to the student. They ensure departmental discipline and punctuality in classes.
- Faculties also make sure that the departmental laboratories and library are academically update and optimally used.
- They try to bring industry sponsored projects to the department, present research papers and publish research articles, make arrangement of field visits / industrial training and guest lecturers, Organize International / National Seminar / Conference in the Department.

6.1.3 What is the involvement of the leadership in ensuring: The policy statements and action plans for fulfillment of the stated mission?

Leadership is involved in deciding the quality policy which is aimed at achieving excellence in technical education, with recognition at national and international level. For this, management is committed to provide excellent infrastructure facilities, employ highly qualified and experienced faculty, encourage the faculty for improvement in qualifications, promote the industry-institute interaction, create environment for research and development

activities, Consultation work and getting industry-sponsored projects for students. The leadership of institute is always striving for these achievements through their policies. Taking into consideration the preceding year's performance in terms of academic results, placements, research publications, funded projects, etc. appropriate corrective steps are taken in consultation with the people involved in achieving the excellence.

The leadership is involved in,

- Formulation of the action plans, procedures and guidelines to the faculty members in order to achieve the mission.
- Hard implementation of required follow up action after monitoring and reviewing the quality / quantity of outcomes in key functional result area for the fulfillment of our mission.
- Extension of financial supports for the academic development and continuous improvement / updates.
- Enhance research culture amongst the faculty and students by providing research facilities and industry institute interaction.

The institute has policy of “Striving for Excellence” in academics as well as co-curricular and extra-curricular activities. Therefore Principal, Associate Director, HoDs and faculty as a leader motivate the students and develop a competitive culture in every department. At Institute level also, action plans are formulated and incorporated.

- In the department, HoDs in consultation with Principal prepare a detailed academic calendar for every semester. The planned dates are as per SPPU academic calendar. At the department level co-curricular and extra-curricular activities are also planned for the holistic development of the students.
- Institute also conducts innovative programmes like Student training Program (STP), Teacher advancement program (TAP), and Train the trainer (TTT) etc. STP is the initiatives taken by management to ensure the quality improvement.
- Organization of various orientation programmes, seminars and workshops cultivates the learning habits among the faculties to enhance their domain knowledge.
- Parent's informal interaction is conducted at various stages of student performance. Parents are informed about the student's performance, their attendance and thereby to improve upon.
- Recently Alumni cell has been formed. Henceforth Alumni meeting will provide appropriate interface between alma-maters and industries for curriculum development, student projects and MoUs. The involvement of all stakeholders is ensured for improving the quality of the institution and internal coordination.
- Placement of the students in reputed industries / companies, maximum employability, number of students opting for higher education and creating potential entrepreneurs are the focused objectives to become champion amongst the academic institutions nearby.
- The College leadership undertakes to understand the needs of the society through its interactions with University, UGC and other academic

authorities. It extends full support to all the new initiatives of these authorities.

- It also conducts regular feedback of students, parents to frame plans. The policies are framed according to the experiences of the past years. The management fully supports any new plans for the benefits of its stakeholders. Recommendations given by University and UGC are implemented from time to time.

The institute follows a well-structured approach for implementing the required changes to ensure improvement in the performance of the system. Requirements arising in order to accomplish the above goals are systematically conveyed with its justifications to the competent authorities and decisions are taken towards its fulfillment of these requirements.

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?

There are three stages involved in 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.

1. The Local Managing Committee, which has representatives from both teaching and non-teaching staff, meets twice in a year. In the Governing body meetings implementation and improvement of policies are discussed and corrective actions are suggested. The review of policies and corrective actions decided in the Governing body meetings are conveyed to the staff by the Principal. Principal conducts regular meetings with heads of department to analyze the smooth functioning of the college.
2. HoDs communicate the plans and in order to have effective implementation of the policies and to monitor and evaluate the same various committees are formulated in the department. Faculty plays very important role for smooth conduction of academic functions apart from their regular role as a teacher. Review is taken during the departmental meetings.
3. Faculties are always the main aspect of policy design and implementation. When time comes to monitor and evaluate policies and plans for implementation and improvement planning, faculties always become center of concern. They play a very crucial role in monitoring and evaluating institute policies.
 - Academic evaluations of students are done with the help of periodic examinations. Faculties prepare the students for the final placement. They many times do the counseling of students for their betterment.
 - Faculties take a lead in arranging guest sessions, seminars and workshops for overall development of students. Faculty as a course coordinator acts as an in-charge for the assigned course and grooms junior teachers. The academic activities of the course are decided by this course coordinator.

- Each faculty has been given duty of Teacher Guardian (TG). This scheme is already explained earlier. To assess students preparation for university examinations, various tests are conducted. The faculty is appointed as examination coordinator. He selects his committee and leads all internal examinations for smooth conduction.
- In addition to the internal exams, one faculty leads university examination as Chief Examination Officer (CEO). He along with committee members comprising teaching and non-teaching staff is responsible for smooth functioning of university examination.
- Faculties are involved in helping students to get employment. They arrange training, industrial visits and in-plant training. Arranging guest lectures by professionals from industry and academics. Faculties are doing arrangement to provide the opportunity for existing students to interact with Alumni. This leads into sharing of views and thoughts regarding industry requirements.

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

To nurture the leadership qualities in the faculty members the top management has laid down the road map of assigning the tasks to the faculties. Also the necessary support in every aspect is provided to the faculty, which is required to complete the task. This leads in creating the environment where faculties are taking the ownership of the task or activity. This also helps to inculcate the academic leadership in the faculties.

In order to achieve the desired academic performance, the leadership responsibilities are divided at central level, Institutional and departmental level.

The top management decides the academic policy and its outcomes. Then activities are designed in order to achieve these outcomes. There are some common activities which are followed by every institute under the umbrella of STES. For these activities leadership is provided at central level, institutional level and departmental level. Some of such activities are STP, Training and Placement.

At institutional level the management gives full freedom (academic, administrative and financial) to the Principal. Principal then appoints appropriate person as the head of the department (HoD) who coordinates with the departmental staff for achieving the specific goals of the department and institute.

Decentralization of task is the backbone of efficient work. 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.

- In each department, HoD forms various committees to oversee the efficient and smooth functioning of the institute. Faculty plays very

important role in the academic functions apart from their regular role as a teacher.

- Teaching load distribution is done to the faculty taking into consideration, the Faculty qualifications, their subjects specialization, experience and their willingness. Every teacher prepares a teaching plan and lecture plan in a common format.
- 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 university.
- The next level of leadership comes with the coordinators of the different intra department activities like examination, industry interaction, Training and Placement, Student Associations, final year Projects, Class In-charges, and laboratory In-charges etc. Apart from institutional work faculty also work for the university.
- They play an active role as subject chairman, paper setter, evaluator, etc. Apart from all academic activities faculty is also involved in various committees of seminars, conferences, and workshops, students training programs, etc.

6.1.6 How does the college groom leadership at various levels?

NBNSTIC management firmly believes that, the development of the Institute and a complete understanding of its potential are achievable only by identifying and preparing leaders. The method used for creating leaders at different levels is described below.

Every faculty is given complete freedom to identify their best potential by providing them equal opportunities. Responsibilities are assigned to the faculties according to their qualifications, skills, experience and temperament. They are always motivated and encouraged for enhancing their qualification along with skill updating. Institute always focuses on creating research oriented culture to boost the research activities.

All the staff members are involved in all the activities in the College. The senior staff members are appointed as conveners of various committees and are given full autonomy in decision making. Institute has performance appraisal system to identify the hard work done by staff. Based on their performance staff is promoted to higher positions.

Students are encouraged to participate in various co-curricular and extra-curricular activities. These are conducted through student committees with office-bearers. On the previous academic performance and leadership capabilities students are selected as Class representatives as well as heads of various activities. On successful completion of a task, they are given opportunity to work with Student Council activities to meet challenges within the stipulated time.

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 policy of institute to create leaders enables it to delegate authority and provide operational autonomy to the departments of the institution and work towards decentralized governance system. The management gives sufficient

freedom to the Principal, who functions as academic head of the institution in order to fulfill the vision and mission of the institution. Academic responsibilities are fairly divided among all the staff members. Department wise committees are appointed for the various academic and co-curricular activities to be conducted in the course of the academic year. The list of committees is conveyed at the beginning of the year to all the staff members. This ensures transparency in policy execution. The responsibilities are communicated to the faculty members through regular staff meetings.

Various co-curricular and extra-curricular activities are conducted through student committees having a faculty-in-charge. The Principal / Dean / Associate Director of the college hold regular meetings with the teaching and non-teaching staff. In these meetings, various issues are taken up for discussion before arriving at a final decision. The HoDs monitor the functioning of the various activities at the department level. As Principal is the head of the institute hence HoDs and coordinators report the status of all these activities to him on day to day basis or as and when required. **Table 6.a** represents the functional committee indicating task assigned to develop leadership qualities of the faculties.

Table 6.a: NBNSTIC Functional Committee for Academic Year 2016-17

Sr. No.	Committee / Activity	Coordinator
1	Accreditation (NAAC)	Dr. Ms. V. S. Deshpande Prof. R. D. Helwade Prof. Ms. A. A. Deshpande
2	Academic Monitoring	Dr. Ms. V. S. Deshpande Dr. S. P. Ujagare Dr. Ms. S. R. Chavan
3	Student Training Programme (STP)	Prof. S. P. Patil Dr. S. P. Ujagare Dr. Ms. S. R. Chavan Departmental Coordinators
4	SPPU Examinations	Dr. C. S. Pathak Prof. A. H. Ghadage Prof. R. P. Pune Prof. K. R. Kant
5	Central Library	Mr. B. D. Shingade
6	Research	Prof. A. A. Patil Prof. Ms. P. A. Kulkarni
7	Placement Activities	T and P Officer Departmental T &P Coordinators
8	Industry-Institute Interaction	HoDs, Prof. A. H. Ghadage
9	Grievance Committee	Dr. R. S. Prasad Dr. S. P. Ujagare Dr. Ms. S. R. Chavan
10	Annual Magazine	Prof. Ms. P. P. Kulkarni Prof. Ms. S. S. Kabadi Prof. P. S. Ingle
11	Alumni Association	Prof. S. J. Thorat Dr. R. R. Kabugade

		Prof. R. D. Kale
12	Student Counseling, mentoring	All Teacher Guardians. Prof. Ms. S. S. Kabadi .
13	Student's Council	Dr. S. Y. Gajjal Prof. P. V. Pise Prof. R. P. Pune
14	Co-curricular and Extracurricular activities	Prof. P. S. Kulkarni Prof. B. D. Deshpande Prof. K. R. Kant
15	Anti-Ragging Committee	Dr. R. S. Prasad Dr. S. P. Ujagare Dr. Ms. S. R. Chavan
16	Sports	Prof. S. Y. Tamboli Prof. N. B. Anute Prof. R. D. Kale
17	Cultural	Prof. H. K. Raje Prof. Ms. B. D. Deshpande Prof. Ms. K. S. Alishetty

6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

Yes, the Institute has always been in favor of participative management. The teaching and non-teaching staffs are the major components of this participatory management. Institute involves and allows the faculty members to participate voluntarily in all the activities. All the founder members of the Society are also the teachers, therefore they understand that without the involvement of faculty members, continuous improvement of the defined policies and the holistic development of student and overall progress of institute is not possible.

The following mechanism is followed to ensure culture of participative management

- Principal is an integral part of both GB and LMC and act as a representative of institute while deciding management policies. One teaching faculty member and one supporting staff are members of LMC. They are actively participating in discussions of management.
- Principal while implementing the decisions in various departments based on vision and objectives lay down by the management, does it in consultation and suggestion of all the HoDs.
- Individual department also conducts meeting every week to make sure that the idea behind the decision is well conveyed to the faculty members.
- Constructive suggestions and faculty feedback are consistently discussed during the conversations to develop culture of participative management. Faculties are given responsibilities to achieve desired outcome.
- In most of the committees, the involvement of faculty and their participation makes the academic and administrative system transparent.
- While executing extra-curricular activities the innovative ideas of the students are promoted to decide plan and strategies.

- Formal and informal feedbacks of students are also useful to modify systems to give positive outcomes.
- Therefore, the institute executes participative management where students, staff, HoDs, Principal, LMC and GB experiences the culture of transparency at their respective levels.

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 Institute has a formally stated quality policy. Quality Policy is aimed at achieving excellence in Technical Education, by acquiring recognition at national and International level. The quality policies are

- To work for holistic development of students.
- To provide physical environment conducive to learning, creativity and technology transfer.
- To perpetuate transparent and joy at work culture.
- To develop an Internationally recognized research and technology center.

It has been formed by top management, after discussions with Principal and all the stakeholders. These policies have been framed in line with the vision and mission of the institute. The Strategic plan and action plan are designed in such a manner that this quality policy is driven and deployed during every process. The Institute undertakes various activities to fulfill the quality policies by the way of

- Providing excellent Infrastructure facilities.
- Inducting faculty members having sound knowledge in the field of Science and Engineering and making special efforts to retain them.
- Developing excellent teaching learning process by establishing cohesive bond between students and faculty.
- Encouraging the faculty for improvement of qualifications.

All the activities are monitored by the committees that meet periodically to decide and discuss various quality issues. The top management has formed internal Academic Monitoring Committee (AMC). AMC visits regularly to the institute to monitor quality issues. This committee verifies the course file, lesson plan, made by the faculties and provides suggestions, if any. It also takes the online feedback from the students and suggests the areas for improvement to the faculties. Principal and HoDs takes the review of the suggestions given by committee for the effective accomplishment of the outcomes. These are fine adjusted and determined after discussions with the Principal, HoDs under the direction of top management.

6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

The institute, in coordination with all the stakeholders has chalked out a perspective plan for the development. The aspects which have been considered are improvement of academic performance of students by inculcating best Teaching and learning processes, imparting practical knowledge to students by

continuous upgrading programs like STP, VAP, III (Industry Institute Interaction) Cell, Industrial visits etc., overall development of students by motivating them to participate in various activities like sports, Sinhgad Karandak, SSC etc., social activities like tree plantation, blood donation camps, activities like poster presentation competition etc., honing teaching skills of faculties by motivating them to pursue higher education, arranging programs like TTT, FDP etc. and developing research culture in the institute by arranging workshop and conferences. These aspects are reflected in the short and long term goals of the institute. These goals have been discussed in Criterion-I, Point No.-1.1.1.

6.2.3 Describe the internal organizational structure and decision making processes

Sinhgad Technical Education Society (STES) was established in the year 1993 under the able and dynamic leadership of Hon. Founder President with an objective of providing quality education in the field of Engineering, Medicine, Management, Computer, Architecture, Pharmacy, Law, Arts, Science, Commerce, Nursing, Aviation and School education from kindergarten onwards. There are many institutes under the aegis of the society offering full-fledged school education, diploma, graduation and post graduation courses in various branches of engineering, medicine, science and management. All these education centers are ideally located in pollution free, lush green and picturesque environment, conducive for learning.

Being an educational institute there are normally two types of decisions like Academic decisions and Day to day decisions. In NBN Sinhgad Technical Institutes Campus (NBNSTIC), the decisions are taken in three manners

- Top down
- Horizontal
- Bottom Up

Top down

Some of the decisions are taken by the top management which may or may not be consulted with other management levels. These have to be implemented by the next level management. Top management take decisions regarding budget allocation, admission drive strategies, new course introduction, variation in the intake etc.

Horizontal

These are decisions taken parallel by the same level management people. The middle level management includes Principal, Dean, Associate Director and HoDs. They take the decision which is mostly related to academic issues such as finalizing academic calendar, arrangement of workshop / seminar / research activity, finalizing timetable, deciding evaluation pattern, deciding internal exam pattern etc.

Bottom Up

There are some decisions which are taken by looking the demand of the lower level people. Bottom level management normally includes teaching faculties

and supporting non teaching staff, they are also involved in the decision making. The areas of decisions are revolving around a particular subject which the faculty teaches. The faculty takes the decision like which activities should be conducted in the class, evaluation criterion for his / her subject etc. **Figure 6.a** represents internal organizational structure and decision making processes of STES and **Table 6.b** represents Governing Body of NBNSTIC.

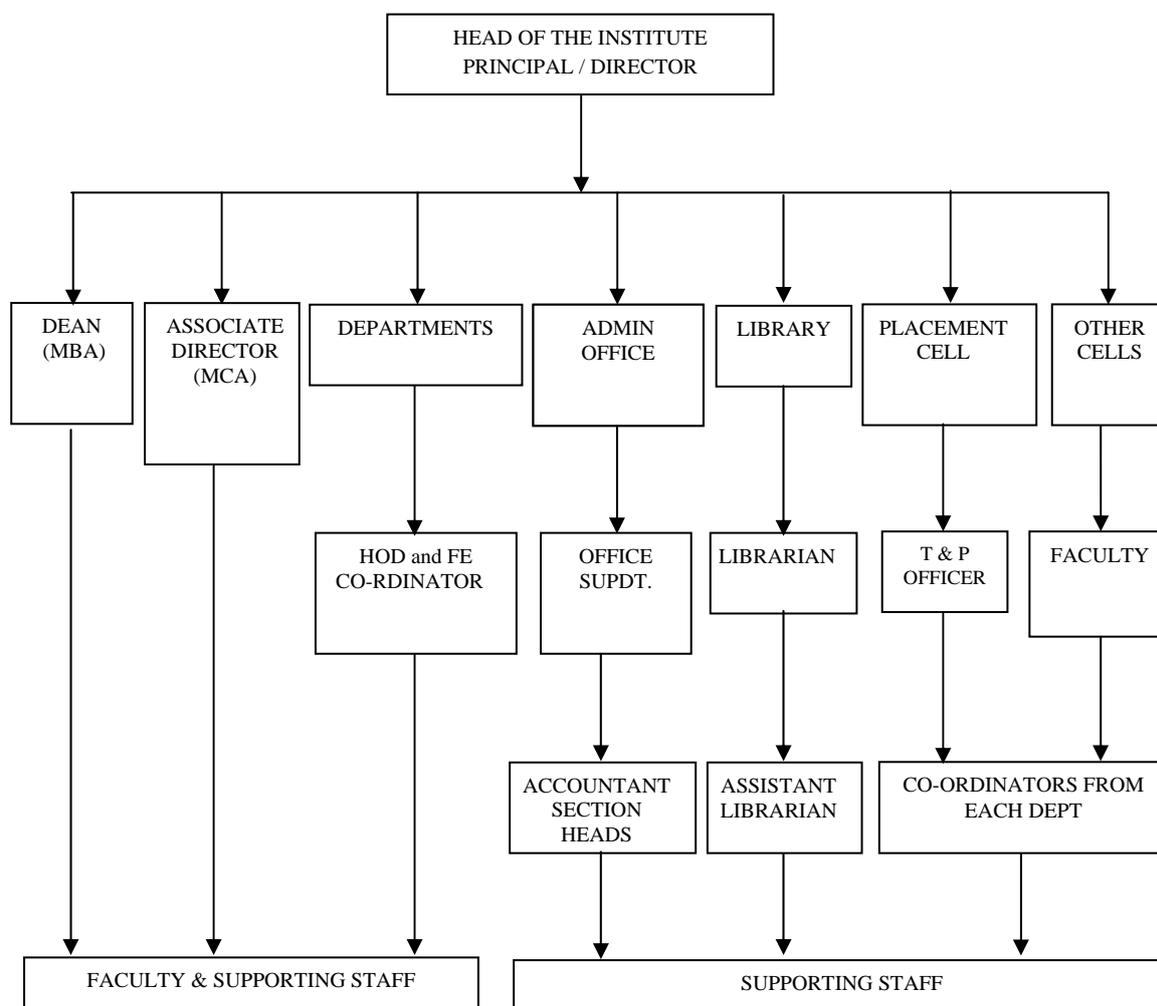


Figure 6.a: Internal organizational structure and decision making processes

Table 6.b: Governing Body

Sr. No.	Description	Name	Designation
1	Nominated by Registered Society/ Trust	Prof. Maruti N. Navale M.E. (Electrical), M.I.E., M.B.A. Founder President, Sinhgad Technical Education Society, Pune	Chairman
2	Nominated by Registered Society/ Trust	Dr. Mrs. Sunanda M. Navale B. A., M.P.M., Ph.D. Founder Secretary, Sinhgad Technical Education Society, Pune	Member

3	Nominated by Registered Society/ Trust	Mrs. Rachana Navale Ashtekar Vice President, Sinhgad Technical Education Society, Pune	Member
4	Nominated by Registered Society/ Trust	Mr. Rohit M. Navale B.E. (Mechanical) Vice President, Sinhgad Technical Education Society, Pune	Member
5	Nominated by Registered Society/ Trust	Dr. A. V. Deshpande Director, Sinhgad Technical Education Society, Pune	Member
6	Industrialist/ Technologist / Educationist Nominated By AICTE	Name Awaited	Nominee
7	Nominee of State Government	Dr. D. R. Nandanwar Director, DTE MS, Mumbai (Ex-Officio)	Nominee
8	Nominee of University of Pune	Dr. D. D. Balsaraf Principal	Nominee
9	Govt. of Maharashtra	Name Awaited	Nominee
10	Nominee of AICTE, New Delhi	Dr. Ramesh Unnikrishnan Regional Officer, WRO, AICT, Mumbai (Ex-Officio)	Nominee
11	Principal/ Director of the Institution	Dr. R. S. Prasad Principal/Director NBN Sinhgad Technical Institutes Campus, Pune	Director, Principal Member-Secretary
12	Nominated by Registered Society/ Trust	Mr. G. K. Shahani Director (Projects), Sinhgad Technical Education Society, Pune	Special Invitee

6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following

Teaching and Learning

The institute follows many ways in order to ensure quality improvement through effective teaching-learning process. Some academic steps which are taken to improve teaching learning process are

- Institute is always ready in advance with well-planned academic calendar which creates the clear picture of upcoming semester in front of the students.
- Every student is evaluated and analyzed on the basis of internal and university results.
- Regular feedback is taken from students to know the areas where improvement is required.
- As mission statement is pointing towards the holistic development of students institute has Teacher Guardian (TG) scheme for counseling the students.
- Faculties always conduct remedial lectures for the students who are weak in academics. Faculties also conduct mock online exam, mock practical

exam to understand the performance of the student.

- Maximum faculties as per the need of the subject use the Case Based Teaching Learning methodology in their respective subject lectures.
- AMC monitors the teaching and learning process and always strives to improve the process.

Research and Development

Research activities undertaken are focused on reaching outcomes that result into benefits for the learning community and society at large. The institution has a central Research Committee (RC) to monitor and address the issues of research. Research committee is responsible for coordinating the research activities of all the departments. The composition of the central research committee is described in criterion-III, Table 3.a. The main objective of the RC is to motivate the faculty members and students for R&D activities in the area of their specialization.

The institute extends full support to researcher by providing,

- **Autonomy to the Principal Investigator**
The Principal Investigator has the freedom to choose area of research. He / she also has the autonomy to choose the co-investigator/s if required.
- **Timely availability or release of resources**
A separate research grant account is maintained by the institution for all the funds received under research projects. The funds are released to Principal Investigators as and when required with immediate effect.
- **Adequate infrastructure and human resources**
The institution has well equipped infrastructure like laboratories with basic equipments needed to start the research. The institution also has adequate human resources to support the Principal Investigator in laboratory, accounts office and library.
- **Time-off, reduced teaching load, special leave etc. to teachers**
The Principal Investigator and Co-investigator(s) are given on-duty leaves to visit the sites for data collection if needed, to visit the funding agency offices for audit and other work, to attend the conferences and project exhibition etc.
- **Support in terms of technology and information needs**
The institution has a library with latest subscription of e-journals and procurement of books required to support the research. The library and reading hall are available for 24x7.

In order to develop scientific temper and research culture and aptitude among students 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. Students are also encouraged to take industry projects. This makes them aware to the latest practice used in the particular area. To motivate the students for conducting research faculties are writing research papers with students.

Community engagement

Along with the academic activities institute takes active participation in various community services. Institute believes that student's engagement in community network helps them to learn ethical values and develop a sense of responsibility contributing to good citizenship.

For this institution has taken many initiatives such as

- Various social activities such as blood donation camps, organ donation awareness program, gender equality awareness program, Computer awareness camp in rural area etc. are organized involving students for their holistic development.
- Donation programs are organized wherein students participate to visit the social organizations and help them by donating the material as per need (food, notebooks, cloths, educational instruments, etc)
- The NSS team enthusiastically organizes camp at rural area for various social activities.
- Institute organizes various activities on special occasions such as Independence Day, Teacher's Day, and Engineer's Day etc. which involves major contribution of students.
- To help economically weak students, the institute implements the Earn and Learn Scheme of the Savitribai Phule Pune University (SPPU). This further helps the students to understand the value of hard-earned money.
- The institute strives for high quality education by inculcating moral values, scientific temper and employing state of art technologies. Efforts are made to identify engineering problems of social importance and pursue them as research. Problem statements based on traffic management, waste management, energy saving, health monitoring etc. are offered to students under project activity to understand societal needs and develop solutions suitable for the benefit of society.

Human resource management

The institute has a well defined and effective selection process which ensures selection of right people for the institute. Recruitment of well qualified and experienced faculty is carried out as per SPPU, AICTE and State government norms. In order to develop and motivate the human resource, some of the initiatives which are taken are

- The Institute always facilitates and deposes faculty for higher studies which motivates the faculties.
- The institute arranges training programs and also encourages the staff for attending programs of other organizations this helps the faculties to share the ideas in the particular field.
- Faculties are motivated by providing the sponsorship to attend the workshops / seminars. Because of proper treatment and highly motivating environment faculties are well retained in the institute for longer durations.
- As and when required visiting / guest faculty are invited. Institute provides support to the staff for professional development.

The institute has the 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. 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.

Industry interaction

NBNSTIC has developed its system for industry institute interface with following main components.

- Industry Institute Interaction (III) Cell
- Training and placement cell
- Entrepreneurship development cell
- Professional clubs and chapters

Industry Institute Interaction Cell (IIIC) consisting of members from industry, alumni is formed in every department and member from industry interacts with students. Visit to industries, lectures on current technologies are organized. Students are directed to industries for sponsored projects. III Cell from MBA Department enables the guest speakers from the industry to interact with the students and share the valuable inputs on every Thursday. Industry experts give technical support to the students in the summer internship projects. Students go for in plant training or internship programs during vacation. Entrepreneur Development Cell (EDC) motivates the students to initiate an innovative idea which is converted to a new venture management. The institution has received analog trainer kit for testing different circuits. Also institute conducts annual technical competition TECHTONIC in which institute receives sponsorship and grants. Industry also supplies equipments, components and accessories to conduct these activities successfully.

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?

In order to ensure that adequate information is available for the top management and the stakeholders, the institute uses Enterprise Resource Planning (ERP). Feedback is conducted through ERP. Also the personal contacts of the student are uploaded on ERP. Most of the institute's data is also available for the management on the ERP. This can be accessed by the

top management to review the activities of the institution. Also during the Governing body meeting and LMC the Principal informs the management regarding the status of various activity planned.

During the meetings between Principal and Governing Body / AMC, feedback is always given by principal to the top management. The feedback / input include admission details, staff details, fund utilization, academic report and placement updating etc. This feedback / input help the top management to decide the future course of action.

Also adequate information is provided to the parents during the induction function and Annual parent meet. Feedback is taken during the annual parents meet and as per the suggestions necessary improvements are carried out to improve the performance.

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

In order to encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes, top management does not interfere in between the institutional decisions. While introducing anything new to the teaching and non-teaching staff, the objectives of the institution are communicated to the concerned staff members. Management always take the decisions with proper consultation with the staff, one of the example of this is the STP module which has been developed for the students. This module has undergone changes and has been improved based on the suggestions and inputs of all the stakeholders. The Management through the Principal involves all the staff members in various activities related to the development of the institute. In order to rejuvenate the enthusiasm and energy for active participation in all these activities all government holidays and government approved employee welfare schemes / activities are provided by the management to the staff.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

The 8th meeting of the Governing Body of NBN Sinhgad Technical Institutes Campus Ambegaon (Bk.), Pune-41, was held on Monday, 02/11/2015, 1.00 pm to 2:00 pm in the office of the Founder Secretary, STES, Erandwane, Pune-411004. The resolutions made by GB and their status of implementation are as follows:

- 1) Academic plans and academic calendar of the institute for the academic year 2015-16 (Semester-II) was considered and approved – The academic calendar listed all the events, workshops, seminars, guest lectures and FDP's planned during the semester.
- 2) Financial statements giving expenditure incurred from 1st April 2015 to 30th September 2015 was discussed and approved. It included
 - A) Recurring Income from fees / Other Fees
 - B) Non Recurring Expenditure
 - C) Recurring Expenditure
 - a) Institute Expenses on News Papers, Periodicals and Journals
 - b) Institute Expenses on Gathering / Cultural / Functions, Students

- / Staff Welfare etc.
 - c) Institute Expenses on Seminar and Exhibitions, Training Placement, Internet, Software etc.
 - d) Institute Expenses on Salaries
 - e) Institute Expenses on Repairs and Maintenance and Consumables
- 3) To place before the committee the revised financial budget of 2015-16 for approval of the same.
- A) Expected Recurring Income from fees 2015-16
 - B) Proposed Non Recurring Expenditure 2015-16
 - C) Proposed Recurring Expenditure 2015-16
 - a) Budgeted Institute Expenses on News Papers, Periodicals and Journals 2015-16.
 - b) Revised Budgeted Institute Expenses on Gathering/Cultural/Functions, Students/ Staff Welfare etc 2015-16.
 - c) Revised Budgeted Institute Expenses on Seminar and Exhibitions, Training Placement, Internet, and Software etc 2015-16.
 - d) Revised Budgeted Institute Expenses on Salaries 2015-16.
 - e) Budgeted Institute Expenses on Repairs and Maintenance and Consumables 2015-16.
- 4) To present the Status of teaching and non teaching staff and Staff requirement for Second Semester of year 2015-16 was discussed and approved.
- 5) Discussed the academic performance of the students in May-June 2015 / Semester-II Examinations of Savitribai Phule Pune University and measures for the improvement, wherever necessary. Considering that the institute is newly started, the results are encouraging but there is scope for improvement. Measures for improvement like remedial teaching, tests and assignments were discussed.
- 6) Various activities, events, FDPs of various departments were considered and approved.
- 7) Interior decoration plans for Admin Office, Various Laboratories, Seminar Halls etc., in the building and requirements thereof was discussed and approved.
- 8) Purchase of equipments from 1st April 2015 to 30th Sept 2016 was discussed.

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?

Yes, there is a provision but at present institution has no immediate plans for obtaining autonomy. Every year institute has continuation of affiliation to SPPU.

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?

The institute has various committees in order to address Grievances/complaints by students or stakeholder. The details of various committees are provided in Criterion -V Point No. 5.1.

The institution has a student grievance redressal cell. The mechanism of this cell consists of three subcommittees:

Grievance redressal committee: It consists of members from various departments. The formal procedures for the settlement of the grievances are as follows:

- A suggestion and complaint box is placed in central library and at all department of the Institute. Students may give their complaints or suggestions to TG, HoD or Principal either orally or in writing.
- Committee acquires the necessary information either from students or parents or faculty to understand the ground reality with reference to the complaint received. The information is further analyzed with the context of the complaint.
- The reports of the Grievance redressal / Suggestion / feedback are prepared by the committee. Corrective measures are taken on all such cases by the committee after the discussion with the Principal considering the benefit of the students and the institute.
- The Management also suggests corrective measures to be taken through the principal and HoDs for serious issues if any.

Disciplinary Committee: Role of this committee is to examine all indiscipline activities (if any) of students and staff within the campus.

- Disciplinary actions are recommended depending on the degree of indiscipline act and rules of the institute.
- The report is submitted to the Principal for necessary action and in major cases, Principal reports to the management for taking necessary action.

Internal Complain Committee: This committee is formed to examine the cases related to harassment of ladies and resolved in consultation with Principal.

- For extreme cases members examine and scrutinize all type of complaint letters and grievances representations of aggrieved students, staffs, faculties and others and take up these matters with the Chairperson for redressal.
- No major grievances have been reported to the any of the redressal cells.

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, in last four years there have been no instances of court cases filed by and against the institute.

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 has clearly set and defined online mechanism for obtaining the feedback from the students to improve the performance and quality of the institute.

The suggestions obtained from the feedback are deliberated upon in HoD meetings and solutions are arrived at and implemented. Also, suggestions and complaints are collected through suggestion box, formal surveys and informal interaction for the improvement and development of the academic standard as well as various types of facilities. Informally students also convey their views during the weekly TG meet. These are conveyed to the Head of the institution during HoD meetings. Also the institute has a co-operative and participative environment which allows the students to interact with heads of the departments as well as Principal. A web portal has been created for the students which can be accessed by them freely.

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?

Institute takes a lot of efforts to enhance the professional development of its teaching and non-teaching staff.

Teaching Staff

- Sponsoring teaching and non teaching staff for attending workshop, seminar and conferences at national and international level.
- Providing duty leaves and financial support to faculty and staff for attending workshops, seminars and national and international conferences.
- The Institute has Memorandum of Understanding (MoU) with Universities in Denmark, for e.g. Alborg University. The scheme entitled 'Erasmus Mundus', under which faculty can pursue doctoral programs at that university. The Institute sponsors faculty for these programs.
- Motivating faculty to take membership of known technical and
- professional bodies like CSI, IETE, ISTE, SAE
- Encouraging faculties to do their research through various R&D funding
- Agencies such as BCUD, DST and ISRO etc.
- The Institute organizes Teacher Advancement Programs aimed towards improving the soft skills of faculty to enhance their overall performance.
- 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 non teaching staff for skill improvement and permits them to attend similar programs at other institutes. Programs arranged as like Excel training, How to write application, letter writing etc. They are encouraged to participate in the organizational 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?

Institute is always striving to motivate and empower the faculty to create sense of direction and responsibility to all the departments in the teaching learning processes.

- Institute always sponsors faculties to attend various programmes like National/ International conferences, workshops, STTPs and FDPs carried out at different levels.
- Programmes like TTT gives overall idea of the subjects assigned to them. Faculties are encouraged for higher studies with paid leave. As per the qualification and experience faculties are promoted at key position to act as leader.
- Faculties are involved in various committees this creates a sense of belongingness amongst faculty members.
- Institute also empowers the faculty from the administrative angle. Faculties present different cases in front of students which are from industries. These cases studies highlight the administrative problems. Students are asked to come up with best solutions for such problems.
- Institute gives freedom to the staff in their day to day activities and also provides opportunities and platform to showcase their strengths and talent.

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.

Annual self-assessment for the performance based appraisal system is adopted by the institute. Hence it is ensured that information on multiple activities is appropriately captured. The information includes-

General information and academic background, FDP / Continuing Education Programs / Industrial Training etc. attended, Research contribution in terms of projects, publications and guidance to students, Awards/rewards obtained by the faculty and staff, Participation in Seminar / Workshop / Conference, Seminar / Workshops / Conferences / Courses conducted as Coordinator Consultancy Work or Externally Funded Research Projects, Research Publications, Books Published, Membership of Professional Bodies, Industrial Liaison, Patents Obtained, Guest Lectures given to outsiders as an expert, Industrial liasoning and projects, Entrepreneurship and job creation, Contribution for the benefits of students and institute, Result Performance of Subject, Contribution towards extra-curricular and co-curricular activities, Specific duties / tasks assigned by HoDs / Associate Directors, Execution of exam duties assigned by the university, Weakness in Teaching through Students Feedback, Participation in Departmental Activities, Institutional Activities, Co-curricular Activities, Community service and extension activities.

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?

Institute has its own performance appraisal system (PAS). Performance of the faculties is regularly monitored by the concerned authority.

- The Performance appraisal forms (PAF) are submitted to the AMC which is also the review committee.
- If the performance of the faculty is good then that faculty is appreciated by giving Appreciation Letter.
- If the performance is not satisfactory then the faculty is counseled by the AMC members, Principal / HoD and fair opportunity for improvement is provided. Also the committee members suggest ways and means for the improvement.
- Institute use the Performance Appraisal system as a tool for faculty and system improvement. The best part of the PAS is that each faculty becomes aware of self-weaknesses and tries to improve oneself in those areas so that he / she can perform better in the next year.

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?

All government welfare schemes are provided to the teaching and non teaching staff. All staff are availing the benefit of such welfare schemes. Some of the schemes whose benefits are taken by the staff are:

- Employee Provident Fund (EPF), Group Insurance Scheme (GIS) with accidental insurance and Gratuity after completion of 5 years of service in STES.
- Maternity leaves are given to the employees as per norms.
- Uniforms are provided to all security staff.
- Free medical treatment is provided to all the staff members.
- Staff quarters are provided to teaching and non teaching staff.
- Preference is given to staff children's for school admission.

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

Institute takes different measures for attracting and retaining eminent faculty. It has created its own brand in the field of teaching by adopting policies which are growth oriented for both staff and students. This mainly attracts eminent and good faculties to the institute.

All the teaching and non teaching staff gets the appropriate treatment from the principal as well as from the management. Also there is culture in the institute where anyone can put his / her opinion in front of the others. This culture of mutual respect attracts good faculties

From the point of view of retaining faculties some of the strategies which are endorsed by the institute are

- Creating an ambiance encouraging for individual's professional growth.
- Salary and other allowances are paid time to time as per the State government policies with immediate effect.

- Cognizance of performance appraisal and qualification improvement of the employees by the respective HoD and Principal for annual increment and higher post.
- Faculties are encouraged to write and publish research papers, research articles, as well as books based on their research experimentation.
- Deputing faculty for Ph.D. and industrial training at reputed institutes/ industries.
- Research promotional policies are established for attending conferences and publishing research papers in India and abroad.
- Partial financial assistance is offered to faculty for participating in various STTPs, FDPs, workshops, webinars, seminars and conferences.
- FDPs are planned to enable the teachers to get a feel of varying requirements of society.
- Guest lectures by renowned personalities from various fields are organized to motivate faculty.
- Leaves and vacation are given as per government rules and regulations particularly maternity leave for lady faculty and staff.
- Faculties are given opportunity to work with other overseas institute and encourages higher qualification enhancement in collaboration with overseas universities.

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

Institute has a well defined mechanism to monitor effective and efficient use of available financial resources. In the beginning of every academic year, budget is obtained from departments, library, and sports. Budget for the departments is prepared by concerned HoDs / Associate Directors, in consultation with the department laboratory in-charge faculty. Then it is sent to the Principal. The departmental budgets are discussed by the Principal at HoDs meeting and then sent to management for final consideration. Then it is put up to the LMC for final approval.

Next, a provision is made for administrative and maintenance expenses such as electricity, water, telephone, postage etc. Then, while making provisions for the departments, priorities, needs and requirements of various committees and development / up-gradation of department is seen.

1) Local Managing Committee (LMC)

Budget: Yearly: To take review of the financial position of the institute and the expenses to be done for the next year.

Budget: Half Yearly: To take review of the financial position of the institute and the expenses are in the sanctioned limit.

2) Governing Body

It takes review of the proposals forwarded by the LMC and final approval. The Governing body comprises of eminent personalities from the field of

education and Industry. They are committed to provide necessary guidance on academic and professional fronts from time to time.

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.

1) External Audit :-

Quarterly audit is conducted by external agency appointed by the parent body of STES. Half yearly and yearly Audit Report gets prepared on the basis of verification of information provided from the Accounts Section.

Minor queries are resolved as per the suggestions, immediately. The last audit was done in December 2016.

2) Internal Audit :-

Yearly audit is conducted by Internal Audit Team to systematize the working in each and every department in the organization. Internal Audit Team verifies all the books of accounts, data related to establishment section and scholarship section also. Team verifies physically dead stock registers, library books, workshop, and laboratories in the institute.

In internal audit of workshop and laboratories, committees consisting of staff members of other departments are formed in order to physically verify the instruments in the laboratory and its status in the dead stock register. The committee submits the report to the head of the department for necessary action. The last audit was done in January 2016.

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 status of our Institution/ College is “Self Financed”, non-aided private engineering college. The major source of receipts is Fees from the students. The Fee (Tuition Fee and Development Fee is decided by Shikshan Shulka Samiti, Govt. of Maharashtra). Our College is affiliated to Savitribai Phule Pune University. Other fees are collected as per Directives of Savitribai Phule Pune University. Also, the entire infrastructure (Land Building and Immovable Property) is provided by the STES.

Funds like Reserve Fund, Deficit Fund, Building Fund, Equipment / Laboratory Fund, Library Fund are maintained as per the norms. Deficit is made good through the corpus fund by STES.

Audited income and expenditure statement of academic and administrative activities of the previous four years are available.

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

Although the status of our Institution/ College is “Self-Financed”, non-aided private Engineering College, but the institute has received funding of

₹ 6,40,000 from BCUD, SPPU over last 3 years for innovative research projects across various departments. The details of funding and research activities are mentioned in Criterion-III, Point No. 3.2.6 and 3.2.7.

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)

From the establishment of the institute there has been Academic Monitoring Committee (AMC). At present the activities of IQAC are being looked after by AMC. This committee monitors the teaching learning process of the institute. It plays the role of finalizing the academic calendar and teaching plan, execution and monitoring of academic activities, internal assessment of teaching learning process, mentoring the students and analyzing the student's feedback and suggesting necessary corrective actions. The members of the AMC committee are shown in **Table 6.c**.

Table 6.c: AMC committee

S. No.	Name	Designation and affiliation
Chairperson		
1	Dr. R. S. Prasad	Director
Members from the Management		
2	Dr. A. V. Deshpande	Member – Campus Director
3	Prof. M. G. Bhat	Member – Director (Engineering)
Member from Local Societies		
4	Prof. S. B. Pharkute	Director (Academics)
Members from departments		
5	Dr. Ms. S. R. Chavan	Associate Director (MCA)
6	Dr. S. P. Ujagare	Dean (MBA)
7	Dr. S. Y. Gajjal	Dean – Second shift
8	Prof. S. P. Patil	Head – Information technology
9	Prof. M. M. Joshi	Head – Mechanical Engineering
10	Prof. S. D. Sawant	Head – Electronics and Telecommunication
11	Prof. Ms. S. A. Chiwhane	Head – Computer Engineering
12	Prof. P. M. Gondkar	Head – First Year
Administrative Officers		
13	Mr. Abhishek Pandey	Training and Placement Officer
14	Mr. Santosh Patole	Registrar
Academic Coordinator		
15	Dr. Ms. V. S. Deshpande	Head – Electrical Engineering

- 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?**

It has been proposed that AMC committee will be looking after the activities of IQAC.

- b. **How many decisions of the IQAC have been approved by the management / authorities for implementation and how many of them were actually implemented?**

As IQAC has not yet been formulated hence this question is not applicable at present.

- c. **Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.**

As IQAC has not yet been formulated hence this question is not applicable at present.

- d. **How do students and alumni contribute to the effective functioning of the IQAC?**

As IQAC has not yet been formulated hence this question is not applicable at present.

- e. **How does the IQAC communicate and engage staff from different constituents of the institution?**

AMC has heads of the departments as members who represent the faculty of the department. Meeting is held once a semester. Progress of the institute and various departments is monitored and assessed. As and when required the members of AMC interact with staff members one to one in order to suggest any necessary corrective action. Emphasis is given to staff members who are teaching the subject for first time. AMC gives suggestions for discrepancies / shortfalls, if any. Decisions taken are communicated to the faculty and are implemented.

- 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 operationalisation.**

Yes, the institution has framed AMC for the quality assurance of the academic and administrative activities. AMC conducts one to one discussions with staff members once in every semester.

- 6.5.3 Does the institution provide training to its staff or effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.**

Institute encourages the staff members to attend training programmes / workshops to ensure quality enhancement. As and when needed institute also hires the services of professional trainers like Wren and Packers. The staff is trained at institute level and also at departmental level for effective implementation of the procedures. The AMC analyses faculty and suggests

remedial actions of trainings for ensuring timely, efficient, and progressive performances in academics, administration, and development of the institute.

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 institution undertakes an academic audit. The academic progress of the institute is monitored by the AMC in every semester. The HoDs / Dean / Associate Directors conducts review of various academic activities during the departmental meetings and guide the faculty, staff members accordingly. Every month staff gives the monthly progress report to HoDs / Dean / Associate Directors. The submission of self-appraisal report is compulsory for every staff member.

The principal communicates in this regards during the regular meetings. Before the start of academic session an internal audit by inter departmental staff is carried out regarding Course file and Teaching plan. This ensures a smooth flow of all aspects of teaching-learning process throughout the semester.

6.5.5 How is the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies / regulatory authorities?

Presently the internal quality assurance mechanisms are formulated by AMC in association with the standard guidelines given by AICTE / UGC / DTE / SPPU. The AMC analyses the internal quality policy based on guidelines given by relevant external quality assurance agencies/regulatory authorities. AMC committee makes sure that internal quality policies do not contradict with external quality assurance agency policies. Continuous assessment scheme developed by AMC is an internal mechanism to assign term work marks of a student. Term work marks are part of university result of students. Requirement of faculty according to norms of AICTE and university are forwarded to AMC by respective departments. The faculty is recruited accordingly. Every year there is an inspection by Local Inspection Committee (LIC) of the university. AMC also uses these suggestions to align the institute's policy in accordance with external quality assurance agencies.

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?

Principal, Dean, Associate Directors and Heads of the respective departments and academic coordinators of the departments take review of teaching learning process in the institute. AMC also takes a review of teaching learning process in the institute before the start of the academic session some of the activities which are done in order to make sure the smooth flow of Teaching learning process are

- Teaching hours and subject distribution as per the policies of the regulatory authorities and preference of staff members.

- Planning of FDP / TTT by course coordinator/senior faculty before the commencement of a semester for effective and uniform delivery of course content.
- Preparation of Course file and teaching plan by subject teachers.
- Appointment of co-coordinators for various activities.
- Preparation of Academic and Activity Calendar by the head and coordinators of the respective department.
- Preparation of class time table as per the teaching hours distribution.
- Periodic review of syllabus covered during departmental meetings.
- Remedial lectures and make-up lectures (and/or practical sessions) are conducted as per requirement.
- With the help of result analysis assessment and review of academic performance of students.
- Corrective action for non-performing students.
- Mid-semester feedback about a teacher from the students.
- Mentoring the students every week.

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

The institution communicates its quality assurance policies, mechanism and outcomes to internal and external stakeholders through Vision and Mission statements which are displayed at prominent places in the institute and also on the institute's website. Also at the time of admission students are provided with brochure which highlights institute's as well as departmental policies.

The institution also communicates its quality assurance policies, mechanism and outcomes to internal stakeholders through LMC meetings, Faculty and staff meetings with Head of the department, Dean, Associate Directors and Principal, Principal meetings with office / administrative staff, through college website, Notice / Circulars / E-mails to respective departments, Informal interactions with students, parents and alumni.

Also the Quality Assurance mechanisms and objectives of technical education and institute's methodologies to achieve it are shared with all the students and parents during the student's induction program. The institute shares its policies with students during regular TG meets. Institute also conducts parents meet once in a year, in which parents are informed about its quality assurance policies, mechanism and outcomes.

CRITERION –VII: INNOVATIONS AND BEST PRACTICES

7.1 Environmental Consciousness

7.1.1 Does the institute conduct a Green Audit of its campus and facilities?

Yes. College has conducted green audit of our campus by proper agency since last year. Electrical energy audit of our campus is done by an authorized energy audit procedure, wherein the faculty and students of our institutes were actively involved. A sense of energy conservation among students has been enriched through this energy audit activity.

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

Campus is encompassed by wonderful greenery. It is situated on the bumpy range where a significant part of the zone is in the region of the thick woods (Talajai Forest). Subsequently the climatic conditions are moderate with charming environment.

College is taking several steps to maintain the green serenity of the campus and to make it eco-friendly through various initiatives.

- **Energy Conservation:** Institute is taking many measures for conservation of energy. We believe in “Energy saved is energy generated”. Following are some of the measures taken by the institute to save energy.
 - Care has been taken while constructing the buildings to maintain proper ventilation and lighting in all the classrooms and laboratories of every building of the college. Eventually less electricity is consumed as there is less requirement of tubes, fans, globules particularly amid day time. Due to sumptuous greenery on grounds, air dissemination is great. This demands very few rooms with a facility of air conditioning equipments.
 - All tube-lights in our classrooms, corridors and labs are electronic choke which consumes less electric power. Institute works five days a week and also less power devouring LED globules are used in the labs for energy conservation.
 - To create awareness amongst the students and the staff, instructional signboards are posted inside the premises and around, giving students and the staff vital updates like, "While leaving the classrooms/ labs/ working regions switch off tube-lights, fans and other electric appliances". Also seminars are being conducted to create environmental consciousness. Various energy conservation awareness programs are celebrated in the campus such as ‘World Water Day’ on 22nd March, ‘Ozone Day’ on 16th September and ‘Earth Hour Day-to Protect the Plant’ on 29th March.
- **Use of renewable energy:** Institute encourages the use of renewable energy by using solar water heater, rooftops etc. We have following measures to use renewable energy: In college campus, we have total 14

boys and girls hostel buildings, each having solar water heaters installed on its rooftops. There are altogether 1187 solar water panels located on various hostel buildings having a total capacity of 1,52,000 litres per day as shown in **Figure 7.a**. BCUD motivates institutes to use renewable energy by offering various grants. Institute has received grant of ₹ 5,00,000 for Grid tied rooftop solar system of capacity 8 kw by BCUD.



Figure 7.a: Solar Water Panels

- **Water harvesting:** There is no water harvesting done in the campus. However, the campus is equipped with a water filtration plant having a capacity of 18 lac litres per day as shown in **Figures 7.b** and **7.c**.



Figure 7.b: Water Filtration Plant



Figure 7.c: Water Filtration Plant

- **Check dam construction:** Not applicable.
- **Efforts for carbon neutrality:** Usage of solar water heaters has prevented the release of CO₂ in the atmosphere. The campus has natural benefit, that is, as the college is located on the hilly region the CO, CO₂ emissions are less as there is less pollution sources in the vicinity, providing a calm and pleasant environment. Bio waste is used as compost in garden instead of burning. Paper and plastic waste are often sold to scrap vendors instead of burning. Smoking and burning of garbage are strictly prohibited. Municipality vans come periodically to collect the garbage. Practice of e-admin and e-communication has encouraged the saving of paper thereby contributing towards carbon neutrality.
- **Plantation:** Tree plantation alongwith its regular nurturing is done in order to keep the campus environmental friendly. Insitute takes various measures in keeping the grounds green, by planting trees for spreading environmental consciousness and to maintain eco friendly campus. We have a normal include of around 3000 trees in the whole campus other than little manor (like bushes, hedges, and so forth) which gives a lovely green atmosphere in the grounds and the encompassing areas. Open area by the side of college buildings and hostel buildings is planted and regularly maintained by proper watering and gardening by the external agency. There are various green foliages like hibiscus, Australian babul, champak plants, gulmohar and other shrubs and various medicinal plants as well. Awareness is created amongst the staff and students by conducting tree plantation drives where staff and students together plant trees on the vacant spaces in the campus.
- **Hazardous waste management:** College does not produce much of hazardous waste. However, some safety measures are taken as follows:

- All waste waterlines and drainage systems are connected to sewage treatment plant, having capacity of treating 4 lac liters of water per day as shown in **Figure 7.d** and **7.e**.



Figure 7.d: Sewage Treatment Plant



Figure 7.e: Sewage Treatment Plant

- Organic Waste Converter (OWC-130) is an easy to use Decentralized Waste Management System having 50 kg waste batch size which is used to turn large amounts of organic waste into compost within 15 minutes as shown in **Figure 7.f**. It includes double curing system having capacity of 200 kg organic waste per day which uses moisture control fogging system to maintain perfect moisture.

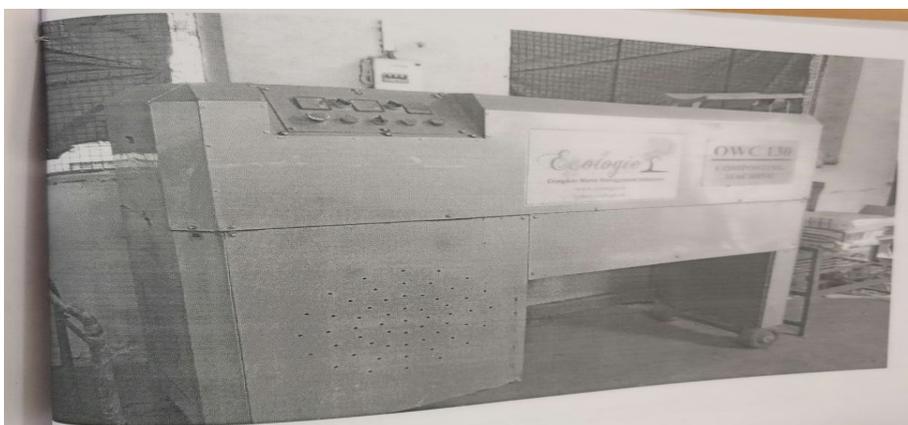


Figure 7.f: Organic Waste Converter (OWC-130)

- Acids are also purchased in limited amount only as per the requirement to reduce extra chemical waste produced by labs. Liquid chemical wastes generated in the chemistry laboratory are diluted/neutralized and then discharged.
 - Workshop scraps are either sold or reused according to requirement instead of dumping in the campus.
- **e-waste management:** Electronic components and electronic gadgets and accessories which cannot be used are often sold as scrap to vendors periodically at central level. An e-waste collection drop box for collecting small sized electronic waste has been located at several places in the main corridor of the main building. Students and staff deposit used e-waste into it.

7.2 Innovations

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

- **HBSP case studies:** Sinhgad Technical Education Society has signed a memorandum of understanding with Harvard Business School Publication (HBSP) for using the Harvard case studies as a part of curriculum, for the enhancement of decision making and problem solving skills of MBA students. Harvard Case Studies are lively accounts of management challenges with expert views from the perspective of academicians and corporate practitioners. Harvard case studies are mapped with different subjects in all the semesters across the 2 year MBA curriculum. Cases are the cases on real – world business situations which provides conceptual material to the students to act in the business world. These case studies prove to be a convenient tool in enhancing the learning activities of the management students.
- **IITB, spoken tutorials:** IT skills are taught to the students so as to improve their employment potential which is main objective of the spoken tutorial project. The National Mission on Education funds the spoken tutorial project through ICT, MHRD. It is an open source software which include about 630 original English spoken tutorials. This tutorial includes many useful IT topics such as Ruby, LibreOffice, Basic IT Literacy, OpenFOAM, PERL, Tux Typing, C, C++, Kturtle, Java, PHP, Linux, Python, Blender, GeoGebra, Scilab, GChemPaintJmol and Inkscape which increased the self learning ability of our students.
- **E-Exam Portal:** As per the curriculum all SE students are required to appear for 50 marks online multiple choice question test. Hence, college is providing a platform to make multiple choice question mock practice online examination facility to all SE students. As well as students can practice these online practice tests from anywhere in college laboratory and from home also. We conduct two multiple choice question mock practice test of 25 marks each in curriculum and one preliminary examination of 50 marks at the end of the semester. In an online question

MCQ test students can practice more than 1500 questions of each subject. This online test process is continuously evaluated for weaker students. This online test process helps students to improve the result.

- **Moodle Tool for aptitude tests:** This is an initiative taken by NBN Sinhgad Technical Campus. It is an innovative program to develop various skills required by the students to crack the interviews. These tests are conducted periodically for which the students need to upgrade their knowledge through websites, Technical Books, Aptitude Books etc. Preferably, the aptitude tests are conducted for Final Year students through Moodle software for enhancing their aptitude skills, Technical Skills and soft skills required for their further placements.
- **Foreign Languages:** Japanese Language Course is conducted for all Sinhgad Technical Education Society's students. This course has commenced from the academic year 2016-17. A separate authorized trainer is hired for providing Japanese language training. This course enables the student to learn new foreign language which can be proved to be an additional qualification that is required for seeking good job opportunities. By taking this into consideration college has provided the platform for the students to learn Japanese language under the umbrella of STES. The duration of the course is of 6 months for each level in which students complete various levels, viz., Level N1 to N5 of Japanese language. After the successful completion of the course, level wise exams are conducted.
- **GEMS (Governing Education Management System) sand K-point:** GEMS (Governing Education Management System) is an ERP module which has been developed in house and is more beneficial for administrative work. This software is also used by faculty and students. Various administrative related tasks like leave management, annual appraisals, employee service books, detailed staff profiles are executed through GEMS. This reduces the manual work of the administrative staff and also helps in performing paperless work. The K-point is a software in which the in-house senior faculties of subject expert can prepare and upload their unitwise audio recorded lectures through digital pad so that students can listen to these lectures at any time as per their convenience.

7.3 Best Practices

7.3.1 Elaborate on any two best practices in the given format at page No. 98, which have contributed to the achievements of the institutional objectives and/or contributed to the quality improvement of the core activities of the college.

Best Practice No. 1

- **Title of the Practice:** Students Training Program (STP)
- **Goal:** The goal of this program is to enhance the quality of the students by empowering them with skills those are globally at par. It also includes the

preparation of the students for higher studies in India and abroad so as to make them eligible to enter the corporate world.

➤ **The Context:** To enhance the employability opportunity, Prepare students for entrepreneurship and for higher education in India as well as abroad.

➤ **The Practice:**

- The STP-I initiates with Soft Skills in SE Semester I. Major recruiters have recognized Aspiring Minds Computer Adaptive Test (AMCAT) as a standard for selecting the aspiring candidates. AMCAT-I was conducted in the month of July for SE students. The analysis of the results followed by the identification of the areas where students were collectively found weak was done. Based on this the institute prepared the training action plan department wise.
- The STP-II initiates with Soft Skills in SE Semester II. Here the students are prepared for the four pillars of communication i.e. Listening, Speaking, Reading and Writing. An intensive training is given to the faculties. For every module there are three sessions which results into 12 sessions in this semester.
- In the month of march, AMCAT-II is conducted again so as to ensure that there is progress of the students in Soft Skills.
- In STP-III the TE students are trained for Technical Domain for 40 hrs per semester (20 sessions of 2 hrs each). This helps the students for preparing for the competitive examinations like GATE.
- The STP-IV initiates with Soft Skills in TE Semester II. In this semester the students are trained again for 40 hrs in 20 sessions of 2 hrs each. The first 10 sessions are based on TE subjects both of Semester I and II. The last 10 sessions, are designed to train the students for Group Discussions and Personal Interviews. AMCAT-IV is conducted. This score is valid for three years for individual students interested in placement.
- The STP I to IV are planned to make sure that all the students are qualified in the test. STP-V is for final year BE SEM-I. In this semester all the students are trained for one value added program which improves employability. The Departments define and decide the course to be taken by the students. The Value Added Program may be workshops, seminars, skills training. This is a STES initiative and hence binding for all engineering institutes.
- STP for MBA students - This is an initiative taken by Sinhgad Technical Education Society. It is a value added placement grooming program to develop various skills required by the students to crack the Personal Interviews, GD's, and aptitude tests. Here the focus is given on developing the aptitude, general knowledge, domain skills, Interview skills, by conducting various tests like aptitude tests, general knowledge, current affairs tests, domain tests and HBR (Harvard Business Review) quiz. Also weekly tests like Political Environmental Social Technological (PEST) are conducted for which the students need to update their knowledge by reading daily newspapers like

Economic Times, Financial Express etc. Various rounds of Personal Interviews and Group discussions are conducted which helps the students in improving their interview skills.

- **Evidence of the Success:** Record of placed students achieved for the first batch which went through the program.
- **Problems Encountered and Resources Required:** A lot of improvement of the Soft Skills of the students is needed. The four Pillars of communication i.e. Listening, Speaking, Reading and Writing needs to be addressed systematically. The student's fundamentals understanding and conceptual clarity are to be improved. To improve the employability, there is a need of a professional platform. Machinery for conducting AMCAT test and trainers to train the faculty.

Best Practice No. 2

- **Title of the Practice:** GEMS (Governing Education Management System) Scheme is a administrative and academic governing system.
- **Goal:** Goal of the GEMS is to digitalize the administrative work and to carry out most of the placement activities to reduce the work timing and repetition of work.
- **The Context:** To ease the administration (placements work, office work, feedback, appraisal system, faculty profile etc.) and enhance use of ICT for teaching-learning (managing and sharing of course file contents, attendance, submission of assignments, etc.).
- **The Practice:**
 - Academics module is especially dedicated to teaching, learning and education. It includes academic planning, lesson planning, uploading course file, online student attendance filling etc. Through this system course file content i.e notes, ppts, videos etc is shared with the students Bulk messages are sent to students regarding regular updation in their academics.
 - Performance appraisal is done by using this system. It includes self appraisal, peer appraisal, subordinate and superior appraisal is configured as per the requirement of the institutional evaluation parameters.
 - Student feedback related to academics is the key feature of this system. Students evaluate each teacher based on predefined evaluation parameters given in the online form. The system creates a feedback report for each faculty based on responses given by students.
 - Students and faculty profiles are created consisting of academic details publication, research, patents etc. is updated regularly by individual and can be available at any time to the admin and respective student or faculty.

- Placements module effectively manages the entire campus placement process. It takes care of job postings, walk-ins, registration of eligible students, placement event handling, career guidance, pre-screening, testing etc.
 - Office Management module looks after multiple tasks, ranging from muster, roaster, service book, leave management, salaries, fee to inward/outward, documentation and other activities.
- **Evidence of the Success:** The portal is extremely useful. It not only reduces manual work but there is complete full stop to duplication of work. It is convenient for the students as they can register for companies from any place at any time as our placement cell works round the clock.
- **Problems Encountered and Resources required:** Since the portal provides solution to almost each and every activity of departments and Institute, hence there is lot dependency on the portal whenever there is updation is in process or when serve is down it affects all the processes related to it.
- **Resources Required:** Any machine (PC or Mobile) with internet browser (Mozilla Preferred).
- **Future Plans:**
- On-line test module which will maintain question banks, can set objective/subjective question papers with random or fixed questions. It will provide the flexibility of defining sections, categories, sectional cut-offs, marking patterns, negative marking, per question or overall timing & marks etc.
 - GEMS App is under development so that individual can utilize its facilities on their mobile as well.
 - Regular up gradation are there according to the need and demands of the departments.

Contact Details

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E. EVALUATIVE REPORT OF THE DEPARTMENTS

I. DEPARTMENT OF COMPUTER ENGINEERING

1. **Name of the department** : Computer Engineering
2. **Year of Establishment** : 2011
3. **Name of Programs/Courses offered:**

Sr. No.	Name of the Programme	Year of establishment
1	UG-BE Computer Engineering	2011

4. **Name of Inter disciplinary courses and departments/units involved**

Sr. No.	Name of Inter disciplinary Courses	Departments/Units Involved
1	Engineering Mathematics-III	Engineering Science

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

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 Fundamentals of programming languages-II
2	SKNCoE, Research Center	Ph.D. -Course work	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 : ➤ LaTeX ➤ C ➤ Cpp ➤ Java ➤ Python ➤ PhP ➤ MySQL ➤ Java Business Application ➤ GChemPaint	IIT Bombay

	EDX Online Courses on :	
	Introduction to Programming with Java –Part 1: Starting to code with Java	Universidad Carlos III
	Developing International Software	Microsoft
	Creative problem solving and decision making	Delft University
	Introduction to Linux	The Linux Foundation
	Introduction to TypeScript	Microsoft
	Leaders of learning	Harward University
	Introduction to Functional Programming	Delft University
	Information Systems and Computer Applications, Part 1: IT	Universidad Politecnica
2	Information Systems and Computer Applications, Part 2: Hardware	Universidad Politecnica
	Information Systems and Computer Applications, Part 3: Software Development	Universidad Politecnica
	Information Systems and Computer Applications, Part 4: Programming	Universidad Politecnica
	Information Systems and Computer Applications, Part 5: Social Implications	Universidad Politecnica
	Introduction to Computer Programming Part 1	Indian Institute of Technology Bombay
	Querying with Transact-SQL	Microsoft
	Introduction to Computer Programming Part 2	Indian Institute of Technology Bombay
	Introduction to Bootstrap- a tutorial	Microsoft
	Underactuated Robotics	The Massachusetts Institute of Technology
3	Barclay's Training	Barclay's
4	Courses conducted by Zensar on:	
	<ul style="list-style-type: none"> ➤ Soft skill ➤ Core Java ➤ SQL ➤ DBMS ➤ C and Data structures 	Zensar

8. Details of courses/programs discontinued (if any) with reasons: Nil

9. Number of teaching posts

Designation	Sanctioned	Filled
Professor	03	01
Associate Professor	06	00
Assistant Professor	17	22
Visiting / Guest Faculty	06	06

10. Faculty profile with name, qualification, designation, specialization, D.Sc./ D.Litt./Ph.D./M.Phil. Etc.,)

Sr. No.	Name of Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
1	Dr. R. S. Prasad	Ph.D.	Professor	Computer Science and Engineering	20	8
2	Prof. Ms. S. A. Chiwhane	Ph.D. (Pursuing)	Assistant Professor	Computer Science and Engineering	13	-
3	Prof. A. V. Dhumane	Ph.D. (Pursuing)	Assistant Professor	Computer Engineering	12	-
4	Prof. P. S. Hanwate	Ph.D. (Pursuing)	Assistant Professor	Computer Science and Engineering	8	-
5	Prof. R. S. Mote	ME	Assistant Professor	Computer Engineering	8	-
6	Prof. P. S. Kulkarni	ME	Assistant Professor	Computer Science and Engineering	7	-
7	Prof. Ms. P. T. Suradkar	Ph.D. (Pursuing)	Assistant Professor	Computer Engineering	7	-
8	Prof. Ms. R. P. Karande	M Tech	Assistant Professor	Software Engineering	7	-
9	Prof. Ms. S. D. Shirke	Ph.D. (Pursuing)	Assistant Professor	Computer Engineering	7	-
10	Prof. Ms. S. B Guja	ME	Assistant Professor	Computer Engineering	5	-
11	Prof. D. S. Gaikwad	Ph.D. (Pursuing)	Assistant Professor	Computer Engineering	5	-
12	Prof. A.M. Bagul	M Tech	Assistant Professor	Computer Engineering	5	-
13	Prof. S. P. Bendale	M Tech	Assistant Professor	Computer Engineering	5	-
14	Prof. A. R. Sonawane	M.S.	Assistant Professor	Software Engineering	5	-
15	Prof. Ms. P. P. Jorvekar	ME	Assistant Professor	Computer Engineering	4	-
16	Prof. Ms. N. K. Kadale	ME	Assistant Professor	Computer Networks	4	-
17	Prof. Ms. D. U. Mishra	ME	Assistant Professor	Computer Network	4	-
18	Prof. Ms. S. N. Bhosale	Ph.D. (Pursuing)	Assistant Professor	Computer Engineering	2	-
19	Prof. Ms. M. P. Navale	ME	Assistant Professor	Computer Network	1	-
20	Prof. A. P. Tikar	ME	Assistant Professor	Information Technology	1	-

21	Prof. Ms. M. S. Mane	ME	Assistant Professor	Computer Engineering	1	-
22	Prof. Ms. P. H. Malji	ME	Assistant Professor	Computer Engineering	1	-
23	Prof. Y. L. Hakim	ME	Assistant Professor	Computer Engineering	1	-

11. List of senior visiting faculty:

Sr. No.	Name of Adjunct faculty	Experience	Specialization	Name of Organization
1	Mr. S. N. Kadam	27 years	Industrial Automation	Sachin N. Kadam and Associates, Pune
2	Mr. R. S. Deshmukh	10 years	Software Testing	PTC, Pune
3	Ms. R. S. Doshi	10 years	Software Testing	Zoriant Solution Pvt. Ltd., Pune
4	Mr. M. K. Mate	11 years	Release Management	PTC, Pune
5	Mr. N. N. Joshi	10 years	Software Developer	Symantec Pvt. Ltd. Pune
6	Mr. R. L. Patil	12 years	Executive Editor	Cyber Times

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	18: 1 15: 1 (By considering adjunct faculty)

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Staff details	Sanctioned	Filled
Support Staff (Technical)	02	02
Administrative Staff	04	04

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG

Ph.D.	Ph. D. Pursuing	PG	UG
01	07	15	00

16. Number of faculty with ongoing projects from National and International funding agencies and grants received: Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received

Sr. No.	Funding Agency	Project Title	Principal Investigator	Grants Received (in ₹)	Duration
1	BCUD, SPPU, Pune	Content-Based Image Retrieval System Using User's Navigation Pattern Relevance Feedback and User's Logs.	Prof. P. S. Kulkarni	45,000	2 Years
2	BCUD, SPPU, Pune	Hand Gesture Recognition Interface for Visually Impaired and Blind People.	Prof. Ms. P. T. Suradkar	60,000	2 Years
3	BCUD, SPPU, Pune	File Annotation and Sharing on Mobile Devices Using ontology to the stored meta-data for semantic based search to the existing framework.	Prof. Ms. S. B. Guja	40,000	2 Years
4	BCUD, SPPU, Pune	Optimal Context-aware Routing Algorithm for Wireless Sensor Network.	Prof. A. V. Dhumane	85,000	2 Years
Total Grant Received				2,30,000	

18. Research Centre/facility recognized by the University : Nil

19. Publications

a) Publication per faculty

Sr. No.	Name of the faculty	No. of Papers published in peer reviewed journals (National/International) by Faculty/ students	No. of Publications listed in International Database	Monograph	Chapters in Book	Books Edited	Books with ISBN / ISSN	Citation Index		SNIP	SJR	Impact Factor	h - Index	
								Scopus	Google Scholar				Scopus	Google Scholar
1	Dr. R. S. Prasad	13	26	-	-	02	01	-	06	-	0.17	Min:0.652 Max:5.947	-	06
2	Prof. Ms. S. A. Chiwhane	04	02	-	-	-	02	-	-	-	-	Min:2.319 Max:4.064	-	-
3	Prof. A. V. Dhumane	07	07	-	-	-	02	-	14	-	-	Min:5.941 Max:6.017	-	02
4	Prof. P. S. Hanwate	07	01	-	-	-	01	-	-	-	-	Min:2.58 Max:5.969	-	-
5	Prof R. S. Mote	01	-	-	-	-	-	-	-	-	-	5.332	-	-
6	Prof. P. S. Kulkarni	03	01	-	-	-	-	-	-	-	-	Min:1 Max:5.947	-	-
7	Prof. Ms. P. T. Suradkar	02	01	-	-	-	01	-	-	-	-	Min:3.7 Max:4.24	-	-

8	Prof. R. P. Karande	04	01	-	-	-	-	-	-	-	-	Min:4.064 Max:5.332	-	-
9	Prof. Ms. S. D. Shirke	06	04	-	-	-	03	-	-	-	-	Min:1 Max:5.332	-	-
10	Prof. S. B. Guja	03	-	-	-	-	04	-	-	-	-	Min:2.19 Max:5.969	-	-
11	Prof. D. S. Gaikwad	04	-	-	-	-	02	-	-	-	-	Min:3.241 Max:5.181	-	-
12	Prof. A. M. Bagul	03	01	-	-	-	03	-	-	-	-	Min:1 Max:5.332	-	-
13	Prof. S. P. Bendale	06	02	-	-	-	01	-	-	-	-	Min:2.5 Max:5.941	-	-
14	Prof. A. R. Sonawane	02	02	-	-	-	-	-	-	-	-	Min:2.319 Max:5.611	-	-
15	Prof. Ms. P. P. Jorvekar	04	02	-	-	-	05	-	-	-	-	Min:2.24 Max:4.064	-	-
16	Prof. Ms. N. K. Kadale	04	02	-	-	-	01	-	-	-	-	Min:3.12 Max:5.332	-	-
17	Prof. Ms. D. U. Mishra	02	-	-	-	-	-	-	-	-	-	Min:3.12 Max:4.064	-	-
18	Prof. S. N. Bhosale	02	-	-	-	-	05	-	-	-	-	Min:4.064 Max:6.577	-	-
19	Prof. Ms. M. P. Navale	02	-	-	-	-	02	-	-	-	-	5.359	-	-
20	Prof. A. P. Tikar	-	-	-	-	-	01	-	-	-	-	-	-	-

b) Book Publication:

Sr. No.	Faculty Name	Book Name	Book no	Publication
1	Dr. R. S. Prasad	Software Engineering	ISBN: 978-93-83572-49-6	Vishwakarma Publication
2	Prof. Ms. S.A. Chiwhane, Prof. Ms. S. B. Guja	Computer Graphics and Gaming	ISBN: 978-93-5164-422-4	Nirali Prakashan
3		Principles of Concurrent and Distributed Programming	ISBN: 978-93-5164-366-1	
4	Prof. A. V. Dhumane	Data Structure and Problem Solving	ISBN: 978-93-83073-96-2	Nirali Prakashan
5		Computer Networks-I	ISBN:978-93-83525-75-1	
6		Computer Network	ISBN: 978-93-83525-91-1	
7		Data Communication and Computer Networks	ISBN: 978-93-83073-06-1	
8	Prof. A. M. Bagul, Prof. D.S. Gaikwad, Prof. N. D. Lambe	Computer Network Technology	ISBN:978-93-5164-145-2	Nirali Prakashan
9	Prof. A. V. Dhumane, Prof. A. M. Bagul	Data Structures and Algorithms	ISBN: 978-93-86084-19-4	Nirali Prakashan

10	Prof. A. M. Bagul, Prof. D.S. Gaikwad	Computer Networks	ISBN:978-93-5164-369-2	Nirali Prakashan
11	Prof. Ms. S.B. Guja	Data Mining Techniques and Application	ISBN 978-93-5164-707-2	Nirali Prakashan
12	Prof. Ms. S.B. Guja, Prof. Ms. P. T. Suradkar	Advanced Databases	ISBN: 978-93-5164-901-4	Nirali Prakashan
13	Prof. Ms. S. D. Shirke, Prof. S. P. Bendale, Prof. Ms. N. K. Kadale	Embedded Operating System	ISBN:978-93-5164-367-8	Nirali Prakashan
14	Prof. Ms. S. D. Shirke	Smart System Design and Applications	ISBN:978-93-5164-706-5	Nirali Prakashan
15	Prof. Ms. S. D. Shirke, Prof. A. P. Tikar	Advanced Data Structures	ISBN: 978-93-86353-22-1	Nirali Prakashan
16	Prof. P. S. Hanwate	Information Technology and Project Management	ISBN:978-93-83572-62-5	Vishwakarma Publication
17	Prof. Ms. P. P. Jorvekar, Prof. Ms. M. P. Navale, Prof. Ms. S. N. Bhosale	High Performance Computing	ISBN: 978-93-5164-894-9	Nirali Prakashan
18	Prof. Ms. P. P. Jorvekar, Prof. Ms. S. N. Bhosale	Problem Solving and Object Oriented Programming	ISBN: 978-93-86084-26-2	Nirali Prakashan
19		Object Oriented Programming	ISBN: 978-93-86084-21-7	Nirali Prakashan
20		Principles of Programming Languages	ISBN: 978-93-86353-01-6	Nirali Prakashan
21		Object Oriented Programming	ISBN: 978-93-86353-07-8	Nirali Prakashan
22	Prof. Ms. M. P. Navale	Foundations of Communication and Computer Network	ISBN: 978-93-86353-24-5	Nirali Prakashan

20. Areas of consultancy and income generated:

Sr. No.	Details of Consultancy	Revenue Generated (in ₹)
1	Paramount Foreign Education Consultancy	31,500

21. Faculty as members in

a) National committees

Name of the faculty	Name of the committee	Nature of work/ description
Dr. R. S. Prasad	National Advisory Board for two days' national level conference on "Recent Advances in	Member

	Computer Engineering”, organized by MES College of Engineering, Pune.	
	National conference organized by TSSM’s Bhivrabai Sawant College of Engg, and Research, Pune.	Chair person
	National Conference on “Emerging Trends and Challenges in Computer Science and Technology”, 2017 Sinhgad College of Science.	Advisory committee
	National level STTP on Routing in Internet of Things.	Convener
	National conference on Modeling Optimization and Control (NCMOC-2015) at VIT, Pune.	Session chair
Prof. A. V.Dhumane	National Conference on “Emerging Trends and Challenges in Computer Science and Technology”, 2017 Sinhgad College of Science.	Judge
	National level STTP on Routing in Internet of Things.	Coordinator
Prof. D. S. Gaikwad	National level STTP on Routing in Internet of Things.	Coordinator

b) International committees:

Name of the faculty	Name of the committee	Nature of work/ description
Dr. R. S. Prasad	CAASR International Conference, 2016 at Kuala Lumpur, Malaysia	committee member, session chair
	International Conference on Digital Society and eGovernments, Venice, Italy, 2016	Technical program committee member
	International Journal of Advanced Computer Research (IJACR)	Member of reviewer board
	International conference on Global innovations in Technology and Sciences (ICGITS) 2013 at SAINTGITS College of Engineering, Kerala.	Technical Committee member
	International Conference on “Data Management Analytics and Innovation”, 2017 at Zeal Education Society, Pune.	General Chair
	International Conference on “Computing, Analytics and Security Trends (CAST)”, 2016 at College of Engineering, Pune.	Session chair
	International Conference on “Global Trends in Signal Processing, Information Computing and Communications (ICSPICC)”, 2016 at SSBT’s College of Engineering and Technology, Bambbori, Jalgaon.	Reviewer

	International Conference on “Internet of Things, Next Generation Network and Cloud Computing (ICINC)”, 2016 at SKN College of Engineering, Pune	Session chair
Prof. A. V. Dhumane	International conference on “Innovative and Advanced Technologies in Engineering”, 2017 at Atharva College of Engineering, Mumbai	Session Chair
Prof. P. S. Kulkarni		
Prof. Ms. S. D. Shirke		

c) Editorial Boards

Name of the Faculty	Name of Journal/ conference/ magazine/ news paper
Dr. R. S. Prasad	Cyber Times International Journal of Technology and Management
	International Journal of Advanced Computer Research (IJACR)
Prof. A. V. Dhumane	Spvryan's International Journal of Engineering Sciences and Technology (SEST)

d) Any other committee:

Name of the faculty	Name of the committee	Nature of work/ description
Dr. R. S. Prasad	LIC SPPU, UGC Staff selection committee member of SPPU.	Member
	Post Graduate Conferences in IT and Computer Engineering (cPGCON, iPGCON) under SPPU, Pune.	Reviewer and session chair
	SPPU BE Syllabus revision workshop	Workshop coordinator
	BCUD – SPPU, Pune funded research project committee	Judge/evaluator
	SPPU examinations in various subjects	Subject chairman
	SPPU Pune, SRTMU Nanded, Solapur University	Ph.D. Guide and Referee
	AVISHKAR -2016	External referee
Prof. Ms. S. A. Chiwhane	Computer Graphics Faculty development program	Convener
Prof. P. S. Hanwate	Computer Organization and Architecture Faculty development program	Coordinator
Prof. A. V. Dhumane	BE 2012 course in 2015-16 semester –I for subject Computer Network Design and Modeling	Paper setter
	Workshop on “Introduction to data	Coordinator

	analytics using big data”	
Prof. A. M. Bagul	SE 2012 course in 2015-16 semester –I for subject Data Structure and Problem Solving	Paper setter
	Workshop on “CCNA Routing and Switching”	Coordinator
Prof. P. S. Kulkarni	Workshop on “Big Data Analytics ”	Coordinator
	Workshop on “Introduction to data analytics using big data”	Coordinator
Prof. Ms. S.B. Guja	Government of India– Election Commission; Election process	Polling Officer
	Workshop on “Big Data Analytics”	Coordinator
Prof. Ms. N. K. Kadale	Computer Graphics Faculty development program	Coordinator
Prof. Ms. R.P. Karande	Government of India– Election Commission; Election process	Polling Officer.
Prof. Ms. P. T. Suradkar	Government of India– Election Commission; Election process	Polling Officer
Prof. Ms. D. U. Mishra	Government of India– Election Commission; Election process	Presiding Officer
Prof. S. P. Bendale	Workshop on “Big Data Analytics ”	Coordinator
	Workshop on “CCNA Routing and Switching”	Coordinator

22. Student projects

- a) Percentage of students who have done in-house projects including interdepartmental/programme

Sr. No.	Year	No. of In-house Projects	%of In-house Projects
1	2016-17	35	92
2	2015-16	32	84
3	2014-15	12	80

- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies

Sr. No.	Year	No. of Projects in Collaboration	% of Projects done in Collaboration
1	2016-17	03	08
2	2015-16	06	16
3	2014-15	03	20

23. Awards/Recognitions received by faculty and students:

a) Faculty:

Sr. No.	Name of Faculty	Year of Achievements	Achievement/ Recognition
1	Dr. R. S. Prasad	2015-16	CAASR Best Support
2		2012-13	Ph.D. Guide
3	Prof. A. V. Dhumane	2014-15	PG Teacher
4		2015-16	Best Faculty
5	Prof. A. M. Bagul	2014-15	Best Faculty

b) Students:

Sr. No.	Year	Activity	National/State/ University Level No. of Awards
1	2016-17	Natrajan Education Society Innovation Awards 2016	1st Prize
2		MindDoc	1st Prize
3		Socio-Tech	Runner-Up
4		Technovate	Winner & Runner Up
5		MazeRunner	Winner & Runner Up
6		ZoomIn-(Mobile Category)	Winner
7		Poster Presentation	1st Prize
8		Football Match, Sinhgad (Lonavla)	Winner
9	2015-16	Digital Pune Hackathon	1st & 2nd Runner Up
10		Natrajan Education Society Innovation Awards 2016	5th prize
11		Seed IT Idol	Winner
12		Encrypted Quest	1st prize
13		MindDoc	1st prize
14		GearHead	2nd prize
15		Cummins company aptitude	Scholarship
16		1st Junior Fencing State Championship	1st & 2nd prize
17		Fencing (Sabre) women, Pune district Sports Zone(Inter-collegiate)	2nd prize
18		Shotput (Women), Late Sushiladevi Chhajed Pune District Sr. Athletics Championship 2015	2nd prize
19		Football, Sinhgad Karandak 2016 (Lonavala)	Winner
20		Football, Syncytuinm 2015 at SKN Medical College	2nd prize
21		Football , VIT	Winner

22		Discus throw, Late Sushiladevi Chhajed Pune District Sr. Athletics Championship 2015	3rd prize
23		Lawn Tennis , Sinhgad Karandak 2016	Winner
24		Group Dance at NBSSOE, Ambegaon Bk., Pune	Winner
25		Group Dance at Cummins College of Engineering	1st prize
26		Group Dance at Balgandharva, Pune	2nd prize
27		Group Dance at MIT,Pune	Winner
28		Group Dance at Symbiosis College,Pune	2nd Runner up
29	2014-15	Google Student Ambassador	Google Student Ambassador
30		Virtual Internship Program	Traffline Campus Ambassador
31		GearHead	1st prize
32		SocioTech	1st prize
33		MindDoc	2nd & 3rd prize
34		Tennis Tournament, Sinhgad Karandak 2015	1st prize
35		Pune District Ranking Table Tennis Tournament	Runner up
36		Youth Girls, Table Tennis Promotion Foundation	Semi Finalist
37		Football Match, SIT Medical college , Narhe	Runner up
38		Discus throw(Woman), Late Sushiladevi Chhajed Pune District Sr. Athletics Championship 2015	2nd prize
39		Shot Put(Women), University Board of Sports	2nd Runner up
40		Inter Collegiate Fencing (Sabre), Pune District Sports Zone(University of Pune)	4th prize
41		Inter Collegiate Fencing (Epee), Pune District Sports Zone(University of Pune)	3rd prize
42		Lawn Tennis of Sinhgad Karandak 2015	Runner Up
43	2013-14	Athletics	Selected as captain of Maharashtra Team
44		Football Match at MIT, Pune	Winner
45		Pune District Sport Zone in inter Zonal Athletics (Women)	Represented Pune District Sport Zone (Women)
46		Discus throw (Women), Pune District Sports Zone(University of Pune)	1st prize
47		Athletics, Zest'14	1st & 2nd prize
48		Inter Collegiate Shot Put (W) Tournament - 9.90 meter	1st prize
49		Shot Put (W) , NBSSOE	2nd prize

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. Bhavin Chandarana	CTO of Phaneron Inc., Pune.	Invited by department to deliver Guest Lecture on "Internet of Things"
2	Ms. Mugdha Wagh	Opine Group, Pune	Invited by department to deliver Guest Lecture on "Business Intelligence"
3	Mr. Rahul Dhond	Cclearlogy Solutions Pvt. Ltd., Pune	Invited by department to deliver Guest Lecture on "Cloud Computing"
4	Mr. Harold D'Costa	Consultant, Cyber Crime Investigation, Mumbai Branch Govt. of Maharashtra and Goa	Invited by department to deliver Guest Lecture on "Cyber Crimes"

25. Seminars/Conferences/Workshops organized & the source of funding

a) National:

Sr. No.	Year	Name of FDP /SDP /STTP / Webinar/ Seminar etc.	No. of Participants	Sponsoring/Funding Agency if any
1	2016-17	Workshop on 'Arduino Programming'	85	Self sponsored
2		FDP on "Computer Graphics"	69	Self sponsored
3		Workshop on "Introduction to data analytics using big data"	77	Self sponsored
4		FDP on "Computer Organization and Architecture"	62	Self sponsored
5		Seminar on Awareness About Research Opportunity in National Need and its execution	32	Self sponsored
6		Session on Center of Excellence Forensics Lab	25	Self sponsored
7		Seminar on 'Current Research Trends in Computer and Information Technology'	24	Self sponsored
1	2015-16	National level STTP on "Routing in Internet of Things"	40	SPPU, Pune

2		CCNA Routing and Switching	119	Self sponsored
3		Workshop on “Big Data Analytics ”	93	Self sponsored
4		Talk on Research Methodology by Dr. R. S. Prasad	47	Self sponsored
1	2014-15	Workshop on “BE Computer Engineering 2012 Syllabus Revision”	112	Self sponsored
2		Workshop on “Introduction to Latex”	46	Self sponsored
3		Workshop on Android	47	Self sponsored

b) International: Nil

26. Student profile programme/course wise:

Name of the Course/Programme	Academic Year	Application Received	Selected	Enrolled		Pass Percentage
				*M	*F	
B.E. Computer Engineering	2016-17	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 and guidelines set by Savitribai Phule Pune University, State Government body.	127	83	44	Since the college wise applications received are with DTE, pass percentage is not available with the institute.
	2015-16		127	88	39	
	2014-15		126	79	47	
	2013-14		127	68	59	

*M=Male, *F=Female

27. Diversity of Students

Name of the Course/ Programme Course	Academic Year	% of students from the same state	% of students from other states	% of students from abroad
B.E.	2016-17	85.82	14.17	NA

Computer Engineering	2015-16	93.70	6.29	NA
	2014-15	80.95	19.04	NA
	2013-14	85.82	14.17	NA

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		
	2016-17	2015-16	2014-15
GATE	00	00	01
GRE/TOEFL	03	03	05
IELTS	01	06	02

29. Student progression

Student Progression	Against % Enrolled		
	2016-17	2015-16	2014-15
Year of Passing			
UG to PG	0	8	20.33
Employed			
• Campus Selection	23.07	32.66	40.67
• Other than campus recruitment	0	10.66	16.94
Entrepreneurship/Self-employment	-	1.33	-

30. Details of infrastructural facilities

a) Library

➤ Central Library

Sr. No.	Particulars	Number
1	No. of Titles	379
2	No. of Volumes	1542
3	National Journals	12
4	CDs	105
5	e-Books and e-Journals/ E-Resources	468

➤ List of Periodicals/ Journals available Print format:

Sr. No.	Title of the Journal
1	Data Quest
2	Digit
3	Digital Learning
4	Express Computer
5	Global Journal of Networks and Applications

6	i-manager s Journal on Software Engineering
7	International Journal of Software Engineering & Systems
8	IUP Journal of Computer Sciences
9	Journal of Advance Research in Computer Technology & Software Applications
10	Journal of Cloud Computing and Database Management
11	PC Quest
12	Voice and Data

➤ **Departmental Library**

- Titles available: 226
- Volumes available: 240
- List of Periodicals/ Journals available Print format
 - I. PC Quest
 - II. Open source for you

b) Internet facilities for Staff and Students: All the laboratories have computers with internet connections for students. Internet facility is also provided to all staff members. Internet line of 24 Mbps shared within the institute.

c) Class rooms with ICT facility:

- Department has 05 class rooms equipped with a LCD projector and screen having seating capacity for 80 students.
- Department has one Seminar hall equipped with a computer, LCD projector, screen and internet connection with seating capacity for 120 students.

d) Laboratories:

- 08 laboratories are available in the department as per AICTE norms.
- Each laboratory contains a laser printer and internet facility. Equipment is maintained in working condition.

Sr. No.	Name of the Laboratory	Major Equipments in the department
1	Free and Open Source Software Lab	Total Computers : 168 Printers: 08 Software: Open Source: Ubuntu, Fedora, Sedulity OS Licensed: Windows 7, Microsoft office 7, Windows XP (under Campus license)
2	Software Engineering Lab-I	
3	Database Management System Lab-I	
4	Multimedia Lab-I	
5	Network Lab-I	
6	Hardware Lab-I	
7	Project Lab (Center of Excellence “Cyber Security and Cyber Forensics”)	
8	Linux Lab	

31. Number of students receiving financial assistance from college, University, Government or other agencies

Year	Type of Assistance	No. of students			
		College	University	Government	Other Agencies
2016-17	NT Scholarship and Freeship	--	--	18	--
	OBC Scholarship and Freeship	--	--	45	--
	SBC Scholarship and Freeship	--	--	10	--
	SC Scholarship and Freeship	--	--	35	--
	Various Trusts/ Organizations	--	--	--	02
2015-16	NT Scholarship and Freeship	--	--	38	--
	OBC Scholarship and Freeship	--	--	110	--
	SBC Scholarship and Freeship	--	--	08	--
	SC Scholarship and Freeship	--	--	43	--
	Earn and Learn Scheme	-	05	-	-
	Fee Concession to economically weaker students	01	--	--	--
	Various Trust/ Organizations	--	--	--	03
2014-15	NT Scholarship and Freeship	--	--	29	--
	OBC Scholarship and Freeship	--	--	85	--
	SBC Scholarship and Freeship	--	--	10	--
	SC Scholarship and Freeship	--	--	28	--
2013-14	NT Scholarship and Freeship	--	--	20	--
	OBC Scholarship and Freeship	--	--	66	--
	SBC Scholarship and Freeship	--	--	05	--
	SC Scholarship and Freeship	--	--	24	--

32. Details on student enrichment programs (Special Lectures/ workshops/ Seminar) with external experts

a) Students' Enrichment programs through workshops and guest lectures

Sr. No.	Academic Year	Name of Enrichment programs	Name of external Expert	Organization
1	2016-17	Guidance for CAT Examination	Mr. Llyod Pallikandy	Career launcher, Pune.
2		Internet of Things	Mr. Bhavin Chandarana	CTO of Phaneron Inc., Pune.
3		Industry Coding Standard	Mr. Harshad Kashikar	Symantec Software India Pvt. Ltd., Pune.
4		Cyber Security	Mr. Kaustubh Kumbhar	Symantec Software India Pvt. Ltd., Pune.
5		Celebrity Management	Mr. Akash Afley	Director, Reaping perfections, Pune
6		Guidance for Career Options	Mr. Manu Abraham	ICEGATE Institute, Pune.
7		Microprocessor 80386 DX Bus Cycle	Prof. Mrs. Sheetal Dabhade	SKN College of Engineering, Vadgaon (Bk), Pune
8		Open MP & CUDA	Ms. Swati B. Bhonde	Amrutvahini College of Engineering, Sangamner
9		Introduction to Concurrent YACC	Ms. Kavita U. Rahane	Amrutvahini College of Engineering, Sangamner
10		GD-PI	Mr. Meraj Thomas	Career Launcher, Pune
11	2015-16	Carrier Opportunities	Mr. Mandar Sonawane	ACE The Power of 5.
12		Ethical Hacking	Mr. Sadikali Shaikh	National Defence Academy
13		Automation in Computer Science	Mr. Pravinkumar Patil	Systani Automation Pvt.Ltd.
14		Turing Machine Connecting P & NP Completeness	Mr. Avadhut Sardeshmukh	TCS Research &Development Center
15		Project Management	Mr. Mandar Sonawane	ACE The Power of 5.
16		Design of Algorithms	Mr. Sanjay Pingat	SKNCOE, Vadgaon.
17		Special Session for Cracking Interview	Mr. Deepak Patil	Cognizant Technology Solution.
18		Project Guidelines	Mr. Manoj Bedage	Mythos Technology
19		Industry Coding Standard	Mr. Kanad Bapat	Accenture Services Pvt.Ltd
20		Startup in Information Technology	Mr. Akshay Nahar	Truespider Technologies, Pune

21		Information Security Threats	Mr. Rakesh Patil	Sedulity Solutions & Technologies, Pune
22	2014-15	Introduction to Linux	Mr. Rishikesh Dev	TCS, Mumbai
23		Software Testing	Mr. Abhijit Tekale	E-Zest Technology
24		Business Intelligence	Mr. Anand Kolhatkar and Ms. Mugdha Wagh	Opine Group, Pune
25		Project Management	Mr. Mandar Sonawane	ACE The Power of 5
26		Computer Forensic and cyber Application, Information Security, and Computer Security	Mr. Tanmay Dikshit	CPAG Nasik
27		Connecting Turing Machine and NP-Completeness	Mr. Avadhut Sardeshmukh	Tata Consuntancy
28		Jeevan Sanjivani	Mr. Rajesh Chavan	Manav Sanshodanand Vikas Kendra, Pune
29		Introduction to 3-DMax	Mr. Prasad Pathak	Sanjivani Studio
30		Microprocessor and Interfacing Techniques	Mr. Mahendra Salunkhe	SIT, Narhe
31		Cyber crimes, Precautions and new banking	Mr. Sandesh Nangare and Mr. Sudam Garde	Bank of India Pune
32		GRE: road to MS in US	Mr. Brijesh Pandey	Spradha Tech. Train Transform
33		Introduction to Hadoop	Ms. Shrida Girme	Intelliment Technology
34		Workshop on ANDROID	Google Developers group	Google Developers group
35		2013-14	Current Trends of Database Management in Industry	Mr. Satyanarayan Khandelwal
36	Cloud Computing		Mr. Rahul Dhond	Clearlogy Solutions Pvt. Ltd., Pune
37	Event Management		Mr. Akash Afley	Director, Reaping perfections, Pune
38	Current Trends in IT		Mr. Surendra Panpaliya	Director, GKTCS Pvt. Ltd., Pune
39	Multi-core Programming		Mr. Abhijeet Tekale	eZest Technology, Pune.
40	Qt Framework		Mr. Anil Kumar	Nek Tech Solutions, Pune
41	Cyber Crimes		Mr. Harold D'Costa	Consultant, Cyber Crime Investigation, Mumbai Branch Govt. of Maharashtra and Goa

b) Student Training Programs (STP)
Department has integrated Student Training Program (STP) with curriculum. The details are as follows:

STP I SE SEM-I	SOFT SKILLS ➤ SWOT analysis ,Goal setting, Personality and Stress Management, Behavioral Skills, Communication Skills ➤ AMCAT, Employability Tests ➤ Writing Skills Competition
STP II SE SEM- II	COMMUNICATION SKILLS ➤ Listening, Reading (Technical and Non-Technical), Writing(Letter, Resume, CV, Report), Speaking(Public Speaking, Group Discussion) ➤ AMCAT ,Employability Tests ➤ Speaking Skills Competition
STP III TE SEM-I	TECHNICAL FUNDAMENTALS AND APTITUDE TRAINING ➤ Technical Training on: Power Systems, Instrumentation, Microcontrollers, PLC, SCADA, Electrical Machines. ➤ Aptitude Training ➤ AMCAT ,Employability Tests
STP IV TE SEM- II	RESEARCH METHODOLOGY & APTITUDE TRAINING ➤ Research Methodology Training, Aptitude Training ➤ AMCAT ,Employability Tests ➤ Review Paper Competition
STP V BE SEM-I	INTERVIEW PREPARATION & VALUE ADDITION PROGRAM ➤ Value Addition Program on Control System Design ➤ Group Discussion & Interview Preparation ➤ Employability Tests

33. Teaching methods adopted to improve student learning

- Based on university syllabus, Assignments and Mini project work is done for specific subjects.
- Every year educational visits are organized to the IT industries, which increases awareness about current technologies in the students.
- Unit tests, mock practical's, preliminary exams are taken and sometimes written assignments are given to students for practice.
- Videos from The National Programme on Technology Enhanced Learning (NPTEL) and audio, visual aids of the subject related topics are shown to students for enhancing their subject specific understanding.
- Flipped classroom technique is used for teaching various subjects.
- Remedial sessions and extra lectures are conducted.
- Use of ICT for sharing the resources and conducting mock online examinations.
- Arranging Seminar, Workshop, Student Training Program (STP) and hands on session by eminent personalities from industry and other academic organizations.
- Faculties are trained by organizing workshops, FDP, STP for enriching their teaching performance.
- K-Point recording is done by the expert faculties in various subjects that help students to learn the subjects online at any time.

- IITB Spoken Tutorial courses are conducted for enhancing the subject as well as programming knowledge.
- National Digital Library (NDL) facility is available for students.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- NSS activities:
 - Residential camp conducted under NSS club
 - Visit to old age home- “Matoshree Vriddhashram”
- Tree Plantation Day.
- Traffic Awareness Day.
- Teacher’s Day.
- Blood Donation Camp.
- Celebration of Women’s day.
- Organ Donation Awareness Camp.
- PRAYAS activities:
 - Computer Literacy
 - Vedic Mathematics
 - Scientific toys
 - Blood donation
 - General awareness
 - Selfie with tree

35. SWOC analysis of the department and Future plans

Strength:

- Staff retention ratio is high.
- Qualified, experienced and dedicated faculty members.
- Adaptive planning and execution of strong Teaching Learning Process.
- Excellent Infrastructure facility with well-equipped classrooms and laboratories.

Weaknesses:

- Less funded projects.
- Very few Ph.D. qualified faculties.
- Need to strengthen Industry Institute Interaction.

Opportunity:

- Starting PG course.
- To complete Ph.D. by existing faculty members.
- Building research culture in the department
- Motivate students for becoming entrepreneur and to pursue higher education.

Challenges:

- Prepare students according to current industry needs.
- Increase placement percentage.
- Consultancy work needs to be improved.

Future Plans:

- To start post graduate (M.E.) programme.
- To establish Research Centre for Ph.D. course.
- To enhance Industry Institute Interaction.

II. DEPARTMENT OF ELECTRONICS AND TELE-COMMUNICATION ENGINEERING

- Name of the department** : Electronics and Telecommunication Engineering
- Year of Establishment** : 2011
- Name of Programs/Courses (UG/PG, M. Phil, Ph. D. integrated masters, integrated Ph.D.) offered:**

Sr. No.	Name of the Programme	Year of Establishment
1	UG	2011
2	ME - VLSI & Embedded systems	2012

- Name of Inter disciplinary courses and departments/units involved:**

Sr. No.	Name of Inter disciplinary Courses	Departments/ Units Involved
1	Engineering Mathematics - III	Engineering Science

- 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	Semester

- 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	Mechanical Engineering	SE	Electrical and Electronics Engineering

- 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 :	
	➤ Programming in C and CPP	IIT Bombay
	➤ Latex	
➤ Operating System : Linux		

	<ul style="list-style-type: none"> ➤ Libre Office ➤ Scilab ➤ Programming in Python 	
	EDX Online Courses on :	
	Science of Happiness	University of Adelaide
	Introduction to Linux	Linux Foundation
	Electronic Interfaces	Barclay's
	Leaders of learning	Harvard
	Becoming a Resilient Person	Tufts University
2	A System View of Communications: From Signals to Packets, Part 1	The Hong Kong University of Science and Technology
	The Science of Everyday Thinking	The University of Queensland, Australia
	English Grammar and Essay Writing	University of Texas
	English Grammar & Style	UC Berkeley
	English Grammar & Style	U-Washington
	Principles of written English	uc-berkeleyx
3	Barclay's Training	Barclay's
4	Programming with C#	Microsoft

8. Details of courses/programs discontinued (if any) with reasons: Nil.

9. Number of teaching posts

For UG:

Designation	Sanctioned	Filled
Professors	1	--
Associate Professors	3	--
Asst. Professors	9	12
No. of visiting/guest faculty	3	3

For PG:

Designation	Sanctioned	Filled
Professors	1	--
Associate Professors	1	--
Asst. Professors	2	3
No. of visiting/guest faculty	1	1

10. Faculty profile with name, qualification, designation, specialization, D.Sc./D.Litt. Ph.D./ M. Phil. etc.,)

Sr. No.	Name of Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
1	Prof. S. D. Sawant	M. Tech. Ph.D. Pursuing	Asst. Prof. & HoD	Power Electronics	15	NA
2	Prof. S. Y. Tamboli	ME	Asst. Prof.	Digital System	12	NA
3	Prof. Ms. J. A. Desai	ME	Asst. Prof.	VLSI and Embedded Systems	10	NA
4	Prof. Ms. S. M. Jog	ME	Asst. Prof.	Digital Systems	14	NA
5	Prof. Ms. N. S. Gujar	M. Tech	Asst. Prof.	VLSI Design	9.5	NA
6	Prof. Ms. S. N. Kulkarni	ME	Asst. Prof.	VLSI and Embedded Systems	6	NA
7	Prof. Ms. S. A. Sahane	ME	Asst. Prof.	Digital Systems	4.5	NA
8	Prof. K. B. Kharat	M. Tech Ph.D. pursuing	Asst. Prof.	Communication Engineering	13	NA
9	Prof. Ms. D. H. Gawali	M.E. Ph.D. Pursuing	Asst. Prof.	Electronics – VLSI	12	NA
10	Prof. H. N. Lokhande	ME	Asst. Prof.	Signal Processing	2.5	NA
11	Prof. A. D. Kulkarni	M. Tech	Asst. Prof.	Electronics	4	NA
12	Prof. D. S. Gaikwad	ME	Asst. Prof.	VLSI and Embedded Systems	6	NA
13	Prof. Ms. R. S. Mule	ME	Asst. Prof.	Digital Systems	12	NA
14	Prof. Ms. A. N. Ausekar	ME	Asst. Prof.	VLSI and Embedded Systems	4	NA
15	Prof. Ms. B. M. Raut	ME	Asst. Prof.	Digital Systems	0.25	NA

11. List of senior visiting faculty:

Sr. No.	Name of Adjunct faculty	Experience	Specialization	Name of Organization
1	Mr. Amit Nahar	14	Digital logic design, Embedded system design	Senior Project Lead, Knorr Bremse Technology Center India, Pune.

2	Mr. Mahesh Butala	15	Embedded Product Engineering for Medical and Automation Domains	Sr. Engg. Manager, Agiliad Technoloy, Pune
3	Mrs. Sayali Kulkarni	10	VLSI and Embedded systems, Technical Writing	Technical Writer, Aeron Systems, Pune
4	Mr. Ramkumar Boob	13	Electronic Design	Business Director, Silicon Automation Systems, Pune

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	18 : 1 15 : 1 (By considering adjunct faculty)
2	PG	16 : 1 13 : 1 (By considering adjunct faculty)

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Staff details	Sanctioned	Filled
Number of academic Support staff (Technical)	01	01
Number of administrative staff	04	04

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/MPhil/PG.:
For UG:**

Ph.D.	Ph.D. Pursuing	PG	UG
--	01	11	--

For PG:

Ph.D.	Ph.D. Pursuing	PG	UG
--	02	01	--

16. Number of faculty with ongoing projects from National and International Funding agencies and grants received

Sr. No.	National/ International	Number of Faculty	Total Grant Received (in ₹)
1	National	04	3,10,000

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received.

Sr. No.	Funding Agency	Project Title	Principal Investigator	Duration	Amount (in ₹)
1	BCUD SPPU	Analysis of Bathymetric Data in Remote Sensing	Dr. Ms. S. D. Shelke	2 years 2014-16	1,70,000
2	BCUD SPPU	IOT based intelligent energy monitoring system for buildings.	Prof. Ms. S. M. Jog	2 years 2016-18	1,40,000

18. Research Centre/facility recognized by the University : Nil

19. Publications

a) Publication per faculty

Sr. No.	Name of Faculty	Number of papers published in peer reviewed journals (National/International) by faculty and students	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.)	Monographs/ Chapter in Books / Books Edited / Books with ISBN/ISSN	Citation Index				Impact factor	h-index	
					Scopus	Google Scholar	SNIP	SJR		Scopus	Google Scholar
1	Mr. S. D. Sawant	6	7	1	-	-	-	-	Min: 2.7 Max: 5.33	-	-
2	Mrs. J. A. Desai	1	0	-	-	-	-	-	2.08	-	1
3	Mrs. S. N. Kulkarni	1	0	-	-	-	-	-	5.359	-	-
4	Mr. K. B. Kharat	0	1	-	-	4	-	-	-	-	1
5	Ms. D. H. Gawali	1	8	-	-	18	-	-	3.59	2	5
6	Mr. A. D. Kulkarni	1	0	-	-	-	-	-	5.359	-	-

b) Books Published:

Sr. No.	Faculty Name	Book Name	Book no	Publication
1	Prof. S. D. Sawant	Power Electronics	ISBN 978-93-5164-365-4	Nirali Publication

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. Ms. S. D. Shelke	IEEE International Conference Technical Session Chair	Chairing the session
Prof. D. H. Gawali	Technical program committee - Fifth International Conference on Computing, Communications and Informatics (ICACCI), Jaipur, India – September 2016	Technical program committee Member – Reviewer
	Reviewer for SCI indexed journal, Springer Journals, Analog Integrated Circuits and Signal Processing	Reviewer of the manuscript

c) Editorial Boards: Nil

d) Any other committee:

Name of the faculty	Name of the committee	Nature of work/ description
Prof. S. D. Sawant	EPGCON Committee Member	Project reviewer
	SPPU Faculty Orientation Workshop on 'Control Systems'	Coordinator
	SPPU TE E&TC 2015 course syllabus revision	Committee member
	SPPU exam	Paper setter
Prof. N. S. Gujar	EPGPEX Committee Member	Project reviewer
	SPPU exam	Paper setter
Prof. J. A. Desai	SPPU Faculty Orientation Workshop on 'Control Systems'	Co-Coordinator
Prof. P. W. Kulkarni	SPPU sponsored State Level Workshop on 'Controlling Robot using brainwaves and hand gestures'	Coordinator
Prof. H. N. Lokhande	SPPU sponsored State Level Workshop on 'Controlling Robot using brainwaves and hand gestures'	Co-Coordinator
	Government of India – Election Commission; Election process	Presiding Officer
	SPPU Faculty Orientation Workshop on 'Embedded Processors'	Co-Coordinator
Dr. Ms. S. D. Shelke	SPPU sponsored National Level Workshop on 'SOC Design for DSP Applications'	Coordinator

	SPPU Faculty Orientation Workshop on 'Embedded Processors'	Coordinator
	Silicon Automation Systems sponsored two days workshop on 'CMOS IC Design using Empyrean Design Tool'	Coordinator
	EPGCON/ EPGPEX Committee Member	Project reviewer
	SPPU exam	Paper setter
Prof. S. Y. Tamboli	SPPU sponsored National Level Workshop on 'SOC Design for DSP Applications'	Co-Coordinator
Prof. A. N. Ausekar	Presiding Officer/Polling Officer/etc. – Government of India – Election Commission; Election process	Presiding Officer/ Polling Officer /etc.
Prof. K. B. Kharat	Technical Speaker - Expert Lectures on Research Methodology.	Expert Lectures
Prof. D. H. Gawali	Resource for Project competition at Cummins COEW, Pune	Judge

22. Student projects

a) Percentage of students who have done in-house projects including interdepartmental/ programme

Sr. No.	Program	Academic Year	No. of In-house Projects	% of In House Projects
1	UG	2016-17	16	66.67
		2015-16	29	96.66
		2014-15	11	84.61
2	PG	2016-17	15	100
		2015-16	19	95
		2014-15	19	100
		2013-14	21	95.45

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies

Sr. No.	Program	Academic Year	No. of Project Collaboration	% of project done in collaboration
1	UG	2016-17	8	33.33
		2015-16	1	3.34
		2014-15	2	15.38
2	PG	2016-17	Nil	0
		2015-16	1	5
		2014-15	Nil	0
		2013-14	1	4.55

23. Awards/Recognitions received by faculty and students:

a) Awards/Recognition by faculty

Sr. No.	Name of Faculty	Year of Achievements	Achievement / Recognition
1	Dr. Ms. S. D. Shelke	June 2016	IEEE International Conference Technical Session Chair
2	Prof. D. H. Gawali	July 2016	Reviewer for Fifth International Conference on Computing, Communications and Informatics (ICACCI), Jaipur, India
3		March 2017	Reviewer for SCI indexed journal, Springer Journals, Analog Integrated Circuits and Signal Processing
4	Prof. H. N. Lokhande	2015-16	Best Faculty Award
5	Prof. S. A. Sahane	2014-15	Best Faculty Award

b) Awards/Recognition by Student

Sr. No.	Year	Activity	National /State / University level No. of Prizes won
1	2016 - 2017	4*4 Rally at MIT ADT University	1 st
2		Robotron at APCOE, Pune	1 st
3		Robo-Block Warrior in Technovision 2017 at JSPM, Narhe	2 nd
4		Project Competition held at MIT ADT University	2 nd
5		Project competition held at IEEE international Women in engineering conference on Electrical & computer engineering, Pune, India.	1 st
6	2015 - 2016	Winner in MAVERICKS-2016(Singing Duet) at Vishwakarma Institute of management, Pune	1 st
7		PIC Programming Competition 2016, NBN SSOE	1 st
8		PIC Programming Competition 2016, NBN SSOE	2 nd
9		Excellent Paper award at Institute of Research and Journals	1 st
10	2014 - 2015	Project competition at Sinhgad Student Council, SKNCOE, Pune	2 nd
11		Project competition at Sinhgad Student Council, SKNCOE, Pune	2 nd
12		TI India Analog Maker competition conducted by EdGate Technologies Pvt. Ltd. and NBNSOIE	1 st

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. Manesh Kokare	SGGS IET, Nanded	Resource person for Seminar on 'Research paper writing'
2	Dr. Vishwas Udpikar	Wavelet Technologies, Pune	Keynote speaker for SPPU sponsored FDP
3	Mr. Amit Nahar	IFM Engineering, Pune	Resource person for SPPU sponsored FDP
4	Mr. Pranay Upadhyay	Wavelet Technologies, Pune	Invited speaker for SPPU sponsored FDP
5	Mr. D.R. Luhar	Sigma Technology, Ahmadabad	Guest Lecture on Advance Communication Engineering
6	Mr. Rahul Sharma	Ambition Technologies, New Delhi	Resource person for workshop 'CMOS IC Design using Empyrean Design Tool'
7	Mr. Vinay Sharma	Ni2 Designs, Pune	Resource person for workshop 'CMOS IC Design using Empyrean Design Tool'
8	Mr. Sudhish	Tech Mahindra, Chennai	Resource person for workshop
9	Mr. Vijaykumar Ramchandran,	ITS, PRAJ Industries Ltd. Pune	Guest Lecture on 'Recent trends in Industry and Interview Techniques'
10	Prashant Shirpurkar	Logic Power , Pune	Seminar on 'Microcontrollers'

25. Seminars/Conferences/Workshops organized & the source of funding

a) National:

Sr. No.	Year	Name of FDP / SDP/ STTP/ Webinar/ Seminar etc.	Number of Participants	Sponsoring/ Funding Agency if any
1	2016-17	SPPU Faculty Orientation Workshop on 'Control Systems'	76	Self-Sustainable
2	2015-16	Two days workshop on 'CMOS IC Design using Empyrean Design Tool'	30	Industry - Silicon Automation
3	2014-15	Controlling Robot using Brainwaves and hand gestures	60	SPPU-BCUD
4		SPPU Sponsored & IETE Approved National Level Workshop on "SOC Design for DSP Applications"	41	BCUD SPPU
5		SPPU Faculty Orientation Workshop on 'Embedded Processors'	107	Self-Sustainable

b) International: Nil

26. Student profile programme/course wise:-

Name of the Course/ programme	Academic Year (Graduation)	Applications received	Selected	Enrolled		Pass percentage
				*M	*F	
E&TC Engineering /UG	2016-17	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.	63	42	21	NA
E&TC Engineering /UG	2015-16		64	46	18	NA
E&TC Engineering /UG	2014-15		64	42	22	NA
E&TC Engineering /UG	2013-14		64	45	19	NA
E&TC Engineering /PG	2015-16		17	07	10	NA
E&TC Engineering /PG	2014-15		20	04	16	NA
E&TC Engineering /PG	2013-14		19	11	08	NA

*M=Male *F=Female

NA: Since the college wise applications received are with DTE, pass percentage is not available with the institute.

27. Diversity of Students

Name of the Course/ Programme	Academic Year	% of students from the same state	% of students from other states	% of students from abroad
BE E&TC Engineering	2016 - 17	79.36	20.63	NA
BE E&TC Engineering	2015-16	52.77	47.22	NA
BE E&TC Engineering	2014-15	84.37	15.62	NA
BE E&TC Engineering	2013 -14	85.82	14.16	NA
ME E&TC Engineering (VLSI & Embedded)	2015-16	93.33	6.66	NA
ME E&TC Engineering (VLSI & Embedded)	2014-15	100	0	NA

ME E&TC Engineering (VLSI & Embedded)	2013-14	100	0	NA
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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		
	2016-17	2015-16	2014-15
GATE	-	3	-
GRE	1	2	-
IELTS	-	-	2
Civil Services	1	-	-

29. Student progression

Student Progression	Against % Enrolled			
	Year of Passing	2016-17	2015-16	2014-15
UG to PG		NA	4	5.4
Employed				
• Campus Selection		23.61	22.09	29.72
• Other than campus recruitment		1.39	9.30	35.13
Entrepreneurship/Self-employment		NA	4	3

30. Details of infrastructural facilities

a) Institute Library

Sr. No.	Particulars	Number
1	Titles	608
2	Volumes	2303
3	National Journals	14
4	International Journals	0
5	CDs	177
6	e-Books and e-Journals	468 (IEEE and Science-direct)

List of Periodicals/ Journals available in Print format

Sr. No.	National Journal Titles
1	Electrical India
2	Electronics Bazaar
3	Electronics For You

4	i-managers Journal on Wireless Communication Networks
5	IEEMA Journal
6	IETE Journal of Research
7	International Journal of Business Management and Information Technology
8	International Journal of Industrial Electronics and Control
9	Inventi Impact: Signal Processing
10	Inventi impact: VLSI
11	IUP Journal of Electrical and Electronics Engineering
12	IUP Journal of Telecommunications
13	Journal of Advances in Electronic and Electric Engineering
14	Journal of Microcircuits and Electronic

➤ **Departmental Library:**

- Titles available: 50
- Volume available: 50
- Previous years project and seminar reports are available to the students for reference.
- Student and staff can issue books from departmental library.
- E resources of syllabus, question bank, previous question papers are available on GEMS.

b) Internet facilities for Staff & Students:

- Each faculty has internet connection, table and chairs etc.
- The entire department is Wi-Fi enabled.
- 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, equipped with LCD projector, with enough light intensity, airy and have studious ambiance.
- 1 seminar hall with a capacity of 150 exclusively for department of Electronics and Telecommunication Engineering is available.

d) Laboratories

- 8 laboratories are available in the department as per AICTE norms.
- 60 Computers with Intel Dual Core Processors, 2 Laser Jet Printers
- Equipments are maintained in working condition so that satisfactory and reliable results are obtained.

Sr. No.	Name of the Lab	Major Equipments in the department
1	Embedded Systems Design Lab	<ul style="list-style-type: none"> ➤ Dell Optiplex Pentium Dual Core computers (8 numbers) with Windows (Campus License) ➤ Cortex M3 Development Boards ➤ ARM 9 Development Board (Linux , Wince Based)

2	Communication Engg. Lab-I	<ul style="list-style-type: none"> ➤ Microwave Test Bench ➤ Antenna Training Lab, Amitec Make PLL Synthesized 40 Mhz-4.3 Ghz, 2 SMA Antennas ➤ Spectrum Analyser , Aplab Make GW-Instek 9khz-3ghz ➤ Network Analyser, Anritsu Make Model: Ms2035b 2-Port, 1-Path Vector Network Analyzer (Vna), Vna Master (500 Khz To 6 Ghz)
3	VLSI Design Lab	<ul style="list-style-type: none"> ➤ Dell Optiplex Pentium Dual Core Computers (24 numbers) with Windows (Campus License) ➤ Virtex 5 FPGA Development board ➤ Zynq 7000 All Programmable SOC Development Board ➤ Multisim (Simulation Tool) V12.0 ➤ Xilinx ISE 13.2 (25 users) ➤ Microwind package V3.5 (10 users) ➤ MATLAB 2012a+22 Toolboxes
4	Digital Logic Design Lab	<ul style="list-style-type: none"> ➤ Digital IC tester
5	Basic Electronics Engineering Lab	<ul style="list-style-type: none"> ➤ Digital IC tester
6	Project Lab	<ul style="list-style-type: none"> ➤ PCB Design Lab (Optical Power Meter, UV Exposure, Etching Machine, Lab Chemicals)
7	Digital Signal Processing Lab	<ul style="list-style-type: none"> ➤ Dell Optiplex Pentium Dual Core Computers (24 numbers) with Windows (Campus License) ➤ DSP Starter Kit (DSK) TMS 320C6713 With CCS ➤ Analog Discovery Kit
8	Electronics Devices & Circuit Lab	<ul style="list-style-type: none"> ➤ Digital Storage Oscilloscope

31. Number of students receiving financial assistance from college, University, Government or other agencies.

Year	Type of Assistance	No. of students			
		College	University	Government	Other Agencies
2016-17*	NT Scholarship & Freeship	-	-	06	-
	OBC Scholarship & Freeship	-	-	25	-
	OBC Scholarship & Freeship	-	-	03	-
	SC Scholarship & Freeship	-	-	13	-
	ST Scholarship & Freeship	-	-	0	-
2015-16	NT Scholarship & Freeship	-	-	17	-
	OBC Scholarship & Freeship	-	-	49	-
	SBC Scholarship & Freeship	-	-	05	-

	SC Scholarship & Freeship	-	-	18	-
	ST Scholarship & Freeship	-	-	01	-
	Earn & Learn Scheme	-	04	-	-
	Fee Concession to economically weaker students	01	-	-	-
2014-15	NT Scholarship & Freeship	-	-	10	-
	OBC Scholarship & Freeship	-	-	46	-
	SBC Scholarship & Freeship	-	-	05	-
	SC Scholarship & Freeship	-	-	18	-
	ST Scholarship & Freeship	-	-	02	-
	Earn & Learn Scheme	-	02	-	-
2013-14	NT Scholarship & Freeship	-	-	12	-
	OBC Scholarship & Freeship	-	-	34	-
	SBC Scholarship & Freeship	-	-	03	-
	SC Scholarship & Freeship	-	-	10	-
	ST Scholarship & Freeship			02	

* Verification Pending

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	2016-17	Guest lecture on Signals and systems	Prof. D. G. Bhalke	RSCOE, Pune
2		Expert lecture on Introduction to PIC architecture	Mr. Prashant Shirpurkar,	Logic Power Pune
3		Workshop on Android Application Development	Mr. Ravindra, Mrs. Shubhangi and Mr. Sandip Tawar,	PS Solutions Pune
4		Workshop on Automation with Arduino	Mr. Shridhar Dudam	PICT Pune
5		Expert Lecture on	Mr. Rajendra	Adroit Autotech

		Industrial Automation Overview	Joshi	
6	2015-16	Guest Lecture on Power Electronics	Prof. V. B. Shere	Zeal education society's Dnyanganga COE, Pune
7		Guest Lecture on Analog Communication	Dr. Ms. Suwarna Choraghe	BVCOEW, Pune
8		Guest Lecture on Information Theory and Coding Techniques	Prof. P. A. More	Zeal education society's Dnyanganga COE, Pune
9		Guest Lecture on Antenna and Wave Propagation	Prof. Sonal Jagatap	SKNCOE, Pune
10		Guest lecture on mobile communication	Prof. Radhika Purandare	VIIT Pune
11		Guest Lecture on Research Opportunities in Germany	Mr. Ganesh Patil	University of Stuttgart, Germany
12		Seminar on "Recent Advance Communication System".	Prof. Surendra Bhosale	Head Monitoring and Evaluation, VJTI, Mumbai
13		Guest lecture on 'New Trends in Industry And Interview Techniques'	Mr. Vijaykumar Ramchandran	Associate Vice-President, Praj Industries Ltd., Pune
14		Seminar on Introduction to Human Rights and Duties	Prof. Shivshanjar Kalshetty,	Sinhgad Law College, Pune
15		2014-15	Two days workshop on 'CMOS IC Design using Emyrean EDA Tools'	Mr. Rahul Sharma, Mr. Shridhar Dudam,
16	DFT Concepts and scan techniques		Mr. Pramod Phadke	CG CoreEL
17	SPPU Sponsored State Level Workshop on "Controlling Robot Using Brainwaves & Hand Gestures"		Mr. Abhijit Prabhakar, Mr. Shubham Banerjee,	Li2 Innovations Pvt. Ltd. Banglore
18	AnCMOS : Workshop on Analog CMOS IC Design using Microwind		Mr. Vinay Sharma	Ni2 Designs
19	Workshop on Python Programming		Mr. Syam Krishan, Research Scholar	IIT Powai, Mumbai
20	Android Workshop		Mr. Sudhish	Tech Mahindra, Chennai
21	Guest lecture on Advances in Communication Engineering		Mr. D.R. Luhar, Director	Sigma Technology, Ahmadabad
22	2013-14	Scilab workshop	Mr. Swapnil More and Mr.	IIT, Bombay

			Ropak Rokade	
23		Workshop on Programmable System on Chip	Prof. Shridhar Dudam	PICT, Pune
24		Seminar on Pipelined VLSI Architecture	Dr. Ms. Shaila Subbraman	Former Dean Academics, Walchand College of Engineering

Student Training Program (Institute has taken initiative to start the Student Training Program to enhance the overall performance of students and placement)

STP I SE (Sem I)	<ul style="list-style-type: none"> ➤ Soft Skills <ul style="list-style-type: none"> • SWOT Analysis, Goal setting, Personality and stress management, behavioral skills, communication skills • AMCAT, Employability Tests • Writing skill competition
STP II SE (Sem II)	<ul style="list-style-type: none"> ➤ Communication Skills <ul style="list-style-type: none"> • Listening, Reading (Technical and Non-technical), Writing (Letter, Resume, CV, Report), Speaking (Public speaking, Group Discussion). • AMCAT, Employability Tests • Speaking skill competition
STP III TE (Sem I)	<ul style="list-style-type: none"> ➤ Technical Fundamentals and Aptitude Training <ul style="list-style-type: none"> • Technical training on: Data Structures and Algorithms, Object Oriented Programming and problem solving. • Aptitude training • AMCAT, Employability Tests
STP IV TE (Sem II)	<ul style="list-style-type: none"> ➤ Research Methodology and Aptitude Training <ul style="list-style-type: none"> • Research Methodology, Aptitude Training • AMCAT, Employability Tests • Review paper competition
STP V BE (Sem I)	<ul style="list-style-type: none"> ➤ Interview Preparation & Value Addition Program <ul style="list-style-type: none"> • Value Addition Program: Java, PLC and Android Programming • Group Discussion and Interview preparation. • Employability Tests

33. Teaching methods adopted to improve student learning

The teaching methods to improve student learning are as follows:

- Use of LCD projector, PPTs, videos and animations for effective teaching.
- Use of ICT for sharing the resources and conducting mock online examinations
- Continuous evaluation practice is followed. It includes internal tests, tutorials, assignments, mock online, mock practical etc.
- Arranging industrial visits, workshops, seminars from industry experts on the emerging technologies.

- NPTEL video lectures are made available in the department.
- K-point server (Audio/Tutorial)
- Remedial extra lectures, Unit tests /Mock tests, Flipped classrooms technique

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Students are encouraged to participate in social activities organized by the institute. Many students volunteer themselves to donate the blood. Students actively participate in organ donation awareness program and many come forward to fill the donor card. Department organizes activities such as awareness program on gender equality, Independence @70 celebration etc. Further students enthusiastically participate in activities such as Tree plantation, Traffic awareness, Youth Empowerment workshop, Helping hand initiative, etc.

Following are the Institutional Social Responsibility (ISR) and the extension activities in which the students participate:

1. NSS

- Swami Vivekananda Jayanti
- Seminar on “Carrier Guidance – MPSC UPSC
- Visit to the orphanage “Mamta Foundation”
- Blood Donation Camp
- Seminar on “Opportunities for Engineers in PSU and Higher studies”
- Visit to the orphanage “Dnyangangotri Pratishtan”
- Visit to the orphanage “Matoshree Vriddhashram”
- NSS Field visit to At: Gorhe (Bk) Tal: Haveli Dist: Pune- 25
- Seminar on “Health awareness for Girls”
- Voting awareness camp
- National Constitution Day celebration
- “Van Mahotsav” or Forest Day
- “Wahtuk Janjagruti Abhiyan” Din
- Celebration of International Woman's Day

2. Days Celebration

Every year the Institute celebrates:

- Yoga day
- Yuva day
- Teachers Day
- Marathi Bhasha Din (Kavi Kusumagraja Jayanti)

3. Prayas

- “Prabhat Pheri and Dawandi” for “Jan-Jagruti”
- Computer Literacy
- Teacher training
- Scientific toys and Vedic Maths activity
- Career Guidance and Men - Women Empowerment
- Tree Plantation
- Blood Donation
- Free Dental Check up
- Sports competition (Kho-Kho, Kabaddi, Running)

- Extra-curricular activities (Elocution, Drawing, Essay competition)

4. Others

- Organ Donation awareness Camp
- Navratri Celebration – “Dandiya Night” and “Durga Arti”
- Ganesh Festival – “Ganesh Arti”
- Awareness seminar on "Sexual Harassment of Women at Workplace-Act 2013"
- Savitribai Phule Jayanti
- Jijau Masaheb Jayanti
- Netaji Subhash Chandra Bose Jayanti
- Chatrapati Shivaji Maharaj Jayanti
- Independence @70 celebration
- Youth Empowerment & Skills workshop (YES!+) – Art of Living Course
- Gender Equality Seminar
- Railway Platform Cleanliness Drive

35. SWOC analysis of the department and Future plans

Strengths

- Infrastructure supporting effective teaching learning
- Adaptive planning & execution of strong teaching learning process
- Qualified, motivated, dedicated teaching faculty
- Strong administrative support
- Supporting working environment among department members
- Effective parenting mechanism (Teacher Guardian scheme)

Weaknesses

- Lack of qualified technical man power
- Lack of Ph.D. qualified faculty
- Lack of Funded Projects
- Inadequate experience in consultancy

Opportunities

- To get national and international grants for research project
- To upgrade qualification of faculties

Challenges

- To achieve 100% placement
- To achieve high success rate
- Prepare students according to current industrial needs

Future Plans

- Modernization of Laboratories.
- Signing MOU with core companies Strengthening of Research & Development activities

III. DEPARTMENT OF INFORMATION TECHNOLOGY

- 1. Name of the Department** : Information Technology
- 2. Year of Establishment** : 2011
- 3. Names of Programmes / Courses offered (UG, PG, etc.)**

Name of Programme	Year of Establishment
UG – BE Information Technology	2011

- 4. Names of Interdisciplinary courses and the departments/units involved:**

Sr. No.	Class	Interdisciplinary Courses	Departments involved
1	SE	Engineering Mathematics III	Engineering Science

- 5. Annual/ semester/choice based credit system (Programme wise):**

UG: Semester system

PG: NA

- 6. Participation of the department in the courses offered by other departments:**

Sr. No.	Class	Courses	Departments involved
1	FE SEM-I	Fundamentals of Programming Language-I	Engineering Science
2	FE SEM-II	Fundamentals of Programming Language-II	Engineering Science

- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.:**

Sr. No.	Course Name	Collaborating institution / industry
Online Courses:		
1	The Science of Happiness	edX- University of California, Berkely.
2	Introduction to HTML, CSS and java script	edX- Microsoft
3	Enterprise Software Lifecycle Management	edX- MEPHix University
4	Course on Big Data	Big Data University
5	C Training	IIT Bombay
6	C ++ Training	IIT Bombay
7	PHP & MySQL Training	IIT Bombay
8	Java Training	IIT Bombay

9	Introduction to C++	edX- Microsoft
10	Introduction to Project Management	edX- University of Adelaide
11	Introduction to Programming with Java - Part 1	edX- Universidad Carlos III de Madrid
12	Introduction to Computer Programming, Part 2	edX- University of Adelaide
13	Introduction to Type Script	edX- Microsoft
14	Linux Training	IIT Bombay
15	Java Business Application Training	IIT Bombay
16	Course on Network ,Crowds and Market	edX- Cornell University
17	Latex Training	IIT Bombay
18	Advanced C++ Training	IIT Bombay
19	Introduction to Linux	edX- Linux Foundation
Offline Courses:		
1	Training on Soft skill Development	Barclays

8. Details of courses / Programmes discontinued (if any) with reasons: Nil

9. Number of teaching posts:

Teaching posts	Sanctioned	Filled
Professors	1	1
Associate Professors	3	0
Asst. Professors	9	11
Visiting / Guest Faculty	3	3

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./ M.Phil. etc.)

Sr. No.	Name of Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided
1	Prof. S. P. Patil	Professor & HOD	M.E. (ELX), Ph.D. (Pursuing)	Computer Technology	27	NIL
2	Prof. R. M. Samant	Assistant Professor	M.E. (IT), Ph.D. (Pursuing)	IT	16	NIL
3	Prof. W. P. Rahane	Assistant Professor	M.Tech (IT)	IT	13	NIL
4	Prof. P. P. Gawali	Assistant Professor	M.E. (CSE)	IT	8	NIL
5	Prof. T. R. Patil	Assistant Professor	M.Tech. (CSE-IT)	Networking	5.5	NIL

6	Prof. Y.J. Pawar	Assistant Professor	M.Tech. (CSE-IT)	Networking	4.5	NIL
7	Prof. Ms. L. B. Thakare	Assistant Professor	M.Tech. (CSE-IT)	Networking	4	NIL
8	Prof. Ms. S. D. Deo	Assistant Professor	M.E. (Digital Elx.)	Electronics	5.5	NIL
9	Prof. Ms. S. S. Patil	Assistant Professor	M.E. (IT)	IT	2.5	NIL
10	Prof. Ms. T. A. Paigude	Assistant Professor	M.E. (IT)	IT	2.5	NIL
11	Prof. Ms. U. R. Apare	Assistant Professor	M.E. (CE)	CSE	11*	NIL
12	Prof. S. S. Mahamure	Assistant Professor	M.E. (CE)	CSE	0	NIL

* Industry experience

11. List of senior visiting faculty:

Sr. No.	Name of Adjunct Faculty	Specialization	No. of Years of Experience (Yrs)	Name of Organization
1	Mr. A. Raj	Agile Scrum	5	Cybervault Security Solutions Pvt. Ltd., Pune
2	Mr. S. Rawat	Information Security	3	I-medita Learning Solutions (P) Ltd., Pune
3	Mr. S. R. Patil	J2EE	10	Fiserv Pvt. Ltd., Pune

12. Percentage of lectures delivered and practical's handled (programme wise) by temporary faculty: Nil

13. Student - Teacher Ratio (program wise):

Sr. No.	Programme	Specialization	Student-Teacher Ratio
1	UG	Information Technology	17 : 1 14 :1 (By considering adjunct faculty)

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Academic support staff	Sanctioned	Filled
Number of academic support staff (technical)	1	1
Administrative staff	3	3

15. Qualifications of teaching faculty with D. Sc/ D.Litt/ Ph.D/ M Phil/PG.

Ph.D.	Ph.D. Pursuing	PG	UG
--	02	10	--

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre /facility recognized by the University: Nil

19. Publications:

a. Faculty Publications:

Sr. No.	Name of the faculty	No. of Papers published in peer reviewed journals Faculty/students	No. of Publications listed in International DB	Chapters In Book	Books Edited / Monogram	Books with ISBN in international DB	Citation Index		SNIP	SJR	Impact Factor.	h - Index	
							Scopus	Google scholar				Scopus	Google scholar
1	Prof. S. P. Patil	8	8	-	-	-	-	-	-	-	Min: 1.43 Max:1.563	-	1
2	Prof. R. M. Samant	10	10	-	-	-	-	-	-	-	Min:0.752 Max:5.332	-	3
3	Prof. W. P. Rahane	4	4	-	-	-	-	-	-	-	3.043	-	-
4	Prof. P. P. Gawali	5	5	-	-	-	-	-	-	-	Min:3.043 Max:4.79	-	1
5	Prof. T. R. Patil	2	2	1	-	3	-	-	-	-	5.332	-	1
6	Prof. Y. J. Pawar	2	2	-	-	-	-	-	-	-	3.75	-	-
7	Prof. Ms. L. B. Thakare	1	1	-	-	-	-	-	-	-	2.39	-	1

b. Book's Publication

Sr. No.	Faculty Name	Book Name	Book Number (ISBN)	Publication
1	Prof. T. R. Patil	Fundamentals of Data Structure	938-60-8425-2	Nirali Prakashan
2	Prof. T. R. Patil	Fundamentals of Programming	938-30-7336-5	Nirali Prakashan

		Languages I		
3	Prof. T. R. Patil	Fundamentals of Programming Languages II	938-39-7135-5	Nirali Prakashan
4	Prof. T.A. Paigude	Fundamentals of Programming Languages I	978-93-85665-41-7	Vishkarma Publication

20. Areas of consultancy and income generated: Nil

21. Faculty as members in

a) National committees: Nil

b) International Committees :

Name of faculty	Name of Committee	Nature of work
Prof. S. P. Patil	IPCV-15, Las Vegas, USA.	Session chair

c) Editorial Boards: Nil

d) Any Others:

Name of faculty	Name of Committee
Prof. S. P. Patil	Paper setter in SPPU.
Prof. S. P. Patil	Chairman, Syllabus Committee for ME (IT) in SPPU.
Prof. Y. J. Pawar	Paper setter in SPPU.
Prof. Ms. L. B. Thakare	Online paper setter in SPPU.

22. Student projects:

a) Percentage of students who have done in-house projects including inter departmental/programme:

Sr. No.	Year	No. of In-house Projects	% of In-house Projects
1	2016-17	14	70
2	2015-16	14	70
3	2014-15	14	100

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies:

Sr. No.	Year	No. of Projects in Collaboration	% of Projects done in Collaboration
1	2016-17	6	30
2	2015-16	6	30
3	2014-15	0	0

23. Awards/Recognitions received by faculty and students:

a) Awards/ Recognitions received by faculty:

Sr. No.	Name of Faculty	Year of Achievements	Achievement/ Recognition
1	Prof. W. P. Rahane	2015-16	Best Teacher Award.
2	Prof. Ms. L. B. Thakare	2014-15	Best Teacher Award.

b) Awards/ Recognitions received by students:

Sr. No.	Year	Activity	Awards
1	2016-17	Campus Ambassador Program of entrepreneurship cell, IIT Kharagpur for academic year 2016-17	National Level.
		Yuva Shree 2016 (Body Building Competition)	2 nd rank and Trophy
		Sinhgad Karandak 2016 (Cricket)	Winner
2	2015-16	Sinhgad Karandak 2016 (Football)	1 st rank and Trophy
		Milange 2016 (Football)	1 st rank and Trophy
		Modern Shree 2016 (Body Building Competition)	2 nd rank and Trophy
		Aund Baner Shree 2016 (Body Building Competition)	5 th rank and Trophy
		DBN Shree 2016 (Body Building Competition)	6 th rank and Trophy
		RajShree 2016 (Body Building Competition)	1 st rank and Trophy
		Progressive Shree 2016 (Body Building Competition)	2 nd rank and Trophy
		PDEA Shree 2016 (Body Building Competition)	2 nd rank and Silver Medal
		Kalamkar Classic Body Building Competition	5 th rank
3	2014-15	Syncytium 2015	2 nd rank
		Melange 2015	2 nd Rank
		Campus 2 Corporate Pro 2014	2 nd Rank
4	2013-14	Melange 2014	Finalist
		Nurture Talent (India's First Institute for Entrepreneurs)	Certificate of Achievement
		IIT Allahabad – 6 th Science Conclave 2013	Participation
		10 th National IT Aptitude Test	Rank: 3220/73666

24. List of eminent academicians and scientists/ visitors to the department:

Sr. No.	Name of Visitor	Organization	Purpose of visit
1	Mr. S. Rawat	i-Medita Pune	Workshop
2	Mr. A. Magdum	Harbinger Group Pune	IIC Meeting
3	Mr. A. Raj	Cybervault Securities Solutions	Seminar & Workshop

25. Seminars/ Conferences/Workshops organized and the source of funding:

a) National

Sr. No.	Year	Name of Program.	No. of participants	Source of funding
1	2016-17	Workshop on Introduction and Application of Internet of Things Using Raspberry Pi	40	BCUD, SPPU, Pune
		Network Security	40	Self Sponsored
		Core Java & Advance Jave	71	Self Sponsored
2	2015-16	Art-De Protection	39	Self Sponsored
		Python	46	Self Sponsored
3	2014-15	Android Application Development	71	Self Sponsored
		Cyber Security	23	Self Sponsored
4	2013-14	Network Security Championship	66	Self Sponsored

b) International: Nil

26. Student Profile Programme/Course wise:

Name of the Course / Programme	Academic Year (Graduation)	Applications Are received	Selected	Enrolled		Pass percentage
				*M	**F	
BE in IT	2016-17	Admission process in the state is only through CAP and governed by Director of Technical Education (DTE), Government of	64	47	17	Since the college wise applications received are with DTE, pass percentage is
	2015-16		64	42	22	

	2014-15	Maharashtra. The Institute follows the rules, regulation and guidelines set by SPPU, State Government body	61	36	25	not available with the institute.
	2013-14		64	36	28	

*M=Male **F=Female

27. Diversity of Students

Name of the Course/ Programme	Academic Year	% of students from the same state	% of students from the other states	% of students from abroad
BE in IT	2016-17	87.5	12.5	0
BE in IT	2015-16	87.5	12.5	0
BE in IT	2014-15	81.25	18.75	0
BE in IT	2013-14	82.81	17.18	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.

Exam	No. of Students			
	2016-17	2015-16	2014-15	2013-14
GATE	1	3	NIL	NA
MBA- CET	NIL	1	NIL	NA
GRE	NIL	NIL	04	NA
TOEFL	NIL	NIL	2	NA

29. Student progression

Student Progression	Against % Enrolled			
	Year of Passing	2016-17	2015-16	2014-15
UG to PG		NA	4.1%	2%
Employed	• Campus selection	48.38%	30.13%	28%
	• Other than campus recruitment	NA	2.73s%	28%
Entrepreneurship/Self-employment		NA	1.36%	4%

30. Details of Infrastructural facilities

a) Library

➤ Institute Library.

Sr. No.	Particulars	Number
1	No. of Titles	244
2	No. of Volumes	1057
3	National Journals	10
4	CDs	7
5	e-Books and e-Journals/ E-Resources	2

Sr. No.	Title of the Journal
1	Annals of Library & Information Studies
2	i-manager's Journal on Image Processing
3	International Journal of Advance Networking & Applications
4	International Journal of Distributed & Cloud Computing
5	IUP Journal Of Information Technology
6	Open Source for you
7	Journal of information Technology & Science
8	Journal of Knowledge Management and Information Technology
9	International Journal of Wireless Communication and Simulation
10	Journal of The Institution Of Engineers Series B

Sr. No.	Title of CD
1	Computer Fundamentals
2	Software Testing
3	IT Project Management
4	Introduction to Geography Information System
5	Managing and Troubleshooting Networks
6	Programming Language Programaters
7	Data Structure Through C++

➤ **Department library:** We have own department library, which is having 61 book titles, 110 seminar reports and 44 project reports which can be accessed by faculty and students.

b) Internet facilities for Staff & Students:

Internet line of 24 Mbps shared within institute.

c) Class rooms with ICT facility:

- Department has three spacious class rooms well equipped with a LCD projector, screen and blackboard with the seating capacity for 80 students.
- Department has one Seminar hall well equipped with a computer, internet connection, white board and screen with the capacity for 120 chairs with flap.

d) Laboratories:

Sr. No.	Name of Laboratory	Major Equipments
1	Programming Language Lab.- II	116 Computers, 6 Laser Jets Printers, Open source operating systems: Ubuntu and campus license for Windows 7.
2	Software Lab- II	
3	DBMS Lab.- II	
4	Operating System Lab-II	
5	Project Lab.-II	
6	Hardware Lab.-II	
7	IoT Lab	
8	Multimedia Lab-II	

31. Number of students receiving financial assistance from Institute, University, government or other agencies.

Year	Type of Assistance	No. of students			
		College	University	Government	Other Agencies
2016-17	NT Scholarship & Freeship	-	-	05	-
	OBC Scholarship & Freeship	-	-	25	-
	SBC Scholarship & Freeship	-	-	05	-
	SC Scholarship & Freeship	-	-	16	-
2015-16	NT Scholarship & Freeship	-	-	12	-
	OBC Scholarship & Freeship	-	-	46	-
	SBC Scholarship & Freeship	-	-	08	-
	SC Scholarship & Freeship	-	-	18	-
2014-15	NT Scholarship & Freeship	-	-	11	-
	OBC Scholarship & Freeship	-	-	40	-
	SBC Scholarship & Freeship	-	-	03	-

	SC Scholarship & Freeship	-	-	10	-
2013-14	NT Scholarship & Freeship	-	-	09	-
	OBC Scholarship & Freeship	-	-	34	-
	SBC Scholarship & Freeship	-	-	4	-
	SC Scholarship & Freeship	-	-	6	-

32. Details on student enrichment Programmes (Lectures / Workshops / Seminar) with experts.

Sr. No.	Academic year	Name of the enrichment programme	Name of the expert	Organization
1	2016-2017	Expert Lecture on Processor Interfacing Lab	Prof. Ms. A. Jahagirdar	MITCOE , Pune
		Seminar on Modern Operating System	Prof. M. Penurkar	MITCOE , Pune
		Workshop on Network Security	Mr. V. Gupta	i-Medita , Pune
		Workshop (VAP) on Core Java & Advanced Java	Mr. M. V. Ankleshwar	Director , Mass Technologies Pune
		Expert Lecture on Introduction to .Net & Mongo DB Connectivity	Prof. Ms. P. Bangare	Sinhgad Academy of Engineering , kondwa , Pune
		Seminar on Big data & ecosystem	Mr. K. Bhakre	Saama Technologies Inc., Pune
2	2015-2016	Workshop (VAP) on Cloud Computing	Mr. A. Tambe	Information Security Consultant & Trainer , BitWise Infosystems Pune
		Workshop on WebEdge	Mr. T. D. Sonwalkar	Senior Systems Engineer at Infosys Limited , Pune
		Workshop on art-de-protection	Mr. A. Raj	CyberVault Securities Solutions Pvt. Ltd. ,Pune
		Workshop on Python	Mr. D.P. Mishra	Senior Android Developer IBNC Gurgaon
		Seminar on Modern OS	Prof. M. Penurkar	Associate Professor , Dept.

				Of IT. Mitcoe, Pune
		Seminar on Ethical Hacking & Cyber Security	Mr. A. Raj	Director, CyberVault Securities Solutions Pvt. Ltd. Pune
		Expert Lecture on Advance Database Management System	Mr. A. Tambe	information security consultant and trainer , BitWise Infosystems Pune
3	2014-2015	Workshop on Web-O-Graphy	Mr. N. Dhannaseth	Developer, cognizant Technology ltd. Pune
		Workshop on Android Application Development	Mr. D.P. Mishra	Senior andriod developer , IBNC Gurgaon Pune
		Workshop on Art-de-protection	Mr. V. Patil	CyberVault Securities Solutions Pvt. Ltd. ,Pune
		Seminar on WSN in Cyberspace	Prof. S. Limkar	SVNIT, Surat
		Seminar on Introduction to Software Testing & Automation Tools	Ms. D. A. Sethna-Nilakhe	Trainer , SCTL Pvt. Ltd
		Seminar on Ethical Hacking & Cyber Security	Mr. A. Raj	Director, Cyber Vault Securities Solutions Pvt. Ltd.
				Workshop on Simulation of Computer Networks using NS2
4	2013-2014	Seminar on Business Intelligence	Dr. R. Sonar	IIT Bombay , Mumbai
		workshop on Network Security championship	Ms. S. Dutta	Trainer , NNSC India Pvt. Ltd., Delhi

Department has successfully integrated Student Training Programs with curriculum as follows

STP I (SE Sem-I)	<ol style="list-style-type: none"> 1. SWOT Analysis, Goal setting, personality and stress management, behavioral skills and communication skills. 2. AMCAT Assessment to assess need for training in soft skills. 3. Two employability tests to assess training outcome. 4. Competition on Writing Skills.
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STP II (SE Sem-II)	<ol style="list-style-type: none"> 1. Training on Communication Skills. Listening, reading, writing(letter, resume, CV, report), speaking(public speaking, group discussion) 2. AMCAT Re-assessment to evaluate soft skills of student. 3. Two employability tests to assess training outcome. 4. Competition on Spoken English
STP III (TE Sem-I)	<ol style="list-style-type: none"> 1. Training and refreshing of Technical Fundamentals. 2. Training on Aptitude skills. 3. AMCAT Assessment to assess need for training in technical skills. 4. Employability tests to assess training outcome.
STP IV (TE Sem-II)	<ol style="list-style-type: none"> 1. Training on Research Methodology. 2. Working with faculty supervisor in area of interest and submission of review paper. 3. Competition on review paper. 4. Training on Aptitude skills 5. AMCAT Re-Assessment to evaluate technical skills and may be used for placement purpose. 6. Employability tests to assess training outcome.
STP V (BE- Sem-II)	<ol style="list-style-type: none"> 1. GD+PI & Value Addition Program 2. Practice of Group Discussion and Personal Interview. 3. Value Addition Program 4. Training from outside expert to add value to CV. 5. Employability tests to assess training outcome

33. Teaching methods adopted to improve student learning

- K-Point server(Audio Tutorial Lessons)
- Remedial sessions for failure students
- Use of ICT for sharing the resources and conducting mock online examinations
- Continuous evaluation practice is followed. It includes internal tests, tutorials, assignments, mock online, mock practical etc.
- Arranging industrial visits, workshops, seminars from industry experts on the emerging technologies.
- NPTEL video lectures are made available in the department.

34. Participation in Institutional Social Responsibility (ISR) and

Extension activities:

- Celebration of International Woman's Day
- Awareness seminar on "Sexual Harassment of Women at Workplace-Act 2013"
- Marathi Bhasha Din (Kavi Kusumagraja Jayanti)
- Swami Vivekananda Jayanti
- Traffic Awareness Day
- Teacher's Day
- Blood Donation Camp
- Organ Donation awareness Camp
- Navratri Celebration
- NSS activities:
 - “Carrier Guidance – MPSC UPSC”

- Visit and celebration of Makar Sankranti with “Mamta Foundation orphanage “
- Seminar on “Opportunities for Engineers in PSU and Higher studies”
- Visit to old age home- “Matoshree Vriddhashram”

35. SWOC analysis of the department and future plans:

Strength:

- Faculty and staff retention is high
- Student centric learning environment
- Adaptive planning and execution of Teaching Learning Process.
- Consistent good academic performance
- Effective teamwork culture
- Parental care of students
- Availability of strong infrastructure for the students and faculty members.

Weaknesses:

- Less number of research publications
- Moderate Industry Institute Interaction
- Consultancy work needs to be improved.
- Less number of faculties with Ph.D. qualification

Opportunities:

- Faculty up-gradation
- Center of excellence in IoT domain
- Incubation center development for aspiring entrepreneur students.
- Industrial exposure
- Industry collaboration & consultancy
- Development of web based learning resources

Challenges:

- Learn wide range of upcoming technologies in an affiliate institute
- Sustainability in global competitive world
- Faculties get less time for research and development activities due to changed examination pattern by SPPU.

Future Plans:

- Inculcate research culture
- Funding from reputed institutions.
- Skill based training to faculty and students
- Enhance I-I-I and corporate collaborative projects

IV. DEPARTMENT OF MECHANICAL ENGINEERING

1. **Name of the department** : Mechanical Engineering
2. **Year of Establishment** : 2011
3. **Name of Programs/Courses (UG, PG, M. Phil, Ph.D., Integrated Masters, Integrated Masters, Integrated Ph.D.) offered:**

Sr. No.	Name of the Programme	Year of Establishment
1	UG- BE Mechanical Engineering (1 st Shift)	2011
	UG- BE Mechanical Engineering (2 nd Shift)	2012
2	PG- ME Mechanical (Design Engineering)	2012

4. **Name of Inter disciplinary courses and departments/units involved:**

Sr. No.	Name of Inter disciplinary Courses	Departments/ Units Involved
1	Engineering Mathematics-III	Engineering Sciences
2	Electronics and Electrical Engineering	Electrical Engineering E&TC Engineering
3	Advanced Mathematics	Engineering Sciences

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	Semester

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	Engineering Graphics I & II
2.	Engineering Science	FE	Basic Mechanical Engineering
3.	Engineering Science	FE	Workshop Practice
4.	Electrical Engineering	SE	Power Plant Engineering

7. **Courses in collaboration with other universities, industries, foreign institutions:**

Sr. No.	Certificate/Course Name	Collaborating Institution /Industry/ Universities etc.
1	SWIFT (Science with Innovation Fun & Technology)	House of Science, Gujarat
2	Barclay's Graduate training Program	Barclay's, Pune
3	Quantitative Aptitude and Logical Reasoning	Gofigito, Pune
4	Blender	Indian Institute of Technology, Bombay
5	Openfoam	
6	Latex	
7	Libre Office Suite	
8	C & C++	
9	K-Turtle	
10	Scilab	
11	Q Cad	

8. Details of courses/programs discontinued (if any) with reasons: Nil

9. Number of teaching posts :

UG

Designation	Sanctioned	Filled
Professors	4	-
Associate Professors	9	-
Asst. Professors	26	34
Guest faculty	9	9

PG

Designation	Sanctioned	Filled
Professors	1	1
Associate Professors	1	-
Asst. Professors	2	1
Guest faculty	2	2

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	Prof. M. M. Joshi	M.E. Ph.D. Pursuing	Asst. Professor & HoD	Design Engineering	16	-
2	Dr. S. Y. Gajjal	Ph D (Mechanical)	Professor	CAD/CAM and Automation	18	-
3	Prof. A. A. Patil	M.E.	Asst. Professor	Heat Power Engineering	14	-
4	Prof. Ms. R. A. Patil	M.E.	Asst. Professor	Heat Power Engineering	9	-
5	Prof. N. C. Chandratre	M. Tech	Asst. Professor	Thermal and Fluids Engineering	5	-
6	Prof. M. V. Mugale	M. Tech	Asst. Professor	Manufacturing Technology	5	-
7	Prof. Y. P. Gawale	M. Tech	Asst. Professor	Thermal and Fluids Engineering	5	-
8	Prof. M. M. Kulkarni	M.E.	Asst. Professor	Automotive Engineering	8	-
9	Prof. A. S. Thakare	M. Tech Ph.D. Pursuing	Asst. Professor	Physical Metallurgy	12	-
10	Prof. D. A. Mahajan	M. Tech	Asst. Professor	Product Design and Development	5	-
11	Prof. S. M. Jadhav	M. Tech.	Asst. Professor	CAD/CAM	11	-
12	Prof. V. V. Saidpatil	M.E.	Asst. Professor	Design Engineering	7	-
13	Prof. V. K. Kulloli	M. Tech	Asst. Professor	Machine Design	4	-
14	Prof. O. A. Dhumal	M. Tech	Asst. Professor	Thermal and Fluids Engineering	4	-
15	Prof. S. B. Bansode	M. Tech	Asst. Professor	Thermal and Fluids Engineering	4	-
16	Prof. R. A. Solunke	M. Tech Ph. D Pursuing	Asst. Professor	Thermal and Fluids Engineering	15	-
17	Prof. S. J. Thorat	M.E.	Asst. Professor	Design Engineering	5	-
18	Prof. B. L. Patil	M.E. Ph. D	Asst. Professor	Machine Design	4	-

		Pursuing				
19	Prof. Ms. P. D. Gharge	M.E.	Asst. Professor	Heat Power Engineering	4	-
20	Prof. N. A. Patil	M. Tech	Asst. Professor	Thermal and Fluids Engineering	3	-
21	Prof. G. L. Suryawanshi	M. Tech	Asst. Professor	Machine Design	3	-
22	Prof. S.D. Bhaisare	M. Tech Ph. D Pursuing	Asst. Professor	CAD /CAM	3	-
23	Prof. R. K. Nanwatkar	M.E.	Asst. Professor	CAD /CAM	11	-
24	Prof. G. H. Kekan	M.E.	Asst. Professor	Design Engineering	7	-
25	Prof. Ms. V. H. Patil	M.E	Asst. Professor	Design Engineering	4	-
26	Prof. P. D. Zodge	M.E.	Asst. Professor	Design Engineering	2	-
27	Prof. Ms. C. G. Nalawade	M. Tech	Asst. Professor	CAD/ CAM	2	-
28	Prof. V. R. Kagade	M.E. Ph. D Pursuing	Asst. Professor	Manufacturing Engineering	10	-
29	Prof. P. G. Chaudhary	M.E Ph. D Pursuing	Asst. Professor	Design Engineering	4	-
30	Prof. G. V. Devke	M. Tech.	Asst. Professor	CAD/CAM	4	-
31	Prof. Ms. A. V. Thakare	M.E.	Asst. Professor	Heat Power	2	-
32	Prof. Ms. A. J. Unkule	M.E.	Asst. Professor	Design Engineering	0.5	-
33	Prof. Ms. A. B. Parkar	M.E.	Asst. Professor	Design Engineering	0.5	-
34	Prof. S. R. Desai	M.E.	Asst. Professor	Design Engineering	4	-
35	Prof. N. T. Narale	M.E.	Asst. Professor	Design Engineering	3	-
36	Prof. Ms. B. S. Shingate	M.E.	Asst. Professor	Design Engineering	3	-

11. List of senior visiting faculty:

Sr. No.	Name of Adjunct Faculty	Qualification	Experience (Years)	Specialization	Organization
1	Mr. D. B. Asabe	B.E.	20	Mechanical Engineering	NDA Plastech Pvt. Ltd.
2	Mr. G. R. Mutha	M.E.	14	Design of I.C Engine	IAV India Pvt. Ltd
3	Mr. K. S. Lalsangi	M.E.	11	CAD	11 Dot Cad

4	Mr. N. M. Shelke	M.E.	15	Heat power	Helix Integrated Learning
5	Prof. S. C. Bhave	M.E.	45	Heat power	Rtd. Govt. COE
6	Mr. S.M. Awate	B.E.	16	Mechanical Engineering	Tata Motors Ltd.
7	Mr. G. S. Deshmukh	B.E.	15	Refrigeration and Air Conditioning	Tata Motors Ltd.
8	Mr. S. S. Deshpande	M.E.	22	Design Engineering	Keystone Institute Pune
9	Dr. G. R. Tripathy	Ph.D.	36	Vibration Measurement and Analysis	CWPRS, Pune
10	Mr. S. K. Kate	M.Sc.	29	Engineering Mathematics	Kate Institutes
11	Mr. Amol Aher	M.E	15	CAD/ CAM and Automation	Echelon CAE Services Pvt. Ltd.

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	19:1 15:1 (By considering adjunct faculty)
2	PG (Design Engineering)	24:1 12:1 (By considering adjunct faculty)

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled.

Staff details	Sanctioned	Filled
Support Staff (Technical)	07	07
Academic Support Staff	04	04

15. Qualifications of teaching faculty with DSc/ D. Litt/ Ph.D/ MPhil/ PG.:

For UG:

Ph.D.	Ph.D. Pursuing	PG	UG
--	07	27	--

For PG:

Ph.D.	Ph.D. Pursuing	PG	UG
01	--	01	--

16. Number of faculty with ongoing projects from National and International funding agencies and grants received

a) National: Nil

b) International: Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received : Nil

18. Research Centre/facility recognized by the University : Nil

19. Publications:

a) Publication per faculty

Sr. No.	Name of Faculty	Number of papers published in peer reviewed journals (National/International) by faculty and students	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.)	Citation Index		SNIP	SJR	Impact factor	h-index		
				Scopus	Google Scholar				Scopus	Google Scholar	
1	Prof. M. M. Joshi	3	2	1	-	-	1.35	-	Min:0.78 Max:5.505	-	-
2	Dr. S. Y. Gajjal	15	17	-	3	3	1.35	-	Min:0.456 Max:6.125	-	1
3	Prof. R. A. Solunke	1	2	-	-	-	-	-	6.09	-	-
4	Prof. Prof. Ms. R. A. Patil	1	1	-	-	-	-	-	6.29	-	-
5	Prof. S. M. Jadhav	7	5	-	-	2	-	-	Min:0.65 Max:8.829	-	1
6	Prof. A. S. Thakare	3	2	-	-	4	-	-	Min:1.22 Max:6.209	-	1
7	Prof. M. M. Kulkarni	-	1	-	-	1	-	-	Min:1.087 Max:4.064	-	1
8	Prof. Y. P. Gawale	1	2	-	1	12	2.15	1.75	2.559	-	1
9	Prof. D. A. Mahajan	1	9	-	-	4	-	-	Min:1.694 Max:4.1	-	2
10	Prof. V. V. Saidpatil	7	4	-	-	5	-	-	Min:1.068 Max:6.209	-	1
11	Prof. S. B. Bansode	1	-	-	-	-	-	-	5.45	-	-
12	Prof. M. V. Mugale	-	-	1	-	-	-	-	-	-	-
13	Prof. S. J. Thorat	4	-	1	-	-	-	-	Min:2.39 Max:6.209	-	-
14	Prof. V. K. Kulloli	5	1	-	-	1	-	-	Min:2.07 Max:6.125	-	1
15	Prof. B. L. Patil	2	2	-	-	-	-	-	Min:2.24 Max:3.124	-	-

16	Prof. Prof. Ms. P. D. Gharge	-	2	-	-	2	-	-	-	-	1
17	Prof. G. L. Suryawanshi	1	-	-	-	-	-	-	6.209	-	-
18	Prof. N. A. Patil	2	2	-	-	-	-	-	Min:3.9 Max:6.2	-	-
19	Prof. Y. G. Nadargi	2	1	-	-	6	-	-	0.509	-	1
20	Prof. R. K. Nanwatkar	3	1	-	-	-	-	-	Min:1.068 Max:5.45	-	-
21	Prof. V. R. Kagade	-	-	1	-	-	-	-	-	-	-

b) Books Published:

Sr. No.	Faculty Name	Book Name	Book no	Publication
1	Prof. M. M. Joshi	Theory of machines-I	ISBN: 978-93-5164-418-7	Nirali Publication
2	Prof. S. J. Thorat	Theory of machines-I	ISBN: 978-93-5164-418-7	Nirali Publication
3	Prof. V. R. Kagade	Experimental Investigations of Turning Operations	ISBN: 978-3-659-16605-1	LAP Lambert Academic Publishing, Saarbrucken, Germany
4	Prof. M. V. Mugale	Manufacturing Processes-I	ISBN: 978-93-8608-409-5	Nirali Publication

20. Areas of consultancy and income generated:

Sr. No.	Details of Consultancy (Technical/ Academic/ Testing)	Revenue Generated (in ₹)
1	Keystone School of Engineering, Pune	95,450
2	Keystone School of Engineering, Pune	80,000

21. Faculty as members in

a) National committees:

Sr. No.	Name of Faculty	Committee
1	Dr. S. Y. Gajjal	ISTE Life Membership (LM 38037)
2	Dr. C. S. Pathak	Indian Institute of Welding (R-11008) The Institute of Engineers, India (F-1210825)
3	Prof. M. M. Joshi	ISTE Life Membership (LM 55120)
4	Prof. A. A. Patil	ISTE Life Membership (LM 60599)
5	Prof. R. A. Solunke	ISTE Life Membership (LM 46857) ISHMT (787) SAE India (7150510207)

6	Prof. M. V. Mugale	SAE India (7160511420)
7	Prof. G. L. Suryawanshi	International Association of Engineers (181889)
8	Prof. V. R. Kagade	ISTE Life Membership (LM 61312)
9	Prof. P. G. Chaudhary	Institution of Engineers (AM1712880) International Association of Engineers (179529) International Society of Research and Development (M4150902687)
10	Prof. Ms. C. G. Nalawade	International Association of Engineers (165803) International Society of Research and Development (M4150901164)
11	Prof. S. M. Jadhav	International Association of Engineers (185885)
12	Prof. V. V. Saidpatil	International Association of Engineers (181891)
13	Prof. N. A. Patil	International Association of Engineers (188986)
14	Prof. Y. P. Gawale	International Society of Research and Development (M4150903004) International Association of Engineers (181860)
15	Prof. S. D. Bhaisare	International Association of Engineers (181894)

b) International committees:

Sr. No.	Name of the faculty	Name of committee	Nature of work/ description
1	Dr. C. S. Pathak	International Journal of Automotive Engineering and Technologies.	Reviewer
		Vehicle System Dynamics Journal	Reviewer
		International Journal of Automotive and Mechanical Engineering	Reviewer
2	Prof. S M. Jadhav	MANTECH Publications	Editorial Board Member
3	Prof. P. G. Chaudhary	Elixir International Journal, USA	Editorial Advisory Board Member
		International Journal of Engineering Education And Technology	Editorial Board Member
		GARI Academics Research Institute	Reviewer

		Global Research And Development Journal For Engineering	Reviewer
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c) Any other committee:

Name of the faculty	Name of the committee/Role	Nature of work/description
Dr. C. S. Pathak	Indian Institute of Welding The Institution of Engineers (India)	Member
Dr. S. Y. Gajjal	Board of studies, SPPU	32/5 Committee Member
	Faculty of engineering, SPPU	Member
	MECH PGCON, SPPU	Reviewer
Prof. M. M. Joshi	SPPU exam	Paper setter
Prof. A. A. Patil	SPPU exam	Paper setter
Prof. R. A. Solunke	SPPU exam	Paper setter
Prof. S. M. Jadhav	SPPU exam	Paper setter
Prof. O. A. Dhumal	Bharati Vidyapeeth Deemed University Exam	Paper setter
Prof. M. V. Mugale	SPPU exam	Paper setter
Prof. R. K. Nanwatkar	SPPU exam	Paper setter

22. Student projects

a) Percentage of students who have done in-house projects including interdepartmental/programme

Programme	Academic Year	Number of in-house projects (Batches)	Percentage of In House Projects
UG	2016-17	23	40.36
	2015-16	27	49.10
	2014-15	10	58.83
PG	2016-17	8	66.66
	2015-16	14	70.00
	2014-15	20	90.91

b) Percentage of students placed for projects in organizations outside the institution i.e. In Research laboratories/Industry/ other agencies

Programme	Academic Year	Number of Sponsored Projects (Batches)	Percentage of Sponsored Projects
UG	2016-17	34	59.64
	2015-16	28	50.90
	2014-15	07	41.17
PG	2016-17	04	33.33

	2015-16	06	30.00
	2014-15	02	9.09

23. Awards/Recognitions received by faculty and students:

a) Awards/Recognitions by faculty

Sr. No.	Name of Faculty	Year of Achievements	Achievement/ Recognition
1	Prof. S. M. Jadhav	2015-16	Best Teacher
2	Prof. O. A. Dhumal	2014-15	Best Teacher

b) Awards/Recognitions received by students

Sr. No.	Year	Activity	Achievement
1	2016-17	Purushottam Karandak 2016 primary round	Winner
2		Baja 2017	All India Ranking 64 th
3	2015-16	Recruitment Drive	Winner
4		Recruitment Drive	Runner Up
5		Baja 2016	All India Ranking 34 th
6	2014-15	Greek Age	Winner
7		Greek Age	Runner Up
8		Lathe War	Winner
9		Lathe War	Runner Up
10		Cad Combat	Runner Up
11		Model Making	Runner Up
12		Entrepreneurship Skill	Winner
13		Business Plan Competition	Winner
14		Firodiya Karandak 2015 pre-primary round	Winner
15		Paper Presentation	Winner

24. List of eminent academicians and scientists/visitors visited to the department:

Sr. No.	Name of eminent academicians, scientists, visitors	Association/ Affiliation	Purpose of visit
1	Dr. K. V. Mali	Associate Professor, MIT, Pune	Seminar on 'Matlab for Post Graduates'
2	Prof. V. N. Kapatkar	Professor, Sinhgad College of Engineering	Seminar on 'Control in Time & Frequency Domain'
3	Dr. Mahesh Kulkarni	Scientist, NCL	Guest Lecture on 'How to write Research Proposal'
4	Mr. Sangram Deshpande	Data Warehouse	Seminar on 'Industrial

		Developer at Rasoya proteins Ltd.	Automation'
5	Mr. N. M. Shelke.	CAD CAM Guru Solutions Pvt.Ltd, Pune	Seminar on '3D Printing'
6	Mr. Anand Mahurkar	Krishna &Saurastri Associates	Seminar on 'IPR, Patents, Copyrights'
7	Mr. Santosh Patil	Nova Nexus (I) Pvt. Ltd., Baner	Seminar on 'Application of CFD'
8	Mr. Ashok Bezelwar	Friction Welding Technologies Pvt. Ltd.	Seminar on 'Welding Technology'
9	Mr. G. R. Mutha	Technical Director, IAV	Seminar on 'Design and construction of I. C. Engine'
10	Mr. K. S. Lalsangi	11dot CADTECH, Pune	Seminar on 'Drawing Reading skills and expectations of Industry from Design Engineers'
11	Mr. S. S. Rao	ACE Academy	Seminar on 'GATE Awareness'
12	Mr. Gaurav Kotecha	Unique Academy	Seminar on 'Preparation for MPSC, UPSC
13	Ms. Neeraja Singh	GTT	Barclays Global Talent Track training to students
14	Mr. Kamal Singh	Mr. Kamal Singh, Director General, NHRDN	Seminar on 'Work Alignment Program'
15	Mr. Ravindra Aher	Professor, MET's Bhujbal Knowledge City, Institute of Engineering, Nasik	Seminar on 'Application of Robotics in Automobile Industries'
16	Mr. S. N. Kadam	Sachin N. Kadam & Associates	Seminar on 'PLC SCADA'

25. Seminars/Conferences/Workshops organized & the source of funding

a) National:

Sr. No.	Year	Name of FDP/SDP/STTP/ Webinar/ Seminar etc.	No. of participants	Sponsoring/ Funding Agency if any
1	2016-17	A one day workshop on "Syllabus detailing of S.E. Mechanical 2015 Course, Subject-Electrical and Electronics Engineering (EEE)"	75	SPPU
2	2014-15	Teaching Methodology Workshop on "Manufacturing Process- II" T.E. Mechanical Course	49	SPPU

b) International: Nil

26. Student profile program /course wise:

Name of the Course/ Programme		Applications Received	Selected	Enrolled		Pass Percentage %
Course	Year			*M	*F	
UG	2016-17	NA*	186	172	14	NA**
	2015-16		186	162	24	
	2014-15		186	169	17	
	2013-14		186	166	20	
	2012-13		186	168	18	
	2011-12		64	57	7	
PG (Design Engg.)	2016-17		08	05	03	
	2015-16		12	07	05	
	2014-15		24	18	06	
	2013-14		22	21	01	
	2012-13		24	21	03	
	2011-12		NA	NA	NA	

*M = Male *F = Female

NA*: 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 and guidelines set by Savitribai Phule, Pune University, and State Government body.

NA**: Since the college wise applications received are with DTE, pass percentage is not available with the institute.

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	Shift			
BE(Mechanical Engineering)	2016-17	I	85.82	14.17	NA
		II	81.66	18.33	NA
	2015-16	I	92.85	7.1	NA
		II	78.33	21.66	NA
	2014-15	I	96.03	3.9	NA
		II	96.66	3.33	NA

	2013-14	I	92.19	7.80	NA
		II	87.69	12.30	NA
ME Mechanical (Design Engineering)	2016-17	--	100	0	NA
	2015-16	--	100	0	NA
	2014-15	--	100	0	NA
	2013-14	--	100	0	NA

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		
	Year 2016-17	Year 2015-16	Year 2014-15
GATE	04	04	Nil
GRE	04	08	04
Civil Services	01	00	00

29. Student progression:

Student Progression	Against % Enrolled		
	Year 2016-17	Year 2015-16	Year 2014-15
UG to PG	-	03.24%	15.25%
Employed Campus Selection	09.04%	22.11%	27.22%
Employed Other than campus recruitment	0.45%	22.68%	18.64%
Entrepreneurship/Self employment	-	01.84%	03.39%

30. Details of infrastructural facilities

- a) Library
➤ Institute Library

Sr. No.	Particulars	Number
1	Titles	374
2	Volumes	1752
3	National Journals	31

4	International Journals	0
5	CDs	113
6	e-Books and e-Journals	468

List of Periodicals/ Journals available in Print format

Sr. No.	Title of Journal	National / International	No. available
1	Auto car India	National	12
2	Cooling India	National	12
3	I-manager's Journal on Mechanical Engineering	National	4
4	International Journal of Advanced Mechatronics & Robotics	International	2
5	Inventi Impact : Auto	National	4
6	IUP Journal of Mechanical Engineering	National	4
7	Journal of Advance Research in Applied Mechanics & Computational Fluid Dynamics	National	2
8	Journal of Advance Research in Instrumentation and Control Engineering	National	2
9	Journal of Advances in Applied Computational Mechanics & Engineering	National	3
10	Journal of Dynamics of Fluids	National	3
11	Journal of Energy Heat and Mass Transfer	National	4
12	Journal of Mechanics and Solids	National	3
13	Overdrive	National	12
14	Packaging India	National	6
15	Research Journal of Science and Technology	National	4
16	Top Gear	National	12
17	Energetica India	National	8
18	Energy Future	National	4
19	International Jr. of Machine Design and Manufacturing	International	2
20	Journal of The Institution Of Engineers Series C	National	4
21	National Product News	National	12
22	Bulletin of Material Science	National	6
23	Indian Journal of Engineering & Materials Sciences	National	6
24	Indian Journal of Industrial Relations: Economics & Social Dev.	National	4
25	Industrial Automations	National	12
26	Industrial Journal of Engineering Research and Technology	National	2
27	International Journal of Prevention and Control	International	2

	Industrial Pollution		
28	Journal of The Institution Of Engineers Series D	National	2
29	Journal of Manufacturing Engineering	National	4
30	Journal of Mechanical Engineering and Research development	National	3
31	Manufacturing Technology Today	National	12

➤ **Departmental Library**

- Titles available: 60
- Volumes available: 117
- Project reports of pass out students are available for reference.
- Faculty & Student Research Publications

b) Internet facilities for Staff & Students: Internet line of 24 Mbps shared within institute.

c) Class rooms with ICT facility:

- Adequate numbers of class rooms equipped with LCD projectors are available as per AICTE norms.
- One seminar hall with a capacity of 150 exclusively for department of Mechanical Engineering is available.

d) Laboratories

Sr. No.	Name of the Lab	Major Equipment in the department
1	Computer Aided Design	Catia V6 Creo Parametric University Bundle, Matercam X9, 49 Desktop Computers, 01-plotter and 01-printer
2	PG Lab	MSC Software 12.0, Ansys 15.0, MATLAB, 15 Desktop Computers and 01-printer
3	Dynamics of Machinery Lab	FFT Analyser, Universal Vibration System, Dynamic balancing Machine, Forced vibration machine under different damping conditions, Two rotor system
4	Metallurgy Lab	Brinell cum Vickers Hardness Tester, Rockwell Harness Tester, Muffle furnace, Jominy End Quench test Apparatus, Magnetic particle and Dye penetrant Crack Detector, Trinocular Microscope, Binocular Microscope, Double Disc polishing machine
5	Fluid Mechanics Lab	Modified Bernoulli's equipment, Reynolds Apparatus,
6	Turbo Machines and Hydraulics and Pneumatics Lab	Centrifugal pump test rig, Pelton wheel turbine test rig, Francis turbine test rig, Impact of Jet on Vane apparatus Hydraulic Trainer Kit, Electro-Pneumatics Trainer Kit
7	Heat Transfer and Refrigeration and Air Conditioning Lab	Thermal conductivity of metal rod apparatus, Thermal conductivity of Insulating powder apparatus, Composite wall apparatus, Natural convection apparatus, Forced convection apparatus, Emissivity measurement apparatus, Stefan Boltzmann apparatus, Pool boiling apparatus, Vapour Compression Refrigeration test rig,

		Ice plant test rig, Air Conditioning Test rig
8	Thermodynamics Lab	Two stage reciprocating Air Compressor Test Rig, Gas Analyser, Variable Compression Ratio Diesel Engine Test Setup, Variable speed multi cylinder petrol engine test rig., Separating and Throttling calorimeter, Junker's gas calorimeter
9	Mechatronics Lab	PLC based bottle filling plant, PLC Programming trainer Kit
10	Metrology and Quality Control Lab	Profile projector, Tool Makers Microscope, Interferometric unit
11	Strength of Materials and Basic Mechanical Engineering Lab	Universal Testing Machine, Torsion Testing Machine Models Of Engines and Machine elements
12	Theory of Machines Lab	Cam Analysis machine, Universal Governor, Epicyclic gear train apparatus, Gyroscope, Prototypes of various Kinematic Links, Four Wheeler Synchromesh Gear Box

e) Other Laboratories

Sr. No.	Name of the Lab	Major Equipment in the department
1	Workshop	Lathe machines, CO ₂ Arc Welding Machine, Sensitive Drilling Machine
2	Advanced Machine Shop	CNC Machine (Trainer), Special Purpose Lathe, Universal Milling Machine, Plastic Injection Moulding Machine
3	Drawing Hall	Models of Various Solids , Alekhan imperial drawing boards 23"x32"

31. Number of students receiving financial assistance from college, University, Government or other agencies

Year	Type of Assistance	No. of students			
		College	University	Government	Other Agencies
2016	NT Scholarship & Freeship	--	--	41	--
	OBC Scholarship & Freeship	--	--	73	--
	SBC Scholarship & Freeship	--	--	11	--
	SC Scholarship & Freeship	--	--	67	--
	ST Scholarship & Freeship	--	--	03	--
	Various Trusts Scheme	--	--	--	03
2015	NT Scholarship & Freeship	--	--	65	--

	OBC Scholarship & Freeship	--	--	139	--
	SBC Scholarship & Freeship	--	--	15	--
	SC Scholarship & Freeship	--	--	88	--
	ST Scholarship & Freeship	--	--	07	--
	Earn & Learn Scheme	--	07	--	--
	Various Trusts Scheme	--	--	--	01
2014	NT Scholarship & Freeship	--	--	52	--
	OBC Scholarship & Freeship	--	--	104	--
	SBC Scholarship & Freeship	--	--	14	--
	SC Scholarship & Freeship	--	--	62	--
	ST Scholarship & Freeship	--	--	02	--
	Earn & Learn Scheme	--	01	--	--
	Various Trust Scheme	--	--	--	01
2013	NT Scholarship & Freeship	--	--	35	--
	OBC Scholarship & Freeship	--	--	61	--
	SBC Scholarship & Freeship	--	--	10	--
	SC Scholarship & Freeship	--	--	14	--
	ST Scholarship & Freeship	--	--	05	--

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	2016-17	Guest Lecture on 'Introduction to ANSYS'	Mr. Vikram Boralkar	Winspire Technologies, Pune
2		Guest Lecture on 'Application of Robotics in Automobile Industries'	Ravindra Aher	Impesys Automation, Pune

3		Guest Lecture on 'PLC SCADA'	Mr. Sachin Kadam	Sachin N. Kadam & Associates, Pune
4		Value Addition Program on 'Hypermesh'	Mr. Pradeep Akolkar	Eleation Academy, J.M. Road, Pune – 411004
5		Value Addition Program on 'Piping Design'	Mr. Vijeet Kumar	V Kumar Solutions (I) Pvt. Ltd., Pune
6	2016-17	Value Addition Program on 'Rapid Prototyping'	Mr. Vikrant A. P.	Technocrats Pvt. Ltd, Pune
7		GD & PI	Mr. Ranjit Sanyal	Freelance Trainer, Gofigito Educorp, Pune
8		GD & PI	Mr. Ranjit Sanyal	Freelance Trainer, Gofigito Educorp, Pune
9		Guest Lecture on 'Importance of Product Design using PTC Creo 3.0'	Mr. Yogesh Ghewande	Vernier Design Solutions Pvt Ltd, Pune
10		Guest Lecture on 'Importance of Drawing, Reading and employability Mechanical Engineers'	Mr. Kiran Lalsangi	11DOT CADTECH, Pune
11		Guest Lecture on 'Opportunities for Engineers in PSU & Higher Studies'	Mr. Panday	GATE HUB, Pune
12		Two days' workshop on Matlab	Dr. S. P. Deshmukh	SAE, Kondhawa
13		Guest Lecture on 'How To Crack ESE, GATE and PSU'	Dr. Mahipal Reddy	ACE Academy, Pune
14		Seminar on "Carrier Guidance – MPSC UPSC"	Mr Pravin Patil	Unique Academy, Pune
15			Guest Lecture on 'Application of CFD'	Mr. Santosh Patil
16	2015-16	Workshop on 'Solidworks'	Mr. Bhushan Chougule	Winspire Technologies, Pune
17		GD & PI	Mrs. Shruti Sugwekar, Mrs. Motiya Basargekar, Mr. Yogendra Patel	Freelance Trainer, Gofigito Educorp, Pune

18		Guest Lecture on 'Drawing Reading skills and expectations of Industry from Design Engineers'	Mr. Kiran Lalsangi	11 DOT CADTECH, Pune
19		Value Addition Program on 'Geometric Dimensioning and Tolerancing (GD&T)'	Mr. Anand Bhise	MechaTol Engineering Solutions, Kothrud, Pune
20		Guest Lecture on 'Preparation for MPSC, UPSC'	Mr. Gaurav Kotecha	Synergy study point and Success Academy, Pune
21		Value Addition Program on 'Piping Design'	Mr. Pramod Kumar	Asian Academy of Professional Training, Pune
22	2014-15	Guest Lecture on 'IPR, Patents, Copyrights'	Adv. Anand Mahurkar	Krishna & Saurashtri Associates, Pune
23		Workshop on 'FEA Using ANSYS'	Mr. P. N. Abhyankar	FE Solutions, Pune
24		Workshop on 'Technical Computing with MATLAB'	Dr. Shravan Kerur	Professor BEC Bagalcot
25		Guest Lecture on 'Matlab for Post Graduates'	Dr. K. V. Mali	MIT COE, Pune
26		Guest Lecture on 'Control in Time & Frequency Domain'	Mr. V. N. Kapatkar	SCOE, Pune
27		Guest Lecture on 'Industrial Automation'	Mr. Sangram Deshpande	Inteliment Technologies India Pvt. Ltd., Pune
28		Guest Lecture on '3D Printing'	Mr. Nathaji Shelke	CADCAM Guru, Pune
29		Workshop on 'Design and construction of I. C. Engine'	Mr. Gitesh Mutha	Technical Director, IAV
30		2013-14	Seminar on 'Career opportunities in Merchant Navy'	Mr. Ogale
31	Seminar on 'Personal Interview Techniques'		Mr. Baliram Mutgekar	Corporate Trainer, Persistent Systems
32	Workshop on 'Aero dynamics & Aero modeling'		Mr. Rochan Kulkarni	Ex. Visiting Faculty, NDA
33	Seminar on 'Group Discussion'		Ms. Anu Sukhija	Corporate Trainer, TechRel Pune#
34	Workshop on 'Matlab'		Dr. D. N. Malkhede	Professor, COEP, Pune
35	Seminar on 'Product Life Cycle Management'		Mr. Aniket Gundale	Siemens, Pune

Details about STP Program:

<p>STP I SE (SEM-I)</p>	<p>SOFT SKILLS</p> <ul style="list-style-type: none"> ➤ SWOT analysis ,Goal setting, Personality and Stress Management, Behavioral Skills, Communication Skills ➤ AMCAT, Employability Tests ➤ Writing Skills Competition
<p>STP II SE (SEM-II)</p>	<p>COMMUNICATION SKILLS</p> <ul style="list-style-type: none"> ➤ Listening, Reading (Technical and Non-Technical), Writing(Letter, Resume, CV, Report), Speaking(Public Speaking, Group Discussion) ➤ AMCAT ,Employability Tests ➤ Speaking Skills Competition
<p>STP III TE (SEM-I)</p>	<p>TECHNICAL FUNDAMENTALS</p> <ul style="list-style-type: none"> ➤ Training and refreshing of Technical Fundamentals. ➤ Training on Aptitude skills. ➤ AMCAT Assessment to assess need for training in technical skills. ➤ Two employability tests to assess training outcome.
<p>STP IV TE (SEM-II)</p>	<p>RESEARCH METHODOLOGY & APTITUDE TRAINING</p> <ul style="list-style-type: none"> ➤ Research Methodology Training, Aptitude Training ➤ AMCAT ,Employability Tests ➤ Review Paper Competition
<p>STP V BE (SEM-I)</p>	<p>INTERVIEW PREPARATION & VALUE ADDITION PROGRAM</p> <ul style="list-style-type: none"> ➤ Value Addition Program on Control System Design ➤ Group Discussion & Interview Preparation ➤ Employability Tests

33. Teaching methods adopted to improve student learning

- Videos from The National Programme on Technology Enhanced Learning (NPTEL) of the subject related topics are provided to students for better understanding of critical topics.
- Use of LCD projector, PPTs, videos and animations for effective teaching.
- Models are used to demonstrate working mechanism and basic concepts of mechanical systems.
- Course material which includes presentations, case studies, and lecture notes, question banks, university Question papers with solutions, lab manuals etc is provided in the form of CD.
- Industries visits, guest lectures and workshops by experts from various fields are arranged.
- For better understanding of subjects students has to get through assignments, Unit Tests, mock online exams, preliminary exam, Mock orals and practical's before final examinations.
- Teacher guardian scheme is adopted to identify and solve problems of the students.
- K point audio lecture series is available for students.
- Remedial lectures are conducted for weaker students
- Flipped classroom technique is used in department.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

a) National Service Scheme (NSS):

- NSS activities:
 - Special 7 Days residential camp at Gorhe (Bk), Pune
 - Visit to old age home- “Matoshree Vriddhashram”
 - Visit to orphanage “Mamta Foundation”
 - Visit to orphanage “Dnyangangotri Pratishthan”.
 - Voting Awareness Campaign
 - Blood Donation Camp.
 - Celebration of Women’s day.
 - Health awareness for Girls
 - Youth Day Celebration
- Tree Plantation Day.
- Traffic Awareness Day.
- Teacher’s Day.
- Engineer’s day
- Organ Donation Awareness Camp.
- Constitution Day Celebration

b) Competitions:

- **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). In BAJA SAE 2015-2016, our 23 students were involved in this competition at Indore. Team ARVAN 2.0 stood 34th in all India ranking in captaincy of Mayur Dongre.
- In **BAJA SAE** 2016-2017, our 25 students were involved in this competition at Indore. Team ARVAN 2.0 stood 64th in all India ranking in captaincy of Abhishek Dhoot.
- **SAEINDIA Supra** challenges young minds to compete as teams in designing a Formula category vehicle; SAE Supra 2017 competition will be held at Buddha International Circuit, Greater Noida, Delhi. Our team named Inexorable Racing consists of 25 indefatigable members will be participating in SAE Supra 2017 competition.
- **GO-KART** is a competition formulated to enhance the approach of students studying engineering courses. This event is fundamentally all about designing and fabricating a Go Kart at very low expenditure. Our team named TEAM ARVAN GO-KART consisting of 20 members has participated in Indian Karting Championship-2017, Pune.

35. SWOC analysis of the department and Future plans

Strengths

- Dedicated and qualified faculties with excellent retention ratio.
- Faculty members are actively involved in University work such as BoS members, Subject Chairman, Paper Setters, and Moderators etc.

- Seven faculty members are pursuing Ph.D. in various fields of Mechanical Engineering.
- All laboratories are well equipped with latest instruments and softwares.
- Student's active participation in national level competitions.
- Academic results of students are above average result of SPPU.
- Placements of students in various companies at national and international level.

Weaknesses

- Less research and development work leading to patents.
- Inadequate number of Professors.

Opportunities

- To have strong liaison with the automotive industry and Consultancy services.
- To publish more Books & research papers in reputed journals.
- To enhance overall personality and placement of the student.
- To improve recognition of faculty and student.

Challenges

- Employability of students in core companies.
- To provide a platform to face all kinds of challenges to become successful engineer/ entrepreneur.
- To enhance entrepreneurship through EDC.

Future Plans

- To establish state of art research center.
- To boost up self-employment amongst students through EDC.
- To focus on developing research activities by improving research publications, copyrights and patents.
- To organize yearly National/International conferences on recent trends in Mechanical Engineering

V. DEPARTMENT OF ELECTRICAL ENGINEERING

1. Name of the department : Electrical Engineering
2. Year of Establishment : 2011
3. Name of Programs/Courses offered:

Sr. No.	Name of the Programme	Year of Establishment
1	UG -BE Electrical Engineering	2011

4. Name of Inter disciplinary courses and departments/units involved:

Sr. No.	Name of Inter Disciplinary Courses	Departments/ Units Involved
1	Engineering Mathematics III	Engineering Sciences

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 Electrical Engineering	Semester

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 Electrical Engineering
2	Mechanical Engineering	SE	Electrical and Electronics Engineering

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 :	
	➤ LaTex	IIT Bombay
	➤ Libre Office	
	➤ C and Cpp	
	➤ Scilab	
➤ Geogebra		
2	EDX Online Courses on :	
	Science of Happiness	University of Adelaide
	Renewable Energy Sources	Harvard University
	The Biology of Water & Health	University of California

	Linear Algebra-Foundation to frontiers	National Chiao Tung University
	Introduction to Environmental Science	Tufts University
	English Grammar and Essay Writing	University of Texas
	Cyberwar Surveillance & Security	DARTMOUTH
	Introduction to data wise: A collaborative Process to Improve Learning & Teaching	University of California
3	Barclay's Training	Barclay's

8. Details of courses/programs discontinued (if any) with reasons: Nil

9. Number of teaching posts:

Designation	Sanctioned	Filled
Professors	1	0
Associate Professors	3	1
Asst. Professors	9	12
Visiting/ Guest Faculty	3	3

10. Faculty profile with name, qualification, designation, specialization, D.Sc./D.Litt./Ph.D./M.Phil. Etc.,)

Sr. No.	Name of the Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
1	Dr. Ms. V. S. Deshpande	M.E., Ph.D.	Associate Professor and HoD	M.E (Control Systems), Ph.D. (Instrumentation and Control Engineering)	23	-
2	Prof. Ms. P. P. Kulkarni	M.E., Ph.D. Pursuing	Asst. Professor	M.E. (Power Systems)	21	-
3	Prof. Ms. N. R. Dagade	M.E., Ph.D. Pursuing	Asst. Professor	M.E. (Power Systems)	13	-
4	Prof. Ms. P. M. Wararkar	M.Tech.	Asst. Professor	M.Tech. (Integrated Power System)	11	-
5	Prof. Ms. S. S. Bakshi	M.Tech.	Asst. Professor	M.Tech. (Power System)	4	-
6	Prof. O. M. Shete	M.E.	Asst. Professor	M.E. (Power Electronics & Drives)	6.5	-

7	Prof. Ms. S. S. Pitre	M.E.	Asst. Professor	M.E. (Power System)	4	-
8	Prof. Ms. Pyla Vaneela	M.E, Ph.D. Pursuing	Asst. Professor	M.E. (Control Systems)	8	-
9	Prof. Y. H. Joshi	M.Tech.	Asst. Professor	M.Tech. (Power System)	4.6	-
10	Prof. Ms. A. S. Udapurkar	M.Tech.	Asst. Professor	M. Tech. (Integrated Power System)	7	-
11	Prof. Ms. U. V. Aleem	M.E.	Asst. Professor	M.E.(Integrated Power System) Pursuing	3	-
12	Prof. V. P. More	M.E.	Asst. Professor	M.E. (Power Electronics & Drives)	4.5	-
13	Prof. S. N. Nalawade	M.Tech.	Asst. Professor	M.Tech. (Energy Technology)	3	-

11. List of senior visiting faculty:

Sr. No.	Name of Adjunct Faculty	Experience	Specialization	Name of Organization
1	Mr. Mohan Kulkarni	34 years	Electrical Engg. and Rotating Machines	Proprietor of MMSU Electric, Pune
2	Mr. Santosh Vishwakarma	20 years	Power and Distribution Transformer Manufacturing	Director of Silverline Electricals Pvt. Ltd., Pune
3	Mr. Sanjay Kondo	35 years	Switchgear, Current Transformers and Potential Transformers	Director of Epitrans Switchgear Pvt. Ltd., Nashik

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 : 1 (By considering adjunct faculty)

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled.

Staff details	Sanctioned	Filled
Supporting Staff (Technical)	02	02
Administrative Staff	03	03

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D./MPhil/PG:

Ph.D.	Ph.D. Pursuing	PG	UG
01	03	09	--

16. Number of faculty with ongoing projects from a) National and b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

Sr. No.	Funding Agency	Project Title	Principal Investigator	Total grants Sanctioned (in ₹)	Duration
1	Savitribai Phule Pune University (under QIP)	9KW Roof top solar power plant with net metering	Prof. Ms. P. P. Kulkarni	5,00,000	2 years
2	MEDA	Energy Audit	Prof. Y. H. Joshi	30,000	1 year

18. Research Centre/facility recognized by the University : Nil

19. Publications:

a) Publication per faculty:

Sr. No.	Name of Faculty	Number of papers published in peer reviewed journals (National/International) by faculty and students	Number of publications listed in International Database	Monographs	Chapter in Books	Books Edited	Books with ISBN/ISSN	Citation Index		SNIP	SJR	Impact factor	h-index	
								Scopus	Google Scholar				Scopus	Google Scholar
1	Dr. Ms.V. S. Deshpande	5	8	-	-	-	-	61	81	Min: 1.132 Max: 3.789	Min: 0.68 Max: 1.494	Min: 0.802 Max: 2.534	5	4
2	Prof. Ms. P. P. Kulkarni	3	2	-	-	-	-	-	2	-	-	-	-	1
3	Prof. O.M. Shete	1	1	-	-	-	-	-	-	-	-	4.8	-	-
4	Prof. Y. H. Joshi	1	1	-	-	-	-	-	-	-	-	4.8	-	-
5	Prof. V. P. More	1	1	-	-	-	-	-	-	-	-	4.8	-	-
6	Prof. Ms. S. S. Bakshi	1	1	-	-	-	-	-	-	-	-	-	-	-

7	Prof. Ms. V. Pyla	-	-	-	-	1	-	-	-	-	-	-	-
8	Prof. Ms. N. R. Dagade	-	-	-	-	-	1	-	-	-	-	-	-

b) Books Published:

Sr. No.	Faculty Name	Book Name	Book no	Publication
1	Prof. Ms. N. R. Dagade	Transmission and Distribution	ISBN 978-93-332-1498-8	Technical Publication

20. Areas of consultancy and income generated:

Sr. No.	Details of Consultancy	Income Generated (in ₹)
1	Conduction of practical of subject Power Quality for the students of KJ College of Engineering using Power Quality Analyzer	43,125

21. Faculty as members in

a) National committees:

Name of the faculty	Name of the committee	Nature of work/ description
Prof. Ms. P. P. Kulkarni	Project scrutiny committee (DPEX)- 2013	Judge
	Project scrutiny committee (DPEX)- 2017	Reviewer
	Reviewer for the Journal: Advances in Electrical Engineering	Reviewer

b) International committees:

Name of the faculty	Name of the committee	Nature of work/ description
Dr. Ms. V. S. Deshpande	Reviewer for the Journal: IEEE Control Systems Letters	Reviewer
	Reviewer for the Journal: Engineering Applications of Artificial Intelligence, Elsevier	Reviewer
	Reviewer for the Journal: IJMIC of Inderscience	Reviewer
	Reviewer for the Journal: International Journal Nonlinear Dynamics Springer publications	Reviewer
	Reviewer for IEEE International conference ICIC2015	Reviewer

c) Editorial Boards: Nil

d) Any other committee:

Name of the faculty	Name of the committee	Nature of work/ description
Dr. Ms. V. S. Deshpande	SPPU Paper Setting	Paper setter
	SPPU syllabus revision	Member
	BVDU syllabus revision	Member
Prof. Ms. P. P. Kulkarni	SPPU Paper Setting	Paper setter
	SPPU syllabus revision	Member
Prof. Ms. P. M. Wararkar	SPPU Paper Setting	Paper setter
	Subject Chairman (SPPU)	Subject Chairman
	SPPU syllabus revision	Member
Prof. Ms. N. R. Dagade	SPPU Paper Setting	Paper setter
Prof. O. M. Shete	SPPU Paper Setting	Paper setter
Prof. Ms. Vaneela Pyla	SPPU Paper Setting	Paper setter
	SPPU syllabus revision	Member
	BVDU Paper Setting	Paper setter
Prof. Y. H. Joshi	BVDU Paper Setting	Paper setter

22. Student projects

a) Percentage of students who have done in-house projects including Interdepartmental / programme:

Sr. No.	Year	No. of In-house Projects	% of In-house Projects
1	2016-17	18	72.00
2	2015-16	22	81.48
3	2014-15	8	50

b) Percentage of students placed for projects in organizations outside the institution i.e., in Research laboratories/Industry/ other agencies

Sr. No.	Year	No. of Projects in Collaboration	% of Projects done in Collaboration
1	2016-17	7	28.00
2	2015-16	5	18.51
3	2014-15	8	50

23. Awards/Recognitions received by faculty and students:

a) Awards/Recognitions received by faculty:

Sr. No.	Name of Faculty	Year of Achievements	Achievement/ Recognition
1	Prof. Ms. P. P. Kulkarni	2013-14	Teacher Excellence Award from Lion's Club

b) Awards/Recognitions received by Students:

Sr. No.	Year	Activity	National /State / University level No. of Awards
1	2016-17	Roll the energy	1 st , 2 nd & 3 rd
2		Circuit fixer	1 st & 2 nd
3		Poster presentation	3 rd
4		Stage play	1 st
5		Singing	2 nd
6		Tabla	VISHARAD
7	2015-16	Bhagvad gita talent search examination	A GRADE
8		Roll the energy	1 st & 2 nd
9		Kabaddi	1 st
10		Football	1 st
11		Dance	1 st & 2 nd
12	2014-15	Leela Poonawala Scholarship	Achieved Scholarship
13		Roll the energy	1 st & 2 nd
14		Challenge my knowledge	1 st
15		Quiz elec(NOVICE)	1 st & 2 nd
16		Paperica-elec(NOVICE)	1 st
17		Dance	2 nd
18		Football	2 nd
19	2013-14	Paper presentation(NOVICE)	2 nd
20		Tech quiz	1 st
21		Cricket	1 st

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. Yogesh Soman,	Director, Soman Electromech Pvt. Ltd., Pune and President, ECA, Pune	To guide the students for Entrepreneurship development To guide the staff on Industry expectations from students
2	Dr. Priyadarshini Karve,	Director, ARTI Institutes, Pune	To guide the students on different perspectives of energy services

3	Mr. Makarand Parkhi,	Director, Win-win solutions, Pune	To guide the students on group discussion and personal interview techniques
4	Anjali Chipalkatti,	Project Leader, Zensar Technologies, Pune	To give a demonstration of experiential learning
5	Mr. Girish Nagarkar,	Director, Elecon Systems, Pune	To give a demonstration on underground cable fault detection system
6	Mr. Anand Bhawe	Owner at Electromagnetics Pune	To give a seminar on applications of bioelectronics
7	Mr. Madhav Patil,	Mechanical and Electrical Piping Consultant , Pune	To guide the students on design of mechanical and electrical piping and the job opportunities in the field of MEP
8	Mr. Manoj Badve	TATA Motors, Pune	To guide the students on job opportunities for an electrical engineer in mechanical sector.

25. Seminars/Conferences/Workshops organized & the source of funding:

a) National:

Sr. No.	Year	Name of Seminars/Conferences/ Workshops organized	No. of Participants	Funding Agency
1	2013-14	State level workshop on MATLAB	55	University of Pune under QIP

b) International: Nil

26. Student profile programme/ course wise:

Name of the Course/ Programme	Academic Year (Graduation)	Applications received	Selected	Enrolled		Pass percentage
				*M	*F	
BE Electrical Engineering	2016-17	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 and guidelines set by Savitribai Phule Pune University, State Government body.	64	51	13	Since the college wise applications received are with DTE, pass percentage is not available with the institute.
	2015-16		64	54	10	
	2014-15		64	54	10	
	2013-14		64	56	8	

27. Diversity of Students:

Name of the Course/ Program	Academic Year	% of students from the same state	% of students from other states	% of students from abroad
BE Electrical Engineering	2016-17	79.68	20.32	-
	2015-16	80.95	19.05	-
	2014-15	75	25	-
	2013-14	78.12	21.88	-

28. How many students have cleared national and state level competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.

Competitive Examinations/ Academic Year	No. of students		
	2016-17	2015-16	2014-15
GATE	1	1	0
GRE	4	1	0
Civil services	0	0	1
Defense services	0	1	0
Others	1	0	1

29. Student progression:

Student Progression	Against % Enrolled		
	2016-17	2015-16	2014-15
Year of Passing			
UG to PG	NA	3.7	4.25
Employed			
• Campus Selection	13.51	29.62	4.25
• Other than campus recruitment	-	30.86	51.06
Entrepreneurship/Self-employment	-	1.23	4.25

30. Details of infrastructural facilities

a) Library

➤ Institute Library

Sr. No.	Particulars	Number
1	Titles	183
2	Volumes	713
3	National Journals	06
4	CDs	10
5	e-Books and e-Journals	468

➤ **List of Periodicals/ Journals available in Print format:**

Sr. No.	National Journal Titles
1	International Journal of Electrical and Electronics Engineering (IASSET) 2 Issues
2	Electrical Engineering Journal of Electrical Conversions 2 Issues
3	Electrical Engineering Journal of Electrical And Electronics Engineering Research And Development 3 Issues
4	Electrical Engineering International Journal of Electrical Communications Engineering 2 Issues
5	Electrical Engineering International Journal of Electrical Machines And Drives 2 Issues
6	Electrical Engineering International Journal of Automatic Control System 2 Issues

➤ **Departmental Library:**

- Titles available: 39
- Volume available: 50
- Project & Seminar reports of pass out students are available for reference.
- Students & staff can issue books from departmental library.
- E resources of syllabus, question bank, previous question papers are available on GEMS.

b) Internet facility for staff and students

- The department is equipped with computers, internet connections and printers.

c) Class rooms with ICT facility

- 3 class rooms equipped with LCD projector are available.
 ➤ 1 seminar hall with a capacity of 150 exclusively for department of Electrical Engineering is available.

d) Laboratories

- 10 well equipped laboratories are available in the department.
 ➤ Equipment is maintained in working condition so that satisfactory and reliable results are obtained.

Sr. No.	Name of the Laboratory	Major Equipment
1	Machines Lab	Dc shunt motor coupled to alternator, Auto synchronous motor with mechanical loading arrangement, Thyristor Controlled DC Power Supply
2	PLC and SCADA	PLC programming trainer kit , SCADA application software
3	High Voltage Engineering	H.V. Tester for solid material, Transformer oil test kit, Sphere gap assembly, 100 KV, 100mA Transformer with control panel, Tracking equipment, Corona cage without transformer,
4	Power System	Measurement of ABCD parameters of a medium, transmission line , transmission line , FLUKE make three phase Energy Analyzer
5	Control System &	Synchros, Lead Lag Networks, Measuring Meters.

	Instrumentation	
6	Power Electronics & Drives	Converters, Inverters, Power Electronic Controlled Drives, Digital storage oscilloscope , Power scope.
7	Analog & Digital Electronics	Digital Trainer Kits, Analog Circuits, Microcontroller Kits
8	Computer Lab.	25 PCs, 2 Printers
9	Basic Electrical Engineering	Lamp Banks, Rheostats, Wiring Models, Transformers.
10	Project Lab.	Models of Circuit Breakers, Dual Power Supply, CRO, DMM.

31. Number of students receiving financial assistance from college, University, Government or other agencies:

Year	Type of Assistance	No. of students			
		College	University	Government	Other Agencies
2016-17	NT Scholarship and Freeship	-	-	08	-
	OBC Scholarship and Freeship	-	-	30	-
	OBC Scholarship and Freeship	-	-	04	-
	SC Scholarship and Freeship	-	-	22	-
	ST Scholarship and Freeship	-	-	02	-
2015-16	NT Scholarship and Freeship	-	-	30	-
	OBC Scholarship and Freeship	-	-	57	-
	SBC Scholarship and Freeship	-	-	07	-
	SC Scholarship and Freeship	-	-	30	-
	ST Scholarship and Freeship	-	-	02	-
	Earn and Learn Scheme	-	09	-	-
2014-15	NT Scholarship and Freeship	-	-	25	-
	OBC Scholarship and Freeship	-	-	53	-
	SBC Scholarship and Freeship	-	-	08	-
	SC Scholarship and Freeship	-	-	19	-
	ST Scholarship and Freeship	-	-	04	-
	Earn and Learn Scheme	-	08	-	-

2013-14	NT Scholarship and Freeship	-	-	17	-
	OBC Scholarship and Freeship	-	-	22	-
	SBC Scholarship and Freeship	-	-	04	-
	SC Scholarship and Freeship	-	-	13	-
	Earn and Learn Scheme	-	02	-	-

32. Details on student enrichment programs (Special Lectures /workshops /Seminar) with external experts

a) Students' Enrichment programs through workshops and guest lectures

Sr. No.	Academic Year	Name of Enrichment programs	Name of external Expert	Organization
1	2016-17	Workshop on BLDC motor, PWM technique and wireless communication	Mr. Sandeep Bajare	Model RC System, Pune
2		Workshop on repairing of domestic electrical appliances	Mr. Shailendra Gaikwad	Shri Chaitanya Krupa Electricals, Pune
3		VAP on technologies in sensing and measurement	Mr. Yogesh Raybhoge	Educate To Automate, Pune
4		Guest lecture on applications of Aurduino software and aero modeling	Mr. Sandeep Bajare	Model Rc System, Pune
5		Guest lecture on entrepreneurship development	Mr. Yogesh Soman	Soman Electronics Pvt. Ltd, Pune
6		Seminar on PLC and SCADA	Mr. Sachin Kadam	Sachin N. Kadam & Associates, Pune
7		Workshop on PLC and SCADA	Mr. Sachin Kadam	Sachin Kadam & Associates, Training Institute, Pune
8		Workshop on circuit fixer	Mrs.S S. Bakshi & Mr. E. B. Borge	NBNSO, Pune
9	2015-16	Workshop on selection of sensors and their applications	Mr.Sudarshan Mantri	Educate To Automate Training Institute, Pune
10		Workshop on MATLAB and SIMULINK	Prof. Chinmay Deshpande & Chaitanya Deshpande	ZCOER, Pune
11		VAP on PLC and SCADA	Mr. Nitin Lokhande	Educate To Automate

				Training Institute, Pune
12		VAP on control system design	Mr. Rohitkumar	Adifico Tech Pvt. Ltd, Delhi
13		Guest lecture on Geopathic stress detection	Mr. N. D. Dharmadhikari	Indian Society for Advancement of Dowsing
14		Guest lecture on educational opportunities in Germany	Mr. Ganesh Patil	Studguard Germany
15	2014-15	Guest lecture on measuring instrument	Mr. Amit and Mr. Sanjay	Rishabh Instruments, Nashik
16		Guest lecture on educational opportunities in abroad	Mr. Reddy and Shradha Karulkar	Chopras Pune
17		Guest lecture on design of LT distribution system and electrical engineers views and other aspect of it.	Mr. Madhav Patil	Calculation Consultant, Pune
18		Seminar on underground cable fault detection	Mr. Girish Nagarkar	Electrocon Systems, Pune
19		Seminar on application and opportunities in the field of PLC and SCADA	Mr. Nitin Lokhande	Educate To Automate, Pune
20		Value added program on PLC and SCADA	Mr. Nitin Lokhande	Educate To Automate, Pune
21			Guest lecture on Role of an Electrical Engg. In Mechanical Industries	Mr. Manoj Badave
22	2013-14	Guest lecture on experiential learning	Ms. Anjali Chipalkatti	Electrical Consultant Pune
23		Guest lecture on interview techniques and GD	Mr. Makrand Parkhi	Win Point Learning, Pune
24		Guest lecture on diff. Perspectives of energy services	Ms. Priyadarshini Karve	ARTI Pune
25		Guest lecture on preparation for GATE and IES	Mr. Paresh K.	IES, Pune
26		Guest lecture on automated guided vehicles	Mr. Akash Goyel	Tata Technology, Pune
27		Seminar on Bio-Electronics	Mr. Anand Bhave	Anand Electromagnetics Pune
28		State level workshop on MATLAB under QIP of university of Pune	Mrs. Radha Ranjekar	PVGSCOET, Pune
29		Workshop on SCILAB	Mr. Swapnil More	IIT, Bombay
30		Workshop on circuit design using Simulink	Prof. Mandar Bhawalkar and Prof. Preeti Khatri	PVGSCOET, Pune
31		Workshop on domestic wiring and maintenance	Mr. Prakash Shah	ARN, Vidyutshala, Pune

b) Student Training Programs (STP)

College conducts Student Training Programs to enhance the overall development of the students and to improve the employability skills of them. The details are as follows.

STP I SE SEM-I	<p>SOFT SKILLS</p> <ul style="list-style-type: none"> ➤ SWOT analysis ,Goal setting, Personality and Stress Management, Behavioral Skills, Communication Skills ➤ AMCAT, Employability Tests ➤ Writing Skills Competition
STP II SE SEM-II	<p>COMMUNICATION SKILLS</p> <ul style="list-style-type: none"> ➤ Listening, Reading (Technical and Non-Technical), Writing(Letter, Resume, CV, Report), Speaking(Public Speaking, Group Discussion) ➤ AMCAT ,Employability Tests ➤ Speaking Skills Competition
STP III TE SEM-I	<p>TECHNICAL FUNDAMENTALS AND APTITUDE TRAINING</p> <ul style="list-style-type: none"> ➤ Technical Training on: Power Systems, Instrumentation, Microcontrollers, PLC, SCADA, Electrical Machines. ➤ Aptitude Training ➤ AMCAT ,Employability Tests
STP IV TE SEM-II	<p>RESEARCH METHODOLOGY & APTITUDE TRAINING</p> <ul style="list-style-type: none"> ➤ Research Methodology Training, Aptitude Training ➤ AMCAT ,Employability Tests ➤ Review Paper Competition
STP V BE SEM-I	<p>INTERVIEW PREPARATION & VALUE ADDITION PROGRAM</p> <ul style="list-style-type: none"> ➤ Value Addition Program on Control System Design ➤ Group Discussion & Interview Preparation ➤ Employability Tests

33. Teaching methods adopted to improve student learning

- Mini project work and assignments for specific subjects
- Educational visits to Industries and guest lectures from experts
- Mock practical, preliminary exams and written assignments are given to students for practice before final examinations.
- NPTEL videos are shown to visualize the concepts.
- Flip classroom technique.
- Remedial and extra coaching classes.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- NSS activities like
 - Blood Donation Camp
 - Tree Plantation Drive
 - Visit to Matoshree Vrudhashram
 - Visit to Mamata Foundation
 - Voting Awareness Campaign
 - Cleanliness Drive
 - Cleanliness Awareness Rally
- Celebration of important days like
 - International Yoga Day

- Teacher's Day
 - Navratri Celebration
 - Constitutional Day
 - Marathi Bhasha Din (Kavi Kusumagraj Jayanti)
 - International Woman's Day
- Awareness programs like
 - Sexual Harassment of Women at Workplace-Act 2013
 - Balanced diet for working women
 - Social activities like PRAYAS under which students conduct computer awareness programs for rural area people .

35. SWOC analysis of the department and Future plans

Strengths:

- Dedicated faculty.
- Well equipped labs
- Learning environment for the students with multiple programs, students clubs, guest lectures and industrial visits
- Teacher Guardian Scheme
- Organization and participation in creative event: ROLL THE ENERGY
- Student Training Program

Weaknesses:

- Less no. of research grants
- Consultancy work
- Organization of STTP and FDP
- Organization of National Level Conference

Opportunities:

- Start of PG course
- Partnership with the Industries for project sponsorship, technical guidance, placement and industrial training programs
- Development of 'Play Workshop' lab
- External agency funded projects

Challenges:

- Bridging of gap between Industry and Educational Institute
- To cope up with rapidly changing technology
- Less Placement opportunities in the core Industry
- To improve the employability of the student

Future Plans:

- To improve focus on research based education
- To enhance industry institute interaction

VI. DEPARTMENT OF ENGINEERING SCIENCES

- 1. Name of the department :** Engineering Sciences
- 2. Year of Establishment :** 2011
- 3. Names of Programs / 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 (First Year Engineering*)	2011

*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	Basic Electrical Engineering	Electrical Engineering
2	Basic Electronics Engineering	Electronics & Telecommunication Engineering
3	Basic Mechanical Engineering	Mechanical Engineering
4	Engineering Graphics - I & II	Mechanical Engineering
5	Workshop Practices	Mechanical Engineering
6	Fundamentals of Programming Languages - I & II	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 (First Year Engineering)	Semester Pattern

- 6. Participation of the department in the courses offered by other departments:**

Sr. No.	Name of the Department	Class	Courses offered
1	Mechanical Engineering	ME (Design Engineering)	Advanced Engineering Mathematics
2	All Programs	SE	Engineering Mathematics-III

- 7. Courses in collaboration with other universities, industries, foreign institutions:**

Sr. No.	Certificate Course Name	Participating Institution / industry
1	Technical Communication for Scientists and Engineers Educational Technology for Engineering Teachers 2015-16	IIT Bombay
2	Educational Technology for Engineers and Teachers 2015-16	IIT Bombay

8. Details of courses/programs discontinued (if any) with reasons : Nil

9. Number of teaching posts:

Designation	Sanctioned	Filled
Professors	0	0
Associate Professors	0	0
Asst. Professors	13	11
Visiting/ Guest Faculty	0	0

10. Faculty profile with name, qualification, designation, specialization, D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Sr. No.	Name of Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
1	Prof. P. M. Gondkar	M.Sc	Asst. Prof. and HoD	Energy Studies	19	-
2	Dr. Ms. J. D. Mane	M.Sc., Ph.D.	Asst. Prof.	Organic Chemistry	29.5	-
3	Prof.. D. S. Ghuge	M.Sc., SET	Asst. Prof.	Applied Mathematics	19	-
4	Prof. Ms. M. M. Joshi	M.Tech	Asst. Prof.	Town Planning	13	-
5	Prof. Ms. S. A. Khule	M.Sc., M.Phil	Asst. Prof.	Mathematics	12	-
6	Prof. D. M. Surwase	M.Sc.	Asst. Prof.	Mathematics	7	-
7	Prof. Ms. A. D. Ingavale	M.Sc.	Asst. Prof.	Mathematics	7	-
8	Dr. Ms. D. V. Jadhav	M.Sc., Ph.D.	Asst. Prof.	Inorganic Chemistry	6.5	-
9	Prof. A. U. Chavadekar	M.Tech.	Asst. Prof.	Water Management	4.5	-
10	Prof. S. S. Kodli	M.Tech.	Asst. Prof.	Structural Dynamics	4	-
11	Prof. M. N. Kotlapure	M.Sc. SET	Asst. Prof.	Materials Science (Phy.)	1.5	-

11. List of senior visiting faculty/Adjunct faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty : Nil

13. Student -Teacher Ratio (programme wise) : NA *

*Staff of Engineering Science department are shown in the calculation of Student-Teacher ratio (programme wise) of other departments.

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled : Nil

15. Qualifications of teaching faculty with D.Sc./ D.Litt./ Ph.D./ M. Phil / PG.:

Sr. No.	Qualification	No. of Teaching Faculty
1	Ph.D. Completed	02
2	Ph.D. Registered	02
3	PG Completed	06
4	M Phil / M Sc	01

16. Number of faculty with ongoing projects from National and International funding agencies and grants received : Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

Sr. No.	Name of the Research Project	Name of Principal Investigator/ Coordinator	Funding Agency	Amount as seed money (in ₹)	Duration of the project
1	Prediction of Meteorological Drought in Indian regions by using Genetic Programming and Copula.	Prof. A. U. Chavadekar	BCUD	1,00,000	2 Yrs.

18. Research Centre / facility recognized by the University : NA

19. Publications:

a) Publication per faculty :

Sr. No.	Name of the faculty	No. of Papers published in peer reviewed journals Faculty/students	No. of Publications listed in International DB	Chapters In Book	Books Edited / Monogram	Books with ISBN in international DB	Citation Index		SNIP	SJR	Impact Factor	h - Index
							Google scholar	Scopus				
1	Prof. A. U. Chavadekar	2	4	-	-	-	0	4	-	-	1.692	1
2	Prof. Ms. M. M. Joshi	1	3	-	-	-	0	0	-	-	3.781	0

20. Areas of consultancy and income generated : Nil

21. Faculty as members in

- National committees : Nil
- International Committees: Nil
- Editorial Boards : Nil
- Any other committee : Nil

22. Student projects: NA

23. Awards / Recognitions received by faculty and students:

- Awards / Recognition by Faculty.

Sr. No.	Name of Faculty	Year of Achievements	Achievement / Recognition
1	Prof. A. U. Chavadekar	2016-17	Reviewer for International Conference
2	Prof. A. U. Chavadekar	2016-17	2 nd Prize Solapur University Avishkar Research Project
3	Prof. A. U. Chavadekar	2015-16	Best Teacher
4	Prof. Ms. M. M. Joshi	2014-15	Best Teacher

24. List of eminent academicians and scientists / visitors to the department: Nil

25. Seminars / Conferences / Workshops organized & the source of funding

- National : Nil
- International: Nil

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

- Institute Library

Sr. No.	Particulars	Number
1	Titles	154
2	Volumes	1116
3	National Journals	25
4	International Journals	0
5	CDs	18
6	e-Books and e-Journals / E-Resources	02

Sr. No.	Title of the Journal
1	Indian Journal of Chemical Technology
2	International Journal of Advance Development in Chemical Engineering
3	International Journal of Chemical Engineering Research
4	Journal of Chemical Science
5	International Journal of Building Construction & Architecture Planning
6	IUP Journal of Structural Engineering
7	Journal of Advance Research in civil and Environment Engineering
8	Journal of Advance Research in Construction and Architectural Engineering
9	Journal of Earth System Sciences
10	Journal of Electronics and Communication Engineering
11	Journal of Indian Institute of Architects
12	Journal of Rural Development
13	Journal of Structural Engineering
15	Journal of Surveying and Structural Engineering
16	Indian Journal of Biochemistry & Biophysics
17	Indian Journal of Biotechnology
18	International Journal of Nanoscience and Nanotechnology

19	Journal of Biosciences
20	Asian Journal of Research in Chemistry
21	Indian Journal of Radio & Space Physics
22	Journal of Applied Chemistry
23	Journal of Applied Physics
24	Journal of Astrophysics and Astronomy

Sr. No.	Title of CD
1	Engineering Drawing (16 Nos.)
2	Numerical Methods (02 Nos.)

- **Department library**

- Department library is equipped with 48 book titles, which can be accessed by faculty.

(b) Internet facilities for Staff & students:

- Staff cabins are fully furnished and equipped with computers, Internet connections (24 Mbps shared within institute) and Laser Printer.
- Wired network facility is available in the building and labs.

(c) Class rooms with ICT facility:

Department has seven spacious class rooms well equipped with LCD projector, screen and blackboard with the seating capacity for 70 students making it conducive for teaching & learning.

(d) Laboratory

Adequate numbers of laboratories are available in the department as per AICTE norms.

Sr. No	Name of the Lab	Major Equipment in the department
1	Engineering Physics	He-Ne Laser, Ultrasonic Interferometer, Muffle Furnace, Laser Level, GPS, Dumpy Level, 60 Computers with Intel Core i3 and i5 Processors, 2 Laser Jet Printers, and campus license for Windows 7.
2	Engineering Chemistry	
3	Basic Civil & Env. Engg.	
4	Engineering Mechanics	
5	Fundamentals Programming Lab (02 Labs)	

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

Sr. No.	Academic Year	Name of the Enrichment programme	Name of external Expert	Organization
1	2016-17	Project Based Learning	Dr. Prateek Bhatt	House Of Science

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
- (K-Point Software)
- Unit Test / Mock Test , Remedial and Extra session.

34. Participation in Institutional Social Responsibility(ISR) and Extension activities

- Organ Donation awareness
- Vahatuk Janjagruti Din
- Teachers day
- Engineers day.
- Tree plantation
- NSS Camps
- Blood Donation Camp
- Traffic Awareness Day

35. SWOC analysis of the department and Future plans

Strengths

- Good faculty retention over long period with adequate experience
- Diversified expertise of faculty
- Teacher Guardian Scheme
- Motivated, dedicated and hard working faculty.

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
- Faculty up-gradation

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.

VII. DEPARTMENT OF MBA

1. Name of the department : MBA
2. Year of Establishment : 2011
3. Name of Programs/Courses offered: (UG, PG, M.Phil., Ph.D., Integrated Masters and Integrated Ph.D.):

Sr. No.	Name of the Programme	Year of Establishment
1	PG: Master of Business Administration	2011

4. Name of Inter disciplinary courses and 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	Master of Business Administration	Semester Pattern / Choice Based Credit System

6. Participation of the department in the courses offered by other departments: Nil
7. Courses in collaboration with other universities, industries, foreign institutions:

Sr. No.	Certificate / Course Name (Online Courses)	Collaborating Institution / Industry /Universities etc.
1	Edx.org – Strategic Management for Sustainable enterprise – Prof. R. D. Helwade	IIM Bangalore
2	Edx.org – Financial Analysis for Decision Making – Prof. R. D. Helwade	Tshingua University, China
3	Edx.org – Financial Analysis for Decision Making – Prof. B. D. Deshpande	Tshingua University, China
4	Edx.org Marketing Analytics : Competitive Analysis and Market Segmentation – NBN SSOMS students.	University of California, Berkeley

8. Details of courses/programs discontinued (if any) with reasons: Nil
9. Number of teaching posts:

Designation	Sanctioned	Filled
Professor	02	01
Associate Professor	04	02
Assistant Professor	13	10
Adjunct Faculty	05	10

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. P. Ujagare	B. Sc., MBA (HR), Ph. D.	Dean and Professor	HR	22 Years in Academics & 2 Years in Industry	04
2	Dr. Ms. R. R. Kabugade	B.Sc.(Agri.), MBA (HR & Marketing), M. Phil, NET, Ph. D.	Associate Professor	HR and Marketing	7 Years in Academics & 0.6 Years in Industry	--
3	Dr. Ms. D. R. Ingale	M.Com, MBA (Finance) Ph. D.	Associate Professor	Finance	9Years in Academics &8 Years in Industry	--
4	Dr. H. A. Anbhule	B. Sc., MBA (HR & Marketing), Ph.D.	Assistant Professor	HR and Marketing	9 Years in Academics & 3 Years in Industry	--
5	Dr. P. V. Pise	M. Com., MBA (Finance & Marketing), Ph.D.	Assistant Professor	Finance and Marketing	8 Years in Academics &5 Years in Industry	--
6	Prof. A. H. Ghadage	M.Sc., MBA (Finance)*	Assistant Professor	Finance	8 Years in Academics &1.5 Years in Industry	--
7	Prof. Ms. S. S. Kabadi	B.Sc., MPM, M. Phil.*	Assistant Professor	Human Resources	9 Years in Academics & 9 Years in Industry	--
8	Prof. Ms. J. V. Howale	B.Com (Advanced Accountancy), MBA (Finance & Systems), M.Phil.*	Assistant Professor	Finance and Systems	8 Years in Academics + 1 years in Industry	--
9	Prof. Ms. B. D. Deshpande	B.Com, ICWAI (Inter), MBA (Finance)*	Assistant Professor	Finance	5.5 Years in Academics + 3 years in Industry	--

10	Prof. H. K. Raje	B.E., M.M.S (Finance), NET*	Assistant Professor	Finance	9 Years in Academics & 10 Months in Industry	--
11	Prof. N. B. Anute	B.A. , M.A., MBA (Marketing)*	Assistant Professor	Marketing	6 Years in Academics & 1.5 Years in Industry	--
12	Prof. A. B. Ohal	B. Sc (Agri) MBA (Marketing)*	Assistant Professor	Marketing	5 Years in Academics & .5 Years in Industry	--
13	Prof. R. D. Helwade	B.C.S., MBA (Finance & IB)	Assistant Professor	Finance and International Business	6 Years in Academics & 3.5 Years in Industry	--

* Pursuing Ph. D.

11. List of senior visiting faculty:

Sr. No	Name of the faculty	No. of Years of Exp.	Specialization	Name of Organization
1	Mr. A. A. Deshpande	12	Finance	Maersk Global
2	Mr. A. J. Chiwhane	15	Marketing	Aquapharm Chemicals Pvt. Ltd.
3	Mr. D.V. Suryawanshi	12 Years 6 Months	Computer Applications	Tansar Solutions Pvt. Ltd.
4	Mr. R.V. Sangale	14 years	Software Testing	HSBC
5	Mr. V. Babar	16 years	Databases	Barclays Technology Center India
6	Mr. V. Kumar	10 years	Structs, Spring & Hibernate	Capgemini
7	Mr. N. Samant	16 years	Database	New York Air Break, Irving TX
8	Mr. G. Tikone	11 years	Mobile App Development	Mobintia Technologies
9	Mr. H. P. Palasdeokar	12 years	IT Infrastructure	Atos India Pvt. Ltd
10	Mr. S. R. Phadake	10 years	Web Technologies & Database	Crystal Soft Tech

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	MBA	28:1 16:1 (By considering adjunct faculty)

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Staff Details	Sanctioned	Filled
Support Staff (Technical)	01	01
Administrative Staff	04	04

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.:

Ph.D.	Ph.D. Pursuing	PG	UG
05	07	01	--

16. Number of faculty with ongoing projects from National and International funding agencies and grants received: Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre/facility recognized by the University: Nil

19. Publications:

a) Publication per faculty:

Sr. No.	Name of the Faculty	No. of Papers published in peer reviewed journals Faculty/students	No. of Publications listed in International DB	Chapters In Book	Books Edited/monograph	Books with ISBN in international DB	Citation Index		SNIP	SJR	Impact Factor	h - Index	
							Scopus	Google Scholar				Scopus	Google Scholar
1	Dr. S. P. Ujagare	04	01	-	01	01	-	01	-	-	Min: 1.033 Max: 8.192	-	-
2	Dr. Ms. M P More	02	-	-	-	-	-	-	-	-	Min: 1.011 Max: 2.525	-	-

3	Prof. Ms. J. V. Howale	03	-	-	-	-	-	-	-	-	Min: 1.011 Max: 3.592	-	-
4	Prof. A. H. Ghadage	04	-	-	-	-	-	-	-	-	Min: 2.01 Max: 2.410	-	-
5	Prof. A. B. Ohal	01	-	-	-	-	-	01	-	-	-	-	01
6	Dr. R. R. Kabugade	02	-	-	-	-	-	-	-	-	Min: 3.52 Max: 4.289	-	-
7	Prof. B. D. Deshpande	02	-	-	-	-	-	-	-	-	-	-	-
8	Dr. P. V. Pise	02	-	-	-	-	-	-	-	-	4.205	-	-
9	Prof. H. K. Raje	03	-	-	-	-	-	-	-	-	3.592	-	-
10	Prof. R. D. Helwade	01	-	-	-	-	-	-	-	-	2.525	-	-
11	Prof. N. B. Anute	03	-	-	-	-	-	-	-	-	Min: 1.011 Max: 6.178	-	-
12	Prof. Ms. S. S. Kabadi	01	-	-	-	-	-	-	-	-	-	-	-

b) Books Published:

Sr. No.	Faculty Name	Book Name	Book no	Publication
1	Dr. S. P. Ujagare	Strategic Human Resource Management	ISBN 935-164-2631-N2157	Nirali Publications

20. Areas of consultancy and income generated: Nil

21. Faculty as members in

a) National committees

Name of the faculty	Name of the committee	Nature of work/ description
Dr. S. P. Ujagare	ISTD	Management related Research Conferences/Seminars/Workshops
	National Conference – Placitum SCOAC Narhe	Reviewer for Conference
Dr. M. P. More	ISTD	Management related Research Conferences/Seminars/Workshops

b) International committees:

Name of the faculty	Name of the committee	Nature of work/ description
Dr. S. P. Ujagare	International Conference – “Green IT and Open Source” – SIOM	Chairperson

c) Editorial Boards: Nil

d) Any other committee:

Name of the faculty	Name of the committee/ Role	Nature of work/ description
Dr. S. P. Ujagare	MCED Empaneled Member	Entrepreneurship Development resource person
	SPPU Local Selection Committee	VC Nominee
	SPPU Local Inspection Committee(LIC)	VC Nominee - Chairman
	Paper Setter and Examiner	Member
	Board of Studies and Subject Expert, TMV	Member
	Chairperson for SPPU Viva voce	Chairman
Dr. D. R. Ingale	Paper Setter and Examiner	Member
Prof. A. H. Ghadage	Paper Setter and Examiner	Chairman
	University Squad Team	Member
	Election Commission, Govt. Of India	Presiding Officer
Prof. R. D. Helwade	Election Commission, Govt. Of India	Presiding Officer

22. Student projects

a) Percentage of students who have one in-house projects including interdepartmental/programme

Sr. No	Academic Year	Number of in-house projects	Percentage of in-house projects
1	2016-17	117	68
2	2015-16	131	73
3	2014-15	124	69
4	2013-14	118	72

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Sr. No	Academic Year	Number of Sponsored projects	Percentage of Sponsored projects*
1	2016-17	173	100

2	2015-16	180	100
3	2014-15	180	100
4	2013-14	164	100

* Summer Internship Projects in any organizations mandatory for every MBA Students as per SPPU Curriculum.

23. Awards/Recognitions received by faculty and students:

a) Awards and Recognition of Faculty

Sr. No	Name of Faculty	Year of Achievements	Achievement/ Recognition
1	Dr. Ms. M. P. More	2016	Ph. D. Guide
2	Prof. N. B. Anute	2016	Best Teacher
3	Prof. R. D. Helwade	2016	100 % Result in International Finance
4	Prof. Ms. S. S. Kabadi	2016	100 % Result in SHRM
4	Prof. A. B. Ohal	2015	Best Teacher
5	Prof. A. H. Ghadage	2014	100 % Result in Advanced Financial Management
6	Dr. S. P. Ujagare	2013	Ph. D. Guide

b) Students Prizes

Sr. No.	Year	Activity	National/ State/ University level	Prizes Won
1	2016-17	Business Standard Quiz at Bharati Vidyapeeth	University	2 nd Prize & Medal
2	2016-17	Brilliant Brigade	National	1st Prize & Trophy
3	2015-16	Domain Doyens at SKN SSBM	University	1st Prize & Trophy
4	2015-16	Alumni Challenge at SIOM	University	1st Prize & Trophy
5	2015-16	Simulation (Role play) at RMD SSOMS	University	2nd Prize & Trophy
6	2015-16	Elocution Competition at Allana Institute of Management	University	3rd Prize
7	2015-16	Mad Ads Competition at MMCOE Dept. of MBA	University	2nd Prize & Trophy
8	2014-15	IPL Challenge, at MIT COE CMSR	University	3rd Prize

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. Eknath Khedkar	Vice Chancellor, Ajinkya D. Y. Patil University	Research Kaleidoscope and De Nova Insights on Research
2	Dr. Nachiket Vechalekar	Officiating Director, Ind Search Pune	Research Kaleidoscope
3	Dr. Ashok Joshi	Dean Academics, Ind Search Pune / Founder Dean, PUMBA, Pune	Research Kaleidoscope
4	Dr. Sachin Kamble	Professor, NITIE, Mumbai	De Nova Insights on Research
5	Dr. Manoj Kumar	President, Case Based Teaching Methodology, Flame University	Research Kaleidoscope
6	Dr. Basavraj Benni	Director, IMS Bellary	De Nova Insights on Research
7	Dr. Lal Daas	Ex. Director and Professor Emeritus, RGIMS Hyderabad	De Nova Insights on Research
8	Dr. Roshan Kazi	HoD, Allana Institute of Management Studies, Pune	Research Kaleidoscope
9	Dr. Amod Markale	Director, IIMS, Pune	Research Kaleidoscope
10	Mr. Allem C. A. Pereira	Director, NIBM, Pune	De Nova Insights on Research

25. Seminars/Conferences/Workshops organized & the source of funding

a) National:

Sr. No.	Year	Name of FDP/SDP/ STTP/ Webinar/ Seminar etc.	Number of Participants	Sponsoring/ Funding Agency if any
1	2016	Research Kaleidoscope	54	Savitribai Phule Pune University
2	2015	Sanvaad 2015	260	Self Sponsored
3	2013	De Nova Insights in Research	104	SavitribaiPhule Pune University

b) International: Nil

26. Student Profile Programme/Course wise:

Name of the Course/ Programme	Academic Year	Applications received	Selected	Enrolled		Pass Percentage
				*M	*F	
MBA	2016-17	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 and guidelines set by Savitribai Phule Pune University.	173	112	61	Since the college wise applications received are with DTE, pass percentage is not available with the institute.
	2015-16		180	128	52	
	2014-15		180	130	50	
	2013-14	164	120	44		

*M=Male, *F=Female

27. Diversity of Students

Name of the Course/ Programme	Academic Year	% of students from the same state	% of students from other states	% of students from abroad
MBA	2016-17	86.14	13.86	NA
	2015-16	85.31	15.69	NA
	2014-15	65.05	35.95	NA

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			
	Year 2016-17	Year 2015-16	Year 2014-15	Year 2013-14
Other (IBPS PO)	00	01	01	00

29. Student progression

Student Progression	Against % Enrolled			
	2016-17	2015-16	2014-15	2013-14
Employed				
➤ Campus Selection	13.25%	59.77%	30.37%	34.70%
➤ Other than campus recruitment	8.43%	10.91%	10.13%	7.06%
Entrepreneurship/Self-employment	0.60%	2.31%	1.77%	0.69% ^s

30. Details of infrastructural facilities

a) Library

➤ Institute Library

Sr. No.	Particulars	Number
1	Titles	546
2	Volumes	3214
3	National Journals	12
4	International Journals	01
5	CDs	93
6	e-Books and e-Journals / e-resources	4389 i.e. 1 Database (Proquest)

➤ Departmental Library

Institutes also have departmental Library with variety of books and journals available.

List of Periodicals/ Journals available Print format

Sr. No.	National Journal Titles	Status
1	Advance Edge MBA	Subscribed
2	IUP Journal Of Brand Management	Subscribed
3	IUP Journal of Business Strategy	Subscribed
4	IUP Journal of Case Folio	Subscribed
5	IUP Journal of Organizational Behavior	Subscribed
6	IUP Journal of Soft Skills	Subscribed
7	IUP Journal of Supply Chain Management	Subscribed
8	Journal of Global Economy	Subscribed
9	Sansmaran: Management Research Journal	Subscribed
10	Fortune	Subscribed
11	Journal of Operations Management and Information technology	Subscribed
12	Indian Journal of Industrial Relations: Economics & Social Dev.	Subscribed

b) Internet facilities for Staff & Students:

Internet line of 24 Mbps for computer laboratories

c) Class rooms with ICT facility: Department has six spacious class rooms and a seminar hall having capacity of 60 & 200 respectively. Both of these having facilities viz. LCD Projector, Computers with internet facility.

d) Laboratories

Sr. No.	Name of the Lab	Major Equipment in the department
1	Language Lab	PC, Headphones, Language Lab Software, Printers : 4

31. Number of students receiving financial assistance from college, University, Government or other agencies

Dept.	Year	Type of Assistance	No. of students			
			College	University	Government	Other Agencies
MBA	2016-17	NT Scholarship & Freeship	-	-	01	09
		OBC Scholarship & Freeship	-	-	06	
		SBC Scholarship & Freeship	-	-	01	-
		SC Scholarship & Freeship	-	-	20	-
		ST Scholarship & Freeship	-	-	01	-
		EBC Scholarship	-	-	68	-
MBA	2015-16	NT Sch & Free	-	-	14	05
		OBC Scholarship & Freeship	-	-	38	
		SBC Scholarship & Freeship	-	-	04	-
		SC Scholarship & Freeship	-	-	23	-
		EBC Scholarship	-	-	48	-
MBA	2014-15	NT Scholarship & Freeship	-	-	07	-
		OBC Scholarship & Freeship	-	-	20	
		SBC Scholarship & Freeship	-	-	04	-
		SC Scholarship & Freeship	-	-	19	-
		EBC Scholarship	-	-	32	-

MBA	2013-14	NT Scholarship & Freeship	-	-	13	-
		OBC Scholarship & Freeship	-	-	22	-
		SBC Scholarship & Freeship	-	-	02	-
		SC Scholarship & Freeship	-	-	14	-
		EBC Scholarship & Freeship	-	-	55	-

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	2016-17	Aptitude test training	Ms. Zoya Sheikh	Consultant, Mumbai
2		Current Indian market	Mr. Amol Charegaokar	Consultant, Pune
3		Make in India impact on FDI	Mr. Ramesh Birajdar	VP, finance, LEAR corporation, Pune
4		Demonetization & budget 2017-18	Mr. Swapnil Kabra	CA, Pune
5		How to prepare for GD & tips for PI	Ms. Swati Chauhan	Consultant, Mumbai
6		Panel discussion on budget 2017	Dr. Ms. Deepali Bankapure & Dr. Ms. Aparna Ghaisas	AIBM & STES, Pune
7	2015-16	Talent acquisition and HR practices & policies	Mr. Rahul Bagale	Head HR, LEAR corporation, Pune
8		Applications of MIS in service sector	Mr. Palak Doshi	Project manager, solution architect sap is utilities
9		Orientation session for selecting the specialization	Dr. Sachin Bhide	Marketing Strategy Consultant & Founder Of Eha Management Consultancy, Pune
10		Laagan- a case study of leadership and motivation	Mr. Chandrashekhar Aaronkar	Associate Professor In Economics, NDA Pune
11		Group Discussion And Personal Interview	Mr. Manish Harodia	Director Dream Wallets & 6Pi Consultants
12		Cyber Security	Dr. Harold D'costa	CEO - Intelligent Quotient Security System
13		Stress Management & Art Of Living	Mr. Arvind Goel	DCM, Kotak Mahindra Bank

14		Preparing For Corporate World	Mr. Mahesh Dabeer	AGM Operations, Sinsan Pharmaceuticals Pvt. Ltd. Pune
15		Changing Trends In Digital Marketing	Mr. Devdatta Mandore	Founder, Web clincher, Pune
16		Human Rights & Legal Aspects	Mr. Rahul Bagale	HR Head, Lear Automotive India Pvt. Ltd
17		Career Opportunities In Competitive Exams	Mr. Jawwad Kazi	Founder, The Unique Academy Pune
18	2014-15	Corporate Expectations From B-School Students	Mr. Sangram Kadam	VP(Marketing), KPIT India
19		“Corporate Expectations From MBA- IT”	Ms. Zeenat Alam	Infra-Manager, Amdocs Development Center India Pvt. Ltd.
20		Corporate Training And Confidence Building	Ms. Hyacinth Arya	Corporate Trainer, Career Counsellor, Facilitator
21		SAP-Awareness And Importance	Mr. Milind Joshi	CTO And Founder, Smart Softtech Solutions Pvt. Ltd
22		Business startup strategy –zoom car	Mr. Rohan Chhajed	AVP, Zoom Cars India
23		Workshop- Human Rights	Ms. Vidya Kamat	Gen. Secretary, National Human Rights Council of India, Pune
24		Financial Statement Analysis And Job Opportunities For MBA Students	Mr. Shripad Kulkarni	Kirtane and Pandit
25		Leadership and motivation	Mr. Charudatta Bhave	Ex. DGM, Cummins India Ltd.
26	2013-14	Be A Corporate Speaker	Mr. Prakash Vasekar	Director, Delphi Computech, Pune
27		“Mind Mapping And Goal Setting”	Ms. Dipti Panhalkar	Trainer At Yashada, Pune
28		Work Shop On Stress Management”	Mr. Saleel Pulekar & Mr. Tarique Khan.	Art Of Living
29		Organizational Leadership	Mr. Sanjay Runwal	Director, Runwal Housing Group

STP: Student Training Programme is an initiative of STES to impart practical learning and enhance employability of the students.

STP I	<p>The following are the components included in STP for holistic development of students:</p> <ul style="list-style-type: none"> ➤ Aptitude tests, Group Discussions, General Knowledge & Current Affairs & Personal Interviews are conducted to prepare the students for placement. ➤ Domain Tests are conducted to enable the students to brush up with the basic concepts of all specializations. ➤ Company Simulation challenge is conducted at intra-class, inter-class and inter – institute level to make the students capable of handling corporate situations. ➤ Domain Doyens Challenge is conducted at intra-class, inter-class and inter – institute level, wherein students present on the various aspects of different players in different industries like market share, SWOT analysis, competitive strategies. ➤ Excel in power excels challenge enables the students to handle industry or business related excel applications.
STP II	<p>The following are the components included in STP for MBA-II nd year students for the employability enhancement and overall development of students:</p> <ul style="list-style-type: none"> ➤ Aptitude tests, Group Discussions, Personal Interviews are conducted to prepare the students for placement. ➤ Domain Specific Tests are conducted to enable the students to brush up with the concepts related to their specializations. Excel in power excels. ➤ PEST- Political, Economic, Social, Technological test to be conducted on the daily newspaper to check the current updates from the market.

33. Teaching methods adopted to improve student learning

- HBSP case based teaching
- Presentations
- Role Play/Simulation
- Seminars/Guest sessions from Industrial Experts
- Industrial Visits
- Use of ICT in Teaching
- Weekly Class Tests/Mock Tests
- Remedial and Extra Sessions
- Assignments

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- Blood Donation Camp
- Teacher's Day Celebration
- NSS Activities
- Traffic Awareness Day Campaign
- Tree Plantation drive at Sinhgad Fort
- Visit to Mamta Foundation orphanage.
- Workshop on "Sexual Harassment of Women at Workplace-Act 2013"

- Various Days Celebration
- Chatrapati Shivaji Maharaj Jayanti
- Marathi Bhasha Din (Kavi Kusumagraj Jayanti)

35. SWOC analysis of the department and Future plans

Strengths

- Strong Academic system
- Well Qualified Faculty members.
- Activity Based Learning
- HBSP
- STP
- Excellent Infrastructure
- Dedicated Central Placement Cell
- Mentorship Programme
- Emphasis on Holistic Development

Weaknesses

- Need to focus on Research
- More MOU's with Industry is required

Opportunities

- Consultancy & Practical assignments over and above curricular activities.
- Placement opportunities to students in MNC's / Reputed organizations.

Challenges

- Enhancing employability of the Students.
- Inculcating spirit of Entrepreneurship among students.

Future Plans

- Research Center for Management Faculty.

VIII. DEPARTMENT OF MCA

1. Name of the department : MCA
2. Year of Establishment : 2011
3. Name of Programs/Courses offered (UG, PG, M.Phil, PhD, Integrated Masters, Integrated PhD):

Sr. No.	Name of the Programme	Year of Establishment
1	PG- Master of Computer Applications	2011

4. Name of Inter disciplinary courses and 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	Master of Computer Applications	CBCS [Choice Based Credit Based System], Semester Pattern applied from 2013

6. Participation of the department in the courses offered by other departments: Nil

7. Courses in collaboration with other universities, industries, foreign institutions:

Sr. No	Certificate/Course Name	Collaborating Institution /Industry/Universities etc.
1	Japanese Language Classes [Basic level N5]	Senmon Kyouiku Publishing Company Ltd., Tokyo, Japan
IIT Bombay Spoken Tutorial On		
2	<ul style="list-style-type: none"> ➤ C Programming ➤ Advanced CPP ➤ Java Programming ➤ Python ➤ PHP& MySQL ➤ Perl Programming 	IIT Bombay

8. Details of courses/programs discontinued (if any) with reasons: Nil

9. Number of teaching posts

Designation	Sanctioned	Filled
Professor	4	1
Associate Professor	7	--
Assistant Professor	21	14
Visiting /Guest Faculty	8	2

10. Faculty profile with name, qualification, designation, specialization, D.Sc./D.Litt./Ph.D./M. Phil. etc.,)

Sr. No.	Name of Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
1	Dr. Ms. S. R. Chavan	M.Sc. (Ele.) MCM, MCA, Ph.D.	Professor, Associate Director	Computer Applications	18	4
2	Prof. Ms. D. D. Mokashi	MCA	Assistant Professor	Computer Applications	12	--
3	Prof. Ms. A. A. Deshpande	MCA	Assistant Professor	Computer Applications	11.2	--
4	Prof. M. J. Patil	MCA, SET(CS), MBA(HR)	Assistant Professor	Computer Applications	10.6	--
5	Prof. Ms. K. S. Alisetty	MCA	Assistant Professor	Computer Applications	9.2	--
6	Prof. R. D. Kale	MCA, M.Phil.	Assistant Professor	Computer Applications	9.2	--
7	Prof. Ms. S. P. Patil	MCA	Assistant Professor	Computer Applications	9.2	--
8	Prof. R. P. Pune	MCA	Assistant Professor	Computer Applications	9	--
9	Prof. A. G. Kudale	MCA, Ph.D. (Pursuing)	Assistant Professor	Computer Applications	8	--
10	Prof. T. R. Dhotre	MCA	Assistant Professor	Computer Applications	8	--
11	Prof. K. Kant	MCA	Assistant Professor	Computer Applications	7	--
12	Prof. Ms. P. A. Kulkarni	MCA Ph.D. (Pursuing)	Assistant Professor	Computer Applications	7	--
13	Prof. Ms. P. S. Ingle	MCA, M.Sc (CS)	Assistant Professor	Computer Applications	7	--
14	Prof. Ms. S. S. Pharande	MCA	Assistant Professor	Computer Applications	5	--
15	Prof. J. R. Valsangkar	MCA	Assistant Professor	Computer Applications	2 Months	--

11. List of senior visiting faculty:

Sr. No.	Name of Adjunct Faculty	Experience	Specialization	Name of Organization
1	Mr. B. H. Kaulwar	14 years	C and Data Structure	Freelancer
2	Ms. S.A. Patil	10 years	ASP.NET	Capgemini

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	MCA	12 :1 11 :1 (By considering adjunct faculty)

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Staff details	Sanctioned	Filled
Support Staff (Technical)	1	1
Administrative Staff	3	3

15. Qualifications of teaching faculty with D. Sc/D.Litt./Ph.D./M.Phil/PG.:

Ph.D.	Ph.D. Pursuing	PG	UG
1	2	12	--

16. Number of faculty with ongoing projects from a) National and b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre/facility recognized by the University: Nil

19. Publications:

a) Publication per faculty :

Sr. No.	Name of the faculty	No. of Papers published in peer reviewed journals Faculty/Student	No. of Publications listed in International DB	Chapter In Book	Books Edited/Monograph	Books with ISBN in international DB	Citation Index		SNIP	SJR	Impact Factor	h - Index	
							Scopus	Google Scholar				Scopus	Google Scholar
1	Dr. Ms. S. R. Chavan	3	1	--	--	1	--	5	--	--	Min: 2.52 Max: 2.52	--	--
2	Prof. Ms. K. S. Alisetty	2	--	--	--	--	--	--	--	--	--	--	--

3	Prof. R. D. Kale	1	--	--	--	--	--	--	--	--	Min: 2.52 Max: 2.52	--	--
4	Prof. R. P. Pune	1	--	--	--	--	--	--	--	--	--	--	--
5	Prof. A. G. Kudale	2	--	--	--	2	--	--	--	--	--	--	--
6	Prof. Ms. P. A. Kulkarni	5	--	--	--	--	--	--	--	--	Min: 1.01 Max: 5.83	--	--
7	Prof. Ms. P.S. Ingle	1	--	--	--	--	--	--	--	--	Min: 2.52 Max: 2.52	--	--
8	Prof. A. A. Shinde	1	--	--	--	--	--	--	--	--	Min: 2.52 Max: 2.52	--	--
9	Prof. Ms. S. S. Pharande	0	1	--	--	--	--	--	--	--	--	--	--

b) Books Publications:

Sr. No.	Faculty Name	Book Name	Book No.	Publication
1	Dr. Ms. S. R. Chavan	C-Programming	ISBN 978-93-82448-06-8	Nirali Publication
2	Prof. A.G. Kudale	E. Commerce	ISBN 978-81-8492-044-4	Tech-Max Publication
3	Prof. A.G. Kudale	VB.NET	ISBN 978-81-8492-449-7	Tech-Max Publication

20. Areas of consultancy and income generated:

Academic Year	Name of Institute / Industry	Name of Activity	Revenue Generated (in ₹)
2016-17	Sinhgad Institutes	Japanese Language Training and NAT Test	48,800 /-

21. Faculty as members in

a) National committees:

Name of the Faculty	Name of the Committee/Role	Nature of work/Description
Dr. Ms. S. R. Chavan	National Conference on Emerging Trends & Challenges in Computer Science	Session Chair
	National Conference Placitum-2015 at Narhe	Session Chair

b) International committees:

Name of the Faculty	Name of the Committee/Role	Nature of work/Description
Dr. Ms. S. R. Chavan	International Conference Globe Unified, Role of ICT-2015	Reviewer for Conference

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. Ms. S. R. Chavan	BOS Member for GHRCEM	Guidelines for Syllabus Structure
2	Dr. Ms. S. R. Chavan	SPPU Exam	Paper Setting
3	Prof. A. G. Kudale	SPPU Exam	Paper Setting
4	Prof. Ms. A.A. Deshpande	SPPU Exam	Paper Setting
5	Prof. R. D. Kale	External Sr. Supervisor NavalmalFirodiya Law College 2016 Jay Ganesh College, Narhe 2015	External Sr. Supervisor For SPPU Exam
6	Prof. A. G. Kudale	External Sr. Supervisor AbhinavEdu Soc. Apr. 2016 Matrix School of Mgmt Studies Apr. 2015	External Sr. Supervisor For SPPU Exam
7	Prof. R. P. Pune	SPPU External Project Viva-Voce	Chairman
8	Prof. R. D. Kale	SPPU External Project Viva-Voce Abacus Institute JSPM	Chairman
9	Prof. Ms. K. S. Alisetty	University Squad Team	Member

22. Student projects

a) Percentage of students who have one in-house projects including interdepartmental/programme

Sr. No.	Academic Year	No. of In-house Projects	%of In-house Projects
1	2016-17	MCA-III –35 MCA-II Track-I -58	MCA-III – 100 MCA-II - Track-I 100
2	2015-16	MCA-III – 171 MCA-II-23	MCA-III – 100 MCA-II -95.65
3	2014-15	MCA-III – 285 MCA-II- 201	MCA-III – 100 MCA-II -99.50
4	2013-14	MCA-III – 115 MCA-II -289	MCA-III – 100 MCA-II -96.54

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Sr. No.	Academic Year	Percentage of in-house Projects	Percentage of Sponsored Projects*
1	2016-17	--	100
2	2015-16	--	98.85
3	2014-15	--	100
4	2013-14	--	100

* Sem-VI Industrial Projects are mandatory in any of the organization as per SPPU Curriculum.

23. Awards/Recognitions received by faculty and students:

a) Awards/Recognitions received by Faculty:

Sr. No.	Name of Faculty	Year of Achievements	Achievement/ Recognition
1	Dr. Ms. S. R. Chavan	2016-17	100 % Result [Advanced Data Structure & C++]
2	Prof. K. Kant	2016-17	100 % Result [Advanced Data Structure & C++]
3	Prof. Ms. A. A. Deshpande	2016-17	100 % Result [Data Communication & Computer Networks]
4	Dr. Ms. S. R. Chavan	2015-16	Recognition as PhD Guide in Computer management At SPPU
5	Dr. Ms. S. R. Chavan	2015-16	100 % Result [Java Programming]
6	Prof. Ms. P. A. Kulkarni	2015-16	100 % Result [Java Programming]
7	Prof. Ms. K. S. Alisetty	2015-16	100 % Result [Information Security & Audit]
8	Prof. A. G. Kudale	2015-16	Best Teacher Award
9	Prof. A. G. Kudale	2014-15	Best Teacher Award

b) Awards/Recognitions received by Student :

Sr. No.	Year	Activity	No. of Prizes won
1	2016-17	Logica	1 st rank and Trophy
2	2016-17	Inspiria	2 nd rank and Trophy
3	2016-17	Java Programming	1 st rank and Trophy
4	2016-17	Java Programming	3 rd rank
5	2016-17	Treasure Hunt	1st rank and Trophy
6	2015-16	National Level Coding Contest	1st rank and Trophy

7	2015-16	Code Battle	2 nd rank and Trophy
8	2015-16	Java Programming	3 rd rank
9	2014-15	Java Programming Contest	2 nd rank and Trophy
10	2014-15	Software Project Contest	2 nd rank and Trophy
11	2014-15	Logica	1 st rank and Trophy
12	2014-15	Snooker	1st rank and Trophy
13	2014-15	Chess Competition	1st rank and Trophy
14	2014-15	Carrom	1st rank and Trophy
15	2014-15	Software Project Contest	2 nd rank and Trophy
16	2013-14	Creative Designing	1 st rank and Trophy
17	2013-14	Web Designing	1 st rank and Trophy
18	2013-14	Carrom	1st rank and Trophy
19	2013-14	Carrom	1st rank and Trophy
20	2013-14	Carrom (Team)	1st rank and Trophy
21	2013-14	Carrom (Individual)	1st rank and Trophy
22	2013-14	Carrom	1st rank and Trophy
23	2013-14	Carrom	2nd rank and Trophy
24	2013-14	Amazing Race	1st rank and Trophy
25	2013-14	Business Bazigar	1st rank and Trophy

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. H. D'Costa	CEO, Intelligent Quotient Security System,Pune	Workshop conducted on Cyber Security
2	Dr. E. B. Khedkar	Dean of Management SPPU, Pune	Workshop on Cloud Computing using Google app engine under QIP.
3	Mr. S. Panpaliya	Director, GKTCS, Pune	Workshop on Django
4	Mr. H.Gune	Director, Symbiosis Institute Pune.	Workshop on Python Programming.
5	Ms. A. Prabhudesai	Founder Director, Bodhivriksha, Pune.	Workshop on Employ-ability Skills Development.

25. Seminars/Conferences/Workshops organized & the source of funding:

a) National:

Sr. No.	Year	Name of FDP/SDP/STTP/ Webinar/ Seminar etc.	No. of Participants	Sponsoring/ Funding Agency if any
1	2015-16	FDP : Cloud Computing Using Google App Engine	42	Savitribai Phule Pune University

b) International: Nil

26. Student Profile Programme/Course wise:

Name of the Course/ Programme	Academic Year (Graduation)	Applications received	Selected	Enrolled		Passing Percentage
				*M	**F	
MCA	2016-17	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, regulations and guidelines set by Savitribai Phule, Pune University, State Government body.	67	47	20	Since the college wise applications received are with DTE, pass percentage is not available with the institute.
	2015-16		91	60	31	
	2014-15		29	19	10	
	2013-14		44	34	10	

*M=Male **F=Female

27. Diversity of Students

Name of the Course/ Programme	Academic Year	% of students from the same state	% of students from other states	% of students from abroad
MCA	2016-17	85.08	14.92	NA
	2015-16	74.73	25.28	
	2014-15 (MCA-I)	55.18	44.83	
	2014-15 (MCA-II)	86.05	13.96	
	2013-14 (MCA-I)	52.28	47.73	

	2013-14 (MCA-II)	87.1	12.91	
--	---------------------	------	-------	--

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		
	2016-17	2015-16	2014-15
GRE	1	1	0

29. Student progression

Student Progression	Against % Enrolled			
	2016-17	2015-16	2014-15	2013-14
Employed				
Campus Selection	62.86%	13.15%	12.27%	9.57%
Other than campus recruitment	20.00%	22.11%	20.22%	21.74%
Entrepreneurship/Self-employment	--	0.005	0.013	0.008

30. Details of infrastructural facilities

a) Central Library:

- Institute:

Sr. No.	Particulars	Number
1	Titles	506
2	Volumes	3634
3	National Journals	22
4	International Journals	0
5	CDs	374
6	e-Books and e-Journals	468

List of Periodicals/ Journals available Print format

Sr. No.	National Journal Titles
1	Data Quest
2	Digit
3	Digital Learning
4	Express Computer
5	Global Journal of Networks and Applications
6	i-manager s Journal on Software Engineering
7	International Journal of Software Engineering & Systems

8	IUP Journal of Computer Sciences
9	Journal of Advance Research in Computer Technology & Software Applications
10	Journal of Cloud Computing and Database Management
11	PC Quest
12	Voice and Data
13	Annals of Library & Information Studies
14	i-manager's Journal on Image Processing
15	International Journal of Advance Networking & Applications
16	International Journal of Distributed & Cloud Computing
17	IUP Journal Of Information Technology
18	Open Source for you
19	Journal of information Technology & Science
20	Journal of Knowledge Management and Information Technology
21	International Journal of Wireless Communication and Simulation
22	Journal of The Institution Of Engineers Series B

- Departmental Library: The departmental library consists of various books including 52 titles and 67 volumes.

b) Internet facilities for Staff & Students:

Internet line of 24 Mbps for computer laboratories, classrooms, seminar hall.

c) Class rooms with ICT facility: Department has Six spacious class rooms and a seminar hall having capacity of 60 and 180 respectively. Both of these having facilities viz. LCD Projector, Computers.

d) Laboratories: Four well equipped laboratories are available with internet facility.

Sr. No.	Name of the Lab	Major Equipments in the department
1	Computer Lab- I	Total Computers: 100 Software : IBM Rational Rose Windows-7 [Campus License] Printers:6
2	Computer Lab- II	
3	Computer Lab-III	
4	Computer Lab-IV	

31. Number of students receiving financial assistance from college, University, Government or other agencies:

Year	Type of Assistance	No. of students			
		College	University	Government	Other Agencies
2016	NT Freeship	-	-	03	-
	OBC Freeship	-	-	-	
	SBC Freeship	-	-	-	
	SC Scholarship & Freeship	-	-	05	
	ST Scholarship & Freeship	-	-	01	
	EBC Scholarship	-	-	42	
2015	NT Freeship	-	-	08	-
	OBC Freeship	-	-	24	
	SBC Freeship	-	-	02	
	SC Scholarship & Freeship	-	-	10	
	ST Scholarship & Freeship	-	-	01	
	EBC Scholarship	-	-	57	
2014	NT Freeship	-	-	19	-
	OBC Freeship	-	-	82	
	SBC Freeship	-	-	05	
	SC Scholarship & Freeship	-	-	27	
	EBC Scholarship	-	-	78	
		-	-		
2013	NT Freeship	-	-	17	-
	OBC Freeship	-	-	82	
	SBC Freeship	-	-	06	
	SC Scholarship & Freeship	-	-	28	
	EBC Scholarship	-	-	57	
		-	-		

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	2016-17	Internet of Things on IBM Blue mix	Mr. A. Kulkarni	Senior Architect, IOT Persistent Systems Pvt. Ltd, Pune

			Mr. A. Kumar	Junior Architect, IOT, Persistent Systems Pvt. Ltd, Pune
2		Employability Skills Development	Ms. A. Prabhudesai	Founder Director, Bodhivriksha, Pune.
3		Workshop on Python Programming	Mr. H. Gune	Deputy Director, Symbiosis Institute)
			Mr. N. Kumar	Cybage Pvt. Ltd.
4		Workshop on Cyber Laws & Intellectual Property Rights	Dr. Ms. D. P. Lele,	Trainer & Consultant, Netlawgic Legal Services
5	2015-16	Boot Strap	Mr. S. R. Phadke	Crystal Softech, IT Training Institute
6		Career Opportunities In Current Trends of IT	Mr. U. Gajendragadkar	Senior Director, PTC Technologies Pvt. Ltd.
7		Personality Development Skills	Mr. N. Joshi	Vice President, Enrich LLC
8		Importance of News Paper Reading	Mr. R. Kulkarni	Manager, Corporate Cells, The Indian Express Limited
9		Spring -Hibernate (MCA-III)	Mr. V. Kumar	Associate Consultant, Capgemini
10		Business Intelligence & Analytics Software	Ms. T. Metty	Senior Software Engg., Wipro Technologies
11			Introduction to ERP System	Mr. P. Vasekar
12	2014-15	Agile Methodology	Mr. P. Thorgule,	Senior Consultant SystemPlus Pvt. Ltd., Pune
13		Internet of Things	Mr. S. Panpaliya	Director GKTCS Innovations Pvt. Ltd., Pune
14		Python Course Training	Mr. S. Panpaliya	Director GKTCS Innovations Pvt. Ltd., Pune
15		Django Course Training	Mr. S. Panpaliya Director GKTCS Innovations Pvt. Ltd., Pune	Director GKTCS Innovations Pvt. Ltd., Pune
16		Stress Management	Ms. A. Agarwal	Consulting Faculty, Art of Living, Pune
17		Bigdata & Hadoop	Mr. R. Srivastava	CTO & Head of Training, Quantfarm Training & Consulting Pvt. Ltd, Pune

18	2013-14	Session on News Paper Reading	Mr. R. Kulkarni	Chief Editor Indian Express, Pune
19		Foreign Language Training (JALTAP)	Ms. G. Hande	Senior Trainer of JALTAP, Fluent Language Institute, Pune
20		Foreign Language Training (JALTAP)	Mr. S. Mate	President of JALTAP & Director of FUJIKURA Automobile India Pvt Ltd, Pune
21		Workshop on Mobipreneur	Mr. Jayant Basantani	Member, Nurture Talent Academy, & CSI

33. Teaching methods adopted to improve student learning

- For practical subjects, separate lab works and assignments are given to students
- NPTEL videos are shown to visualize the concepts.
- Educational visits to Industries and guest lectures from experts have been arranged.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Various Social Activities are arranged for students to increase awareness about social responsibilities,

- Regular visit to old age home and orphanage homes
- Blood Donation Camp
- Donation to NAAM Foundation
- Teacher's day celebration
- Navratri Celebration in respect of goddess Durga
- Youth day celebration with visit to Ram Krishna Math
- Traffic Awareness Day
- Railway Platform Cleanliness Drive
- Marathi Bhasha Din(Kavi Kusumagraj Jayanti)
- Seminar on "Sexual Harassement of Women at Workplace-Act 2013"
- Jayanti [Birth Anniversary] Celebration of Historical Personalities and freedom fighters viz. Chatrapati Shivaji Maharaj Jayanti, Pandit Jawaherlal Nehru Jayanti, Swami Vivekananda Jayanti, Netaji Subhash Chandra Bose Jayanti etc.

35. SWOC analysis of the department and Future plans

Strengths:

- Effective execution of academics and other departmental activities through regular reviews by Associate Director.
- Placement related guidance provided by arranging sessions by expertise and conduction of GDPI sessions and aptitude tests by faculties.
- Remedial & Extra Sessions are arranged for academically weaker students.
- Department ensures participation of most of students in Social Activities to focus on their Social Sense and their holistic development.
- Foreign language center is developed at dept. to give scope to students for enhancement of their employability skills.

Weaknesses:

- More MOUs required for improving Industry-Institute Interaction.
- To aware about current IT Trends more number of Industrial Visits should be arranged.

Opportunities:

- To arrange training sessions regarding certification courses.
- To start Research Center to motivate faculties for research & development.

Challenges:

- Most of students are weak in communication skills, so more efforts are required to improve their soft skills.
- To fulfill admissions according to intake.

Future Plans:

- Planning for tie ups with companies to work with live projects development for students and faculties.

DECLARATION BY HEAD OF THE INSTITUTION

 Sinhgad Institutes	<p>Sinhgad Technical Education Society's® NBN SINHGAD TECHNICAL INSTITUTES CAMPUS Approved by AICTE, New Delhi, Recognized by Government of Maharashtra & Affiliated to Savitribai Phule Pune University (ID No. -PU/PN/Engg/432/2012)</p> <p>S. No. 10/1, Ambegaon (Budruk), Off Sinhgad Road, Pune 411041 • Tel. : +91-20-24355042 / 46, +91-20-24610880/881 • Tele Fax : +91-20-24355042 • Website : www.sinhgad.edu • Email : nbnssoe@sinhgad.edu / nbnsoms@sinhgad.edu / nbnsocs@sinhgad.edu</p>	
<p>PROF. M. N. NAVALE M.E. (Elect.) M.I.E., M.B.A. FOUNDER PRESIDENT</p>	<p>DR. (MRS.) SUNANDA M. NAVALE B.A., M.P.M., Ph.D. FOUNDER SECRETARY</p>	<p>DR. RAJESH S. PRASAD Ph.D (Computer Sc. & Engg.), LMISTE, AMCSI, MIAENG. DIRECTOR</p>

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.

Date: 21/04/2017
Place: Pune



(Dr. Rajesh S. Prasad)
 Signature of the Head of the institution
 with seal of NBN Sinhgad Technical Institutes
 Campus, Ambegaon(Bk), Pune - 41.



CERTIFICATE OF COMPLIANCE

 <p>Sinhgad Institutes</p>	<p>Sinhgad Technical Education Society's® NBN SINHGAD TECHNICAL INSTITUTES CAMPUS</p> <p>Approved by AICTE, New Delhi, Recognized by Government of Maharashtra & Affiliated to Savitribai Phule Pune University (ID No. -PU/PN/Engg/432/2012)</p> <p>S. No. 10/1, Ambegaon (Budruk), Off Sinhgad Road, Pune 411041</p> <p>• Tel. : +91-20-24355042 / 46, +91-20-24610880/881 • Tele Fax : +91-20-24355042 • Website : www.sinhgad.edu • Email : nbnssoe@sinhgad.edu / nbnsoms@sinhgad.edu / nbnsocs@sinhgad.edu</p>	
<p>PROF. M. N. NAVALE M.E. (Elect.) M.I.E., M.B.A. FOUNDER PRESIDENT</p>	<p>DR. (MRS.) SUNANDA M. NAVALE B.A., M.P.M., Ph.D. FOUNDER SECRETARY</p>	<p>DR. RAJESH S. PRASAD Ph.D (Computer Sc. & Engg.), LMISTE, AMCSI, MIAENG. DIRECTOR</p>

Certificate of Compliance
(Affiliated/Constituent/Autonomous Colleges and Recognized Institutions)

This is to certify that STES's NBN Sinhgad Technical Institute Campus, Ambegaon, Pune-411041 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.

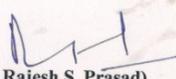
In case the affiliation / recognition is conditional, then a detailed enclosure with regard to compliance of conditions by the institution will be sent.

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.

Date: 21/04/2017
Place: Pune




(Dr. Rajesh S. Prasad)
Principal/Head of the Institution
(Name and Signature with Office seal)
NBN Sinhgad Technical Institutes
Campus, Ambegaon(Bk.), Pune - 41.

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

F.No. Western/1-2809447183/2016/EOA

Date: 05-Apr-2016

To,

The Secretary,
Tech. & Higher Education Deptt.
Govt. of Maharashtra, Mantralaya,
Annexe Building, Mumbai-400032

Sub: Extension of approval for the academic year 2016-17

Ref: Application of the Institution for Extension of approval for the academic year 2016-17

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	1-2809447183
Name of the Institute	NBN SINHGAD TECHNICAL INSTITUTES CAMPUS	Permanent Id	1-461491971
Name of the Society/Trust	SINHGAD TECHNICAL EDUCATION SOCIETY	Institute Address	10/1 AMBEGAON (BK), TALUKA HAVELI, DIST. PUNE 411041, AMBEGAON, PUNE, Maharashtra, 411041
Institute Type	Unaided - Private	Society/Trust Address	44/1 VADGAON (BK.), OFF SINHGAD ROAD, PUNE 411041,PUNE,PUNE,Maharashtra,411041

Opted for change from Women to Co-ed and Vice versa	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved and Vice versa	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 2016-17

Application Id: 1-2809447183			Course	Full/Part Time	Affiliating Body	Intake 2015-16	Intake Approved for 2016-17	NRI Approval status	PIO / FN / Gulf quota Approval status	Foreign Collaboration/Twinning Program Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	MECHANICAL ENGINEERING DESIGN	FULL TIME	University of Pune, Pune	24	24	NA	NA	NA

Application Number: 1-2809447183
Note: This is a Computer generated Report.No signature is required.

Page 1 of 3
Letter Printed On:22 April 2016

Printed By : aic002661



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

ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	VLSI AND EMBEDDED SYSTEMS DESIGN	FULL TIME	University of Pune, Pune	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER ENGINEERING	FULL TIME	University of Pune, Pune	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRICAL ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION TECHNOLOGY	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	University of Pune, Pune	120	120	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	180	180	NA	NA	NA
MCA	1st Shift	POST GRADUATE	MASTERS IN COMPUTER APPLICATIONS	FULL TIME	University of Pune, Pune	240	240	NA	NA	NA

The above mentioned approval is subject to the condition that NBN SINHGAD TECHNICAL INSTITUTES CAMPUS 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.

Application Number: 1-2809447183
Note: This is a Computer generated Report.No signature is required.

Page 2 of 3
Letter Printed On:22 April 2016

Printed By : aic002661



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

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.

Note: Validity of the course details may be verified at www.aicte-india.org

Dr. Avinash S Pant
Vice - Chairman, AICTE

Copy to:

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,**
NBN SINHGAD TECHNICAL INSTITUTES CAMPUS
10/1 AMBEGAON (BK), TALUKA HAVELI, DIST. PUNE 411041,
AMBEGAON,PUNE,
Maharashtra,411041
5. **The Secretary / Chairman,**
SINHGAD TECHNICAL EDUCATION SOCIETY
44/1 VADGAON (BK.), OFF SINHGAD ROAD, PUNE 411041,
PUNE,PUNE,
Maharashtra,411041
6. **Guard File(AICTE)**

Annexure-2

Extension of Approval Letter from University

दूरध्वनी क्रमांक :

०२०-२५६९११२३३
२५६०१२५७
२५६०१२५८
२५६०१२५९



15120048

सावित्रीबाई फुले पुणे विद्यापीठ
(पूर्वीचे पुणे विद्यापीठ)



शैक्षणिक विभाग
गणेशखिंड, पुणे-४११००७.

टेलिग्राफ : 'युनिपुणे'
फॅक्स : ०२०-२५६९१२३३
वेबसाइट : www.unipune.ac.in
इ-मेल : dyracademic@unipune.ac.in

संदर्भ क्र.: CA/1028

दि.: 03/05/2016

प्रति,

मा. प्राचार्य,

सिंहगड टेक्निकल एजुकेशन सोसायटी एन बी एन
-सिंहगड टेक्निकल इन्स्टिट्यूट्स कॅम्पस पत्ता: सव्हे
नंबर १०/१ ऑफ सिंहगड रोड आबेगाव (बु) पुणे -
४११०४१, हवेली, पुणे 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 २०१६-२०१७, या वर्षाकरिता खालील रकान्यात नमूद केलेल्या अभ्यासक्रमांच्या सलग्नीकरणाच्या नूतानिकरणास / नैसर्गिकवादीस अखिल भारतीय तंत्रशिक्षण परिषद, नवी दिल्ली व तंत्रशिक्षण संचालनालय, महाराष्ट्र शासन यांचे अभ्यासक्रम व प्रवेश क्षमता मान्यतेच्या अधीन राहून अटी पूर्ततेच्या पडताळणी अहवाल स्वीकारण्यात आलेला आहे.

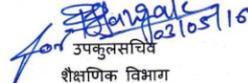
शैक्षणिक वर्ष २०१६-२०१७ करिता अटी पूर्तता अहवालाचे पत्र देत असताना स्थानिक चौकशी समितीच्या अहवालात नमूद केलेल्या ज्या शिक्षकांच्या तदर्थ नेमणुका करण्यात आलेल्या आहेत अशा सर्व शिक्षकांना शैक्षणिक वर्ष २०१६-२०१७ मध्ये कायम ठेवण्यात यावे.तसेच याबाबत विद्यापीठातर्फे वेळोवेळी तपासणी करण्यात येईल.

अनु. क्र.	अभ्यासक्रमाचा तपशील	विद्यार्थी संख्या	प्रथमपाळी/द्वितीय पाळी	संलग्नीकरणाचा प्रकार
1	एम. ई. (इ अँड टीसी) एम्बेडेड सिस्टम्स अँड व्ही. एल. एस. आय. डिझाइन	24	2016-2017 : - वर्ष प्रथम व द्वितीय- Div No.1.,	नूतनीकरण
2	एम.इ. (मेकेनिकल डिझाइन)	24	2016-2017 : - वर्ष प्रथम व द्वितीय- Div No.1.,	नूतनीकरण
3	एम.बी.ए.	180	2016-2017 : - वर्ष प्रथम व द्वितीय- Div No.1.- वर्ष प्रथम व द्वितीय- Div No.2.- वर्ष प्रथम व द्वितीय- Div No.3.,	नूतनीकरण
4	एम.सी.ए.	240	2016-2017 : - वर्ष पहिले ते तिसरे- Div No.1.- वर्ष पहिले ते तिसरे- Div No.2.,	नूतनीकरण
5	बी.ई. (इन्फर्मेशन टेक्नॉलॉजी)	60	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1.,	नूतनीकरण

6	बी.ई. (इलेक्ट्रिकल)	60	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण
7	बी.ई. (इलेक्ट्रॉनिक्स अँड टेलिकम्यूनिकेशन)	60	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण
8	बी.ई. (कॉम्प्युटर)	120	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,- वर्ष पहिले ते चौथे- Div No.2,,	नूतनीकरण
9	बी.ई. (मेकॅनिकल)	180	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,- वर्ष पहिले ते चौथे- Div No.2,- वर्ष पहिले ते चौथे- दुसरी पाळी Div No. 3,,	नूतनीकरण

कळावे,

आपला,


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
E-mail : dyracademic@unipune.ac.in

Ref. No. : CA/231

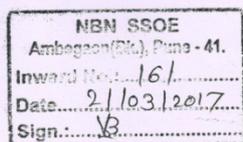
Date : 21/03/2017

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Sinhgad Technical Education Society, NBN Sinhgad Technical Institute Campus, S.No. 10/1, Ambegaon (Budruk), Off. Sinhgad Road, Pune is affiliated to the Savitribai Phule Pune University, since 2012 (PU/PN/Engg./432/2012) and the following courses are taught in the said college as per approval.

<u>Courses</u> <u>Under Graduate</u>	<u>Duration of the</u> <u>Course</u>	<u>Affiliation (Permanent</u> <u>/ Temporary)</u>	<u>Validity</u> <u>Period</u>
Information Technology	4 Year	Temporary	Upto 2016-17
Electrical Engineering	4 Year	Temporary	Upto 2016-17
Electronics and Telecommunication Engineering	4 Year	Temporary	Upto 2016-17
Computer Engineering	4 Year	Temporary	Upto 2016-17
Mechanical Engineering	4 Year	Temporary	Upto 2016-17
Mechanical Engineering (Second Shift)	4 Year	Temporary	Upto 2016-17

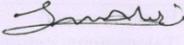
P.T.O.



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Courses Post Graduate	Duration of the Course	Affiliation (Permanent / Temporary)	Validity Period
E &TC (Embedded Systems & VLSI Design)	2 Year	Temporary	Upto 2016-17
Mechanical Engineering (Design)	2 Year	Temporary	Upto 2016-17
M.B.A.	2 Year	Temporary	Upto 2016-17
M.C.A.	3 Year	Temporary	Upto 2016-17

The said certificate is issued as per the request application received from the Principal of the college Ref. No. NBNSTIC/Ltr./2016-17/789, dated 16/03/2017 so as to submit it to the National Assessment and Accreditation Council (NAAC), Banglore.



Dy. Registrar
(Academic Section)