Self Study Report (SSR)



SINHGAD TECHNICAL EDUCATION SOCIETY'S

SINHGAD INSTITUTE OF TECHNOLOGY, LONAVALA

Submitted to

National Assessment and Accreditation Council

Bengaluru





Submitted to



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Bengaluru

by



SINHGAD TECHNICAL EDUCATION SOCIETY'S

SINHGAD INSTITUTE OF TECHNOLOGY

Lonavala, Maharashtra

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

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

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

VISION

उत्तमपुरूषान् उत्तमाभियंतृन् निर्मातुं कटीबध्दाःवयम

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

MISSION

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

OBJECTIVES

- All-round development of students relevant to the needs of industry and making them competent to face the challenges of globalization.
- Empowerment of faculty and staff through continuing education.
- Develop strong Industry-Institute Interaction to offer expertise for projects, training, testing, and consultancy.
- Overall development of students through Student Training Programmes (STPs) and Value Addition Programmes (VAPs).
- Establish Centre of Excellence (CoE) in engineering research.
- To start Doctoral program in engineering.
- Serve as Engineering Knowledge Centre (EKC) for society in general.

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SINHGAD TECHNICAL EDUCATION SOCIETY'S

SINHGAD INSTITUTE OF TECHNOLOGY

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

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

Sinhgad Institutes

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

SIT/2015-16/3597

Date:22/02/2016

To,

The Assistant Registrar, National Assessment and Accreditation Council, P.O.Box.No.1075, Opp: NLSIU Nagabhavi, Banglore-5600072

Subject: Submission of Self Study Report (SSR)

Respected Sir,

We are submitting herewith Self Study Report (SSR) of STES's, Sinhgad Institute of Technology, Lonavala, Pune – 410401. We would like to inform that the copy of SSR is also uploaded on our institute website on 22/02/2016 for your kind perusal.

www.sinhgad.edu

(http://cms.sinhgad.edu/pdf/SITL_Self_Study_Report.pdf)

Institute is ready for the accreditation and assessment by NAAC Peer Team. You are kindly requested to accept the SSR for further processing.

Thanking you with regards.

Dr. M. S. aikwad Principal

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



Abbreviations

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

ISR	Institutional Social Responsibility
JAES	Journal of Advances in Engineering Science
LIC	Local Inspection Committee
MESA	Mechanical Engineering students Association
MITAE	MIT Academy of Engineering
MNC	Multinational Company
MoUs	Memoranda of Understandings
NAAC	National Assessment and Accreditation Council
NPTEL	National Programme on Technology Enhanced Learning
NSS	National Service Scheme
OPAC	Online Public Access Catalogue
OS	Office Superintendent
PBL	Project Based Learning
PEOs	Program Educational Objectives
PI	Personal Interview
PLOs	Programme Learning Outcomes
POs	Programme Outcomes
PPP	Profile and Project Presentation
PWD	The Persons With Disabilities Act
QA- LR	Quantitative Aptitude – Logical Reasoning
R&D	Research & Developement
RHTC	Rural Health Training Centre
SETU	School of Enterprises Tie-Up
SIT	Sinhgad Institute of Technology
SLS	Self Learning Session
SPPU	Savitribai Phule Pune University
SSR	Self Study Report
STES	Sinhgad Technical Education Society
STP	Student Training Program
SWOC	Strength Weakness Opportunity Challenges
T&P	Training & Placement
ТАР	Teacher's Advancement Program

TFWS	Tuition Fee Waiver Scheme
TG	Teacher-Guardian
TTT	Train The Trainers
VAP	Value Addition Program
WSN	Wireless Sensor Network

NAAC Steering Committee

Sr.No.	Name of Staff Member Designation		Designation for Steering Committee
1.	Dr. M. S. Gaikwad	Principal	Chairman
2.	Dr. D. D. Chaudhary	Vice-Principal	Coordinator
3.	Dr. V. V. Shinde	Associate Professor & HOD Mechanical Engineering	Coordinator
4.	Dr. D. K. Singh	Professor & Dean R & D	Member
5.	Dr. S. D. Babar	Associate Professor & HOD Computer Engineering	Member
6.	Mr. V. V. Deotare	Associate Professor & HOD Electronics & Telecommunication Engineering	Member
7.	Mr. N. A. Dhawas	Associate Professor & HOD Information Technology	Member
8.	Dr. A.A.Kalge	Professor & HOD Electrical Engineering	Member
9.	Dr. P. S. Patil	Associate Professor & HOD Engineering Sciences	Member
10.	Mr. Y. D. Jadhav	Training & Placement Officer	Member

PREFACE

Sinhgad Institute of Technology, Lonavala is pleased to present this Self Study Report (SSR) to the National Assessment and Accreditation Council (NAAC), Bengaluru. Sinhgad Technical Education Society (STES) was established in the year 1993 under the dynamic leadership of Prof. M. N. Navale. The sole objective of the society is to provide quality education in the field of Engineering, Medical, Dental, Pharmacy, Management, Computer Applications, Architecture, Commerce, Law, Science and School education.

Sinhgad Institute of Technology (SIT) Lonavala was established in the year 2004. The institute is recognised by All India Council for Technical Education (AICTE) New Delhi and Directorate of Technical Education (DTE) Government of Maharashtra. It is affiliated to Savitribai Phule Pune University (SPPU), Pune. The Institute is located at lonavala, a popular hill station between two metros, Mumbai and Pune. The institute runs five undergraduate courses and five postgraduate courses. Undergraduate courses include Mechanical Engineering, Electronics & Telecommunication Engineering, Computer Engineering, Information Technology, and Electrical Engineering. Post-graduate courses include Mechanical Engineering (VLSI & Embedded Systems), Computer Engineering (Computer Engineering), Computer Engineering), Computer Engineering), Computer Engineering, Systems).

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

SIT believes in developing research culture in departments and supports innovative ideas from faculty and students. The extensive STPs are conducted to enhance the skills set and employability. Conduction of industrial visits, technical exhibitions and participation in various competitions are helpful to students in bridging the gap between industry and academia. Institute believes that it is contributing to engineering education, applying for NAAC is a step towards assurance for quality in engineering education. Furthermore, institute is willing to assess its educational system and academic culture. In addition to it, it is essential for professional institute to receive stakeholder's perception towards teaching-learning process and supporting entities. Thus applying NAAC is a step towards self introspection leading to further development of the institute towards excellence.

Dr. M. S. Gaikwad

EXECUTIVE SUMMARY

Criterion I: Curricular Aspects

STES's Sinhgad Institute of Technology (SIT) is affiliated to the SPPU, Pune. The institute is a self-financing institution and follows the curriculum of the university. Faculty actively contribute in the curriculum design by participating and conducting syllabus revision workshops. In this meeting, members of Board of Studies (BoS) of university and senior faculty from various engineering institutes are invited to discuss and share their ideas. The stakeholders' views and inputs are duely considered in designing the syllabus. Academic flexibility and bridging the gap between curriculum and industry is achieved by conducting certificate courses, seminars and tie-ups with leading industries. The institute encourages self-employability by conducting Entrepreneurship Development Programmes. The institute caters to the needs of slow learners through extra inputs in remedial classes. Social awareness and community service is inculcated in the students through various National Service Scheme (NSS) activities.

Criterion II: Teaching-Learning and Evaluation

The institute has earned its name owed to excellence in teaching and learning processes which is achieved by recruiting competent teaching faculty and designing learning environment in tune with stakeholder's perception. The educational model which is a blend of traditional teaching and student centered learning practices such as Project Based Learning (PBL) is designed to suit learners' abilities and diversity. Institute's 80% admissions are carried out through centralized admission process of the government. The remaining 20% admissions are done by the institute on merit basis.

In order to have smooth conduction of teaching, meticulous planning is done prior to the commencement of the semester. Syllabus completion status is monitored periodically. Suggestions by the staff and feedback from students facilitate in continuous improvement in teaching-learning process. The institute has adapted the reforms in assessment and evaluation patterns by the SPPU. Accordingly, tests are designed and conducted on a regular basis to prepare and assess the students' knowledge and understanding of the technical know-how being delivered in the classrooms and laboratory sessions. The stundents' learning outcomes and performance and in the terminal exams is reviewed and monitored by Academic Monitoring Committee (AMC) to assess academic progress of the institute.

Criterion III: Research, Consultancy and Extension

The institute has established a Research and Development (R&D) cell to promote research and consultancy. The Research Committee comprises of a Chairman, Dean (R&D) and members monitors and recommends research projects. The institute provides seed money for the commencement of the research. Faculty is duely recognized and encouraged to participate in various workshops and conferences, to remain abreast with latest knowledge and technology updates. Nearly, 10% of faculty has been granted sabbatical leaves for the research work. Institute has made financial provisions in budget to cater needs of the research. Furthermore, through workshops and seminars supporting mechanism has been developed to encourage in patent filing. Students and faculty is motivated to pursue industry sponsored projects. Energy centre and Wireless Communication research neighborhood is being developed to cater needs of research in the said sectors.

Institute has upgraded infrastructure by providing space for energy centre, project labs and research lab. Also, institute has initiated School of Enterprise Tie Ups (SETU) programme for bringing research projects and facility for the researchers. Institute has purchased various equipment and software for the needs of the research. Significant growth in Ph.D. scholars and staff publication indicates institute's commitment towards research. Institute has signed MoUs with many industries for project work; these industries not only offer technical expertise but lend their facilities for the research. Institute has received scholarship from European Union (EU) in which faculty had been actively participated in international environment for the research. Furthermore, institute has filed patents and published proceedings of the research work carried by inside and outside faculty. Extension activities on the technical front are carried out by the institute by having MOUs with leading industries. The students are made aware of their social and moral obligations towards society through techno-social activities under NSS. The institute has collaborations with reputed industries, national and international institutions and universities.

Criterion IV: Infrastructure and Learning Resources

The institute has adequate number of class rooms, laboratories, workshops and tutorial rooms. Each class room is equipped with state-of-the-art facilities. The institute has sufficient seminar halls which are used for multiple activities such as seminars, workshops and conferences. Ample hostel facility for girls and boys is provided on the campus. Various sports facilities are available to students like 25 acre sports complex with grounds for football, cricket, basketball, athletic track, swimming pool, gymnasium etc. A 3-Star Corporate Training Centre (CTC) with four well furnished conference halls, a swimming pool and 50 air-conditioned double occupancy rooms is used to conduct various corporate training and industry institute interaction programmes. The central library (main and digital) has excellent collection of books, references, journals, magazines and a book bank facility. It is equipped with e-resources (NPTEL etc), and has a reading hall having a seating capacity of over 300 students. The laboratories are equipped with modern equipments, machinery, computer hardware and software required for both academic and research. All classess are equipped with modern ICT tools. The maintenance of institute and campus facilities is carried and monitored by central maintenance office. Appropriate funds are made available in the annual budget for it and its utilization is monitored by the campus committee.

Criterion V: Student Support and Progression

The institute has annual intake of 900 students with total strength of 4278 students coming from diverse geographical locations of India. In order to cater to the needs of students, a Teacher-Guardian (TG) scheme is followed. Each TG is assigned with a batch of students who monitor the academic and personal progress of these students, which helps to improve passing percentage. The TG is also in constant touch with their parents/local guardians. The main feature of this institute is fully residential campus. About 60% faculty and staff reside in the campus. The laboratories and library remain open for extended hours as per the need of students. Office staff provides necessary support and information regarding various scholarship and insurance schemes. Many students have availed this facility. The institute arranges special coaching for GATE/GRE and other competitive examinations. Also, coaching for slow learners is provided through remedial classes. An appropriate mechanism is established to maintain the record of such students. The Training & Placement (T&P) cell of the institute provides career guidance and organizes campus recruitment drives for the students. The T&P cell guides and counsels the students for placement activities through various initiatives such as online

assessment tests, STP, VAPs and foreign language courses. Development of entrepreneurial skills is encouraged in the students through Entrepreneurship Development Cell (EDC). Every year alumni meet is arranged; who provides feedback on developmental activities of the institute. Institute has framed various bodies which support student's progression, feedback and used to address students grievences in time. Every year institute conducts several sports, extra curricular and co-curricular activities for overall development of the students. Students have representation in various association as well central academic monitoring cells. All students' bodies are encouraged to provide constructive feedback on the institutional academic and administrative environment. All relevant information is available on the institute website.

Criterion VI- Governance, Leadership and Management

The mission and vision of institute are designed in harmony with higher education policies of India. The institute has the governing body works under the Sinhgad Technical Education Society, which is lead by the academician. Faculty members on the management committee are actively involved in the decision making process at various levels. Periodical intetraction are made with all stakeholders for strategic planning and monitoring of policies. The various institute level committee are comprise of the Principal, Heads of Departments, senior faculty, and student's representative for grooming the leadership at various levels. The institute organizes annual Technical Festival 'Techtonic', the annual social gathering (Surabhi), workshops, seminars and conferences for the overall development of the students and to inculcate leadership qualities among them.

The institute has adequate budgetary provison for academic activities and its mobilization is monitored by the institute to ensure optimum utilization. Regular internal audit is carried out. The institute is autonomous in decision making process and planning for strategic development and deployement for perspective plan document. The institute has well defined strategies for faculty recruitment and promotion. Institute facilitates advancement in qualification improvement programme. Through the performance appraisal, institute reviews the performance of the faculty. These appraisals are designed considering various parameters of teaching-learning process. Improvement in the qualification is appropriately appreciated through scale improvement and promotion. Train the Trainer (TTT); skill enhancement programme is a trademark of the institute. In addition to this, staff is encouraged to participate in the staff development programmes.

Criterion VII- Innovations and Best Practices

The institute is committed to adopt environment-friendly policies with regard to plantation, waste management, use of solar water heating system, use of renewable energy resources and water harvesting. Institute has started many innovative programmes which have helped to create positive impact and improvement in academic culture. These mainly include Value Addition Programs, Earn and Learn scheme, and Remedial classes. The use of ERP software (paperless) for academic-administrative purpose has shown our committement to green environment. The formation of Industry Institute Interaction Cell (IIIC) has added impact on the industry-institute interactions and placement. The foremost best practices are implementation of Project Based Learning (PBL) and the Student Training Program (STP) in order to enhance the employability of students. The PBL is implemented through Lab innovations, design experiments, major and minor projects, research projects, industrial projects and SETU initiative. The STP is spread over seven semesters spanning the areas from soft skills, technical skills and interview skills.

SWOC ANALYSIS OF THE INSTITUTE

Strengths:

- Consistently good academic performance
- Rankers in the list of SPPU Pune
- Experienced and qualified faculty and their retention
- Transparent, conducive and collaborative work environment
- Innovative teaching learning practices
- Project Based Learning (PBL) approach
- Entrepreneurship development Cell activities
- State-of-the-art laboratories and infrastructure
- Well equipped central library with adequate collection of books and e-resources
- Active NSS Programme leading to successful extension activities
- Effective implementation of VAPs, and STPs
- Good placement record
- Joint research and Ph.D. programmes with international universities
- Teacher guardian scheme
- Fully residential campus
- Sports complex of national standard
- Industry Institute Interaction Cell

Weaknesses:

- Consultancy and patents
- Strengthen the alumni association
- Research Center
- Faculty with Ph.D.
- Publications in indexed journals

Opportunities:

- There is scope for an inter-disciplinary and collaborative research
- To become centre of excellence in renewable energy and Wireless Sensor Networks
- To develop sports facilities of international standard
- Development of e-learning resources
- Networking and strengthening relationship with stakeholders
- Induction of faculty with Ph.D. qualification

Challenges:

- Increasing the number of placements with higher perks
- Bridging the gap between academia and industry
- Attract meritorious students

C. PROFILE OF THE INSTITUTE

1. Name and Address of the Institute:

Name	Sinhgad Technical Education Society's Sinhgad Institute Of Technology
Address	Gat No.309/310, Off. Mumbai – Pune Expressway, Kusgaon (Bk), Lonavala - 410401, Tal – Maval, Dist- Pune, Maharashtra, India
Website	www.sinhgad.edu

2. For Communication:

Designation	Name	Telephone	Email
Principal	Dr. M. S. Gaikwad	02114-304353 +919552569864	principal_sit@ sinhgad.edu
Vice-Principal	Dr.D. D. Chaudhary	02114-304379 +919372810161	dchaudhary.sit @sinhgad.edu
Steering Committee Co-ordinator	Dr. V. V. Shinde	02114-304360 +919762051751	vvshinde.sit@ sinhgad.edu

3. Status of the institution:

- a. Affiliated Institute
- b. Constituent Institute
- c. Any other (specify)

4. Type of Institution:

- a. By Gender
 - i. For Men ii. For Women
 - iii. Co-education

\checkmark	



- 7. a. Date of establishment of the institute: 11/05/2004
 - **b.** University to which the institute is affiliated: Savitribai Phule Pune University, Pune.
 - c. Details of UGC recognition:

Under Section	Date, Month & Year	Remarks(If any)
i. 2 (f)	No	No
ii. 12 (B)	No	No

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI etc.), Details of First affiliation for existing courses:

A. Under Graduate courses

Sr.	Course	Year of	AICTE Approval	Government	University Affiliation
No.		affiliation	No.	G.R. No.	Letter No.
1	Engineering(Mech, Comp, E&TC, IT)	2004	06/07/MS/ENGG/ 2004 /08 Dt. 11.05.2004	TEM-2004/ (235/2004)/TA NSHI-1 Dt. 01.06.2004	CA/4071 Dt.15.07.2004

2	Engineering (Electrical)	2010	Western Region, Maharashtra/1- 5285631/2010/E OA Dt: 23/08/2010	2010/(165/201 0)/TANSHI-4 Dt. 30/06/2010	CA/898 Dt.11.03.2011
3	Mechanical (Shift II)	2012-13	Western/1- 720721542/2012/ EOA. Dt. 10/05/2012	TEM- 2012/ (98/1) TANSHI-4	CA/2002 Dt.11.10.2012
4	E&TC (Shift II)	2010-11	WR, Mah./1- 5285631/2010/ EOA. Dt. 08/11/2010	TEM- 2010/ (165/10) TANSHI-4	CA/898 Dt.11.03.2011
5	Computer (Shift II)	2010-11	WR, Mah./1- 5285631/2010/ EOA. Dt. 08/11/2010	TEM- 2010/ (165/10) TANSHI-4	CA/898 Dt.11.03.2011

B. Post Graduate

Sr. No.	Course	Year of affiliation	AICTE Approval No.	Government G.R. No.	University Affiliation Letter No.	
1	M.E. Computer	2010-11	WR, Mah./1- 5285631/2010 /	TEM-2010/ (165/10)/TANS HI-4	CA/898	
2	M.E. E & TC		EOA Dt. 08.11.2010	Dt. 30.06.2010	Dt. 11/03/2011	
3	M.E. Mechanical	2011-12	Western/1- 404245083/2011/ EOA	TEM- 2011/(213)/TA NSHI-4	CA/567 Dt. 02/03/2012	
4	M.E. Computer Networks	2012-13	Western/1- 720721542/2012/ EOA Dt. 10/06/2012	TEM– 2012/(98/1) TANSHI - 4	CA/2002 Dt. 11/10/2012	

5	M.E. Electrical Power System	2013-14	Western/1- 1351441922/2013 /EOA Dt. 19/03/2013	TEM–2012/ (98/1) TANSHI - 4	CA/3004 Dt. 17/10/2013					
8.	Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated institutes?									
	Yes	/	No							
	If yes, has the Institute applied for availing the autonomous status?									
	Yes		No 🗸							
9.	Is the institute	recognized	!?							
	a. By UGC as an Institute with Potential for Excellence (CPE)?									
	Yes No 🖍									
	For its performance by any other governmental agency?									
	Yes No 🗸									
10. I	10. Location of the campus and area in sq.mts:									

Location *	Rural
Campus area in sq. mts.	93457.94
Built up area in sq. mts.	64633.88

11. Facilities available on the campus:

Auditorium/seminar complex

With infrastructural facilities

- Sports facilities
 - Play ground
 - Swimming pool
 - Gymnasium
- ➢ Hostels
 - Boys hostel



✓

i. Number of hostels

ii.	Number of inmates	

iii. Facilities: Every hostel has separate Mess, Water Coolers with purifier, Hot Water, Security, CCTV, Attendance Machine, UPS System, Firefighting system, Intercom, Television, Dispensary, House Keeping, Wi-Fi connectivity, Reading Room, News Papers, Guest Room, Table, Chair, etc.

10

3

• Girls' hostel



- iii. Facilities: Every hostel has separate Mess, Water Coolers with purifier, Hot Water, Security, CCTV, Attendance Machine, UPS System, Firefighting system, Intercom, Television, Dispensary, House Keeping, Wi-Fi connectivity, Reading Room, News Papers, Guest Room, Table, Chair, etc.
- Cafeteria Yes (05 canteens including one Café Coffee Day (CCD)
- > Residential facilities for teaching and non-teaching staff :

Sr. No.	Type of Facility	Total Numbers	Category of staff
1	3 BHK	8	Principal/Professor
2	2 BHK	44	HOD/Associate Professor
3	1 BHK	104	Assistant Professor/Lab assistant
4	1 RK	88	Peon/ Supporting Staff
5	Guest Rooms	10	VIP Guests

- Health centre –Yes
- First aid, In-patient, Out-patient, Emergency care facility, Ambulance
- Health centre staff –

Qualified Doctor	Full time
Qualified Nurse	Full time

• Facilities like banking, post office, book shops: **YES**

- Transport facilities to cater to the needs of students and staff: YES
- (Four buses are available for staff from Pune and one bus from Mumbai.)
- Animal house: **NO**
- Biological waste disposal: **YES**
- Generator or other facility for management/regulation of electricity and voltage: **YES**
- Solid waste management facility: YES
- Waste water management: **YES**
- Water harvesting: **YES**

12. Details of programmes offered by the institute (Data for academic year 2015-16)

Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted		
	Mechanical Engg.				240+13*	253		
	Mechanical Engg. (2 nd Shift)				120	118		
	E&TC Engg.				180+10*	124		
Under-	E & TC Engg. (2 nd Shift)	Four	12 th Std	12 th Std.	12 th Std.	English	60	51
Graduate	Computer Engg.	Years		0	120+7*	126		
	Computer Engg. (2 nd Shift)				60	60		
	Information Technology				60+4*	63		
	Electrical Engg.				60+4*	64		
	M.E. Design				18	18		
Post Graduate	M.E. E & TC VLSI	Two			English	24	17	
rost-Graduate	M.E. Computer	Years	Graduale	Eligiisii	18	16		
	M.E. Computer Network				24	01		

	Í.	i .		
M.E. Electrical			24	24
Power System			24	24

(* through TFWS and J & K Quota)

13. Does the institute offer self-financed programmes? No

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

|--|

15. List of the departments:

Faculty	Departments	UG	PG	Research
	Mechanical	Y	Y	-
	Electronics & Telecommunication	Y	Y	-
Engineering	Computer	Y	Y	-
	Information Technology	Y	-	-
	Electrical	Y	Y	-

16. Number of Programmes offered under

a.	Annual system	00
b.	Semester system	10
c.	Trimester system	00

17. Number of Programmes with:

- a. Choice Based Credit System: Nil
- b. Inter/Multidisciplinary Approach: Nil
- c. Any other: Nil

18. Does the institute offer UG and/or PG programmes in Teacher Education? No

19. Does the institute offer UG or PG programme in Physical Education? No

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

		T	eachi	ng fac	culty		Non-teaching		Technical	
Positions	Profe	ssor	sor Associate Professor		Assistant Professor		staff		staff	
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC / University / State Government Recruited	16	8	34	17	122	61	102	45	37	12
Sanctioned by the Management or other authorized bodies Recruited	8	1	16	8	125	55	102	45	37	12
Yet to recruit	8	7	18	9	-3	6	0	0	0	0

*M-Male *F-Female

21. Qualifications of the teaching staff:

Highest	Pro	ofessor	Associa	ate Professor	Assistant	Professor	Total	
quanneation	Male	Female	Male	Female	Male	Female	Total	
Permanent teachers								
Ph.D.	8	1	0	1	2	0	12	
M. Phil.	0	0	0	0	0	0	0	
PG	0	0	16	7	101	48	172	
Temporary teachers								
Ph.D.	0	0	0	0	0	0	0	
M. Phil.	0	0	0	0	0	0	0	
PG	0	0	0	0	22	7	29	

22.Number of Visiting Faculty /Guest Faculty engaged with the Institute: 29

23. The number of the students admitted to the institute during the last four academic years.

			τ	J G Progr	amme			
Categories	201	5-16	2014-15		201	.3-14	2012-13	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	65	16	59	17	53	10	41	6
ST	4	0	6	1	7	2	7	0

OBC	154	26	156	39	130	28	105	24
General	459	56	461	99	387	98	282	97
Others	65	14	79	11	77	22	44	14
Total	747	112	761	167	654	160	479	141
PG Programme								
SC	4	2	1	1	1	2	1	1
ST	-	-	-	-	-	-	-	-
OBC	5	1	8	1	4	4	3	2
General	44	19	36	24	62	22	43	27
Others	-	1	2	2	4	4	3	2
Total	53	23	47	28	77	31	53	31

24. Details on students enrollment in the institute during the current academic year (2015-16):

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state (M.S.)	655	73	-	-	728
Students from other states of India	204	3	-	-	207
NRI / Foreign students	-	-	-	-	-
Total	859	76	-	-	935

25. Dropout rate in UG and PG (average of the last two batches): UG = 5%, PG = 1%

26. Unit Cost of Education:

- (a) Including the salary component: Rs. 66750/-
- (b) Excluding the salary component: Rs. 24107/-

27. Does the institute offer any programme/s in distance education mode (DEP)? No

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

Sr. No.	Programme	UG TSR	PG TSR
1	Electronics & Telecommunication Engineering	1:16	1:12
2	Computer Engineering	1:15	1:12
3	Information Technology	1:15	NA
4	Mechanical Engineering	1:17	1:12
5	Electrical Engineering	1:15	1:12
6	Engineering Sciences	1:18	NA

- **29.** Is the institute applying for Accreditation? Yes, for Cycle 1.
- 30. Date of accreditation* NA
- 31. Number of working days during the last academic year: 205
- 32. Number of teaching days during the last academic year: 160
- **33.** Date of establishment of Internal Quality Assurance Cell (IQAC) IQAC / AMC:

30/06/2005 (Academic Monitoring Committee)

34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC.

NA

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

Four programmes in the institute have been accredited by NBA since September 2013 for two years. Academic Monitoring Committee (AMC) has been functioning in the role of IQAC in the institute.

CRITERION I: CURRICULAR ASPECTS

1.1Curriculum Design and Development

1.1.1 How are the institutional vision / mission reflected in the academic programmes of the college?

VISION

उत्तमपुरूषान् उत्तमाभियंतृन् निर्मातुं कटीबध्दाःवयम्

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

MISSION

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

OBJECTIVES

- All-round development of students relevant to the needs of industry and making them competent to face the challenges of globalization.
- Empowerment of faculty and staff through continuing education.
- Develop strong Industry-Institute Interaction to offer expertise for projects, training, testing & calibration and consultancy.
- Overall development of students through Student Training Programmes (STPs) and Value Addition Programmes (VAPs).
- Establish Centre of Excellence (COE) in engineering Research.
- To start Doctoral program in engineering.
- Serve as Engineering Knowledge Centre (EKC) for society in general.

The vision, mission and objectives are displayed in the department at the HODs offices, notice boards, on the website, departmental newsletters, and magazine, technical paper souvenirs and printed on journal files. The institute implements rigorous academic activities to ensure each of the implied components of the vision, mission and objectives is addressed in letter and spirit. Strictly monitored process of planning and implementation, followed year after year, has shown improvement in academic performance of students.

Following standard operating procedure is adopted:

- 1. Program Educational Objectives (PEOs) are defined by the faculty of the department in line with vision and mission of the college.
- 2. Based on above PEOs, Programme Outcomes (POs) are defined.
- 3. Savitribai Phule Pune University (SPPU) curriculum is enhanced with institute defined modules.
- 4. Subject allotment is done on the basis of subject expertise with highest priority to junior faculty.

- 5. Lesson planning by faculty with clearly articulated course objectives and unit objectives mapped with respective learning outcomes.
- 6. Regular monitoring of implementation of the lesson plans.
- 7. Periodic confidential e-feedback from students about each faculty.
- 8. Assessment of outcomes.

Besides curricular, the co-curricular and extra-curricular aspects in the Vision, Mission and Objectives are taken care through following components.

Training and Placement

- In order to enhance core application skills, the students are provided with Student Training Program (STP) as part of their regular academic schedule. The STP is subdivided into six modules which are conducted from 2nd to 7th semesters. These phases are designed to develop soft skills, core application skills and presentation research skills in students.
- Value Addition Programs (VAPs) are regularly arranged to bridge the gaps between industry and academics.
- Activities such as Group Discussion (GD), Personal Interview (PI) sessions, Test Series of Quantitative Aptitude (QA) Logical Reasoning (LR) are conducted throughout the curriculum.
- Also, well recognized statistical assessment platform Aspiring Minds Computer Adaptive Test (AMCAT) is used to assess employability.

Student Centric Learning

- Students are encouraged to carry out their project work in the latest technological areas.
- Activities such as Lab Innovation, project and design competitions provide an opportunity to generate and implement innovative ideas.
- The Entrepreneurship Development Cell (EDC) orients students to start their own business ventures.
- National and international level seminars, workshops and conferences are organized to provide knowledge in latest technologies.

Industry Institute Interaction Programs

- Microsoft Campus Club, Business Club, Zero Club along with IBM center of Excellence & Persistent Center of Excellence provides effective interaction of students and teachers with industry.
- Eminent speakers from academia, industry and service sector are invited for interaction with the students and faculty.
- Industry Institute Interaction Cell(IIIC)

Co-Curricular Activities

Sinhgad Technical Education Society (STES) organizes annual event '*Sinhgad Karandak*' which is a national level platform to exhibit talent in Sports, Cultural and Technical events. Students across the country participate in these multifaceted events.

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).

Development of the action plan:

Sinhgad Institute of Technology (SIT) has a distinct culture of rigorous action plan development. The whole process is illustrated below

- At the end of the current semester academic calendar is announced for the next semester. This enables faculty to design their lesson plans during vacation.
- Lesson Plans are designed meticulously. It's components are:
 - Course objectives designed by faculty and linked with PEOs.
 - Unit objectives linked with course objectives
 - Course learning outcomes linked with course objectives.
 - Lecture-wise teaching plan linked with unit objectives.
- Faculty prepares course file for each of the courses to be taught in the semester.
- The course file components are:
 - PEOs and POs
 - Course Objectives, Syllabus
 - Individual Time Table, Teaching Plan
 - University Question Papers
 - Question Banks- Theory, Oral and Objectives.
 - Subject Notes and Power Point Presentations (PPTs)
 - Unit Test I, II and Prelim Exam: Question Paper, Attendance Record, Result Analysis, Sample Answer Sheets
 - Assignments/Tutorial
 - Continuous Assessment Record
 - Students Attendance Record
 - Feedback
 - Result analysis
- The lesson plans and course files are checked by the co-ordinator and validated by the HoDs. Then lesson plans and course material are uploaded on the Enterprise Resource Planning (ERP), GEMS (Governing Educational Management System), which is accessible to every student.
- Train The Trainers (TTT) programs are organized for faculty by the institute and Faculty Development Program (FDP) by the University for Different Courses.

The deployment of the action plans:

Classroom and Laboratory Course Implementation

- Classrooms and laboratories are equipped with state of art facilities to implement the curriculum effectively.
- Further value is added to the implementation by making teaching resources available on K-Point server. E-Exam portal is made accessible to every student even on his mobile for practicing online examination.
- The course material is provided on GEMS which mainly consists of:
 - Course syllabus
 - Course material
 - Monthly Continuous Assessment/Performance Report
 - Question papers of the unit tests along with synoptic answers
 - Question banks
 - University question papers
- Faculty prepares syllabus coverage report, report of lectures conducted and record of remedial classes conducted. Based on these records continuous assessment report of students performance is prepared and displayed on notice board.

Monitoring

- Effective implementation of curriculum is periodically reviewed through departmental meetings and through GEMS in the presence of the Principal.
- Progress of the students is regularly informed to their parents through direct communication and also through website. The parents can contribute in the improvement of the student by means of this update. The parents are invited to meet the HOD, faculty and class in-charge to have an on the spot assessment of the students.
- Students' online feedback is taken. Outcome of the feedback is monitored by Academic Monitoring Committee (AMC) / Internal Quality Assurance Cell (IQAC).

Assessment and Evaluation

- Based on the curriculum, various assessment examinations like unit tests, mock online and prelim exams are regularly conducted as per the academic calendar.
- Proper evaluation review of the results is carried out by the respective faculty and HOD.
- Faculty is appropriately appreciated for his/ her performance in academic activities.

Value Addition in Students Profile

- Various co-curricular and extra-curricular activities are conducted as per the schedule which adds values in students' profile.
- Students are given opportunities to exhibit their skills and leadership qualities in arranging National / International conferences, seminars, workshops, symposia.

Assessment of above activities is done by the concerned HODs during the semester. The records are reviewed semester-wise by the AMC/ IQAC and Principal to identify areas of improvement.

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?

Faculty Training

- SPPU provides training to the faculty through various syllabus implementation workshops.
- SPPU provides several opportunities to faculty like sponsored workshops, seminars, and conferences at state, national and international levels.
- Perfect synergy has been achieved among faculty through regular brainstorming sessions in Train The Trainers (TTT) programs.
- Institute conducts, Teacher's Advancement Program (TAP) and programs like Mission 10X by Wipro Pvt. Ltd.
- Faculty participates in various Faculty Development programmes (FDPs) conducted by various other institutions.

Faculty Qualification up-Gradation

- Institute sponsors faculty members to enroll for Ph.D. Programs in collaboration with International universities via European Commission, *Global ICT Standardization Forum for India (GISFI)* Denmark and institutions of national repute.
- Following Table.1.1.3a provides few names of faculty which have been supported by the institute to upgrade their qualification. The detail list is available in Annexure Table 1.1.3b.and Table 1.1.3c

Sr. No.	Name of the Faculty	Research Topic	University	Supervisor
1	Dr. Vandana M. Rohokale	Cooperative wireless communication Authentication, authorization, security	Aalborg University, Denmark	Dr. Ramjee Prasad Dr. Debasis Saha IIM
2	Dr. Sachin D. Babar	Security Framework & Jamming Detection forInternet of Things (IoT)	Aalborg University, Denmark	Dr. Neeli R. Prasad Dr. Jaidip Sen TCS
3	Dr. Vikas V. Shinde	Design of Course level Project Based Learning Model	Aalborg University, Denmark	Dr.Anette Kolmos Dr.S.S.Inamdar
4	Dr. Dilip D. Chaudhary	Delay Analysis in Wireless Sensor Networks	SRTMU, Nanded	Dr. L.M.Waghmare
5	Mr. N. V. Lakal (pursuing)	Enhancement of service quality using Lean manufacturing	IIT, Mumbai	Dr. Mrs. Karuna Jain

Table 1.1.3a The particulars of faculty supported for up gradation of qualification

6	Dr. M. S. Rohokale	A study of vehicle crash worthiness and occupant protection	Nehru Gram Bharti University Allahabad	Dr.D.R. Pangavhane
7	Dr. M. M. Tayade	Performance optimization of microchannel evaporator for miniature refrigerator	SGBAU, Amravati University	Dr. L. P. Bhuyar
8	Mr. N. A. Dhawas (pursuing)	Topology control in Wireless Sensor Network (WSN)	VTU, Belgaum.	Dr. S. A. Patil
9	Dr. T. J. Parvat	Network Intrusion security detection	Guru Govind Singh Indraprastha university Delhi	Dr.Pravin Chandra
10	Mr. S. M. Gaikwad	Application of Phase Change Material (PCM) solar water heating application	VTU Chennai	Dr.Amla Justus

R and **D** Initiatives

Institute encourages and supports faculty to establish liaison with industries and R & D institutes. This helps to enhance their practical knowledge which enables to transform students as industry ready professionals.

Library

- The Central Library has a rich collection of books to support curriculum.
- The library offers Reference service, New Arrival and Accessing CD-ROMs. Internet facility for searching database online e-journals like IEEE, Springer etc are available.
- The faculty and students are provided with books from central library. Apart from this all Departments offer Departmental Library facility for both.
- Digital library facility is provided to all the faculty members of the institute.
- NPTEL resource is made available.
- Wi-Fi and Internet facility is available in the campus.

Students Support

- Remedial classes are arranged for needy students.
- The students admitted directly to second year who do not get opportunity to attend classes due to late admission are offered extra classes and practical sessions to make up for the losses due to late admissions.
- Online MCQ's (Practice & Examination) through E-Exam Portal.

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.

- STES conducts Teacher Advancement Program (TAP) regularly in order to enhance the capabilities of the teaching faculty. This program includes personality enhancement, teaching skills development, use of modern teaching aids and motivational case studies etc.
- In TTT programme teachers dealing with a given course across all streams meet together before the start of the semester and evolve the best course material. This resource is then shared to all the teachers. This is a continuous process year after year.
- A further useful resource is provided in the form of Audio Lectures on the K-Point Platform. These lectures are accessible to all the students and teachers in the institute.
- Library and labs are kept open in the evenings enabling both the faculty and the students to extend work on their passions.
- The students are taken out for educational tours such as industries/trade fairs, exhibitions and to places of historical importance.
- Guest lectures by industry experts are arranged on the latest technologies for the students.
- At department level, platform is provided to the students to complete online courses such as EDX and IIT spoken tutorials.
- Being a residential campus, VAPs are conducted on latest technologies and programming languages by reputed external agencies.
- To motivate and enhance students' confidence in the subject, self learning sessions (SLS) are included in the time table.
- Remedial classes are arranged for the needy students

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

1. Major emphasis is laid by the institute on networking with industry, research bodies and university. *Industry Institute Interaction Cell (IIIC)* is constituted at the institute in coordination with Training and Placement (T&P) department. Each department has representative in this cell.

Roles and responsibilities of *IIIC* are:

- Identifying research opportunities and collaborative projects
- Assessment and evaluation of PEO's and PO's.
- Arranging invited talks and industry visit.
- Evaluation of projects in project competitions.
- Constructive feedback on academic environment and for curriculum development.

Table 1.1.5: The renowned members of IIIC board of E&TC department

Sr. No.	Name	Designation	Company / Organization	Expertise
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1	Mr. Vishal Sharma	Corporate Trainer Cum Developer	Microsoft, AER , ATS Learning Solution	Microsoft .NET, (C# & ASP.NET)
2	Mr. Ram Kalyan	Sr. System Engg.	IBM Pvt. Ltd.	C++
3	Mr. Parth Shukla	Corporate Trainer Cum Developer	Microsoft, AER , ATS, Learning Solution	Microsoft .NET, (C# & ASP.NET)
4	Mr. Nitant Joshi	Executive HR	Persistent System Ltd	Data Mining
5	Mr. Shobhit Soni	CEO	IYO India Pvt. Ltd	Student Corporate Training
6	Dr. B. Satyanarayana	Scientific Officer (G)	Tata Institute of Fundamental Research, Mumbai	Wireless Communication
7	Mr. Rajeev Khosla	Executive Engineer	Reliance 4G Communications, Mumbai	IoT
8	Mr. Sarang Kulkarni	Project Manager	PSPL Pune	Project Development in Sales Force

2. Eminent academicians and researchers from renowned institutions and research organizations are invited to enlighten the students on relevant topics within and beyond the syllabus.

3. The webinars, video lectures of expert faculty from IITs and IISc on selected topics are presented for students and faculty.

4. Institute network and interact with SPPU through activities such as curriculum development workshops, syllabus implementation workshops and Board of College & University Development (BCUD) SPPU projects.

5. Institute has successfully completed industry projects in various areas of the engineering. This has resulted in strengthening the institute industry network.

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 faculty members contribute in design, revision, updating of the curriculum from time to time by participating as a Subject expert, Subject chairman, evaluation schemes and part of the syllabus setting committee. Besides this, the feedback received from the stakeholders is
communicated to university. Some of such contributions for curriculum developments are given below (detail list is in Annexure) Table.1.1.6a.

Sr.No.	Department	Name of faculty	Faculty contributions
1.	Mechanical Engineering	Dr. V. V. Shinde	Design Syllabus of Theory of Machines(TOM) I & II subject-Pune University
2.	E & TC	Prof. D.D.Chaudhary	Revision of BE E&TC syllabus structure 2012 course for the subjects Audio Video Engineering (AVE)
3.	E & TC	Mr. V.V. Deotare	Framing PG syllabus for Mathematics for VLSI, Subject Chairman for SPPU.
4.	IT	Mr. N. A. Dhawas	Revision of BE IT syllabus structure 2012 course for the subjects ADBMS & project work
5.	Electrical Engineering	Dr. V. N. Bapat	BE (Electrical) Syllabus Revision Committee Member Sub: Power Quality

Table 1.1.6a Faculty Contributions to Curriculum Development

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

The institute runs courses offered by SPPU for various programs.

The institute through inputs from various stakeholders has identified curriculum gaps. The institute works closely with stakeholders who mainly include academicians, industry people, training institutes and alumni to finalize needs of the students. Based on the needs, courses have been identified and categorized under VAPs and STP.

The course contents of VAPs and STP are developed by institute. Each department has developed VAP according to needs of program. Sample list of VAP is provided below Table 2.2.1a and detailed list in Annexure. Details of student training program are in Table 1.1.7b.

Sr. No.	Course Title	Process of identificatio n	Resource Person Affiliation	Course duration in Hrs	Assessme nt tools used	Class/N o. of Particip ants
1	PSIM software. Applications in Electrical Engg	Discussion with faculty and students	Mr N M Rao, Mr Ch. Subramanyam	70	Design problems	TE, BE, ME (Electric al)/70
2	ANSYS workbench and CATIA V5R20	Discussion with faculty and students	Mr. Siddharth Gupta, Manage Code Cultivate, Mumbai	80	Projects and Interview	TE, BE Mechani cal Engg /40
3	ASP.Net with Cloud Computing	Interview & Objective Tests	Mr. Nishant Sharma (Trainer), Microsoft IT Academy, Delhi	80	Mini Project Competiti on	SE & TE students of IT, Comp Engg /101
4	С	Discussion with faculty and students	Mr. Yogesh Khandelwal Global Infotech Pune	40	Mini Project Competiti on	SE, TE students of Comp Engg /27
5	Java	Discussion with faculty and students	Mr. Yogesh Khandelwal Global Infotech Pune	40	Mini Project Competiti on	SE, TE students of Comp /33

Table 1.1.7a List of few Value Addition Programs (VAP)

Table.1.1.7b Details of Student Training Program (STP)

Sr. No.	Course Title	Process of identification	Class	Resource Person Affiliation	Course duration in Hrs	Assessment tools used
1	STP-1 Soft Skills develop ment	Inputs from industry, alumni and students and other stakeholders	FE and SE	Faculty	20Hrs	Assignments
2	STP-2 (Comm unicatio	Inputs from industry, alumni and students and other stakeholders	SE	Faculty	20Hrs	Assignments

	Skill)					
3	STP-3 (Techni cal Skill)	Inputs from industry, alumni and students and other stakeholders	TE	Faculty	28 Hrs	Tests
	STP-4					
4	(Group Discuss ion and Pesonal Intervie w)	Inputs from industry, alumni and students and other stakeholders	TE	Faculty	28 Hrs	Paper
	STP-5 Process plannin g and toleranc e analysis	Inputs from industry, alumni and students and other stakeholders	BE Mechanic al	Mr. Anand Bhise, Mechatol Engineering Solutions, Pune	18 Hrs	Tests
	STP-5 Android progra mming	Inputs from industry, alumni and students and other stakeholders	BE E&TC	Mr.Marathe Miracle Embedded Integrations System Pvt. Ltd.	18 Hrs	Tests
5	STP-5 Hadoop	Inputs from industry, alumni and students and other stakeholders	BE Computer	Mr. Yogesh Paphale Mass Technologies Pune	18 Hrs	Tests
	STP-5 Cyber Forensi cs	Interview with Alumni & industry people	BE IT	Ms. Rinu Mathew Quest Institute of Knowledge, Pune	24 Hrs.	Project on Cyber Security
	STP-5 Control system	Inputs from industry, alumni and students and other stakeholders	BE Electrical	Mr. Rohit Kumar Aedifico Tech Pvt.Ltd.	18 Hrs.	Tests

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

Every Programme has PEOs and POs

- The Programme Education Objectives (PEO's) are achieved by the curriculum course outcomes.
- The Programme Education Objectives (PEO's) are revised once in five years as per the revision in the university syllabus.
- Content beyond syllabus is covered through different activities like guest lectures, industrial visits, design experiments, lab innovations etc.

Program Educational Objectives of a department

- I. To prepare student to excel and succeed in global industry, technical profession through excellent real time exposure to rigorous education.
- II. To provide students with resilient footing in basic mathematics, scientific and engineering fundaments for competence in the field of specialization at global level within a professional team environment.
- III. To inculcate in student, the ability to link technology through analysis, design and innovation by adopting new technology and career challenges.
- IV. To cognizant and succeed scientific and engineering breadth among students through eccentric study and research at graduate level
- V. To strengthen professional and ethical attitude, life skills, collaboration, multidisciplinary approach to broader social context with the aid of project based learning
- VI. To streams a lifelong career of personal and practicing professional growth with ethical codes and self esteem

Program Outcomes

- a. Graduates will demonstrate knowledge of differential equations, vector calculus, complex variables, matrix theory, probability theory, physics, chemistry, and electrical and Electronics engineering.
- b. Graduates will exhibit an ability to identify, formulate and solve engineering problems.
- c. Graduate will prove an ability to design module and conduct experiments with existing systems, analyze and interpret data.
- d. Graduates will demonstrate an ability of analysis and interpretation of data and synthesis of information to provide valid conclusions.

- e. Graduates will show an ability to visualize and work on laboratory for design of lab innovation in multidisciplinary tasks.
- f. Graduate will adopt skills to use modern engineering tools, software and Equipment to analyze problems.
- g. Graduates will make evident knowledge of professional and ethical responsibilities.
- h. Graduate will be able to communicate effectively in both verbal and written form.
- i. Graduate will show the understanding of impact of engineering solutions on the society and also will be aware of contemporary issues.
- j. Graduate will demonstrate knowledge and understanding of engineering principal to apply to one's own work, as a member.
- k. Graduate will develop confidence for self-education and ability for life-long learning through higher education.

С	Contribution of POs to PEOs			
	Strong Contribution			
	Average Contribution			
	No Contribution			

Program		-	-]	Progra	am O	utcom	ies		-	
Educational Objectives	а	b	с	d	e	f	g	h	i	j	k
I.											
II.											
III.											
IV.											
v.											
VI.											

Fig.1.1.8a PEO's and PO's mapping and linking flowchart



Fig. 1.1.8b Process of Revision of PEOs

1.2 Academic Flexibility

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

Apart from the programs affiliated to SPPU the college offers certification courses which basically serve the purpose of value addition. These courses enhance the employability skills of the students. In order to achieve the goals and objectives of institutions following programs are offered

- Infosys campus connect programme
- Soft skill training
- IBM Centre of Excellence
- Persistent Centre of Excellence
- Foreign universities and IIT tutorials
- Foreign Languages

Following Table list few, detail in Annexure.Table.1.2.1a

Sr No	Title	Target Student	No of participants	Resource Person
1.	IBM DB2 Training & certification	SE/TE/BE	50	IBM Certified Trainer
2.	Certification Course of SciLab Spoken Tutorial IIT, Powai	TE	200	IITB online
3.	IBM RAD Training & certification	SE/TE/BE	70	IBM Certified Trainer
4.	IBM TDS Training & certification	SE/TE/BE	55	IBM Certified Trainer
5.	IBM RFT Training & certification	SE/TE/BE	65	IBM Certified Trainer
6.	IBM Lotus Training & certification	SE/TE/BE	57	IBM Certified Trainer
7.	IBM WID Training & certification	SE/TE/BE	65	IBM Certified Trainer
8.	Introduction to computer science with Python programming	SE/TE	70	EDX faculty online
9.	Microsoft .NET, (C# & ASP.NET)	SE/TE	108	Microsoft Certified Trainer
10.	C ++	SE/TE	41	IBM Certified Trainer
11.	Microsoft .NET, (C# & ASP.NET)	SE/TE	56	Microsoft Certified Trainer

Table 1.2.1a Certificate/Diploma/Skill development courses

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

The institute does not offer any twinning/dual degree program.

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.

Skills development

• The institute provides academic flexibility to the students by providing industrial / research oriented projects in collaboration with research and development departments of core companies and thereby encouraging interdisciplinary work within the range of curriculum designed by the affiliating university.

• The institute also provides VAPs and STP to enhance the skills.

• Enrichment courses like add on modules, students' workshop, guest lectures, and industry institute interaction are offered to students to enhance their skill set.

Soft Skill Training:-

- **STP I:** Training on Communication Skills- Part I Listening, Reading (Technical and Non-technical), Writing (Letter, Resume, CV, Report), Speaking (Public speaking, Group Discussion).
- **STP II:** Training on Communication Skills- Part II-Listening, Reading (Technical and Non-technical), Writing (Letter, Resume, CV, Report), Speaking (Public speaking, Group Discussion).
- **STP III:** Training on Technical Skills- Training and refreshing of Technical Fundamentals.
- **STP IV:** Interview Preparation-Practice of Group Discussion and Personal Interview.
- **STP V:** Value Addition Program-Training from outside expert to add value to CV.



Fig. 1.2.3: Student's Progression under STP

Academic mobility:-

- The courses in SPPU Pune undergo syllabus revision after every five years.
- The affiliating Savitribai Phule Pune University offers flexibility to institutes to

design and offer so called *Open Elective* based on the needs assessment of the stakeholders. Programme / departments designs/selects the elective and obtain due approval for the same from the university. Such electives are then offered to the students so that they are equipped with most relevant knowledge of the field of application.

- Expert lectures for difficult subjects as a preventive measure are introduced by departments.
- Webinars are arranged to cover contents beyond syllabus and give students exposure to latest technologies.
- Design Experiments are also conducted beyond curriculum specified by university.
- The choice based credit system is available for PG programmes in the affiliating University. However, it is not introduced for UG programmes in engineering faculty yet.

Progression to Higher Studies:-

- Significant number of students opts for higher studies.
- Special coaching for competitive examinations such as GATE, GRE, and TOEFL is offered by programme departments.
- The guest lecturers for the same are organized by the T&P and Departments to boost the student's confidence to go for higher studies in various specializations.
- Every department arranges the industrial visit for every class based on the relevant subject. The visits are mapped to the curriculum subjects,
- The institute also encourages students to go for internship training at various industries.

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

No

1.2.5 Does the Institute provide additional skill oriented Programs, relevant to regional and global employment markets? If 'yes' provide details of such Program and the beneficiaries.

Institute has T&P cell which arranges skill oriented programs as per needs of the employment market. The institute is also having industry interaction programs where students get chance to work with industry thus enhancing their employability skills.

Training and Placement facility:

- T&P cell conducts various skill oriented programs. In these programs, activities such as Group discussion (GD), Personal Interview (PI) sessions, Test Series of Quantitative Aptitude (QA) Logical Reasoning (LR) are conducted throughout the academic calendar.
- Employability tests are designed and conducted based on requirements of the employers.

- A major statistical assessment platform to assess employability in the form of Aspiring Minds Computer Adaptive Test (AMCAT) is undertaken which is well accepted by top Multi National Companies (MNC's).
- Additional skill areas like soft skill and add-on technical skill are covered for student development through exclusively designed Student Training Program (STP) and Value Addition Programs (VAPs). Details of Activities are provided in Table 1.2.5

Industry Interaction Programs

- Institute has well established Microsoft Campus Club, IBM center of Excellence and Persistent Center of Excellence.
- Institute has signed MOUs with industries like IYO India Pvt. Ltd, Persistent System Ltd, IBM, Infosys, Cognizant, Synechron, KPIT, Collinear Technology, SAP, Digital Global, EMC², Zensar, KSPG, Automotives, Indian Bio-diesel corporation, Baramati, WISH Energy solutions, Pune, Phillips Company, USA and VINSYS Pvt. Ltd.

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

No. SPPU Pune does not provide flexibility to the institute for combining the conventional face-to-face and distance mode of education for students.

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 Programs and Institution's goals and objectives are integrated?

Considering fast changing industry scenario there is a scope for faculty to introduce new skill development programs into the curriculum.

The existing curriculum is enriched through following modules and activities:

- Institute arranges the VAPs and STP.
- Institute conducts various expert lecturers from industry and academicians to help students to enrich their knowledge beyond the curriculum.
- Institute arranges seminars and workshops on recent topics.
- Institute arranges the annual project exhibition and competition "Mutation".
- Institute arranges national level technical festival "Techtonic".
- Institute arranges the National/International conference and paper presentations.
- Institute also arranges the AMCAT tests and QA/LR tests for students to make them more suitable for industrial job profiles.
- Students are encouraged to participate in the research projects competition "Aavishkar" and "e-PGCON".
- Alumni interactions and industry visits are arranged periodically.

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

- The institute periodically arranges alumni meet to receive valuable suggestions from the alumni regarding additional syllabi contents, which are currently required by the industry and the faculty try to include those contents as additional topics in respective subjects.
- The training and placement cell of the institute interacts with the Human Resource (HR) managers of reputed companies and collects information about requirements of the industry, regarding skill set of students. Considering these requirements, add on courses (VAPs and STP) and expert lectures are conducted. In such lectures students and experts discuss one to one. This helps students to understand the current and future needs of industry and helps them to set their short and long terms goals.
- Student associations are constituted in all departments to inculcate the leadership and managerial skills. For e.g. Institution of Electronics and Telecommunication Engineers (IETE) The Institute of Electrical and Electronics Engineers (IEEE), Mechanical Engineering students Association (MESA), Association of Computer Engineering Students (ACES) are actively involved in arranging various activities.
- Institute also arranges the industrial visits to give students the practical exposure and skill oriented certification programs to enrich their employment skills.
- Students are encouraged to work on industry sponsored projects.
- Foreign language classes are conducted for interested students.

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?

- "Basic Civil and Environmental Engineering" course is included in the curriculum of SPPU, Pune. Besides this, institute organizes various activities like tree plantation, public awareness and competitions to generate environmental awareness among the students. The activities suggested by apex bodies are carried out from time to time.
- National Service Scheme (NSS) is implemented in the institute. It organizes environment awareness camp, cleaning campaign, on and off the campus frequently.
- As per the Government of Maharashtra and Director of Technical Education(DTE) norms institutes follows reservation policy for students' admissions. Anti Ragging committee has been displayed at prominent locations.
- Women Grievances cell is constituted. Following activities are conducted by this cell.

Sr. No.	Dates	Workshop Topic / Activity	Coordinator	Department
1.	18 th Feb 2015	"Launch of He for she" [UNESCO]	Dr. D. K. Singh	E &TC
2.	08 th Sept 2015	Addressing Women Grievances	Prof. Pratiksha Jawale, Prof. P. P. Ahire, Prof. S. R. Patil, Prof. S. S. Patil, Prof. Kalage	All departments
3.	9 th March, 2015	Women's Day Celebration	Prof. J.R. Gangane	E &TC
4.	18 th March, 2016	Srujana Rang Tarang Women Empowerment	Prof.P.P.Jawale Prof.S.C.Saddu	Mech

Table.1.3.3 Activities o	f Women	Grievances cell
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1.3.4 What are the various value-added courses / enrichment Programs offered to ensure holistic development of students?

To imbibe the moral and ethical values in student's blood donation camps, guest lectures, art of living sessions are organized for students and faculty. List of the activities mainly focused to enrich moral and ethical values and community orientation. The institute makes students aware regarding their responsibility towards society. NSS is one of the strong contributors.

Sr. No.	Activity Details
1	Rain Marathon with themes like "Digital India", "Run for Women Safety" and "Save girl child"
2	Support to Yes + team for tree plantation
3	Talk On Launch of He-for-she
4	Blood Donation Camp
5	Tree plantation jointly with forest and revenue departments of Government of Maharashtra
6	Personality Development & Improving Attention through Sahaja Yoga Meditation
7	Orphanage visit
8	Contribution to drought relief fund
9	Computer literacy to rural people
10	Road safety awareness
11	Cultural Festival "Surabhi"

Table 1.3.4 List of Activities for Staff and Students

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

The experts from industry are involved during the process of curriculum development at the university level. The institute is having a feedback mechanism to record the views of the stakeholders regarding curriculum and syllabus. The feedbacks are taken in the online and offline mode through informal discussions, surveys and suggestions alumni, parents, industry/employer, and academicians. Also, the institute has an online student feedback system in which all students can post their opinion about the course contents. In addition, Teacher Guardian (TG) meetings are conducted on regular basis to obtain feedback from the students regarding curriculum as well as other development activities. Following tables show sample survey conducted by one of the department.

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

Table 1.3.5a Feedbacks from the Industry



Figure 1.3.5a Distribution of the Industry respondents



Figure 1.3.5b Results of PEO reviews by industry

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Sr. No.	Program Educational Objectives	Excellent	Average	Poor	Remark
Ι	Preparation	65	2	0	Project based learning is required. Knowledge, abilities, values and attitudes that a student in your program is expected to have within that area/field.

II	Core competence	64	3	0	Industrial training is required, professional attitude and ethics are important.
III	Breadth	61	6	0	Students should be able to write a research paper.
IV	Professionalism	60	7	0	Should allow students to attend industrial training. Students completing the Engineering program should practice design skills.
v	Learning Environment	62	5	0	Increasing applied knowledge. Projects should be given from industries in the early stages, industrial training is required.

Following pie chart shows nature of respondents in this survey.



Figure 1.3.5c Distributions of the Academicians



Figure 1.3.5d PEO reviews feedback by Academicians

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

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

To enrich curriculum institute has defined VAPs and STP, evaluation of which is done in following ways.

Enrichment Programs	Monitoring process	Evaluation Process
VAPs	Attendance during courses Reviews by HoDs and VAP coordinators	Feedback from students Assignments, projects and tests Certification
STP	Attendance during courses Feedback from students Reviews by HoD's and VAP coordinators	Placements Progression to Higher Education
Seminars & Workshops	Participation in events	Feedback from students
Industrial Visits	Participation in industrial visits	Visit reports
Paper presentation and project competition	Participation in events	Assessment by external experts on specially designed rubrics

Table 1.3.6 Evaluation Process

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 is affiliated to SPPU Pune. The courses undergo syllabus revision every five years. This revision takes place during workshops, seminars for curriculum design organized by SPPU. Institute nominates expert faculty in such seminars & workshops. Faculty gives valuable suggestions and share feedback received from stakeholders. Difficulties, if any, during implementation of curriculum are communicated to the concerned body of university. Also the institute hosts syllabus revision workshops and seminars. Faculty members design the syllabus for the open electives in collaboration with industries and student's needs.

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 Programs?

The institute is having a formal feedback mechanism to record the views of the stakeholders on curriculum. The feedbacks are taken through informal discussions in alumni and parents meet, suggestions from industry/employer, and academicians are obtained on surveys. Also during

implementation of curriculum inputs from students and faculty are taken and are communicated to the concerned body of university. Same is used as input to curriculum enrichment programs. Based on these experiences, institute designs / refines the curriculum enrichment programs. In the middle of semester, AMC / IQAC takes the feedback from the students. Based on feedback and recommendations received to AMC/IQAC, the institute refines the curriculum enrichment programs.

1.4.3 How many new Programs/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/Programs? Any other relevant information regarding curricular aspects which the Institute would like to include.

The governing body of the institute on the recommendations of local management committee decides to add new programs. Following are the new courses/programs inducted in the institute during the last four years.

Sr. No.	Branch	Previous Intake	Year of change	Rationale
1	Electronics and Telecommunication Engineering (PG)	24	2012	Provide facility for higher
2	Mechanical Engineering (PG)	18	2011	education in a specific
2	Computer Engineering (PG)	18	2010	branches
3	Computer Engineering- Networking (PG)	24	2012	
4	Electrical (UG)	60	2011	Provide facility for undergraduate education
4.	Electrical (PG)	24	2012	Provide facility for higher education

Table 1.4.3 Postgraduate Programs and new courses

CRITERION II: TEACHING-LEARNING AND EVALUATION

2.1 Student Enrollment and Profile

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

Publicity

 The schedule for engineering admission is notified by DTE, Maharashtra on its website. The URL is

http://www.dtemaharashtra.gov.in/approvedinstitutes/StaticPages/HomePage.aspx

- Accordingly the institute advertises the admission process in prominent local, state and national level news papers. Also, appropriate social and e-media is selected for publicity of the admission process. This advertisement contains number of seats, offered programmes, eligibility for admission, process of admission and academic information. Same information is also provided on the institutional website <u>www.sinhgad.edu</u>. The institute has its own admission cell. This cell plans and executes pre-admission publicity by reaching out to prospective stakeholders from September to April every year.
- The institute organizes and participates in exhibitions at major cities across the nation. In addition to above, mouth publicity of the current students and alumni helps in publicity.

Transparency

• Admissions in SIT are essentially governed by the Centralized Admission Process (CAP) of Directorate of Technical Education (DTE), Maharashtra. All the information regarding academics, administration, students' welfare and fee structure is provided in the Information Brochure which is published every year by DTE and institute.

• Out of the programme-wise intake of the institute, 80% seats are filled through CAP. The admissions are done strictly on the basis of the Inter-se merit of the candidates. 20% seats are allocated to be filled by the institute strictly on the basis of inter-se merit as per the rules of DTE Maharashtra in this behalf. All the statutory reservation rules are followed. Admission process is carried out online through admission portal. Therefore the process is transparent to all stakeholders. This process is shown in figure 2.1.2.

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

We follow DTE guidelines. The representative model for the eligibility criteria for admission in programmes at different levels which were used in 2015-16 admission process are shown in Table 2.1.2.

Quota	Eligibility criteria Score
Undergraduate Programmes	
65%	MHT-CET
15%	JEE (main)
20%	Management Quota
Lateral Entry For Diploma students	Diploma score
Post Graduate Programmes	
100%	Graduate Aptitude Test for Engineering (GATE) score / institute level test, interview and B.E examination score.

 Table 2.1.2 Eligibility criteria for admission in programmes at different levels

 Duota
 Eligibility criteria Score



Fig 2.1.2 Admission Process

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

The comparison is based on the data made available by DTE Maharashtra. The selected institutes are from the common affiliating University, (SPPU) and situated in the close vicinity (radius of 80 km) of SITL. Table 2.1.3 shows last three years data of CAP admissions for all branches of three institutes. The other two institutes considered are

- 1. Indira College of Engineering and Management (ICEM)
- 2. MIT academy of engineering, Dehu Phata, Alandi (MITAE)

			Minin	num and Of	Maximuı f Admitte	n Entrar d Studer	nce Test M nts	Marks	
Sr No	Programme	Year Of Admission	SI	SITL		ICEM		MITA	
			Min	Max	Min	Max	Min	Max	
	Mechanical		42	130	43	118	116	132	
	E&TC	2012 2012 (MIL	38	122	46	83	68	119	
1	Computer	2012-2013 (MH CET out of 200)	42	103	48	85	75	118	
	IT	CET out of 200)	48	97	-	-	83	103	
	Electrical		45	118	-	-	-	-	
	Mechanical	2013-2014 (MH CET out of 200)	40	130	49	114	73	134	
	E&TC		44	102	45	91	63	117	
2	Computer		46	111	43	98	48	108	
	IT		41	90	-	-	42	115	
	Electrical		46	118	-	I	-	-	
	Mechanical	2014 2015	38	89	23	97			
	E&TC	2014-2015	10	84	26	92			
3	Computer	(Composite Score out of	21	88	15	74			
	IT	100)	21	85	-	-			
	Electrical	100)	26	85	-	-			
	Mechanical		15.38	92.57	19	99			
	E&TC	2015- 2016(Commonitor	15.81	80	11	94			
4	Computer	2016(Composite	13.96	83.27	19	72			
	IT	100	27.19	78.05	-	-			
	Electrical		27.14	78.95	-	-			

Table 2.1.3. The details of marks at admission at entry level are given below.

Composite Score out of 100 is calculated by using 50% marks from JEE (main) and 50% marks from the qualifying examinations.

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?

Yes.

The Principal, HODs, senior members and members of the admission committee review the current year admission status although DTE governs the admission process. Strategic changes to be made are decided to enhance admission performance in terms of number of admissions against intake and student profiles.

As an outcome of the review process, institute has established admission cell which contributes to improve quality of students' admission profile. Improvement in the performance of admissions of the institute in the recent years clearly reveals success of the above review process. Please refer Table 2.1.3.

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.

- In order to attract best talent from all the sections of the society and students from other states of the nation, the institute carries out special campaign in the form of brand building through national and state level cultural and technical events for students. Events of state, national and international levels for faculty are also organized throughout the year.
- Reservation rules as per DTE and state of Maharashtra are applicable to the admission process and strictly adhered by the institute. Table 2.1.5 shows categories of admitted students for last four years.
- There is a special admission quota for the candidates of Jammu and Kashmir which is administered by DTE Maharashtra.
- The talent in economically weaker sections is attracted through the quota under Tuition Fee Waiver Scheme (TFWS) which is over and above the sanctioned intake.

Year	2012	2-2013	013 2013-2014		2014-2015		2015-2016	
Categories	Male	Female	Male	Female	Male	Female	Male	Female
SC	53	10	59	17	65	16	56	17
ST	7	7	6	1	4	0	9	0
OBC	130	28	156	39	154	26	190	24
General	387	98	461	99	449	80	414	66
Economically weaker sections TFWS scheme	18	12	17	12	29		28	
Special quota for J & K	4	1	5	0	6		4	
GOI	1	0	0		0		0	

Table 2.1.5. The number of students admitted in the Institute in the last four academic years.

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.

	years.					
Sr. No.	Name of Programs	Year	Intake capacity (x)	No. of Students Admitted	No. of application Received (y)	Demand ratio (y/x)
		2012-2013	240	240	252	1.05
1	Mechanical	2013-2014	360	359	365	1.016
1	Engineering	2014-2015	360	360	380	1.05
		2015-2016	360	358	370	1.03
		2012-2013	240	238	240	1.008
2	E & TC	2013-2014	240	238	242	1.008
	Earc	2014-2015	240	183	190	0.79
		2015-2016	240	104	107	0.44
		2012-2013	180	179	185	1.02
2	Computer	2013-2014	180	178	180	1
5	Engineering	2014-2015	180	179	189	1.055
		2015-2016	180	178	181	1.055
		2012-2013	60	57	60	1
4	IT	2013-2014	60	59	65	1.083
4	11	2014-2015	60	56	59	0.993
		2015-2016	60	60	67	1.11
		2012-2013	60	60	70	1.16
5	Electrical	2013-2014	60	60	69	1.15
3	Engineering	2014-2015	60	59	61	1.01
		2015-2016	60	60	75	1.25

Table 2.1.6.a Details for UG programmes offered by the institution during the last four

Table 2.1.6.b Details for PG programmes offered by the institution during the last four

years.

Sr. No.	Name of Programs	Year	Intake capacity (x)	No. of Students Admitted	No. of application Received (y)	Demand ratio (y/x)
		2012-2013	18	18	18	1
1	1 Mechanical Engineering	2013-2014	18	18	18	1
1		2014-2015	18	12	12	0.66
		2015-2016	18	18	18	1
		2012-2013	24	24	24	1
2	E&TC	2013-2014	24	24	24	1
Z	Earc	2014-2015	24	15	15	0.62
		2015-2016	24	15	15	0.62
3	Comp	2012-2013	24	24	24	1

	Network	2013-2014	24	24	24	1
		2014-2015	24	6	6	0.25
		2015-2016	24	1	1	0.034
		2012-2013	18	18	18	1
1	Computer	2013-2014	18	18	18	1
4	⁴ Engineering	2014-2015	18	16	16	0.88
		2015-2016	18	16	16	0.88
		2012-2013	-	-	-	
5	Electrical	2013-2014	24	24	24	1
Э	Power System	2014-2015	24	23	23	0.95
		2015-2016	24	24	24	1

The reasons for the increase or decrease in admissions are as follows:

Reasons for increase in admissions

- SIT is decade old institute which has earned its name and fame for providing quality engineering education. It has continuously refined its educational practices in line with needs of stakeholders. Thus, it has brand name.
- SIT is located in rural area and at the middle of Mumbai and Pune. It attracts students from these two metros and local rural students' community.
- Furthermore, there is a demand for skilled graduate engineers from the industry.
- Improved placement record- institute rigourouly trying for improving placement of students and has improvement in last record.
- Compared to other professional courses engineering courses have wider scope for employment and entrepreneurship. Thus, engineering education is preferred profession.

Reasons for decrease in admissions

- In recent past, most of the engineering institutes have been granted increased intake for various programmes in Maharashtra. In addition, there are numerous new institutes having established in Maharashtra and other states which directly influence the inflow in admission. Thus there is a stiff task to fill all seats or 100 % admission for certain branches.
- There are other job oriented courses available at low cost, which can give Global and National employment.
- In certain programmes e.g. E&TC, demand is decreased due to lack of employment of graduates in the core electronics companies. Thus most of students are opting for IT profession. Same case is happened with postgraduate courses where students have shown less interest.
- Currently engineering discipline is also suffering the problem of recession.

Action initiated for improvement:

- Students reporting to admission cell are counseled before and during admission process for the importance of engineering and to choose proper stream of engineering.
- Institute has strengthened Training and Placement activities by incorporating STP and Job Fair.

- Since 2006, institute has been conducting VAPs in consultation with stakeholders (mainly industry) to improve employability of the students. To tune with changing needs of stakeholders, institute has continuously refined VAPs.
- The institute has signed Memoranda of Understandings (MoUs) with industries and institutions at national & international levels. This initiative helped us to create dynamic learning environment which strengthens educational experience of faculty & students. Thus, students are exposed to the gradual and planned holistic development as an engineer. It helps us to attract students for admission.
- Advertisement in national level news papers and news channels.
- Institute has initiated admission campaigning programme since 2014, which starts from September. An improvement in admissions is witnessed for academic year 2015-16.

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?

In the light of the provisions of "The Persons with Disabilities Act" (PWD), 1995 (amended in 2009), the institute caters to the needs of differently-abled students as per the requirements of the individual student. The needs are assessed through individual counseling. The institute offers following facilities to the differently-abled students.

- 1. Providing university approved writers in examinations for visually challenged students.
- 2. Appropriate special arrangements for differently-abled students in university examination as per the university guide lines.
- 3. Extra time as per university norms in examination in case the imparity is high.
- 4. Priority services are given to such students in the library.
- 5. The ramp is available in the institute.

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

Yes.

- Admissions are done on the basis of inter-se merit of the entrance examination conducted by government agency either at state or national level (MHCET / JEE (main)). In addition, the admission process is carried out through merit of AIEEE which is an all India level entrance test. Thus, the admission process ensures the basic competencies of the admitted students.
- Student progressive profile formats are filled up by students at the start of the course. Based on the analysis of this profile data combined with past experiential information, needs assessment of the students is regularly done by the institute. On the basis of the outcome of this study carried out over past few years, a continuously

evolving STP has been devised and implemented in phases from semester second through seven. Accordingly, teaching-learning process is tuned to augment STP.

- Since, SIT enrolls students from all over nation, it is necessary to assess the content and depth of standard XII syllabi of different boards, and to assess the gaps therein.
- SIT conducts orientation programme and tests during first semester. These tests provide useful data to identify slow, weak and fast learners. This categorization is done based on students' performance in tests and through teacher's feedback. Thus institute identifies types of learners in the beginning.
- Induction programmes and discussion with parents also helps to assess the needs of students.

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

Following are some of the major strategies adopted

- 1. The induction programme for the First Year students is aimed at creating awareness among students about the following:
 - Core engineering subjects and their importance in the field.
 - Fundamental concepts of basic sciences in engineering.
 - Institutional academic and administrative structure.
 - Library facility including book-bank and Wi-Fi enabled campus.
 - Recent market trends and T&P activities in the campus.
 - Importance of values and ethics, attendance, etiquettes, discipline and punctuality.
- 2. Teacher-Guardian (TG) Scheme which ensures interaction of faculty with students and proves to be useful to assess needs and remedies for students' weaknesses during their early stages of study.
- 3. Curriculum gaps are continuously identified by the faculty and the same are addressed through an appropriate mechanism provided by the affiliating university and institute.

Table 2.2.3a shows details of the remedial programs and activities carried out by the institute in order to bridge the identified gaps in students' competencies.

Gap to be bridged	Program	Details / course contents		
Lack of Professional skills	STP I	Behavioral skills, goal setting, presentation skills, public speaking, resume, report writing, group discussion		
Lack of Communication skills	STP II	Reading, Listening, Speaking and Writing		
Lack of competence in technical concepts	STP III	Preparation of competitive exams		
Lack of GD and PI skills	STP IV	Group Discussion and Personal Interview		
	STP V	Special courses on recent technologies		
Look of application and	Industrial	Students are encouraged to take industrial		
Lack of application and	projects	projects from second year onwards		
riobieni solving skins.	Lab Innovation	Students are encouraged to work on their ideas and build prototypes.		
	K-Point	1. Audio lectures on all courses on web server.		
	Platform	2. MCO Practice Portal available on Android		
Academic preparation	e-Exam Portal	Phones		
1 1	Self-Learning	3. Special guided practicing classes in time		
	Classes	table.		
Advanced Technical	NPTEL, EDX	Courses of Experts from industry and leading		
		institutes like IITs and IISc.		
courses		Advanced courses from overseas Experts.		
Modern tools and	VAPs	These are the branch specific courses designed		
software		to provide state of art training and practice on		
software		modern tools and software.		
	Invited talks	Each department arranges invited talks from		
Knowledge		experts of various fields to communicate current		
	1	practices in industries.		

Table 2.2.3a Details of the enrichment programs and activities

Table 2.2.3b and table 2.2.3c provide summary of value addition programs conducted and expert lectures from industry and academia organized during last four years. Details are provided in the annexure.

Table 2.2.3bSummary of VAPs

Academic Year	Value Addition Programs
2015-16	13
2014-15	12
2013-14	9
2012-13	6

Table 2.2.3c Summary of expert lectures

Academic Year	Expert Lectures
2015-16	17
2014-15	32
2013-14	35
2012-13	26

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

- Institute provides equal opportunity for all students. Gender discrimination has assumed alarming proportions in our country in recent past. In fact all alert citizens are concerned about this problem. So is this institute. Nevertheless, the SIT boasts on its long standing tradition of perfect gender equality in its campus. This has been achieved through informal practices and routine work culture. In assigning the tasks, it is never a practice to give special gender consideration unless and until it is naturally warranted. As per the requirement of AICTE, the institute has set up a Women's Grievance Cell.
- All the relatively weaker students and staff are especially encouraged to contribute to team and individual tasks such as seminars, workshops, projects, social and cultural events in and outside the institute. Fortunately it is so naturally done that only after being reminded by questions as above, it is realized that how smoothly the inclusion is effected in the institute.Institute in association with SPPU Pune has established Earn and Learn Scheme to help economically weaker student.
- NSS SIT, unit has organized Road Safety Awareness Campaign and Blood Donation Camp. Environment is everybody's concern today. Student bodies and teachers together organize various activities so as to sensitize students and staff towards environmental conservation. Few activities are Swachh Bharat Abhiyaan, Special NSS campaign at rural areas in which villagers are informed about importance of Cleanliness, Rain water harvesting and Women education

Following images show the events organized by the institute for the above purpose. NSS SIT unit has organized 7 days camp under SPPU at Pawana Nagar from 24th Feb 2015 to 02nd March 2015.



Fig. 2.2.4 a) NSS Camp



Fig. 2.2.4 b) Student's teaching to children

NSS SIT unit and Gramin Police Department Lonavala jointly organized Road Safety week during 11th to 25thJan 2015





Fig. 2.2.4 c) Felicitation of Chief Guest by Principal

Fig. 2.2.4 d) Road safety rally

N.S.S organized Blood donation camp in association with Rural Health Training Centre (RHTC) Lonavala on $14^{\rm th}$ Feb 2015



Fig. 2.2.4 e) NSS Blood donation camp





• The Institute celebrates Woman's day, Teacher's day and Engineer's day.



Fig. 2.2.4 g) Teacher's day





• The institute publishes annual institute magazine, bi-annual departmental news letter and monthly wall magazine that provides platform to the students and staff to express their views on social awareness, educational issues and promote publication of their literature.



Fig. 2.2.4 i) Departmental News Letter





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

Advanced learners are identified based on their passing percentage, classroom performance, regularity in submission of class work and assignments, punctuality and personal interactions. The institute offers opportunities for bright students to augment their talent and meet their learning needs.

- Students are encouraged to undertake industry-sponsored projects and mini-projects on advanced topics.
- Students are motivated to participate in different project competitions conducted by various professional institutes like Society of Automotive Engineer (SAE), IETE, IIT, IEEE, ISTE, CSI, IEMA, etc.
- Advanced learners are guided and encouraged to write research articles & papers which are facilitated with a digital library.

- Enrichment courses are conducted to fulfill the knowledge thirst of advanced learners.
- Advanced learners are advised to undertake competitive examinations and are guided for higher studies.
- The advanced learners are encouraged to participate in symposia, workshops and seminars to gain knowledge on the latest developments.
- Institute calls expert faculties from renowned institute for the guidance about patents, project management and prototype building for such students.
- Advanced learners are encouraged to lead the students' association teams which organize various activities viz. paper presentation, poster presentation, lecture series etc.

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

Data collection

- The office and respective TG maintains information of the students who are economically weak, slow learners or belonging to socially disadvantaged sections.
- Each programme conducts regular tests (unit and prelim, mock exams) & TG meetings through which needs of weak students are identified.
- Also, results of mid-semester exams help to get information about students who are running the risk of being dropout.
- The result analysis is done for the examinations conducted by SPPU to identify weak students.
- Mentoring system is implemented in which each teacher is assigned a batch of students with whom they regularly interact. From this interaction, institute gets information and identifies slow learners, physically challenged and economically weaker students and their needs.
- Medical check-up is carried out for all students and faculty members to check their physical fitness.

Data Analysis and documentation

- For mentoring program, special files are maintained.
- Result analysis of all types of tests is carried out.
- Qualitative data is reported to higher authorities in the form of feedback.
- The analyzed and summarized data is used for further strategic planning.

Institute uses the data as follows,

For Slow learners

For slow learners, the institute arranges remedial classes and self learning sessions (SLS) where individual attention is given to each student. Regular interaction with

parents of slow learners and counseling of slow learners also helps to know the requirements of such students and helps to improve their learning capabilities.

For economically weaker students

- Earn and learn scheme of SPPU, Pune is implemented by the institute every year. Some additional remuneration is given to needy students under this scheme.
- For economically weaker students the institute implements schemes offered by government of Maharashtra and also provide the students information about government and NGO aids, scholarships etc.
- The institute provides a book bank facility at reasonable cost.
- The institute provides subsidized accommodation and food facility.

For disadvantage section

SC/ST/OBC, Minority, EBC students get the benefit of reservation in admission and scholarships as per government norms. The institute has a separate student section in the administrative office, which is headed by Office Superintendent (OS), who is well versed with the rules and regulations related to social welfare schemes and provide guidance to the students to apply for these schemes.

2.3 Teaching-Learning Process

2.3.1 How does the institute plans and organizes the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blueprint, etc.)

SIT has gained its unique position among peer institutions through effective planning and executing the Teaching-Learning processes. Following points are considered in the process.

Preparation of Academic calendar

The SPPU, Pune publishes academic calendar (Fig. 2.3.1 a) for the complete academic year. This calendar is used as a starting point to prepare academic calendar of the institute. Academic calendar is prepared and circulated at least 45 days in advance to all concerned. Such calendar for semester-I of 2015-16 is shown in figure 2.3.1a. It mainly consists of start and end dates of the teaching, examinations, result declarations and submission dates.

Savitribai Phule Pune University (Formerly University of Pune)



ACAEMIC CALENDER FOR VARIOUS ACTIVITES FOR ENGINEERING COURSES FOR THE YEAR 2015-2016

FIRST TERM

Sr. No.	Details of Activities	Year	Date	
1	Commencement of Teaching	S.E/T.E/B.E. &MCA - II & III Year	15/06/2015	
2	Conclusion of Teaching	S.E/T.E/B.E. &MCA - II & III Year	06/10/2015	
3	Commencement of Teaching	M.E. II Year	20/07/2015	
4	Conclusion of Teaching	M.E. II Year	07/11/2015	
5	Practical/Oral/ Project Examination	S.E/T.E/B.E.	12/10/2015 to 27/10/2015	
6	Theory Examination	S.E/T.E/B.E. &MCA - II & III Year	02/11/2015 to 27/11/2015	
7	Vacation for Faculty		08/10/2015 to 07/11/2015	
8	Relieve the Faculty for CAP		09/11/2015 Onwards	
		SECOND TERM		
Sr. No.	Details of Activities	Year	Date	
1	Commencement of Teaching	F.E/S.E/T.E/B.E. & MCA -I, II & III Year	14/12/2015	
2	Conclusion of Teaching	F.E/S.E/T.E/B.E. & MCA -I, II & III Year	02/04/2016	
3	Commencement of Teaching	M.E .I & II Year	11/01/2016	
4	Conclusion of Teaching	M.E .I & II Year	18/01/2016	
5	Practical/Oral/ Project Examination	S.E/T.E/B.E. &MCA - II & III Year	06/04/2016 to 23/04/016	
6	Theory Examination	S.E/T.E/B.E. &MCA - II & III Year	02/05/2016 to 28/05/2016	
7	Practical Examination	M.E.I & II Year	25/04/2016 to 30/04/2016	
8	Theory Examination	M.E .I & II Year	16/05/2016 to 28/05/2016	
9	Vacation for Faculty		13/04/2016 to 23/05/2016	
10	Relieve the Faculty for CAP		25/05/2016 Onwards	

2.27/07205 Asstt. Registrar (P.G. Admission)

Ganeshkhind, Pune- 07 Ref. No. PGS/ 1702 Date : - 22/05/2015

Fig. 2.3.1a Academic calendar provided by SPPU, Pune.



Sinhgad Institutes

SINHGAD INSTITUTE OF TECHNOLOGY, LONAVALA ACADEMIC CALENDER/ SE- 2015-16 /SEMESTER –I

Sr. No.	Particulars	Date & Day		
1.	Commencement of Teaching	15 June 2015 (Mon)		
2	Unit Test-I (/&) Mock Online (30 Marks / 1hour / 2 Units)	15 , 17, 20 July 2015 (Thu, Fri & Mor		
2.	Declaration of Result of Unit Test-I	21 July 2015 (Tue) 10.30 am		
3.	Mid Term Submission *	28 July to 3 Aug 2015 (Tue to Mor		
4.	Unit Test-II & Mock Online (30 Marks / 1 hour / 2 Units)	20 to 22 Aug 2015 (Thu to Sat)		
ч.	Declaration of Result of Unit Test-II	24 Aug 2015 (Mon), 10.30 am		
5.	Conclusion of Teaching	23 Sept 2015 (Wed)		
6.	On line Unit Test (50 Marks/ 1Hour/ Units I to IV) &	25 Sept to 01 Oct 2015 (Sat to Thu)		
	Prelim Exam (30 Marks / 1 hour/ Units V & VI)			
7	On line Exam of University of Pune	30 Nov (Mon) on wards		
1.	(50 Marks/ 1Hour/ Units I to IV)	Tentative Date w. r. t. Last year Academic Calendar.		
8.	Declaration of Result of Prelim Exam	05 Oct 2015 (Mon), 10.30 am		
9.	Mock Practical & Final Submission	05 Oct to 07 Oct 2015 (Mon to Wed)		
10.	Issue of Term Grant Certificate to All Clear Students in Prelim Exam & Mock Practical	08 Oct 2015 (Thu),		
13.	University Examinations: a. Practical/Oral	12 to 27 Oct 2015 (Mon to Thu)		
	b. Theory	02 Nov to 27 Nov 2015 (Mon to Fri)		
	c. Online examination	28 Nov 2015 (Tentative)		
14.	Start of Second Term	14 Dec 2015 (Mon)		

 \ast 50% Submission should be completed & duly certified by the Faculty & HOD. Note:

- 1. AMCAT Test- 1st Week of July.
- 2. QA&LR Test-I 3^{rd} Week of July.
- 3. QA&LR Test- II- 1st Week of August.



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

Fig. 2.3.1b Academic Calendar for SE-A.Y.2015-16

Recruitment of the Faculty

As per the subject distribution if there is a need of faculty for particular course, then the department is asked to prepare the vacancy position. Accordingly interviews of the candidates are conducted. Selected candidates are notified and sent to competent authority for further process. In general, staff is recruited well in advance before commencement of the semester.

Infrastructure management

The infrastructure mainly includes classrooms and laboratories. Before the start of the semester it is ensured that the classrooms are equipped with projectors, adequate seating arrangement and electrical appliances. Also, laboratories are prepared in line with the academic needs. If required, maintenance activities are carried out so as to ensure smooth running of the equipments during semester. The new purchases are done according to changes in the syllabus.

Subject Distribution

The institute has practiced a unique strategy for preparation. The subject allotment is done as per the expertise and choice of the teacher. This allotment is done at the end of previous semester. Therefore staff is well aware about the subject to be taught and his teaching load at least two months before next semester. This helps teachers to plan and prepare for the upcoming semester. Also, master time table is prepared and individual timetable is sent to teachers by mail. Thus the teachers are in position to prepare teaching plan and course material well in advance.

Appointments of class teachers, coordinators and TGs

The class teachers, coordinators and TGs are nominated to ensure the smooth academic conduction and monitoring during the entire semester.

Teaching Plans in line with Academic Calendar

In line with the academic calendar, teaching plans of all the departments are drafted and executed. Syllabus coverage of theory and laboratory is planned so as to proportionately complete before each of the tests planned in the calendar. Fig. 2.3.1c gives the outline of such a plan and its compliance in semester I of 2015-16. As shown in academic calendar department is started on 15/06/2015. The first test on first two units of the syllabus is scheduled from 16/07/2015 to 18/07/2015. Accordingly teacher has to finish two units before commencement of the examination. It can be seen in following teaching plan, the teacher has finished first unit on 27/06/15 as per planned dates. Thus, the academic calendar and teaching plans are synchronized and monitored by teacher as well as HoDs. Academic calendar is displayed on the notice board of the department and teaching plan is given to the students on the 1st day of starting semester.

Book Requirements

The existing titles and number of volumes are upgraded every year. The new book purchases are done according to changes and requirements of the syllabus.

Teaching Plan Theory

C A pc hc cc di Ec M	Contents: Related terms and their definitions : System, Phase, Variable, Component, Alloy, Solid solution, Hume Ruther's rule of solid solubility, Allotropy and polymorphism, Concept of solidification of pure metals & alloys, Nucleation: homogeneous and heterogeneous, Dendritic growth, super cooling, Equiaxed and columnar grains, grain & grain boundary effect. Cooling curves, Plotting of Equilibrium diagrams, Lever rule, Coring, Eutectic system, Partial eutectic and eutectoid system. Non Equilibrium cooling and its effects. Microscopy, specimen preparation, specimen mounting, electrolytic polishing, etching procedure and reagents, electrolytic etching. Macroscopy: sulphur printing, flow line observations. 9 Hrs.							Course Educati al Objectiv s: 2, 3, 4	
1. 2. 3. 4. 5.	Under Analy: Under Solve Learn	stand t ze the i stand c numeri the me	the termino mechanism ooling cur cal on leve thods of sp	pletion of the unit students wology of phase diagram. In of solidification of pure metwes. er rule concept becimen preparation and mou	vill be ab als. inting.	le to :			
			P	LAN		ACTU	AL	Reference	Manni
S. No	Lect. No.	Wee No.	k Date	Contents	Date	Conte nts deliver	Reason for Deviation	e Books (Page No./Book Title)	g with Unit Object cs
1	1	1	14/12/1	Related terms and their definitions : System, Phase, Variable, Component, Alloy, solid solution, Hume Ruther's rule of solid solubility, Allotropy and polymorphism.	14/1 15/1	2 AS per	-	1/159- 162, a/266, b/278	1
2	2		16/12/15	Concept of solidification of pure metals & alloys, Nucleation: homogeneous and heterogeneous, Dendritic growth.	16/1	2 AS Per P		1/164, a/220, b/247	2
3	3		18/12/15	Super cooling, Equiaxed and columnar grains, grain & grain boundary effect, cooling curves.	21/1	2 .		a/226, b/252	3
4	4	2	21/12/15	Equilibrium diagrams, lever rule, coring, Eutectic system, partial eutectic and eutectoid system.	21/12	Asper		1/175, a/310, b/316	4
5	5		23/12/15	Non Equilibrium cooling and its effects.	23/12	AS		1/200, a/328,	5
				Microscopy, specimen preparation, specimen	26/12		Nore	b/333	
6	6		26/12/15	Electrolytic polishing, etching procedure and reagents, electrolytic etching.	26/12	×	requised	1/286	5
7	7	2	26/12/15	Macroscopy: sulphur printing, flow line observations.	28/12	AS		1/292, 296	5
8	8		28/12/15	Numerical on lever rule concept, Summary	30/12	P/		1/197	4
9	9	3		Numerical on lever rule concept, Summary Make up classes- Regular				1/197	4
	Ph	1 ~ ~ ~ ~	111)6	Ll	I		S	- P

- Hu Hindus 28-1-16

Fig. 2.3.1c Teaching Plan compliance with Academic Calendar

Assessment and Evaluation process

This is a two tier system. 1. University defined 2. Institute defined. SPPU conducts various examinations to evaluate the students. There are the evaluation examinations of the affiliating university such as online MCQ Tests (Phase 1 & 2) for first and second year, insemester exams for third and final year, pr/or exams and end-semester exams for all. The written examination is conducted at the end of the semester. The institute has to ensure that the students are ready for these examinations. Thus, all types (objective and subjective) of tests are planned before commencement of university examination. Also, to promote students learning and involvement in extra-curricular activities term work norms are prepared well in advance. The institute has defined set of internal assessment scheme as shown in figure 2.3.1d.

Continuous Assessment

The institute believes firmly in continuous evaluation of the students for their sustained performance. Hence, a structured evaluation process has been designed and implemented. The tests are prepared and conducted as per the university examination pattern. To prepare students for practical and oral examinations, institute conducts mock oral/practical exams. The institute conducts two unit tests, prelim exam, mock online MCQ Tests and mock pr/or exams as per the requirements of the syllabi of different classes.

Result Analysis

The institute monitors students' performance through result analysis which is carried out and discussed immediately after every internal examination and after declaration of university results. Report of result analysis is maintained by the department. Follow up actions taken are represented in the table 2.3.1.

Period	Class	Subject	SPPU /UT Result	Action
	BE Mech	Power Plant Engineering	100%	Appreciation Letter to
	BE Computer	Mobile Computing	98.65%	concerned faculty
2014-15	TE Mech	Numerical Methods & Optimization	98.71%	Appreciation Letter to concerned faculty
	TE IT	Design and Analysis of Algorithms	94.5%	Counseling is done for failed students.
2015-16	TE Mech	Theory of Machine -2	61.42%	Counseling and remedial classes are arranged.
	SE Mech	Applied Thermodynamics	100%	Appreciation Letter to concerned faculty
Remedial Classes/Actions

Based on the result analysis, remedial classes are conducted. These mainly applied for the specific cases as per the needs of the course and students.



Norms for Internal Assessment (TW) for A.Y. 2014-15

Sr.	PARTICULARS	MARKS		
No.		SE/TE	BE	
1	Attendance (TH, PR, TG, EVENTS, All Students Training Programs)	10	10	
2	Average of all Departmental Unit Tests (Weekly/Monthly)	10	10	
3	Prelim Exam	10	15	
4	Practical Continuous Assessment	10	05	
5	Mock practical exam.	05	05	
6	Designated Co-curricular Activity, (All Students Training Programs, etc)	05	00	
_	Total	50	50	

* Internal Assessment Scheme of 50 Marks is as follows:-

Student can earn 'over and above' marks (25) based on following criteria:

1) Lab innovation (05 Marks Total)

An individual innovation / small project of good Quality / Industry sponsored Projects.
To be completed in periodic supervision of any faculty of student's choice. Student should defend his work to departmental committee.

- 2) Value Addition Program (05 Marks Total), (A good quality of Project at the end of VAP)
- 3) E-journal paper (2.5 Marks Total) (A good quality of paper by using e-journals)
- 4) Industrial Training (2.5 Marks Total)

5) 60% + marks in previous University exam - (05 marks total)

6) Sports (university/state level) - (2.5 Marks Total)

7) Paper presentation: (2.5 Marks Total) Journal, or International / National conference (min 02 papers).

Marks earned out of total 25 from 'Over and above criteria' will be distributed subject wise as per decision of department.

Date: 26/7/2014

Dr. M. S

PRINCIPAL

Fig. 2.3.1d Internal Assessment Norms

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

Since its establishment, institute has AMC. This committee frames the guidelines for quality assurance in all the aspects of institutional activities such as academics, administration and student welfare. The committee regularly monitors faculty and students' feedback, results, and accordingly guides for corrective actions. It guides on up gradation of laboratories, class room facilities and housekeeping, so as to ensure best possible ambience.

Functions of the committee are:

- Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution.
- Facilitating the creation of a learner-centric environment conducive to quality education and faculty empowerment to adopt the required knowledge and technology for participatory teaching and learning process.
- Guidance for feedback mechanism from students, parents and other stakeholders on quality-related institutional processes.
- Dissemination of information on various quality parameters of higher education.
- Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles.
- Documentation of the various programmes/activities leading to quality improvement.
- Acting as a nodal agency of the institution for coordinating quality-related activities, including adoption and dissemination of best practices.
- Development and maintenance of institutional database through Management Information System for the purpose of maintaining /enhancing the institutional quality.
- Preparation of the AMC report as per guidelines and parameters of committee, to be submitted to higher authorities.
- Performance appraisal and counseling of faculty.



Fig. 2.3.2 Framework of AMC in academic improvement

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

The institute has evolved its learning environment in line with Active and Collaborative Learning principles. To design and exercise these student centric learning activities effectively faculty is trained by using various platforms which mainly include Teacher Advancement Programme (TAP), Train The Trainer (TTT) and various short term and long term faculty development courses. Also, faculty is specialized in PBL and effective teaching learning methodologies. Teachers are empowered through workshops on PBL and effective teaching learning methodologies such as Mission 10X. Following activities are evolved through these workshops to make learning student-centric.

Interactive Learning Environment

- It consists of interaction of students with various stakeholders and interactive elearning platforms.
- Detailed course objectives are notified to the students through lesson plans uploaded on ERP at the start of the semester. Study material and periodic assignments are also made available to the students on ERP platform. This enables students to come prepared for the classes. This practice has led to better interaction in the class rooms

and laboratories.

- Guest lectures by experts from the industry and add-on courses are organized by the departments, to cover content beyond syllabus.
- MoUs are signed with leading industries to bridge the gaps in the curriculum.
- K-point platform and E-learning

Collaborative Learning

- To facilitate collaborative learning, institute exercises Project Based Learning (PBL) in which students work in a group projects throughout entire semesters. These projects mainly include capstone projects. Apart from capstone project, institute promotes industry sponsored projects and research projects.
- In activity based learning students are encouraged to participate in Project competitions, design contests and various technical festivals.
- Arranging field/industrial visits.
- Conducting sessions like group discussion, seminar, and quiz, poster presentation to make the learning more interactive and collaborative.
- Inter-collegiate events
- Lab Innovations.
- Complex Laboratory Experiments.
- Paper writing.

Independent Learning

To facilitate independent learning, various e-learning platforms are provided wherein students can access course contents to bridge the gap from classroom learning, and also to supplement advanced learning as per the individual needs.

- Available e-learning platforms include K-point platform , ERP, learning resources through CDs and DVDs
- Wi-Fi facility is available in the campus to allow students to access technical resources such as National Programme for Technogical Enhanced Learning (NPTEL) Lectures, video clips
- VAPs and foreign language courses courses like advanced technology applications
- Coaching for competitive examinations by professional experts

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?

- VAPs are designed to promote critical thinking, creativity and scientific temper
- Students are encouraged to get involved in industry sponsored projects.
- As a part of their curriculum, students also work on creative projects.
- Implementation of PBL model
- In lab innovation scheme, students are encouraged to exercise their creative ideas and to prepare models.
- Institute organizes events like design competitions, project competitions and exhibitions, software development competitions, model development competition, poster competition, etc to develop creativity and critical thinking among the students.
- Students who are interested in R & D work are continuously motivated and encouraged to present their Project/Research work in different National/International Seminar/Conference/Workshop and Publish their work in National/International Journals and Seminar/Conference Proceedings.
- Institute also encourages students to take part in various competitions outside.
- Students have some innovative ideas, Enterprenuership Development Cell (EDC) inspire those students to become entrepreneur. EDC is established and developed in view of moulding students' abilities of leadership, team work with self motivation with proactive mindset. EDC is active via various activities such as, celebration of world enterprenuers' day on 21st August in which business plan competition and quiz is conducted. The case studies are evaluated by alumni enterprenuers of SIT to inspire current students for enterprenuership.

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 Programme on Technology Enhanced Learning (NPTEL) open educational resources, mobile education, etc.

Faculty members use visual library, digital library and other Open Source platforms to make the subject more and more informative. NPTEL lectures are made available to the students in department. A copy of e-learning material is kept in digital library. They are used by the students and faculty through presentations, on personal computers and laptops. Institute has created an online exam portal for staff to create tests and for students to practice these tests. Also, it has created K-point training module for various courses. These portals are available for the staff. The institute has licensed software which is used for simulation of different engineering concepts. For example, use of high end software for projects such as Automation Studio, Altair Hyperworks, MD FEA Motion bundle, Mastercam X6 is done by the students to design, analyze and evaluate the results.

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

- STP program has been designed to achieve blended learning.
- Webinars also provide opportunity for blended learning.
- Institute organizes international and national conferences for different programs.
- Institute organizes expert lectures, seminars, workshops, summer and winter schools to expose student and faculty to advance level of knowledge.
- Institute deputes the faculty for seminars, conferences, workshops, STTPs organized

by other institutes.

- Institute organizes the technical festivals in which various competitions such as paper presentation, project competitions, and gaming is held.
- Institute has the students chapters and institutional membership of professional bodies like IE(I), IEEE, ISTE, ISHRAE, SAE that organize the events to expose the students to latest developments in the field.

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

SIT, right from its inception has implemented the concept of Teacher Guardian (TG) scheme. The concept of TG scheme is: A batch students is assigned to each teacher who acts as TG. The TG maintains history card, which contains information of each student related to his/her previous academic performance, family background and contact details. TG conducts one meeting per week during semester. In every meeting the student is asked for any queries, doubts related to subjects, any technical or non-technical problem he/ she is facing, grievances or complaints if any.

TG regularly interacts with students and provides academic as well as personal guidance. These points are noted down in a teacher guardian diary by each teacher as well as separate attendance record is maintained throughout the semester. Students are also guided for any career field as per his/her interest. Reports of the meeting are reviewed by HoDs and same is communicated to the Principal. HODs also counsel the students and advise them from time to time about career guidance, competitive examinations, etc.

Guidance Services

- The training & placement cell provides professional counseling to the students.
- The personality, professional development, entrepreneurship awareness sessions are organized for students.
- Guidance for competitive exams.
- Remedial classes

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 practice student learning?

Innovative teaching approaches/methods adopted by the faculty

- Three course level PBL models are designed.
- The teachers make lectures more student-centric by cooperative learning by means of mid lecture activities such as group discussion, role play and technical debate.
- Each faculty have soft copies of their notes and power point presentation
- Faculty uses laptop, digital library and online journals to download lectures, study materials and data from internet.
- Institute has developed ICT. The teachers utilize these facilities to illustrate the concept clearly through audio/video mode.
- The students are assigned different tasks such as group assignment, problem solving

and mini project. This activity helps to improve self-learning ability and teamwork.

- Teaching is best way to learn; in presentation activity students are asked to prepare lecture on any of the topic related to course. This lecture has to be delivered to peers.
- Use of modern teaching aids.
- Subject day celebration is done at E&TC department.

Efforts made by the institution

- Each faculty has to undergo TAP and TTT in which they are trained for effective teaching and learning methods.
- Institute has sent three faculty members to Aalborg University (AAU), Denmark to understand PBL+ model used in AAU.
- One staff member has completed Ph.D. in PBL and has designed three course level PBL models.
- One faculty member is pursuing Ph.D. in quality assurance in engineering education.
- Institute makes arrangement to telecast special webinars on the related topics.
- Institute has signed MoU with more than 15 industries in which faculty and students work on industrial projects. Most of these projects are aligned to one of the courses to be taught. This way student gets practical relevance of the subject.
- Institute has designed innovative educational model for professional and personal growth of the students.

Impact of innovative practices on student learning:

- Learning has become increasingly interesting and personalized.
- Learning process helped learners to not only enjoy learning, but acquire skills that empower them to actively engage in the development of their personal skills and competences and improve their performance and achievement.
- It enables students to develop and realize their potential.

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

The institute central library facility has good collection of learning resource.

Library holdings	2011-12	2012-13	2013-14	2014-15
Text books	16521	17700	18422	19165
Reference books	3680	3841	3891	4445
Journals/periodicals	40	30	30	30
E-resources	3300	10 Databases	10 Databases	10 Databases

Table 2.3.9	Library	holdings
--------------------	---------	----------

National & International print journals are subscribed to update the current knowledge of the stakeholder in the irrespective field.

- e- Journals have been subscribed.
- As the e-journals access is IP based, the stake holders can take benefit of this facility from anywhere in the campus at anytime.

- Digital Library comprises of 20 computers with Internet facility
- Library has also organized Workshop for Research Articles: National Live web Ex by Science Direct to aware the researchers about the scientific publishing, impact factor, peer review process.
- The training session of Elsevier for researchers is also arranged by Library.
- Books are arranged subject wise and department wise and personal attention is given for fulfilling their library related needs.
- Open access facility is available. Library Staff motivate the students for open access to aware them about the latest arrivals.
- Separate Reference, Periodical, Circulation, and Digital Library section and reading room facility is available in the Library.
- In addition to the central Library, each department has its own Departmental Library to facilitate easy access to the faculty, students and research scholars.

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.

Yes.

The institute indeed faces challenges in completion of syllabi. However these challenges are marginal in gravity owing to the scrupulous planning, monitoring and correction from time to time. Efforts are constantly on to keep these challenges at its lowest level.

Some of the challenges faced are listed below:

Late admissions due to delays in admission process carried out by DTE for first year and direct second year (lateral entry) students.

University provides uniform time slots for all the subjects but certain subjects need more time depending upon grasping power of students.

For some subjects' additional teaching hours are provided to cover prerequisites.

Because of newly introduced in-semester theory and online university exams, we have to readjust our teaching schedules for timely completion of syllabus.

Theory-practical synchronization- Some challenges are faced during theory sessions for co-relation with practicals due to vast syllabus and holidays on practicals and theory sessions. These are overcome by having shuffling of the sequence of theory and practical sessions. Extra input sessions for theory and practicals are conducted.

Induction of newly joined staff- It is required in order to have the familiarity of staff members with work culture of college and with collegues to improve team work. This activity is done during weekly departmental meetings to have better synchronization of newly joined faculty member with departmental work culture.

Efforts to overcome the challenges:

- Considering above challenges academic calendar is prepared with optimal utilization of available weeks for teaching learning activities. Extra lectures and practical sessions are arranged to cover the syllabus whenever necessary. Separate classes and practices are conducted by the department for the late admitted diploma students.
- Discussion on subjects is held regularly
- TTT and expert lectures are arranged for the induction of new staff

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

- Quality of teaching can be assessed by student's feedback, teachers' course file and conduct of teacher in the department.
- Course file of individual faculty containing study material, assignments is evaluated by academic audit committee and the report is submitted to AMC. Institute takes feedback from students, alumni, employers and parents.
- After analyzing student's feedback, instructions are given to individual faculty member.
- Quality of learning can be assessed by students' performance in various tests and competitive exams, quality of the projects, students' performance in competitions conducted by institute and other agencies.
- Institute arranges various tests. Result analysis of these internal examinations is performed and remedial measures are taken.
- Institute monitors university ranks and results to evaluate the teaching learning process.
- Institute and industry expert evaluates the projects prepared by students.
- Many students have won competitions and scored ranks in competitions conducted by other agencies.
- Supervision of lecture and practical sessions is done by vigilance /monitoring committee and HOD. Appreciation of the good performers and Memos to defaulting faculty is given as per case.

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 strategies

Faculty and staff members are recruited as per the AICTE/SPPUguidelines.

The selection process is as follows:

- 1. The reservation roster is verified by the Assistant Registrar, Reservation Cell, SPPU.
- 2. After approval from the Reservation Cell and SPPU, advertisements are published in leading newspapers as per the relevant norms in that behalf.
- 3. Applications for recruitment are screened as per the norms.
- 4. Technical and personal interviews of the candidates are carried out by duly

constituted selection committee as per norms.

- 5. Qualified candidates are selected on merit through rigorous selection process.
- 6. This selection is based on the changing needs of the curriculum.
- 7. List of selected candidates is submitted to the University for approval.

Oualification	Professor		Associate Professor		Assistant Professor		Total	
	Male	Female	Male	Female	Male	Female		
	Permanent Teachers							
Ph.D.	4	0	4	0	2	0	10	
M. Phil.	0	0	0	0	0	0	0	
M.E./M. Tech/M.Sc.	0	0	12	5	131	55	203	
B.E./B. Tech/B.Sc.	-	-	-	-	-	-	-	
		Tempo	rary Te	achers				
Ph.D.	-	-	-	-	-	-	-	
M. Phil.	-	-	-	-	-	-	-	
M.E./M. Tech/M.Sc.	-	-	-	-	-	-	-	
B.E./B. Tech/B.Sc.	-	-	-	-	-	-	-	
		Part-t	ime Tea	chers				
Ph.D.	-	-	-	-	-	-	-	
M. Phil.	-	-	-	-	-	-	-	
M.E./M. Tech/M.Sc.	-	-	-	-	-	-	-	
B.E./B. Tech/B.Sc.	-	-	-	-	-	-	-	
Grand Total	4	0	16	5	133	55	213	

Table	2.4.1	Number	of	faculty	with	qualification
Labic	M0-101	Tumber	UI	lucuity	** 1011	quannearion

Retention strategies:

The institute has always adopted a policy that has aimed at retaining its teachers. Following strategies are adopted to ensure faculty retention

- 1. Academic atmosphere: The institute takes every effort to maintain best academic ambience in the campus. The teachers are encouraged in every way to engage in academic pursuits like attending conferences, writing research papers, books and inviting experts to address the students and faculty as well.
- 2. **Research and development activities:** In order to inculcate research culture amongst teachers, the institute has a functioning Research and Development (R & D) Cell. Several faculty members take advantage of this facility and enhance their career by way of obtaining doctorates, publishing technical papers, books etc. Teachers got R&D projects from the institutes like ISRO & universities.
- 3. **Regular appreciation of faculty performance:** Upon the result analysis of the university examinations, the outstanding performances are officially appreciated every semester.
- 4. Institute has time bound and performance based promotion policy.

- 5. Institute deputes/sponsors faculty for higher studies as well as conferences and workshops.
- 6. Teachers are appreciated every year in teachers day function.
- 7. Insurance scheme for staff
- 8. Staff Quarters
- 9. Free Medical and Sports facility
- 10. Hill station allowance
- 11. School for children
- 12. Transport facility

All these measures have substantially helped the institute to retain its competent and qualified teachers.

2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programs/ 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.

- 1. The institute has been appointing highly qualified senior faculty to handle new and emerging subjects as proposed in the curriculum of SPPU to which the institute is affiliated.
- 2. The institute also arranges faculty development programs to refine the skills of faculty as per the need of the curriculum.
- 3. Eminent personalities are invited from industries to deliver expert lectures to the faculty so as to enable them to bridge the gap in the curriculum.
- 4. Institute offers extension to the services of superannuated faculty derives extended benefit of their expertise.
- 5. In last three years, the institute has invited the visiting faculty from the different fields. Sample topics from each department are listed below. The details list is provided in the annexure. (Table 2.4.2 a)

Sr.	Year	Departmen	Торіс	Expert faculty
No.		t		
1	20/03/2015	Mechanical	CFD applications for	Mr. Sameer Latkar
			research	
2	20/06/2015	Information	Orientation Programme	Mr. Manish Singh
		Technology	conducted on Microsoft	(ATS Infotech)
			IT Academy on C# with	
			Cloud Computing	
3	2014	E&TC	Wireless	Mr. Munir Sayyad,
			Communication &	Reliance Pvt. Ltd.
			Networks	
4	12/09/2015	Electrical	Intellectual Property	Mr. Ashutosh
			rights and Patent	Prachand,
				Ms. Archana Joshi
				(IPFACE Pune)
5	28/07/2014	Computer	Cyber Security	Mr.Pratik Patil, Mr.
				Anil Raj, Cyber Soft,
				Hinjewadi, Pune

 Table 2.4.2a Sample of invited talk, expert faculty and visiting faculty

2.4.3 Provide details on staff development programs during the last four years. Elaborate on the strategies adopted by the institution in enhancing the teacher quality.

- a) Nomination to staff development programs
 - 1. The institute organizes the Faculty Development Program minimum twice in a year on various subjects including teaching methodology.
 - 2. In the past 4 years, in all 169 of FDPs were conducted in the institute.
 - 3. Faculty members are also encouraged to participate in conferences, seminars and workshops conducted by other institutes.
 - 4. Besides several in-house programs, faculty members are encouraged to participate in refresher courses/orientation programs conducted by other institutes.

Table 2.4.3 Details of number of nominated faculties for faculty development programs

Faculty Training Programs	Number of faculty Nominated			
	2014-15	2013-14	2012-13	
Refresher courses	16	14	13	
HRD Programs	2	5	0	
Orientation Programs	18	27	17	
Staff training conducted by the university	21	35	34	
Staff training conducted by other institutions	22	36	33	
Summer/winter schools, workshops, etc.	12	34	33	

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

The management is keen on professional development of the faculty in being abreast with latest technology trends. The following are some of the highlights:

- 1. Teaching Learning methods/approaches
 - The Institute has been organizing and deputing faculty for workshop on proactive teaching learning methods like Wipro Mission 10X.
 - In-house TTT programs are regularly arranged on every revision in curriculum by SPPU.
 - Project based learning and active learning modules
- 2. Handling New Curriculum The institute deputes its faculty members for syllabus revision workshops and seminars organized by SPPU and its affiliated institutes to become well verse with intent and content of new syllabi.
- 3. Content/Knowledge Management
 - Use of modern teaching aids such as presentations, NPTEL video lectures, Online courses, Technological Animations etc.
 - Free access to e-resources like DVDs, journals and reference books through institute library.

- 4. Use of enrichment materials
 - Institute encourages enriching activities based on Case-Study presentations, Advanced technology trends, Latest teaching methodologies, tools and techniques.
- 5. Assessment
 - Assessment of analysis of the students' performance in various aspects such as curricular and co-curricular aspects.
 - Feedback from students once in a semester regarding instruction delivery by the faculty.
- 6. Teaching learning material development, selection and use
 - Faculty members explore latest developments in technology via internet.
 - The online access to Science Direct journals enable faculty to explore and exploit huge literature resource.
 - Institute has developed e-Learning platform

Sample of Activities held towards empowerment and enabling faculty are shown in table 2.4.3a.

Sr. No.	Department	Activity	Date	Sponsoring agency
1	Electrical	Large Scale Integration, Opportunities and challenges	28 th Feb to 1 st March 2015	University of Pune
2	Electrical	Workshop on PLC & SCADA	2014	B & R Automation Pvt. Ltd, Mrs.Rajlaxmi
3	Information Technology	FDP on "Cloud Computing & Infrastructure"	$2^{nd} & & 3^{rd}$ March 2015	SPPU, Pune
4	Information Technology	"Mission 10X"	22/11/2011 to 26/11/2011	Wipro Mission 10X
5	E&TC	IETE State Level Workshop on "Embedded Linux Development on ARM 9- ELDARM9-2015"	17 th to 19 th June, 2015	Cosponsored by IETE
6	E&TC	1st IEEE Global Conference on Wireless Computing and Networking (GCWCN- 2014)	22 nd -24 th Dec 2014	Cosponsored by IEEE, and GISFI
7	E&TC	Two Day's Workshop on "Design & Implementation of WSN node using NS2"	15 th -16 th Nov 2014	ISTE Dept Forum
8	Mechanical	ISTE Approved- 1 week Short term training program on "Renewable energy- opportunities and challenges"	26 th to 30 th Oct 2015	National Biodiesel corporation, Baramati
9	Mechanical	Two Day Workshop on "Personality Empowerment & Employability Skills Enhancement"	26 th and 27 th Feb, 2015.	Self- sponsored

Table 2.4.3a Empowerment activities

10	Mechanical	3 rd national conference on "Innovations in mechanical engineering"	TwoDaysJanuary9-10 th , 2015	Self- sponsored
11	Computer Engineering	Workshop on Performance Evaluation of Cloud through Web	28/02/2015 to 02/03/2015	University of Pune
12	Computer Engineering	STTP on Simulation and Protocol Implementation using NS-2 for Wireless Research	06//08/2015 to 10/08/2015	University of Pune
13	Computer Engineering	FDP on Mobile application development using Android	26/2/2013 to 27/2/2014	University of Pune

c) Percentage of faculty

Table 2.4.3b shows summary of faculty contributions in various activities

Sn			Academ	nic Year		
Sr. No.	Activity	2015-16 in %	2014-15 in %	2013-14 in %	2012-13 in %	
	Invited as Resource Person					
1	in Workshops /seminar	2.6	6.97	6.97	4.65	
	/conferences					
r	Participated in Workshops	12.05	43.02	25 58	22 72	
Z	/seminar / conferences	13.93	43.02	23.38	33.72	
	Presented paper in					
3	Workshops / seminar /	4.65	22.09	11.62	9.30	
	conferences					

Table 2.4.3 b) Summary of the faculty contributions

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 programs industrial engagement etc.)

The institute extends full support for the professional development of the faculty in many ways e.g.

- The institute encourages and supports faculty for pursuing higher studies (M.E./M. Tech. / Ph.D.) by granting them duty leaves. Institute also motivate faculty by providing project funding to their research work.
- The institute provides financial support for presenting papers in national and international conferences.
- The institute provides financial support to organize seminars, workshops and FDP's for enrichment of faculty knowledge.
- The institute deputes faculty members to attend short term refresher courses, seminars and workshops for upgrading their skills.
- The institute subscribes to reputed journals like Science Direct for the reference of all faculties.
- The institute provides support to participate in seminar, workshop and FDP etc.

- Institute having ninteen MoU's with industries and through which the faculties are encouraged to interact with industry and this will help them during their research work.
- Faculties are encouraged for writing text books for SPPU syllabus.

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.

Department	Academic Year	Award	Faculty Name
		ICAM-12 Best paper in a technical session at IIT Varanasi, Best kaizen in month Feb-12 at Johnson Controls ltd, Pune	Mr. Manoj W. Bhalwankar
	2012-13	Speaker- 2nd international conference on mobility for life Sandip institue and technology,Nashik	Dr. V.V shinde
Mechanical		Speaker -One day international workshop on problem and project based learning-Sandip institue and technology,Nashik	Dr. V.V shinde
		Young minds award form Zee 24 Tas	Dr. V.V.Shinde (Project Guide), student team
	2015-16	Speaker - Research opportunities and challenges in the field of hydrogen energy ,SIT Lonavala	Dr. V.V. Shinde
		Commettiee member - 3rd international conference in production,mechanical and automobile engg, Lucknow, India	Amit Wasnik
	2013-14	Best paper, CPGcon, SPPU, Pune	Mr. T.J. Parvat
		Star Innovator Project Internship IEEE India SAC	Mr. Selwyn Martin, Mr. Shrinivas Kulkarni, Mr. Sujit Ghamande
Computer	2014-15	Awarded as IBM TGMC 2013 Mentor	Mrs. G. Narang
		Awarded as Best Teacher by EMC^2	Mr. V.S. Kadam
	2015-16	Best Paper, VIT- Vellore	Mr. A.V.Nadargi
IT	2014-15	Awarded membership of International Association of Engineers (IAENG) & Computer Science Teachers Association (CSTA).	Mr. N. A. Dhawas, Mr. R. S. Badodekar & Mr. G. M. Gaikwad

 Table 2.4.5 Summary of the faculty awards and recognitions

	2014-15	Certified by Microsoft Certified Professional (MCP) & Microsoft Technology Associate (MTA) for .Net	Mr. R. S. Badodekar
IT		Got best paper presentation award at PGCON – 2014 at Nashik.	Mr. N. S. Bansode
	2010-11	Participation in Erasmus Mundas 'Mobility for life' project	Dr. Chaudhary Dilip Damodar
E&TC	2010-11	Participation in Erasmus Mundas 'Mobility for life' project	Mrs. Bhardwaj Sanika Sagar
	2012-13	Participation in Erasmus Mundas 'Mobility for life' project	Dr. Gangane Jyoti Ramesh

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

Yes,

Institute evaluates teachers by taking inputs from students.

- Evaluation of teachers by the students is done through perfectly confidential students' e-Feedback system in each semester. Analysis of received feedback is done and it is used for improving the quality of teaching-learning-process. Counseling of the teachers is done by senior professors to make necessary corrections.
- Continuous evaluation of contents of teachers' academic diary by academic audit committee.
- It helps teachers to identify and sort out their limitations.

2.5 Evaluation Process and Reforms

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

- Basic eligibility for evaluation process is made known to students through university website, notice boards and class counseling.
- Institute notifies evaluation process and related documentation on the notice board as well as on institute website. This includes distribution of marks and schedule of internal evaluation and university evaluation.
- Induction programmes are conducted for First Year Engineering students as well as parents to understand academic calendar, examination and evaluation system along with extracurricular activities scheduled in the year.
- Institute also notifies the criteria for allocation of term work marks through notices (refer Fig. 2.3.1 d) and class counseling.
- Continuous assessment report for all the courses is displayed in respective laboratories every month.

• Staff meetings are conducted periodically to review the evaluation process.

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?

- For final year students project work is evaluated through Seminars and Presentations conducted internally as well as through University evaluation process.
- The institute has adopted various university reforms such as On-line objective type MCQ Examinations for first and second year.
- For internal evaluation, institution conducts two unit tests and prelim exam per semester.
- Internal marks are allotted on the following components like i) Attendance, ii) Test scores, iii) Laboratory performance iv) fieldwork iv) seminar vi) Technical quiz vii) mini-project viii) case studies ix) paper presentation.

The institution implements all the evaluation reforms as prescribed by the SPPU.

Following are the major evaluation reforms introduced by the University and adopted by institute

SPPU Examination Pattern - SPPU has introduced a credit system pattern and a concept of continuous evaluation through in-semester examination and end semester examination per semester. The institute has smoothly adopted all the rules, and procedures laid down by University. The revised examination structure is as follows.

Year	Exam by SPPU		Marks	Exam by SPPU	Marks
FE	Phase I [25M] Phase II [25M]		50	End semester	50
SE	Phase I [25M] Phase II [25M]		50	End semester	50
TE	In – semester		30	End semester	70
BE	In - semester		30	End semester	70
ME	In - semester		50	End semester	50

Table 2.5.2 SPPU Evaluation Pattern

- Appointment of CEO As per SPPU directives, the institute has appointed a senior and experienced faculty member as Chief Examination Officer (CEO). The examination committee is structured with the Principal as the chairman assisted by CEO who is the member secretary and senior faculty member one from each department.
- **Computerization** SPPU has introduced online examination for evaluation of the first and the second year engineering students. The institute conducts online examinations of the SPPU during every semester. The marks of term work, practical/oral examination and those for in-semester are submitted online to the university.

- **Appointment of Internal Examiners** The institute appoints internal examiners for the practical/oral examinations as per the guide lines of the SPPU.
- **Credit system** As per the SPPU guidelines credit system has been introduced for the PG Programmes.

The institute augmented university reforms by conducting mock online examinations, tutorials and mock practical/oral examinations for the students before the university examination.

- The reforms initiated by the Institute: Conduction of mock online examinations, tutorials, mid-semester examination and mock practical/oral examinations. Institute also conducts project competitions, AMCAT, ET, QA/LR, quizzes and soft skill development competitions for the students.
- **Research Component:** Research component in the form of writing of a review paper, has been to be added to the STP IV in TE Semester II. In has been decided by the institute to inculcate research culture in every student. The seminar / mini-project activity of semester II as per university syllabus can be coupled with this activity.

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?

University evaluation reforms:

- The CEO and Examination Committee schedules and executes the evaluation process with strict monitoring on regular basis.
- The principal also takes stock of the progress in weekly HOD meetings.
- Internal squad comprising of senior faculty members oversees the smooth conduction of university theory examination.
- CCTV cameras are deployed at select locations to monitor the online examinations.

Internal evaluation reforms:

- Each department has examination cell for smooth conduction of internal tests. The results of each test are declared within a week of the conclusion of the test. The students can see their respective answer books and discuss their queries with concerned staff.
- The term work evaluation is done by respective course teachers. The performance evaluation of students is displayed on notice board through Continuous Assessment Report (CAR). Student can discuss any queries about CAR with the concerned teacher.

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

Formative Evaluation Process:

The goal of formative evaluation of the students is to monitor their learning, to collect continuous feedback, which is used by faculty to improve their teaching and by students to improve their learning. Formative evaluation is carried out considering the following parameters.

- Attendance to theory and practical sessions throughout the semester
- Attendance at STP sessions
- Mock on-line and practical/oral examinations
- Online SPPU Examinations (for FE and SE)
- SPPU In-Semester examination (for TE and BE)
- Tests and assignments
- Participation in industrial visits and Mini projects/projects
- Participation in workshops and seminars
- Participation in organizing technical events
- Participation in curriculum based training and social activities
- Participation in inter-collegiate competitions
- Participation and involvement in Value added programmes
- Overall impression of TG

Summative Evaluation process:

The goal of summative evaluation is to evaluate students' performance outcome at the end of each examination in comparison with some standard benchmark. The institute conducts summative evaluation through result analysis after each internal or external examination. Students' performance is promoted through publicly appreciating and rewarding the good performers.

Examples

Best performing students are given awards for their performance in university examinations, thus the institute is able to sustain academic environment and healthy competition amongst students. In PBL courses students have performed well in theory exams compared to other courses in the semester. Also, students' engagement activities are enhanced in this class.

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

- To monitor the student progress, institute has the continuous internal evaluation system which consists of internal assessment tests (twice in a term), improvement test and evaluation of practical exercises.
- Institute has developed fully transparent internal assessment scheme (refer Fig. 2.3.1 d), which is strictly implemented and practiced by the faculty.
- Continuous assessment is done by departments.
- In continuous assessment process, encouragement is provided for participation in activities like group discussion, seminar, poster presentation etc.
- Institute communicates progress report of their ward to the parents.
- Parents and Teacher-Guardian's meet is organized twice in a year.
- The institute analyses program-wise performance of students.

Following figures shows programme wise performance of the students.



Figure 2.5.5 a) Passing percentage of BE students







Fig. 2.5.5 c) Passing percentages of SE students



Fig. 2.5.5 d) Passing percentages of FE students

Above figures 2.5.5 a) to 2.5.5 d) shows comparison of result analysis between SIT and SPPU of BE, TE, SE & FE students of each branch for last four years. Fig 2.5.5 a) and 2.5.5 b) shows the stable results for B.E. and T.E. classes. Figure 2.5.5 c) indicates percentage of results increasing for first three years and there is a drop in the previous years results but compared to SPPU it is higher. F.E. result analysis is shown in figure 2.5.5 d) which is fluctuating.

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

Graduate attributes specified by the institute:

Engineering Knowledge: Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

Problem Analysis: Identify, formulate, research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.

Conduct Experiments: Conduct investigations of complex problems using researchbased knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions.

Modern Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to complex engineering activities with an under- standing of the limitations.

The Engineer and Society: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice

Environment and Sustainability: Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams and in multi disciplinary settings.

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions

Life-long Learning: to recognize the need for and an ability to engage in life-long learning

Project Management and Finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team to manage projects and in multidisciplinary environments.

Attainment of Graduate attributes the students

Institute does not explicitly assess all the graduate attributes, however efforts have been made to provide ample opportunities to learn and acquire skills through various activities. Following table provides mapping of graduate attributes and activities conducted by the institute. Also, assessment pattern and evaluating agency are noted in the table.

Graduate Attributes	Activity	Assessment	Evaluators
Engineering Knowledge	Lectures and talks, STP- III and IV	Tests, Viva voce	Internal and SPPU
Problem Analysis	Industrial and in house projects	Q and A, Presentation	Internal and external
Design/Development of Solutions	Design and Model competitions Software development competitions Project competitions	Q and A, Presentation	external
Conduct Experiments	Lab experiments as per curriculum	Q and A	Internal
Modern Tool Usage	VAP, STP- V	Q and A, Presentation Project and Report	external
The Engineer and Society	Industrial and in house projects, seminar and conference	Q and A , Presentation Project and Report	Internal and external
Environment and Sustainability	Awareness programmes	Poster making	Internal
Ethics	Projects & Events Organization	observation	Internal
Individual and Team Work	Projects & Events	Rubrics and observation	Internal and external
Communication	Projects, Paper presentation, STP- I and II	Presentation and report writing	Internal and external
Life-long Learning	Lab work and Projects, competitions	Presentation	-
Project Management and Finance	Projects, Presentation and report writing	Evidence based	Internal and external

 Table 2.5.6 Mapping of graduate attributes and activities

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

University level

The University examiners re-verify, re-assess the answer books and revised marks if any, are notified to the concerned students.

Institute level

CEO along with examination committee takes care of University evaluation grievances. CEO forwards the grievances, if any to the University. The students can apply for verification, revaluation and for photocopy of answer books. Institute level grievances are handled by the Teachers, HoD and Principal.

Department level

The faculty discusses the marking scheme and model answers with the students and resolves their queries. When students receive photocopy of answersheet, they discuss with subject teacher and faculty members guides accordingly.

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?

- Yes. Every programme department has clearly defined Programme Educational Objectives (PEOs), Programme Learning Outcomes (PLOs) and Course Learning Outcomes (CLOs). They have been articulated by taking inputs and suggestions from every stake holder.
- PEOs and PLOs are displayed on notice boards and CLO are notified to students through ERP and also discussed by faculty in the classrooms. Also CLOs are available in course files.
- The PEOs and PLOs are aligned with institute vision and mission statement
- The institute is affiliated to the SPPU, Pune. The curriculum is defined by it is used to guide the process for defining PEOs. The defined PEOs are refined and defined in association with the stakeholders periodically.
- Mechanism of continuous improvement in the process of PEOs Mapping and Assessment is shown in figure 1.2. PLOs and CLOs are also displayed on the website of the institute.

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.

• Monitoring students' performance and progress thereof is the heart of the teachinglearning process in the institute. Means used for this are progressive attendance, continuous lab assessment, 2 unit tests, 2 mock online tests, and prelim exams, insem exams, and end sem examinations.

- The institute regularly communicates the student's performance in above parameters to students and their parents.
- Progressive performance is assessed on annual basis. Any downward trends are noted and corrective actions are initiated to rectify the problems.
- The result analysis is for last four years is discussed in criteria 2.5.5
- In parents meet, performance of students is discussed with their parents.

2.6.3. How are the Teaching, Learning and Assessment Strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

Teaching Strategies:

- Every department in the institute prepares an academic calendar in line with the institute's and university's academic calendar.
- The faculty prepares their lesson plans with details such as course objectives, course outcomes, unit objectives and unit outcomes along with well thought out time schedule.
- Lesson plans of the faculty are reviewed by HOD at the beginning of the semester.
- In addition to required number of class room and laboratory slots, the time tables also provide room for student training on specialized subjects like soft skills, communication skill, technology applications and personal interview skills (STP I through V).
- Results of formative and summative assessments are rigorously analyzed and necessary corrective actions are taken. The academic calendar of the institute specifies the schedule for tests and related result analysis immediately following the exam.
- Trailing students are identified periodically and remedial support is extended to them so as to enable them catch up with the class. Help from parents is also sought where required in such cases.
- All the teaching materials will be made available on ERP on the 1st day of semester.

Learning Strategies:

- Project Based Learning (PBL) methodology is adopted in the courses.
- Classes are made interactive through posing quick questions and interesting presentations.
- Self-Learning Sessions (SLS) are specially provided in regular time table of every class.
- Projects are promoted among all the students from second to final year so that they develop analytical habits.

• Industrial visits invariably conducted every year help students gain field exposure

Assessment Strategies: Following strategies are employed for assessment

Direct Assessment

- Internal and external examinations in theory and laboratory.
- Online examinations.
- Seminars, tutorials and assignments.

Indirect Assessment

- Employer Feedback
- Alumni Feedback
- Programme Exit Feedback
- Course End survey
- Mid-Sem Feedbacks.

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?

- Besides providing appropriate training, institute conducts employability tests like AMCAT etc. which form the entry prerequisite for many high profile companies.
- EDC provides promotes entrepreneurship skills among students through regularly arranged activities and competitions.
- Industry sponsored projects help students get direct industry exposure by virtue of which their employability enhances significantly.
- The institute motivates and sponsors students to participate in various research projects, project competitions such as ELECRAMA, BAJA and Go-CART etc.
- The institute organizes various technical competitions under TECHTONIC.
- Students are encouraged to participate in university level competitions like AVISHKAR and other National and State level project competitions.
- The institute has signed MoUs with esteemed companies.
- T&P cell conducts expert lectures, pre-placement talks and guidance for higher studies.
- Organization of various social activities by NSS like blood donation camp, celebrating festivals with orphan, awareness through special NSS camps, river cleaning activity etc.
- Each department has developed multiple activities in line with the PEOs. All these activities are termed as content beyond syllabi. Curriculum Gaps in syllabus are investigated and mentioned in the table as known gap. The known gap is filled with

the additional content and its reference activity.

Known gap	Additional Content/ activities	Institute Activity	
Interaction amongst stake holders	Students are encouraged to visit industries Expert talks are arranged from industry people on specific and interdisciplinary subjects spreading across the curriculum.	Industrial training and Visits, Invited Talks.	
	Group discussions, LCD presentations are added in regular timetable to improve presentation and communication skill.	Group discussions and, LCD presentations	
	Professional clubs (SAE, ISHARE, ISTE, IEEE, CSI, IETE) and student bodies (MESA, e- sitizens, ACES, InfoSIT, EESA), Microsoft Campus Club, Zero Club, Business club activities are regularly conducted to improve leadership and managerial qualities with exposure to latest technological trends.	Professional clubs and student associations' activities	
Skill development.	National conference, short term training programmes, technical quizzes and festivals, technical seminars are arranged by the staff and students to improve leadership and managerial qualities, to provide depth and breadth, and also to get updated knowledge of various emerging fields.	National conference, short term training programmes, technical quizzes and festivals, technical seminars	
	Special need based Student Training Programmes (STP) are designed for the skill development of the students. These STPs are designed in collaboration with the industry and academia.	STP-I to IV	
Students - centered learning practices.	SIT is implementing PBL (Project Based Learning) and Activity Based Learning. Here, concepts of lab innovations are incorporated in a curriculum to involve students in self learning (learning by doing) practices and to implement their ideas in actual practice. Students are motivated for learning since they work on new ideas generated by them or as directed by a faculty. They were facilitated by the institute by funding good lab innovations and exhibition and design contests.	Lab innovations Exhibition and design contests Industrial projects. ROBOCON, Go- Kart, Supra, and BAJA, TGMC IBM	
	Institute promotes the students to work with industry to carry out projects. As a result, many students have done industry sponsored projects.	Project competition & industry projects	

	Also students have participated in various Nationally recognized events.	
Exposure to Modern tools	Since 2006, institute is conducting various Value addition programmes on various Modern Tools and Programming Languages. Also, in technical events students gets practice to use modern tools.	Value Addition Programs (VAP), Digital Hackathon, Techtonic Event
Students interaction sessions	In addition to professional and individual counseling are added in a regular timetable in which faculty and students interact with each other on various topics prevailing during that period.	Teacher Guardian meetings

• The additional contents as necessary depending upon industrial need are being provided after institute hours in terms of Value Addition Programs (administered by the department and student forum).

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

Data is collected from various measures which includes test marks, SPPU university examination marks, project grades, specially designed rubrics and evaluation by external experts from academia and industry. Following means are used to analyze learning outcomes.

- Exit feedback from outgoing students every year.
- Employers' feedback.
- Placement statistics.
- Entrepreneurial statistics.
- Statistics of students going for higher studies.
- The feedback from the alumni is taken during the Alumni meet.
- Feedback from parents is taken during the parents meet.

The data analysis is presented in the form of graph and pie charts.

2.6.6. How does institution monitor and ensure the achievement of learning Outcomes? The institution has clearly defined a mechanism to monitor the learning outcomes.

- Based on the performance of the students in various technical and other competitions. The learning outcomes are analyzed by the quality and quantity of placement in Tier-1, Tier-2 companies.
- Based on the participation and achievements of the student in competitive exams like GATE, GRE, TOFEL, etc.
- Quality of the undertaken project, internship performance and participation in competitions, conferences/ workshop/ seminars referee's recordings on group discussions, enable the institution to monitor and ensure the achievement of learning outcomes.
- Study of history card of every student which presents the initial level of learning and

the exit feedback given by students along with the marks, ranks and employment status as well as internship certificates indicates the achievement of learning outcomes.

2.6.7 Does the institution and individual teachers use assessment/evaluation 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, individual teachers use assessment/evaluation as an indicator for evaluating student performance. Different evaluation methods are used as per the need of the course.

- Every course teacher defines course objectives and course outcomes and designs lesson plan and lecture plan in conformation with the course objectives and adopts innovative teaching methods to achieve the same.
- Students participate in different academic activities viz. tutorial, mini projects, solution of numerical problems, quiz, seminar, oral etc. These activities help to assess proficiency of students in application of mathematical and engineering concepts, effective communication skills. This process helps in achievement of learning outcomes.
- Teacher monitors the laboratory skill developed by students during practical sessions.

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

- To make a student centric learning, the institution adopts the following best practices in respect of teaching, learning and evaluation:
- Well-designed academic calendar
- Appointment of Teacher-Guardians for continuous monitoring and assessment
- 5-Phase Student Training Program from Semester III through Semester VII, Special coaching for advanced learners, remedial classes.
- Faculty Development Programs, Seminars, workshops, and industrial visits.
- Expert lectures by speakers from industry and academia.

CRITERIA III: RESEARCH, CONSULTANCY AND EXTENSION

3.1 Promotion of Research

SIT aspires to be center of excellence in engineering education. Research is undertaken in collaboration with industry, academia and research promoting various agencies. The research projects receive support from DST, SPPU, STES and other agencies. Institute has signed MoUs with Aalborg University, Denmark for research promotion. Institute is a partner of European Commission for faculty mobility. Institute has sent faculty and students to these Universities. Apart from this, faculty and students are encouraged and supported for undertaking research activities. The research culture is inculcated among faculty and students by providing resources and other facilities to learn new technologies, acquire appropriate skills to render meaningful services to the society.

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

Yes, the institute has collaborative research center with Aalborg University, University of Zagreb, and Malaga University. However, institute does not have recognized research center of SPPU, Pune. Also, institute has signed MoUs for R&D projects with various industries. Institute has established energy research center which is technically supported by Phillips Company, USA. Institute runs PG programmes affiliated to SPPU with various specialization aims to promote research. The details are as follows.

Sr. No.	Name of Department	Specialization
1	Mechanical Engineering	Design Engineering
2	Electronics and Telecommunications Engineering	VLSI and Embedded Systems
3	Computer Engineering	Computer Networks
4	Computer Engineering	Computer Engineering
5	Electrical Engineering	Power Systems

Table 3.1.1 PG Programmes

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, institute has R&D cell to monitor and address the issues of research. The composition of R&D cell is given in Table 3.1.2. This committee oversees the smooth and efficient coordination of research and development activities in the institute, thus fostering overall growth.

Sr. No.	Name	Designation	Position
1	Dr. M. S. Gaikwad.	Principal	Chairman
2	Dr. D. K Singh	Professor, Dept of E&TC	Dean R&D
3	Dr. D. D. Chaudhary	Professor & Vice Principal	Member
4	Dr. V. N. Bapat	Professor, Dept of Electrical	Member
5	Dr. V. V. Shinde	HOD, Dept. of Mechanical	Member
6	Mr. V. V. Deotare	HOD, Dept. of E&TC	Member
7	Dr. S. D. Babar	HOD, Dept. of Computer	Member
8	Mr. N. A. Dhawas	HOD, Dept. of IT	Member
9	Dr P. S. Patil	HOD, Sciences & Humanities	Member
10	Dr. M.M. Tayde	Asso. Professor, Dept. of Mechanical	Coordinator
11	Mr. S. B. Nimbekar	Asso. Professor, Dept. of Computer	Coordinator
12	Mrs. J. R. Gangane	Asso. Professor, Dept. of E&TC	Coordinator
13	Mrs. P. P. Ahire	Asst. Professor, Dept. of IT	Coordinator
14	Mr. J. A. Khobragade	Asst. Professor, Dept. of Electrical	Coordinator

Table 3.1.2: R&D Cell

The above committee has recommended that, the institute should focus on

- Publication of research journal by the institute.
- Submission of research proposals to various funding agencies.
- Identifying the potential industries.
- Need to train faculty for research and writing papers.
- Identifying the potential research areas.

Inline with above recommendations institute has initiated activities and its impacts are:

- Research journal is published.
- Received research project grants from DST, SPPU (BCUD) and ISHRAE.
- Institute has signed MoUs with industries and research organizations.
- Institute has organized training programs for faculty members.
- Institute has initiated Hydrogen energy research center and School to Enterprise Tie up (SETU).

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

The institute has formulated following policies:

- Autonomy to the principal investigator.
- Timely availability or release of resources.
- Adequate infrastructure and human resources are made available.
- Time flexibility and special leaves are granted as and when required.
- Support in terms of technology and information needs.
- Facilitate timely auditing and submission of utilization.

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

All departments nurture scientific temper and research culture among students through several measures like:

- Mini projects: Students are encouraged to implement innovative ideas.
- **Capstone Projects:** Students address complex problems from industry and society. They are guided to carry out projects in the final year. They are facilitated to publish their work in conferences/workshops/journals.
- Lab innovations: It is a group activity in which students are motivated to generate and implement innovative ideas. At the end of the semester, students need to present their work in front of peers and submit report. These are assessed separately and appropriate weightage is given in term work.
- **Interactions with industry experts:** Expert lectures are arranged to create awareness about state of the art technologies.
- Industrial visits: Visits are arranged for students to create scientific breadth.
- **Industrial internship:** During internship, students understand industrial work culture and receive hands on experience.
- **Technical events:** Students are encouraged to participate and organize technical events in the institute and outside events.
- **STP-IV:** In this module students are guided to write review papers.
- Lab experiments and design experiments provide an opportunity to develop scientific temper among students.

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.)

The details of faculty involvement in active research are shown in table 3.1.5 a) and 3.1.5 b) in annexure. The table includes data related to faculty guiding Ph.D. and PG research scholars, faculty involved in collaborative research projects.

3.1.6 Give details of workshops / training programs / sensitization programs 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 has been encouraging and supporting staff and students for participating and conducting various activities with focus on capacity building and imbibing research culture among them. Recently institute has conducted national level workshop on "Research Methodology". Such workshops and seminars are routinely arranged by the institute. Few of which are summarized in Table No. 3.1.6. The details are provided in the annexure 3.1.6.

Sr. No.	Activity	University Level	State Level	National Level	International Level
		For St	aff		
1.	Seminar	0	1	0	1
2.	Workshops	14	3	1	2
3.	Conference	0	1	2	1
4.	FDP /STTP	1	2	0	0
		For Stuc	lents		
5.	Project Competitions	3	3	0	0
6.	Paper Presentation	1	0	1	0

Table 3.1.6: Activities held in institute

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

The institute has prioritized research domain on the basis of expertise of the faculty and other relevant resources available with institute. The details of which are shown in table 3.1.7.

Sr. No.	Name of Department	Research Areas	No. of Faculty Expertise
	-	Fatigue analysis	01
		Project Based Learning	01
		Welding Optimization	01
1	Mechanical	Automobile sensors	01
1	Engineering	Solar energy	01
		Refrigeration	02
		Clean energy	02
		Alternative fuels.	02
		Wireless Sensor Networks	06
		Semiconductor device modeling	01
	Electronics &	Cognitive Radio Test Bed	03
2	Telecommunication	Very Large Scale Integrated technology	02
	Engineering	Wireless Networks	01
		Multi Input Multi Output antenna	01
		Electromagnetic sensor	01
2	Computer	Wireless Ad-hoc Networks	01
5	Engineering	Computer Networks Security	01
4	Information	Wireless Sensor Networks	01
4	Technology	Cloud Computing	01
5	Electrical	Power Electronics	01
5	Engineering	Power Systems	01

 Table 3.1.7: Prioritized research areas and the expertise available

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 invites researchers of eminence to interact with teachers and students by organizing various activities like invited talks/conferences /workshops /seminars / consortiums etc. Names of few eminent personalities are listed in table 3.1.8

Sr. No.	Name	Designation	Organization
1	Prof. Gary De Bundel	Professor	Southwest University, Australia
2	Dr. W. S. Jawadekar	Professor	Wiley Publications
3	Prof. Ramjee Prasad	Director CTIF	Aalborg University Denmark
4	Dr. Malcom Johnson	Director ITU	ITU, Geneva
5	Dr. S. S. Thipase	Deputy Director	ARAI
6	Prof. S. N. Merchant	Professor	IIT Bombay
7	Mr. Rajarshi Sen	CEO	WISH Energy Solutions, Pune
8	Er. V. L. Sonavane	Member	Maharashtra Electricity Regulatory
			Commission
9	Mr. Y. H. Gharpure	Proprietor	Gharpure Industries
10	Mr. N. S. M. Rao	Manager	Suzlon Energy Pvt. Ltd.
11	Mr. Ajay Ranjan	Global Head	Nokia Siemens
	Mishra		
12	Prof. Subhra Shekhar	Professor	IIT, Kharagpur
	Das		
13	Dr. Ashok Chandra	Ex-Wireless	Government of India
		Advisor	
14	Dr. U.B.Desai	Director	IIT, Hyderabad
15	Prof. Annette Colmos	PBL Chair	UNESCO
16	Mr. K.Shridhara	Ex-Wireless	Government of India
		Advisor	
17	Dr. Gundu Sabde	Founder	Relyon Solar Pvt. Ltd., Pune
18	Dr. Rahul Walawalkar	President	Customized Energy Solutions
19	Dr. Subhashish	Dy. Director &	IIT, Mumbai
	Chaudhari	Professor	
20	Dr. Howard Phillips	General Manager	Phillips Company, USA

Table 3.1.8: List of eminent personalities

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 provides sabbatical leave facility to faculty. More than 10% of faculty have availed this facility. Exposure to research culture and experience of these faculties has helped in inculcating and improving the quality of research and research culture on the campus through their guidance. The details of such faculty and their contributions are listed in Table 3.1.9 in annexure.

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 has taken following initiatives:

- The students are encouraged to implement projects on research areas
- The students and staffs are encouraged to publish papers
- Product development leading to application of patents
- Guest lecture delivery in prominent conferences and workshops
- Consultancy work related to research areas

The details of such initiatives are listed in table 3.1.10

Table 3.1.10 Details of transfer of relative findings of research

Sr. No.	Name of Faculty	Name of Project/Product	Specification	Application	Year
1	Dr. Mohan M. Tayde/ Mr. Prasad S. Gulavani	Mini Scale Refrigerator	Cooling capacity 300 W,DC 24 Volt, Prototype	Electronic cooling	2012- 13
2	Dr. Mohan M. Tayde/ Mr. Prasad S. Gulavani	Vaccine cooler (VCR)	Cooling capacity 150 W, 20 Liter, 220V AC	Storage	2014- 15
3	Dr. Mohan M. Tayde/Mr. Prasad S. Gulavani	Car cabinet vapour compression cooler (Ongoing)	Cooling capacity 150 W, 5 Liter, 24 Volt DC (Product base)	Storage	2015- 16
4	Dr. Vikas V. Shinde	Course Level PBL Model	Three PBL models for SE Mechanical	Education	2012- 2014
5	Mr. A. B. Pawar	Online e- Exam Portal	Innovative evaluation system in Education	Education	2013- 2014
6	Mr. Ankush Vats, Mr. Himanshu Singh, Mr. Vyankatesh, Ms. Nidhi Tammewar, Mr. Vinay Yadav	Online software for Pune police to keep track of lost or stolen vehicle	Security Solution	Software	2014- 2015
7	Dr. V. V. Shinde, Mr. Arun Chavan, Mr. Akshay Moholkar, Mr. Bhuvan Aneja	Onsite Hydrogen Production Machine	Clean Energy	Energy	2013- 2014
8	Dr. D.K. Singh	AquaStart. A	440V AC as	Agricultural	2015-
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	Mr. Nisarg Dongare	three phase	well as 230V		16.
	Mr. Mohan Kshirsagar	Mobile operated	AC Supply.		
		System			

3.2 Resource Mobilization and 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 has provision of funds in budget for research. Overall about 1.5% of the total institute budget is earmarked for research every year. Table 3.2.1 shows major heads of expenditure, financial allocation and actual utilization.

Sr		Financial	Actual utilization in Rs.			
No.	Major heads	allocation in %	2012-13	2013-14	2014-15	
1	Financial assistance to Ph.D. research scholars	50	1631762/-	987695/-	559022/-	
2	Purchase of equipments	15	489550/-	296300/-	167700/-	
3	Subscription and publication of journals	20	652700/-	395000/-	223600/-	
4	Registration fee & TA/DA for attending conferences, workshops	10	326350/-	197540/-	111800/-	
5	Stationary & consumables	5	163180/-	98770/-	55900/-	

Table 3.2.1: Details of major heads for research funds and utilization

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?

Institute provides seed money to the faculty for their research when demanded. Research committee recommends for disbursement of the seed money. Around 12 percent of faculties have availed this facility in last four years. The details of seed money of faculty in research activities are shown in table 3.2.2

Table 3.2.2: Details of amount disburs	sed as a seed money to faculty
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Sr. No.	Name of Faculty	2011-12	2012-13	2013-14	2014-15
1	Dr. M. M. Tayde	99,000			
2	Dr. V. V. Shinde				63960
3	Mr. A. G. Kamble	19000	69100	16505	133290
4	Dr. M. S. Rohokale	31434		5796	57925
5	Ms. S. V. Deokar	10000			
6	Dr. D. K. Singh				10,000
7	Mr. D. S. Mantri			20,000	20,000
8	Mr D. B. Patil			20000	750
9	Ms. J. R. Gangane		5000	4820	6280
10	Mr. G. V. Lohar			1300	
11	Mr. S. B. Gholap	1000	113968	1800	114683

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

Institute encourages and provides financial support to students for their research by providing fund for purchasing project equipments and also provides financial assistance for presenting research papers in national and international conferences and project competitions. Refer table 3.2.3

Sr. No.	Title	Amount in Rs.
1	On Site Hydrogen Production	63960/-
2	Design of Robot to play Badminton	25000/-
3	Linear Induction Motor driven Elevator	15000/-
4	Linear Tubular Induction Motor	10000/-
5	Energy Efficient Bagasse Drier	15000/-
6	Energy Generation on Down-Hills in Khandala Ghat	10000/-
7	Brushless DC motor driven E-Bike	25000/-
8	Pelton Turbine Driven Pico-Hydro Generator	15000/-
0	Application of WSN for green house parameter control	15000/-
9	in precision agriculture.	
10	Connected home using WSN & IoT	15000/-
11	Smart shoping cart with automatic billing system	15000/-
11	through RFID & ZIGBEE.	
12	Human identification using variable device	15000/-
13	Enriching forensic analysis for data base tampering in	10000/-
13	web service.	

Table 3.2.3: Financial support provided for t	the students' research projects
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3.2.4 How do the various departments/units/staff of the institute interact in undertaking interdisciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.

Interaction of staff

To cope up with requirements of ongoing projects, faculties of various departments interacts with each other. These interactions include guiding interdisciplinary projects, writing research proposals and conducting research projects. Details of inter disciplinary research projects are shown in Annexure 3.2.4.

Table 3.2.4:	Examples of	successful	inter discip	olinary rese	earch projects
					The second se

Sr.	Title of project	Participating Departments	No. of
No.			Supervisor/Guides
	Development of non contact	Mechanical Engg/	
1	type sensor for Exhaust Gas	Electronics &	5
	Recirculation Valve	Telecommunication	
2	Enhansing automatic extraction of top-K list from web pages	Computer Engg / Information Technology	1
3	Generation of fuel from plastic wastes	Mechanical Engg/Applied Science	2

Challenges:

• Integration of designs and modules

- Scheduling of research activity
- Receiving grants
- Acceptance from university

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

Following measures ensure the optimum use of research resources by students and staff.

- The department laboratories are equipped with high end equipments and advanced software and are made available to staff and students for research work.
- Maintaining records of use of research equipments.
- Monitoring by the research committee.
- Central library works for extended hours.

3.2.6 Has the institution received money from funding agencies? If 'yes' give details.

Institute has received research funds from various funding agencies. Summary of which is shown in table 3.2.6.

Sr. No.	Funding Agency	Duration	Grants received in Rs.	Completed projects
1	Erasmus Mundus Mobility for Life	2010 to 2013	1,17,60,000/-	12
2	SPPU, Pune	2007 to 2015	13,94,000/-	07
3	DST, Delhi	2006 to 2008	5,87,000/-	01
4	STES	2009 to 2015	75,20,314/-	06
	Total		2,12,61,314/-	26

Table 3.2.6 Summary of the funds received during recent past.

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 R&D cell of the institute is in constant touch with funding agencies and industries for obtaining research grants. The R&D cell disseminates all such announcements to all the departments from time to time and supports them to submit proposals for funding. The institute provides logistics, space for the research and settlement of grants. .Details of ongoing and completed research projects are given in table 3.2.7.a and 3.2.7.b in annexure.

3.3 Research Facilities

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

Facilities like R & D Cell, research lab, tools and equipments, software, central library and online access to journal database and digital libraries are available;.details of which are provided in the table 3.3.1 in Annexure.

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?

1. Identification of emerging areas of research

- a. A central research committee has been constituted which meets regularly and reviews progress of research activities in the departments.
- b. Principal focus is on addressing the needs in the emerging areas of research.
- c. Definitive outcome of the above strategy is evident in every department.

2. Identification and liaison with potential funding agencies

- a. The research committee is in continuous process of identification of funding agencies at governmental and non-governmental levels within India and abroad.
- b. Efforts are made to fetch funds from such agencies for research in different departments as well as interdisciplinary research.
- c. Funds have been obtained from organizations like SPPU, Pune, European Union, CTIF, Aalborg University and Sinhgad Technical Education Society, Pune.

3. Faculty training

Research aptitude is strengthened among faculty

- a. Through periodic refresher courses on research methodology.
- b. Workshops, conferences, seminars and invited talks on emerging research areas.
- c. Ph.D. Consortium.

4. Facility up gradation

The institute is always ahead in providing funds for facility up gradation in the emerging areas in different disciplines.

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 grant from industry and SPPU in last four years. Table 3.3.9 shows the details of the special grants received for procurement of new facility for research.

Sr. No.	Department	Facility Procured	Funding Agency	Amount (Rs)
1	Mechanical	Automatic Welding Machine	SPPU, Pune	200000
	Engineering	On-Site Hydrogen Production	STES	63,960
		Setup		
		Miniature refrigeration system	STES	99,000
2	Electronics &	Cognitive radio test bed	SPPU, Pune	200000
	Telecommunicati	Altera DE2-115 development	SPPU, Pune	200000
	on Engineering	board		

Table 339	Details of the	snecial grants	received for r	procurement of	new facility
1 abic 5.5.7	Details of the	special grants	received for p	nocui cinciit oi	new facility

		Dual band microstrip filter			SPPU, Pune	190000
		Software	Defined	Radio	SPPU, Pune	264000
		Platform				
3	Electrical	Three Phase	e Energy Ana	lyzer	STES	3,54,000
	Engineering					
Total						1570290

3.4. Research Publication and Award

3.4.1 Highlight the major research achievements of the staff & students in terms of Patents obtained and filed (process and product). Original research contributing to product improvement Research studies or surveys benefiting the community or improving the services. Research inputs contributing to new initiatives and social development

The highlight of major research achievements of the staff & students in the form of patent filed is shown in table 3.4.1

Det	Details of the patent filed					
Sr.N o.	Name	Patent	Project / Product			
1	Dr.V.V.Shinde et al	1613/MUM/2015 Dated 21/04/2015	Onsite hydrogen production and its use IC engine			
2	Mr. Labade Aditya <i>et al</i>	3017/MUM/2015 Dated 10/08/2015	Supercharging of carburettor using naturally rammed air			
3	Dr. M.S. Rohokale et al	3578/MUM/2015 Dated 21/09/2015	Duster detaching mechanism for automated motorized whiteboard			
4	Mr. Puneet Mathur & Bhushan Chaugule	3341/MUM/2013 Dated 24/10/2013	Automated Motorised Whiteboard			
5	Dr. D.D. Chaudhary <i>et al</i>	1912/MUM/2013, Dated 31/05/2013	Innovative Vehicle Regulatory, System Using wireless Vehicle Terminal Unit.			
6	Mr. S. V. Mapare	4177/MUM/2015 Dated 21/12/2015	Design of Electrnic Sensor for In-situ fertilizer monitoring			
Origin	nal research contributing to	product improvement/	Development			
1.	Mr. A. B. Pawar	Innovative evaluation system in education	Online e- Exam Portal			
2.	Mr.Ankush Vats <i>et al</i>	Security Solution	Online software for Pune police to keep track of lost or stolen vehicle			
3.	Mr. Arun Chavan, et al	Clean Energy	Hydrogen Production Machine			
Resea	Research studies or surveys benefiting the community or improving the services.					

Table 3.4.1 Highlights of major research & achievements of staff & students

1.	Dr. V. V. Shinde	The PBL	model for	Designed PB	BL models,		
		Engineeri	ng education	Conducted	Training		
				workshops, Invi	ted Talks		
2.	Dr. V. N. Bapat	Electric	Power	Invited Talks			
		Quality					
Resea	Research inputs contributing to new initiatives and social development						
1.	Dr V.N. Bapat	Teacher	Enrichment	Delivered HR e	empowerment		
		Program		lectures and wor	rkshops		

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?

Yes, the institute publishes research journal titled Journal of Advances in Engineering Science (JAES). The frequency of journal is half yearly. The composition of the editorial board is as shown in table 3.4.2. Journal publication is not listed in international data base. ISSN No is 0973-9041.

Patron	Chief Editor	Sub Editors	Editorial Board
Mr. M. N. Navale Founder President Sinhgad Technical Education Society Pune Dr.(Mrs.) S. M. Navale Secretary Sinhgad Technical Education Society, Pune	Dr. D. K. Singh Professor & Dean (R & D) Sinhgad Institute of Technology Lonavala, Pune (MS)	Mr. A. G. Kamble, Mr. D. S. Mantri Mrs. Geetika Narang Mrs. P. P. Ahire Mr. A. A. Kalage Dr. V. M. Rohokale Dr. P. H. Patil	Dr. M. S. Gaikwad, Principal Dr. D. D. Chaudhary, Vice-Principal Dr. V. N. Bapat, HOD Electrical Engineering Dr. M.S. Rohokale, Principal SKNSITS Dr. V. V. Shinde, HOD Mechanical Engineering Dr. S. D. Babar, HOD Computer Engineering Mr. V. V. Deotare, HOD EnTC Engineering Mr. N. A. Dhawas, HOD Information Technology Dr. P. S. Patil, HOD First Year Engineering

 Table 3.4.2: Editorial board for publication policies

3.4.3 Give details of publications by the faculty and students.

Faculty and students are encouraged to publish their research work on regular basis. The summary of publications by the faculty is shown in Annexure 3.4.3. The details are provided in the annexure.

Sr. No	Title	Students' Publications	Faculty Publications
1	International Journals	232	534
2	National Journals	0	13
3	Books	0	33
4	International Conference	63	136
5	National Conference	81	62
6	Article / Book Chapter	0	02

 Table 3.4.3: Faculty and Students' Publications

3.4.4 Research awards and recognition received from reputed Professional bodies and agencies, nationally and internationally

The research awards and recognition received from reputed professional bodies and agencies, nationally and internationally by faculty and students are provided in annexure table 3.4.4.

3.5 Consultancy

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

Strategies

Following strategies are adopted by the institute to establish institute-industry interface

- Every department arranges invited talks by eminent resource persons from industry.
- Professional society activities involve active interaction with industry experts.
- Students run clubs like Microsoft Campus Club and Zero Club to enhance interaction with industry.
- Alumni meet provides a platform to share the current happenings in the industry.
- Annual project exhibition and competition provides interaction with industry experts.
- Industrial visits are held to give the students direct exposure to industry environment.
- COEs are established in collaboration with IBM, PSPL, Zensar, EMC^2 etc
- VAPs & STPs are designed in collaboration with industry.

Systems

Following systemic components function to enhance institute industry interface:

- a. Industry Institute Interaction Cell (IIIC)
- b. Training & Placement Cell
- c. Entrepreneurship Development Cell
- d. Professional Clubs and chapters

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

Institute has stated policies to promote consultancy by laying down the policies for the same. These policies are communicated to the departments. The institute shares its labs, information resources and faculty expertise for the benefit of society and industry. Institute has IIIC which spreads the information on available faculty expertise and laboratory resources available with the institute. Institute encourages the faculty and non-teaching staff to develop in house laboratory setup.

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

Institute takes the following measures to encourage consultancy by faculty.

- It has published norms for consultancy work
- Recognition by way of appreciation & monetary benefits.
- Procurement of research equipments in view of the possible consultancy
- It permits use of institute infrastructure, R & D facilities to carry out consultancy.

Some of the high end equipment include: Fluke Make 3-Phase Energy Analyzer, Lux Meter, Spectrum Analyzer, Advanced PCB Manufacturing Station and Optical Power Meter.

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

Sr.	Area	Client	Revenue
No.			Generated in Rs.
1	Third party inspection of 11	M/s Pragati Pratishthan,	Honorary
	installations of Solar Micro Grid	Thane	
2	Conducting SPPU MQC	Vidya Prasarini Sabha	6,450/-
	Practical's	COE Lonavala	
3	Curriculum Development for	Indira Gandhi National	2,35,000/-
	Distance Learning Program	Open University	
4	Planning Design and development	Celtsoft Software	48000/-
	of Project CELTEIMS	solution, Pune	

Table 3.5.4: List of consultancy services

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?

Institute has a consultancy fees sharing (in %) policy in place. It is categorized in three types as shown below.

Testing

Distribution of revenue after all outgoings for pure testing is shown below.

Institute	Principal	R & D Cell	Vice- Principal	HOD	Administrative staff	Concerned Teaching Staff	Supporting Non- Teaching Group
50	3	3	3	3	3	10	25

Consultancy & learning resource development

Distribution of revenue after all outgoings for individual consultancy & learning resource development is shown below.

Institute	Principal	Vice- Principal	HOD	Administrative staff	Concerned Teaching Staff	Supporting Non- Teaching Group
15	3	3	3	3	70	3

Testing and Consultancy

Testing and consultancy would include partial use of infrastructure and resources of institute. Distribution of revenue generated after all outgoings for testing and consultancy is shown below.

Institut e	Princip al	R & D Cell	Vice- Princip al	HOD	Administr ative staff	Concerned Teaching Staff	Supporting Non- Teaching Group
25	3	8	3	3	3	40	15

3.6 Institutional Social Responsibility (ISR) and Extension Activities

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

- Institute involves the faculty and students in community work. This helps the students to learn ethical values and understand their responsibilities, and develop as good citizens.
- Institute has installed off-grid solar power system at Rajmachi, Lonavala.
- Social activities like blood donation camps, tree plantation, and road safety camps are organized. Faculty members and students visit the orphanage in the vicinity of the institute, provide support and interact with them.
- Financial aid and the direct help in kinds are provided by students in the draught hit village of Ausa Taluka, Marathwada, Maharashtra.
- Faculty and students actively participate in swacch bharat abhiyaan in campus and in and around Lonavala city.
- Institute implements the earn and learn scheme of the university. This helps the student to understand the value of labor.
- Institute has an active NSS cell through which different social activities are planned and executed for each academic year.

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

Various students groups which are active in the campus have a calendar of annual activities. Each such group has dedicated faculty coordinator to decide nature of activities, its planning and execution. He further monitors these activities and involves in the preparation of annual report. This annual report includes record of proceedings, photographs, videos etc.

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

Institute encourages staff and students to involve in extension activities as shown in table 3.6.3. These activities aim at creating awareness and sensitization about society and social issues.

Sr. No.	Extension activity	Outcome	Feedback from stakeholder
1	Blood donation camp	Blood bottles collected	Appreciation from the blood bank
2	Orphanage visit	Educational help	Appreciation from the

Table 3.6.3	Extension	activities
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			authorities
2	Aid to drought property	Financial assistance to	Appreciation from the
3 Aid to drought prone area		affected people	villagers
4	Road safety rally	Awaranaaa	Appreciation from
4		Awareness	RTO
5	NSS Comp	Computer literacy, safety	Appreciation from the
5	NSS Camp	awareness and cleanliness	village leaders

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

The possible area of extension activities is identified and such activities are arranged in a planned manner. These activities are arranged through NSS. Every year institute receives approximately Rs. 25000/- for conducting NSS camps and related activities. In addition institute provides financial support to carry out these activities. The budgetary details for last four years are provided in table 3.6.4.

Sr No.	Academic Year	University Contribution	College Share	Total Expenditure
1	2011-12	22250	5015	27265
2	2012-13	22250	5810	28060
3	2013-14	22250	1665	23935
4	2014-15	22250	3570	25820

Table 3.6.4: Budget and Expenditure:

The major extension, outreach programs and their outcome are shown in table 3.6.3. In these activities students get awareness of social problems, develop helping attitude and learn how to solve these problems and help needy person. Doing this they develop skills which leads to development of better citizen.

3.6.5 Details of the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC, and other National/International agencies.

The institution promotes the participation of students and faculty in extension activities through NSS and Sahaja Yoga Meditaion center. Sahaja yoga meditation center is a part of International Sahaja yoga program which is running weekly on every Thurseday 6.30 pm since last four years. Programs conducted by NSS & other student bodies are provided in table 3.6.5.

Sr. No.	Month & year	Program	Details	No of Participants
1	1 st Nov 2012	Youth Development by Art of Living Foundation	For personality development of students	35
2	1 st March 2014	Visit to Ghodegao (Junnar)	Visit Schedule Tribal Area for understanding the problem of Tribal People	10
3	26 th Feb 2013 to 4 th March 2013	Special Camp at Asade, Tal Mulsi Dist Pune	Conduct School Development programme, Shramadan at village, Computer literacy programme	25
4	26 th Jan 2014	Tree Plantation on Republic Day	Plantation Public Day Dublic Day Dublic Day Prof. M. N. Navale.	
6	15 th Sept 2014	Blood Donation Camp	Organized Blood Donation Camp at Reading Hall	235
7	29 th Dec 2013	Street Play –Stri Shakti Naka Smajoo Kami	Street play on the occasion of institute cultural event	20
8	28 th Jan 2014 - 3 rd Feb 2014	Special Camp at Village-Chiklase Tal Maval Dist Pune	Understood the problems of the people and conducted School Development programme, Shramadan at village, Computer literacy programme	25

Table 3.6.5 Programs conducted by NSS & other student bodies

3.6.6 Details of the social surveys, research or extension work (if any) undertaken by the Institute to ensure social justice and empower students from under-privileged and vulnerable sections of society.

The institute undertakes campaigns on the subjects like Women Empowerment, inclusion of under-privileged and weaker sections of the society which include:

- Visit to tribal areas for understanding the problem of tribal people.
- Computer literacy programme for rural school students.
- The institute is conscious of its role in campus-community connection, well being of its neighborhood and has initiated a number of community development activities. The survey was conducted at nearby villages to understand social and technical problems faced by community.

- Institute gives relaxation in fees, prizes to the students from under-privileged and vulnerable sections of society.
- Institute provides free lodging for under priviledged students.

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.

Since SIT being an engineering institute the objectives of social extension activities to imbibe engineering skills in students. Conducting extension activities might help engineering students in following ways:

- 1. Students understand community problems which can be addressed.
- 2. Public speaking skill of students can be improved.
- 3. Students develop sensitivity towards social issues which affects on their behavioural skills which leading to ethical and moral responsibilities.
- 4. Better connectivity between theory and practices.

3.6.8 Detail on the initiatives of the institution that encourage community participation in its activities.

Faculty and students of the institute survey/visit villages and nearby society, understands their needs and accordingly plan and organize activities. The stake holders are invited for the community programs and their suggestions are noted. As per the need, Institute organizes the development program at community places (e.g. villages) or in Institute. Institute organizes cultural programs and involves people in the programs. Institute invites the villagers for the NSS camps. The students, faculty and villagers share their views and enjoy cultural programs together.

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

Joint Programs, Guest Lectures in other institutions DYPIET, Siddhant College of Engineering and Indira College of Engineering, etc. are held every year. Details of activities are shown in table 3.6.9.

Sr. No.	Year	No of activities
1	2013-14	4
2	2014-15	6
3	2015-16	11

Table 3.6.9: Guest lecture Details

Details are provided in table 3.6.9 in annexure.

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

NSS SIT has arranged computer literacy campaign for the rural children, effective use of electrical & electronics appliances. Our students have developed wind turbine for the remote villages. This initiative has appropriately appreciated by the village leaders.

Several letters of recognition and appreciation have been received by the students groups from village leaders.

3.7 Collaboration

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

Details of the institutional collaboration include:

- Twelve faculties of institute received research grant from "Erasmus Mundus Mobility for Life Scholarship"
- Institute has collaborated with 19 industries for research work.
- Electrical engineering department has procured an advanced 3-phase power analyzer. This instrument is useful in making onsite assessment of Power Quality of any installation. Industry and electrical consultants take advantage of this facility.
- Pragati Pratishthan, Thane has used our expertise in the form of consultancy in assessment of their Solar Micro-Grid Installations.
- Mr. Avinash G. Kamble of Mechanical dept has used lab facilities at MIT Kothrud, Pune for his research project.
- Mr. Sharad Gholap of Electronics and telecommunication dept has interacted with research laboratory RFIC solution for his research work.

Benefits

• The institute has established excellent rapport with several industries and institutions which strengthened our academics environment along with research.

3.7.2 Details of 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.

Institute has signed 19 MoUs (Table 3.7.2 in annexure) with institutions of national importance/other universities/industries/ corporates etc. for the benefits of staff & students. These MoUs have significantly contributed in academic & research environment of the institute.

3.7.3 Details of 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.

The institute has been in continual interaction with industry and community. Regular events are held under this linkage. Some of such events are listed below.

- 1. Industry sponsored projects
- 2. Earn & learn scheme
- 3. Interface Devices India Pvt. Ltd. sponsored lab facility to Electrical Engineering department.

- 4. Student training facility (VAP) is created through industry institute interactions.
- 5. Placement assistance by the training agencies (Zensar & Persistent CoE)
- 6. Energy center is technically supported by Philips Company USA.

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

Table 3.7.4 Details of the names of eminent scientists contributed in Conferences

Sr. No.	Eminent scientists / Professors	National / International conference
1	Dr. Avinash Valvade	3 rd National Conference on Innovations in Mechanical Engineering, key note address on "Research scenario in India"
2	Dr. D. N. Malkhede, COE Pune	2 nd National Conference on Innovations in Mechanical Engineering, key note address on "Application of Matlab In research in Mechanical engineering"
3	Dr. R. Venkata Rao, SVNIT Surat	1 st National Conference on Advances in Thermal and Fluid Sciences, key note address on "Scope for research in thermal engineering"
4	Prof. Shubhra Shekhar Das, Dr Ashok Chandra	Special talk on5G in IEEE GCWCN 2014\ Key note speech on Spectrum management in IEEE GCWCN 2014

3.7.5 Details 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.

Refer Table 3.7.2 in annexure for details of the linkages/collaborations which have converted into formal MoUs.

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 Institute would like to include.

The institute formally implements research and consultancy activity among faculty and students by encouraging them through following different platforms

- 1. Research and Development Cell
- 2. Entrepreneurship Development Cell
- 3. Industry Institute Interaction Cell

CRITERIA IV: INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

The institute adheres to the norms of AICTE for providing infrastructural facilities. The institute is having well-equipped laboratories, class rooms, seminar halls, central library and facility for sports and cultural activities. Institute provides residential facility to staff and students. The Institute has 24x7 medical facility which contains full time doctors and ambulance facility. Other major facilities in the campus include guesthouse, swimming pool, sports complex, canteens, messes and corporate training center (CTC).

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

The institute adheres to the infrastructural norms provided by AICTE and university to facilitate effective teaching and learning. The infrastructural changes are influenced by curriculum changes of SPPU, Pune.

Policy for creation of infrastructure:

- Use of ICT in academic and administrative activities
- Provide class rooms equipped with ICT facilities
- Provide laboratories equipped with networking facility
- Purchase of equipments to support curriculum
- Purchase of equipments recommended by R & D committee for research development
- e-library facility
- Creation of sports facility as per the needs of the sports programs
- CTC for conduction of seminars/workshops/conferences

Policy for enhancement of infrastructure:

- Regular house-keeping and maintenance
- Periodic updation of required software and hardware
- Regular updation of library
- Research labs to suit requirements of R & D
- Enhancement of e-learning portals e.g. ERP, e-Exam portal

4.1.2 Detail the 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 institution has sufficient infrastructure to implement curricular and co-curricular activities for all UG and PG programs. Details are provided in the following tables.

			For existing intake			
Particulars	Description	Nos.		Area(in Sq.M)		
		Reqd	Avail.	Reqd.	Avail.	
Class rooms	Equipped with black board and LCD projection facilities with good ambience	44	44	2904	3041	
Technology enabled learning space	Equipped for video conferencing and special discussions.	-	01	-	45	
Tutorial rooms	Equipped in all respect to conduct tutorials.	11	11	363	468	
Laboratories	Equipped with multiple sets of apparatus and required software / hardware.	59	59	3894	3964	
Workshop	Equipped in all respect to conduct workshop activities.	01	01	200	559	
Seminar Hall	Seating capacity of 150 students with LCD projectors, Public Addressing system and white board	05	05	660	706	
Computer Centre	Equipped with latest configuration desktops and software	01	01	150	200	

Table 4.1.2a Academic facilities

Table 4.1.2b Administrative facilities

Sr. No.	Dontioulous	Area(in Sq.M)		
	Faruculars	Required	Available	
1	Principal / Director Office	30	35	
2	HOD Office	20	20	
3	Central Store	30	35	
4	Maintenance	10	12	
5	Security	10	16	
6	Housekeeping	10	10	
7	Exam Control Office	30	35	
8	Placement Office	30	50	
9	Office All Inclusive	150	300	

Table 4.1.2c Amenities

Sr. No.	Dontioulong	Area(in Sq.M)			
	rarticulars	Required	Available		
1	Boys Common Room	75	100		
2	Girls Common Room	75	100		
3	Cafeteria	150	150		
4	Stationery Store	10	40		

Sr. No.	Particulars	Nos.	Description	Area in Sq.M
1	Amphi Theatre	01	Open Amphi Theatre with seating capacity of 3000	1900
2	Corporate Training Centre (CTC)	01	Full-fledged CTC with three conference halls, 52 fully furnished double occupancy rooms with boarding facility.	4207
3	Guest House	01	Fully furnished guest house with 8 rooms.	194
4	Yoga Centre	01	Yoga centre exclusively used for meditation programs.	196
5	Gymnasium	01	Well equipped with necessary fitness equipment.	340
6	Medical health Centre	01	Full fledge hospital with full time doctors.	2748

Table 4.1.2d Common facilities

Table 4.1.2e PG physical facilities

	For existing intake					
Particulars	N	DS.	Area(in Sq.M.)			
	Required	Available	Required	Available		
Tutorial Rooms	04	04	132	132		
Class Rooms	04	04	264	264		
Laboratories	05	05	330	More than 330		
Research Laboratory	05	05	330	More than 330		
Seminar hall	Shared with UG			-		
Computer Center				-		

Major laboratories available with the departments which are used for curriculum and research work are shown in the table below:

Table 4.1.2f Laborator	ry details
------------------------	------------

Sr. No.	Department	No. of Labs.	Total Cost(Rs.)
1.	Mechanical	22	11095471
2.	E&TC	13	15563414
3.	Computer	13	5727089
4.	IT	04	1140835
5.	Electrical	10	6504855
6.	Engineering Sciences	07	5121736

b) Extra-curricular activities in terms of sports, outdoor and indoor games,

gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygiene etc.

- An amphi theater with area of 1900 Sq.M. is available in the campus for college level cultural activities. Festivals like Shivaji Jayanthi, Ganesh Festival, Dahihandi, durga puja, Teachers day, and Saraswati puja are celebrated by students actively.
- Full-fledged CTC of area 4207 Sq.M. with 3 Conference Halls and 52 fully furnished double occupancy rooms with boarding facility is available
- 57255 Sq.M. professional sports ground has been developed for cricket, basket-ball, tennis, foot-ball, volleyball etc. The institute also possesses indoor area of about 340 Sq.M. for playing chess, table tennis, carom etc
- Fully furnished guest house of around 194 Sq.M. is maintained for guests or industry delegates.
- A yoga center of area 196 Sq.M. is maintained exclusively for meditation programs such as "Art of Living" and "Sahaj yoga" courses.
- A well equipped gymnasium of area 340 Sq.M is available
- Medical health-care facility with area 2748 Sq.M. is available in the campus
- College buildings are being maintained ensuring maximum levels of safety and hygiene. Separate housekeeping cell functions exclusively to take care of hygiene in the campus.
- Swimming pool with area 312.5 Sq.M. is maintained in campus.
- Every year NSS unit organizes the camp and various activities like blood donation camp, swachh bharat abhiyan and road shows.

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

The holistic plan of the infrastructure was prepared at the beginning of the institute in the year 2004. The construction was planned in phases to meet AICTE norms at any point of time. The academic programmes underwent expansion as envisioned in the beginning. The infrastructure was expanded as per the expansion plans. Optimal utilization is ensured through periodic reviews and alterations which are felt necessary.

Major activity in infrastructure development has been completed by the year 2011 with intake increased to 900 in the academic year 13-14. There was a natural growth in Mechanical engineering at SE in academic year 14-15 as well as E & TC had natural growth at TE for the same year. Curriculum changes by SPPU, Pune also increased the workload of workshop by 126 hours.

- To cope up with these new requirements some key decisions were taken and certain departments were reallocated with minor changes in existing infrastructure at the end of academic year 13-14.
- The expansion of workshop took place that caused the expenses of around 50 lakhs to get required fabrication and partition.
- Due to syllabus revision the up-gradation of computer laboratories took place in last three years with average cost of Rs. 20 lakhs per year.

• Also expanision in infrastructure development for Full fledged Auditorium(1500 capacity), Separate building for Central Library, and enhancement in Sport Academy are in progress.

Floor wise availability of labs & class rooms

1. Mechanical Department

Decovintion	Floor					
Description	Ground	First	Second	Total		
Class Rooms	4	4	4	12		
Labs	7	7	2	16		
Staff Rooms	3	3	1	7		
ME Class Rooms/Lab		1	1	2		
HOD Cabin	1			1		

Table 4.1.3a Floorwise availability for Mechanical department

2. E &TC Department

Table 4.1.3b	Floorwise	availability	for	E&TC	department

Decomintion	Floor					
Description	Ground	First	Second	Total		
Class Rooms	0	4	4	8		
Labs	3	7	3	13		
Staff Rooms	3	2	1	6		
HOD Cabin	0	1	0	1		
ME Class Rooms/Lab		1	1	2		

3. Computer Department

Table 4.1.3c Floorwise availability for Computer department

Decemination	Floor					
Description	Ground	First(RW)	First(LW)	Total		
Class Rooms	6	1	0	7		
Labs	3	7	0	10		
Staff Rooms	4	2	4	10		
HOD Cabin	0	1	0	1		
ME Class Rooms/Lab	2	1	-	3		

4. I.T Department

Table 4.1.3d Floorwise availability for IT department

Description	Floor				
Description	First	Second	Total		
Class Rooms	1	1	2		
Labs	4	0	4		

Staff Rooms	4	0	4
HOD Cabin	0	1	1

5. Electrical Department

Table 4.1.3e Floorwise availability for Electrical department

D	Floor				
Description	Ground	First	Total		
Class Rooms	0	2	2		
Labs	5	0	5		
Staff Rooms	3	0	3		
HOD Cabin	1	0	1		
ME Class Rooms/Lab	1	1	2		

6. Engineering Sciences Department

Table 4.1.3f Floorwise availability for Engineering Sciences department

Density	Floor						
Description	Ground	First	Second	Third	Total		
Class Rooms	3	0	0	7	10		
Labs	3	1	0	2	6		
Staff Rooms	1	0	1	0	2		
HOD Cabin	0	1	0	0	1		

Layout of expanded workshop

Machine	Shop	Workshop	Tutori
	Shop	workshop	Room
D003		D002	D001
	FE Works	hop (Proposed)	
	$33m \times 4m = 13$	2 Sq. M.	
Machine	Shop	Workshop	
D003		D002	D00
Description	No.	Area (Sq M)	Location
FE Workshop	1	132	D002,D003

Figure 4.1.3a Layout of expanded workshop



Master Plan of the Institute (SIT Building 1)

Figure 4.1.3b Master plan of the building 1

Master Plan of the Institute (SIT Building 2)



Figure 4.1.3c Master plan of the building 2



Figure 4.1.3d Layout for Future plan of the building 2



Figure 4.1.3d Layout for Future plan of the building 2

The institute is situated in an area of 25 acres. The total built up area of all the buildings is 64633.88 Sq.M consisting of class rooms, seminar hall, drawing halls, laboratories, workshop, central library, faculty rooms, administrative offices etc. The Building-wise details are as follows– SIT Building 1

Department	Floor / Wing	Location
	Ground Floor B Wing	B001 to B007
E&TC	First Floor B Wing	B101 to B108
	Second Floor B Wing	B201 to B208
Engineering	Ground Floor C Wing	C001 to C007
Sciences	First Floor C Wing	C101 to C110
Sciences	Third Floor D Wing	D301 to D310
	Ground Floor D Wing	D001 to D005
	First Floor D Wing	D101 to D111
	Second Floor D Wing	D201 to D210
Mechanical	Third Floor D Wing	D302 to D308
	First Floor Right Wing (Shed)-D Wing	S001 to S004
	Workshop G Wing	G001 to G003
	First Floor A Wing	A101 to A107

Table 4.1.3g SIT Building 1 details

SIT Building 2

Table 4.1.3h SIT Building 2 details

Department	Floor / Wing	Location
	Ground floor Right wing	F008 to F015
Computer	Ground floor Left wing(Partial)	F021
	First floor Right wing	F110 to F122
	First floor Left Wing (Partial)	F105 t0 F108
IT	First floor Central Wing	F123 to F126
11	Second Floor	F201 to F203
Electrical	Ground floor Left Wing (Partial)	F001 to F007
Electrical	First Floor Left Wing (Partial)	F125 to F127

	201	1-12	2012	2-13	201	3-14	201	4-15
Items	Alloc	Expe	Alloca	Expe	Alloc	Expen	Alloc	Expe
	ated	nse	ted	nse	ated	se	ated	nse
Acquisition of land and new buildings and infrastructural built-up	3	2.42	0.5	0	9.5	9.3	48.2	51.95
Library Books, Journals, Magazines, Library Equipments	10	9.52	28.67	29.06	4.5	4.42	7	7.3
Laboratory Equipments	40	35.55	30	31.25	35	30.73	40	37.46
Computers	31.20	30.18	18.36	19.03	25	25.72	17.5	15.08
Software	3	3.26	13	12.8	5.5	7.3	12.5	13.03
Games and Sports / Student Activity	30.1	31.55	31.50	31.61	37.33	41	35.7	33.76
Furniture	22.5	21.28	30	29.22	12.5	11.67	7.8	8.03

The investments in last four years in enhancing various infrastructure facilities are shown in table 4.1.3i.

 Table 4.1.3i Budget utilization (in lakhs)

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

Institute has provided ramp and other facilities for the easy access to physically disabled students.

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

Being fully residential campus a unique opportunity in terms of availability of students for 24 hours exists in the campus.

- Separate hostel facilities have been provided for girls and boys with wardens. All the rooms in both the hostels are well furnished.
- Both the hostels are provided with common room, daily newspapers, TV hall, recreation room equipped with indoor sports facility.
- Both the hostels are equipped with parking area, generator backup, free Wi-Fi facility, solar water heaters, canteen, and water cooler with purifier etc.
- Well-equipped gymnasium is available in the boys' hostel.
- Laundry facility and utility shops are available.
- Round the clock vigilance is available in campus through trained security guards employed by the institution.
- For financial weak students, dormitory facility is available with 40 % concession in hostel fees.



Layout of hostel room

Figure 4.1.5 Sample layout of Hostel Room

The particulars of hostel facilities are shown in table 4.1.5

Sr. No.	Description	Boys' Hostel	Girls' Hostel	Dormitory facility
1	Area (in Sq.M.)	42466	17271	3418
2	No. of buildings	7	3	
3	No. of rooms	850	220	2
4	Students per room	3/4	3/4	120
5	Total capacity	2574	664	240
6	Area of eachroom(in Sq.M)	55	52	

 Table 4.1.5 Hostel facility details

- Considering huge residential campus the institute has also provided residential facility to its staff members.
- Total no. of buildings available in the campus is 26 with 326 flats admeasuring 18822 Sq.M.
- For Principal, three Bedroom-Hall-Kitchen (BHK) staff quarter is provided in the Campus.
- For teaching staff members, 1BHK or 2BHK staff quarters, are provided.
- For non-teaching faculty, 1BHK and one Room-Kitchen (RK) staff quarters 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?

- A hospital with full time doctors, specialist doctors and 40 bed capacity is available for staff and students. These services are free for all in the campus.
- Ambulance facility is available 24 x 7 hours.
- The institute also provides transportation facility to students who are in need to visit specialist doctors in the nearby area or in Pune.
- In addition to this, a multi-specialty hospital of the promoting society at Narhe, Pune caters to all the health related support free of cost to all students and staff.

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.

Sr. No.	Facility	Location	Area(Sq.M)	
1	IQAC	A-001	30	
2	Grievance Redressal unit	F-101	25	
3	Training &Placement Unit	F-004	25	
4	Health Centre	RHTC	2748	
5	Mess and Canteens	No. of Messes 10	18206	
	Wiess and Canteens	No. of Canteens 5	1677	
6	Pagrantional spaces for staff	Amphi- Theatre	1900	
	and students	Professional Sports	57255	
	and students	Ground		
7	Auditorium	CTC conference	256.08	
	Auditorium	hall	230.98	
8	Laundry	Near Cafeteria	30	
9	Aquaguard Water Purifier	Departments &	10	
	(Total number : 49)	Hostels	10	
10	Students Activity Center	Workshop – G101	100	
Total Are	24067			

 Table 4.1.7 Common facilities available in the 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 an advisory committee known as Library Committee. The committee comprises of following members:

Sr. No.	Names	Particulars	Status
1	Dr. D. K. Singh	Professor	In-Charge
2	Mr. Praveen Pandit	Librarian	Secretary
3	Mr. S.B.Gholap	Departmental Representative (E&TC)	Member
4	Mrs. SonalDeokar	Departmental Representative (Mechanical)	Member
5	Mr. Ganesh Gaikwad	Departmental Representative (IT)	Member
6	Mr. D.M.Chahyal	Departmental Representative(Electrical)	Member
7	Mrs. A.N.Chavan	Departmental Representative(FE)	Member

 Table 4.2.1 Library advisory committee

Meeting Frequency: Quarterly

Significant Initiatives:

- Procurement of commercial library software.
- Issuing the library cards with barcode to the students and staff for issue of books.

- Digital library.
- 24 x 7 hours available reading hall facility.
- Book exhibitions.
- E-Resource collection.
- Book bank facility in every department
- Daily newspapers.
- Departmental library (Online NPTEL video, E-learning CDs)

4.2.2 Provide details of the total area of the library, seating capacity and working hours:

Total area of the library and total seating capacity

	Table 4.2.2 Library area							
	Sr. No.	Description	Remarks					
	1	Library Area	1011.5Sq.M					
	2	Seating capacity	300					
		Working Hours						
	2	Regular working days	9.00 AM. to 5.30PM					
	3	During examination days	9.00 AM. to 12PM.					
	4	Reading hall	Round the clock					

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



Figure 4.2.2a Layout of the library



Reading hall layout

Figure 4.2.2b Reading hall layout

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

On the basis of changes in curriculum, research requirements, recommendations from staff and on students' demand the librarian raises the requirement of book titles, journals, codes and standards, etc and proposes a budgetary requirement for the procurement. Library committee takes a decision on the provision of allocation to the requirement. Actual procurement is carried out after the allocation of the budget. Procurement details of past 4 years are as under.

Libnowy	2011-12		2012-13		2013-14		2014-15	
Holdings	No.	Cost (Lakhs)	No.	Cost (Lakhs)	No.	Cost (Lakhs)	No.	Cost (Lakhs)
Textbooks	16521		17700		18422		19165	
Reference books	3680	58.4	3841	63.86	3891	67.91	4445	74.32
Journals / periodicals	40	0.3	30	0.13	30	0.37	30	0.37
E- resources	3300	4	10 Databases	9.65	10 Databases	15.36	10 Databases	4.28
		Progr	essive procu	rement de	tails of past	4 years		
Textbooks	1315		1179		722		743	
Reference books	140	5.79	301	6.18	140	5.22	554	5.2
Journals / periodicals	40	0.29	30	0.13	30	0.37	30	0.37
E- resources	3300	4.00	10 Databases	9.65	10 Databases	15.36	10 Databases	4.28

Cable 4.2.3 Procureme	nt & progressiv	ve details of pas	st 4 years
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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 (Online Public Access Catalogue) : OPAC facility is made available through Auto Library Management Software (ALMS) to know the bibliographical details about the collection. Separate terminals are made available in the central library for OPAC facility. And as it is a Web OPAC, user from any location can search the library collection.

Electronic Resource Management package for e-journals: The library subscribes to IEEE all-society periodicals package. In addition to that, link to scholarly open access journals/databases is also available on the library webpage. A well-equipped digital library with 10 terminals having internet connectivity is housed in the central library for access to e-publications. As the access facility to e-journals is multi-user, and IP address-based, students can access the e-publications from anywhere in the campus.

Library Automation:

All the active book collection is updated in the ALMS database and the Web OPAC is available for the users. The issue and return of books has been activated with the ALMS.

Facilities available

No of printers for public access: 01 Exclusive internet bandwidth: 4 Mbps Institutional Repository:

a) Article Repository: Published research paper/article of the faculty members: Yes

b) Book Repository: Published books of the faculty members: Yes

c) Thesis Repository: Awarded Ph.D. Thesis of Faculty : Yes

Content management system for e-learning :

Library is having content management system for e-learning : Yes

4.2.5 Provide details on the following items:

Students are allowed to keep the issued books for 7 days; 4 books are issued to the UG students, 6 books for PG Students. After 7 days they have to reissue the books. Faculty members can issue 10 books which need to be reissued after 3 months.

No of Books issued to particular	UG - 04 , PG - 06,
	Teaching Faculty – 10
Average number of walk-ins per day	200
Average number of books issued/returned per day	200
Ratio of library books to students enrolled	1:4
Average number of books added during last three years	1000
Average number of login to OPAC	220
Average number of login to e-resources (per month)	300
Average number of e-resources downloaded/printed (per.	600
month)	
Number of information literacy trainings organized	Once in a semester
Details of Weedings out of books and other materials	10

4.2.6 Give details of the specialized services provided by the library.

Reference: The reference section of the library offers a personalized service. The library staff interacts with the students and faculty to know about their specific needs and requirements regarding referring to civil services exams and other competitive and

entrance exams like GATE, TOEFL, GRE, CAT, TANCET etc. and journal papers, standards and codes. Upon an email request, library provides required reference material. **Reprography:** Available

Information deployment and notification: Information regarding arrival of new books, journals etc is displayed on the notice board for the benefit of faculty and students.

Download: Yes (Exclusive 4 Mbps internet bandwidth)

Printing: Yes (01 dedicated printer)

Assistance in searching databases: Yes

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

The library staff members extend their services to the students and teachers in following ways.

- Personal guidance is offered in locating books pertaining to domain studies and about updating one's knowledge. The members spend more time with the students to refer to prescribed paper books or any other reference material needed for paper presentation, project submission etc.
- Full support is provided to the students during the digital library hours.
- Reprographic facility extended to the students on request.
- Keeping the books, journals / periodicals / magazines and other resources ready for immediate use of students by meticulously monitoring the status of issuing and returning books.
- Assistance in downloading e-content.
- The library provides indexes to project reports / PG dissertations of the students and staff.
- Continuous supervision to reduce the lead time when student requires any help in the middle of study hour.

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

- Priority services are available.
- Special provision of issuing the books to helper/relative of such a person.

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. Library collects regular feedback from the teaching staff members and students.
- Suggestion box is kept at the entrance of the library for getting valuable suggestions and feedback from students.
- Suggestions are reviewed and analyzed by library committee.
- Depending upon the feedback, the reading room facility hours are extended before and during the examination period.
- Depending on the students / faculty demand, addition of books in the book bank is done.

• Addition in the magazines, general knowledge books, newspapers, books for general reading, competitive examinations, etc are also done on similar lines.

4.3. IT Infrastructure

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

Hardware

Sr. No.	Description	Qty	Sr. No.	Description	Qty
1	Server	8	8	OHP	18
2	Desktop Computers	998	9	Display Screen	40
3	Laptop	4	10	PA System	6
4	Printers	78	11	UPS	32
5	Plotter	1	12	Stabilizer	32
6	LCD Projector	62	13	Fax machine	1
7	Scanners	9			

Table 4.3.1 a Hardware facility

Server configuration for Central Internet Facility : Fortiget-310B, Forty Analyzer- 100, Cisco Router -1800, Server MI-150, DEL-D150, TCL-RADWin, AC- Videocon 1ToneX2 Switch D-link- DES- 3026, Fibre Media converters, 45 MBPS lease line (1:1) Telephone Exchange 8 PRI lines, Storage

	Licensed Software						
Sr.no	Department	List of software					
1.	Mechanical Department	Creo Parametric 1.0, Ansys 11.0, Autocad 2009, TURBO C LIC, MD FEA Motion Buldle, Altair Hyperworks V, Masterc X9, MatLab 2012, CATIA V6, Automation Studio					
2.	E&TC Department	Realtime Process Software (PID), LADDER Porgramming software, C Compiler for 8051 (10 User), KEIL MDK ARM (5 User), Altium Designer 6, Xilinx 9.1i, Modelsim 6.2, EDK 9.1, System generator software, ChipScope Pro, Microwind (5 User), SCARM (10 User), Multisim (10 User), MATLAB (13 User)					
3.	Computer Department	Windows Svr std. 2003 Media Kit, Vstudio.Net Media Kit, Office Pro 2003 Media Kit, TURBO C++, COREL DRAW GRAPHICS, ADOBE ACROBAT PRO 6.0, Oracle 10g server with 5 user pack, MS Office 2007 Molp AE, MS Office Pro Plus Media Kit, MS Visual Studio Pro 2005 Molp, LINUX Red Hat 4.0, Desktop, MS WIN 2003 Server (Molp), MS WIN 2003 Server (CAL AE), MS WIN 2003 Server (Media Kit), IBM Rational Software Architect(30 Users), SW CODGEAR TURBO C++ LIC, SW J BUILDER C++ LIC					
4.	IT Department	Oracle 10g server, Borland J Builder, Linux Red Hat, Macromedia Flash AE, MS Visual Studio 2005 media kit, Turbo C++, Oracle standard 11G, Oracle 9i, Microsoft IT Academy, Quick Hell Internet Security. End Point Security 5 Business Standard (3- Years)					

Table 4.3.1 b Software facility

5	Electrical	Mipower TM software package version-8, C.D No-Mipower-							
5.	Department	461-05-01, USB-Network Lock No-3974- 1657							
	Engineering								
6.	Sciences	E-Exam Portal							
	Department								
7.	Office	Tally ERP 9.0 Version and Zoom for Office Automation							
	No. of nodes								
8	/ computer	700 (approx 92%)							
0.	with Internet	700 (approx. <i>927</i> 0)							
	facility								
0	Any Other	Total backup electric supply of 500 KVA, ERP Software and							
7.	Any Other	servers, Central Feedback server, Institution Website							

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

- Dedicated servers for downloading several open source softwares and applications.
- Online access to ERP resources.
- Dedicated 30 Mbps lease line.
- Almost all computers in the campus are connected to Internet.
- Administrative office, Principal, HoD and faculty cabins have the internet facility.
- The ratio of computers to students is 1:4.2
- Campus is Wi-Fi connected.

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

On regular basis, the institute reviews the IT infrastructure and accordingly it is upgraded. The institute has upgraded leave management system from manual to ICT based. In this other domains include performance appraisal, academic monitoring, etc. Institute has responded to the SPPU evaluation patterns by providing online platforms such as e-Exam portals and K-point software platform. Internet connectivity is available in class rooms. The Internet facility up-gradation for past 4 years is shown in table 4.3.3.

Sr. No.	Financial Year	Student Strength	Remarks					
1	2011-12	600	14Mbps					
2	2012-13	780	14Mbps					
3	2013-14	900	14Mbps					
4	2014-15	900	20Mbps					
5	2015-16	900	30Mbps					

Table 4.3.3	Year	wise	internet	up-gradation

- The Internet Service Provider (ISP) Railtel provides connectivity with high fault tolerance.
- Video conferencing facility is available at e-Learning resource lab.
- Most of the labs are equipped with LCD's for online demonstration to students.

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)

Sr. No.	F	inancial Year	Budgeted (Rs.)	Utilization (Rs.)	Remarks
		Computer purchase	3120000	3018117	-
1.	2011- 12	For Internet Leased Line	1677495	1698365	14Mbps
		Computer repair & Maintenance	2000	1500	_
		Computer purchase	1836000	1903000	-
2.	2012- 13	Internet Leased Line	2588374	2684956	14Mbps
		Computer repair & Maintenance	500000	526025	
	2013- 14	Computer purchase	2500000	2572500	Upgrading Latest 64 bit Configuration
3.		Internet Leased Line	1428618	1417415	14Mbps
		Computer repair & Maintenance	7000	6096	-
4.	2014- 15	Computer purchase	1750000	1508016	Upgrading Latest 64 Bit Configuration
		For Internet Leased Line	1029447	744350	20Mbps
		Computer repair & Maintenance	7000	5175	-

 Table 4.3.4 Year-wise details for last four years

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

- Faculty members prepare their lectures with extensive coverage and supportive study material using the multimedia tools. This course material is available on ERP.
- Audio lectures have been provided on K-Point server for the students. NPTEL resources are also available in departmental library.
- Online e-Exam portal provides MCQ tests practice for students.
- Online spoken tutorials on EDX website are freely accessible to students.
- Faculty and students access the online journal in the library.
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 centre of teaching-learning process and render the role of a facilitator for the teacher.

Students' community is strongly involved in the use of ICT through smart phones and laptops. Thus the technologically enabled learning resource is a need of an hour. The institute provides necessary infrastructure to integrate ICT technologies to create learning resources. Students actively participate in following activities which has resulted in improvement in academic performances. The institute is precisely focused on student development in all the dimensions which is reflected in following activities.

A. Curricular Activities:

- 1. Teacher Guardian scheme
- 2. Preparatory online & written tests are conducted for each and every examination conducted by the university.
- 3. Student's academic progress is available on the college website.
- 4. All the learning resources are available on ERP platform.
- 5. K-Point server & NPTEL provide accessability to audio and video lectures.
- 6. E-Exam portal is used to conduct online mock MCQ tests.
- 7. Students are exposed to live industry projects.

B. Co-Curricular Activities:

- 1. Student Training Program (STP I to V)
- 2. Value Addition Programs.
- 3. AMCAT tests.
- 4. Student clubs like Microsoft Campus club, Google Campus Club, Mozilla Campus Club, Business Club, and Entrepreneurship Development Cell (EDC) have been very very active in the campus.
- 5. Invited talks from Industry experts help bridge the industry-academics gaps.
- 6. ICT facilities are used by students in organizing technical festivals, Worshops and Seminars.

C. Extra-Curricular Activities:

- 1. SINHGAD NEON KARANDAK is a mega cultural and sports event annual organized by STES and competitions are held under this banner in both cultural and sports.
- 2. SURABHI is an institute level annual cultural event. It provides yet another opportunities for students to stage their talents and innovative ideas.

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 makes use of National Knowledge Network Connectivity through video lectures available under NPTEL and IIT Spoken Tutorials. NPTEL is widely used by the faculty for self-study as well as for instructions to students.

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)?

Amount spent on	Amount in Rupees				
	2014-2015	2013-2014	2012-2013	2011-2012	
Laboratory repairs & maintenance	2,50,000	1,55,000	5,00,000	2,60,000	
Website & maintenance Internet usage	12,50,000	5,50,000	13,00,000	3,00,000	
Maintenance (Electricity & Telephone)	2,00,17,000	2,00,15,000	1,80,00,000	1,30,00,000	
Laboratory equipments maintenance	40,00,000	35,00,000	30,00,000	40,00,000	
A/C, Generator set	3,35,939	4,80,260	2,50,000	2,50,000	
Vehicles maintenance	10,21,636	16,33,321	12,29,116	8,87,937	

 Table 4.4.1 Budget utilization for maintenance

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

- Every department maintains a stock register for the available equipment.
- Proper inspection and verification of stock takes place at the end of every year.
- The civil and electrical work is monitored and maintained by the estate office.
- Periodic reporting on requirements of repairs and maintenance are submitted by the HODs to the administrative office. The requirements are collectively processed in every semester, so as to make the required facilities available at the start of semester.
- Pest control of library books and records is done every year.
- Estate department carries out maintenance of infrastructural facilities. Housekeeping services are regularly executed and monitored by estate department.

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

The calibration of instruments is carried every year.

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

- The sanctioned load by MSEB to the institute is 1433 KVA. In addition, the institute has operational transformers of 1500 KVA and additional 500 KVA capacities as standby.
- The institute also has one diesel generator of backup capacity 500 KVA.
- UPS for critical usage are adequately available.
- Water treatment plant of softening capacity 3.5 million litres per day is available.
- Aquaguard water purifiers are attached to water coolers.

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

- An impressive amphi theatre is available for usage by all the institutes on the campus.
- Transportation facility is available for students and staffs.
- Adequate firefighting equipments are available.
- Adequate inter-com and outside communication facilities are available.
- Two ATM centers are available in the campus.

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1 Student Mentoring and Support

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

Yes, the institution publishes the prospectus every year which is given to the students and parents at the time of admission & during parent meetings. The information provided in the prospectus divided under the three major heads: Administration, Academics and Student Welfare.

ADMINISTRATION

- Institute's vision, mission, quality policy
- Admission process
- Anti-ragging drive
- Rules & regulations
- IT infrastructure
- Campus life
- Campus highlights include Clinic, Shops, Banks & ATMs, Hostel, Mess, Security and Transport Facility
- Contact Information

ACADEMICS

- Departments
- Faculty and Staff information
- Publications
- Teaching-Learning Facilities
- Syllabi
- Result Analysis
- Continuous assessment

STUDENT WELFARE

- Teacher guardian scheme
- Students' welfare Cell
- Women's grievance cell
- Training & Placement activities (List of recruiters)
- Sports facilities and cultural festival
- Alumni activities
- Social activities

The same information is provided on the institute website <u>http://www.sinhgad.edu</u>

The information provided in the prospectus is verified by higher authorities. The institute is committed to provide quality education and infrastructure. The institute admissions are governed by DTE and Maharashtra government rules and regulations. Anti ragging committee is formed to ensure smooth induction of newly joined students. TG scheme is implemented in the institute since its inception. Institute has established women's grievance cell and T&P cell.

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?

The institute allows students to pay their fees in installments. Economically weaker students are provided with subsidized lodging and boarding facilities. The institute admits students under TFWS (Tuition Fee Waiver Scheme) scheme of Government of Maharashtra and under J&K quota and Government of India nominees.

Institutional scholarships given to students under TFWS						
A.Y.	Total number of Students	Number of TFWS students	Percentage of TFWS students	Total Amount in Rs.		
2012-13	813	30	3.69%	25,23,360		
2013-14	928	29	3.13%	24,04,593		
2014-15	873	29	3.32%	23,69,561		
2015-16	859	28	3.25%	0		
Institutional scholarships given to students under J & K quota						
2012-13	813	5	0.61%	3,00,560		
2013-14	928	5	0.54%	2,94,585		
2014-15	873	6	0.69%	3,46,254		
2015-16	859	4	0.46%	96,000		

Table 5.1.2: Institutional scholarships

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

- 50% of admitted students receive scholarships / freeships from state Government of Maharashtra on the basis of categories (SC/ST students) and parental annual income (OBC/SBC/VJNT students). EBC students (with OPEN category) having parental income less than one lakh Rs. are awarded tuition fees waiver upto 50%.
- Minority students are provided with state & central government scholarships.
- Apart from above GATE scholarships are provided by AICTE to PG students.
- Information of all types of scholarships is provided to students regularly by office. Separate file is kept for the reference for the benefit of the students.
- The disbursement of the scholarships and free ships has been done promptly as soon as the amounts are received by issuing agencies.

Table 5.1.3: Financial assistance given to students

A V	Dotoila	Category						
A.1.	Details	SC	ST	OBC	SBC	VJNT		
2012-13	No. of students	212	17	564	46	240		
2012-13	Amount in Rs.	2,03,34,158	14,81,156	2,49,27,237	39,48,192	2,08,05,595		
2013-14	No. of students	269	15	653	57	290		
2013-14	Amount in Rs.	2,71,09,766	13,91,548	3,01,88,638	50,95,331	2,64,86,914		
2014-15	No. of students	337	16	668	54	306		
	Amount in Rs.	3,47,83,903	15,35,893	3,15,44,428	50,13,408	2,83,58,779		
2015-16	No. of students	380	22	789	55	343		
	Amount in Rs.	1,32,75,265	18,71,526	2,32,61,425	48,04,560	66,64,905		
		Category						
A.Y.	Details	EBC		Minority students	STC/PTC scholarships			
2012-13	No. of students	375		11	0			
	Amount in Rs.	1546174	4	2,75,000	0			
2013-14	No. of students	483		14	12			
	Amount in Rs.	2087408	3	3,50,000 48000		8000		
2014-15	No. of students	492		11	11			
	Amount in Rs.	2127637	4	2,75,000	44000			
2015-16	No. of students	624		12		11		
	Amount in Rs	2 74 72 5	10	275000	44.000			

5.1.4 What are the specific support services/facilities available for students?

The institute supports students in their pursuit to become capable, civilized and worthy citizens. It provides following support to its students.

a) Students from SC/ST/OBC and economically weaker sections

The students belonging to SC/ST/OBC and the economically weaker sections are identified during the process of admission. The institute maintains a detailed record of the same. These students are provided every possible help during their stay in the college. The college ensures at par treatment to these students without any discrimination whatsoever.

b) Students with physical disabilities

The institute ensures that the infrastructure facilities meet the requirement of the students with physical disabilities. For differently-able students, it is ensured that they don't have any physical obstruction while moving in the campus.

c) Overseas students

There are no overseas students at present.

d) Students to participate in various national and international competitions

The students are encouraged to participate in seminars, workshops, symposia, technical festivals and exhibitions at the state and national level. The brochures of such events are displayed on the notice boards. Assistance is provided to students on their queries if any.

e) Medical assistance to students - health center, health insurance etc

A well-equipped hospital is available on the campus. First aid boxes are available at all the important locations in the campus. Gynecologists are invited to address girl students on health and hygiene aspects. Regular medical checkup camps are conducted for students.

f) Organizing coaching classes for competitive exams

With the help of T & P cell, individual departments arrange coaching classes involving external agencies to help the students to appear for GATE, TOEFL, AMCAT, GRE and other competitive exams. Online materials and solved question banks are provided to the students. The students are encouraged to make use of the library for competitive exams. For the list of training programs organized to improve aptitude reasoning, verbal & communication skills, technical applications skills for the past four years, please refer Table 5.1.4 in Annexure.

Motivation and goal setting programs are also arranged annually with the help of international trainers.

Sr. No.	Academic Year	Students strength	Торіс
1	2014 15	35	Personality development techniques
1 2014-15		78	Personality development techniques
		78	Management techniques
2	2013-14	68	How to prepare GATE exam?
3	2012-13	81	Interview techniques

Table 5.1.4: Motivation and goal setting programs

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

Through the language laboratory, training is imparted to students who are desirous of improving their spoken English. The language learning software in the lab enables the students in this regard. Following other measures are also taken.

- English newspapers and magazines are provided in library to enhance vocabulary.
- Group discussion, technical presentation, seminars are conducted.
- Institute arranges different curricular and extra-curricular activities like debate, and technical paper presentation.
- VAP & personality development courses are conducted every semester to bridge industry-academic gaps.

Regarding technical certification, all the students have user level proficiency in basic computer operations. The institute through Microsoft Student Partner, IBM, and INFOSYS campus connects programs; Wipro Mission 10X and Microsoft Innovation Centre conducts many certification programs to promote the computer skills and technical aptitude.

h) Support for slow learners

The institute takes into account basic education needs of one and all. If the students are slow in their learning process, the institute conducts supportive classes in different subjects. Remedial classes are also conducted wherever necessary.

i) Exposures of students to other institutions of higher learning/corporate business house etc

Guest lectures by eminent speakers from renowned corporate industry, institutes and universities provide exposure to industry and market trends. At the time of inter collegiate and national level symposia, workshops and seminars, students get an opportunity and motivation to improve their domain knowledge, interpersonal and leadership skills. Thus, the institute takes efforts to improve student's selfconfidence, self-esteem and career skills.

j)Publication of student magazines

The college publishes annual magazine "Drishti". It contains articles and poems written by students & staff members in English, Hindi & Marathi. Also it contains photos and achievements of faculty members and students of all departments.

k) Personality development

Besides in-house speakers, experts from industry and other social organizations are invited to inspire students. The programs aim at awakening curiosity, developing independence, encouraging intellectual rigor and promoting moral and ethical values among the students. Motivation and goal setting programs are arranged annually.

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 well established Entrepreneurship Development Cell (EDC) which focuses on the following

- Leadership Skills and Marketing Skills
- Business Development Skills and Managerial Skills
- Communication Skills and Public Speaking
- Team Building Skills
- Group Discussions
- World Entrepreneurship Day Celebration

The placement cell encourages outgoing students to visualize their future for establishing enterprises and become active contributors to the nations GDP. The placement cell assesses the performance of existing entrepreneurs and prepares a comprehensive training module to equip the outgoing students with necessary skills. Some students have formed their own enterprise. Please refer Table 5.1.5 in Annexure for the list of students EDC cell activities.

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 competition, debates and discussions, cultural activities etc. Additional academic supports, flexibility in examinations, special dietary requirements, sports uniforms and materials. Any other.

The institution renders consistent encouragement and support to students to participate in co-curricular and extra-curricular activities. Following provisions are made for promotion of such activities.

Sports Promotion

- Trainers.
- Playground, Gymnasium
- Participation in competitive events.
- Recognition and rewards for achievers.
- Public appreciation of winners.
- Sports uniforms and material.
- Consideration in term work.

Promotion to Cultural Activities

• Annual cultural festival, "Sinhgad Karandak" and "Surabhi".

5.1.7 Enumerate 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, GATE/CAT/GRE/TOEFL/GMAT/Central/State services, Defense, Civil Services, etc.

Students are promoted to appear for various competitive examinations and are helped by the teachers. Please refer Table 5.1.7 in Annexure for the statistics of students appeared and qualified in various competitive exams.

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

The institute offers the following types of counseling services to the students.

a) Academic counseling

The students, at the time of admission, are helped by the faculty members in selecting right stream. The students are informed about the scope and nature of the various branches. The class teacher and TG monitor the progress of the students and whenever there are learning gaps, they are brought to the notice of the subject teacher and HoDs who in turn take sufficient measures to improve the learning performance by way of offering extra coaching and supervision. The teacher sends letters and SMS to the parents if there are performance shortfalls on the part of any student. The academic counseling builds the self-confidence of the learner. The principal, the vice principal, HoDs and staff members regularly encourage and counsel the students to improve their academic pursuits.

b) Personal counseling

The students are, at times, too immature to handle the personal problems. The anti-ragging committee instills confidence among students about this campus being ragging-free. The TGs provide moral support in such cases. The TGs are also good at closely monitoring the psychological problems of the students and address their issues with care and consideration. The HoD and the staff members of department keep a record of each student in order to analyze his/her growth.

c) Career counseling

The placement officer and his team explain in detail the career prospects and the required preparations to seek appropriate job. Special trainers are also invited in order to strengthen the domain knowledge and technical skills of the students. The placement coordinators from each department work in collaboration with the T & P cell in giving career counseling to students. The STP enables students to write the resume and help them perform in group discussions and interviews. Industry trainers are periodically invited to the campus to encourage students in seeking jobs and employment opportunities. Mock interviews are also conducted for the betterment of learners.

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

T & P activity is very dynamically driven under a young, enterprising TPO. Following structured efforts are constantly made to ensure best performance of this cell.

a) Awareness about the job opportunities

The institute maintains job profile of students on GEMS and manages their personal files also. The students are informed about the job vacancies offered by government and other agencies. The advertisement is put on the notice board available at the placement cell as well as on the notice board of every department. This information is also available on the institute website. The students are informed about the last date and other important information regarding the vacancies. Please refer Table 5.1.9 in Annexure for details of placement of last four years. The details of the placement for the last four years in graphical format are as under.



Fig. 5.1.9: Placement chart of all departments for last four years

b) Discussion of exam module & preparation of the exam

The placement centre organizes lectures on career opportunities. A thorough discussion takes place on the exam module. The students are informed about the syllabus, the pattern, question bank and the ways of attempting the paper. Mock tests are held to improve the performance. The students' performance is analyzed after every test and brain storming session is organized to assess the strengths and weaknesses.

c) GDs/Interviews

Based on the analysis of the results of the tests, further follow up actions are taken so as to improve competency of the students to enable them qualify in GD/PI of the companies.

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

Yes, the institute has a student grievance cell. Grievance redressal cell actively interacts with the students to help them sort out their grievances. This cell is headed by the Principal, HoDs and some faculty. The students drop their grievances in the suggestion box kept at hostels. The students are free to share their grievances with the committee. The committee interacts with the students and listens to their grievances during the feedback meetings. Measures are taken to address their grievances.

Dept.	Sr. No.	Grievances reported	Actions taken		
	1	Students of TE and BE Mechanical caught missing classes and spending time outside the campus	Talked with parents and warned students		
МЕСН	2	Students of BE Mechanical took more night outs irrespective of hostel rules	Talked with parents and warned students		
	3	Students of TE Mechanical protested in unethical way about term work marking	Prepared performance basis term work marking system and informed same to the students		
E&TC	1	Students of SE and TE E&TC took more night outs irrespective of hostel rules	Talked with parents, Teachers, Teacher Guardian and warned students		
СОМР	1	Students of TE (Computer) reported late than campus entry time.	Students were asked to write the letter of apology for the offense and parents were informed about the same.		
	2	Students were disturbing other hostel students in the period of university exam.	Warden took a serious follow up and parents were informed at same instant about same.		
IT	1	Student of BE IT took more night outs irrespective of hostel rules	Call student in front of campus committee and chairman, asked parents to come and meet chairman Dr. J. S. Inamdar		
	2	Student of SE & TE IT caught while smoking irrespective of rules	Called parents to meet		
Electrical	1	Student of TE Electrical 2012- 13 went on trip to Goa and caught in ATM withdrawal money problem	Talked with parents and warned student		
	2	Student of BE Electrical made chaos during Annual Gathering Function	Discussed with students and convinced them to be responsible		

Table 5.1.10: 1	Record of grievan	ces reported and	addressed
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5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

This menace is supposed to be handled at different levels like Hostel Wardens, HoDs, Teacher Guardians and Principal in that order. However such grievances have not been fortunately reported during past 4 years.

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 set up an anti-ragging committee. It comprises the Chairman (Principal) and other members (Vice Principal, HODs, Parents representative, Student, Police, Faculty member, media). Faculty members make surprise visits and maintain a

diary of his/her interaction with the fresher's. The institute feels proud having maintained the campus ragging-free out of its rigorous efforts to curb it.

5.1.13 Enumerate the welfare schemes made available to students by the institution. Following are such welfare schemes

a) Scholarships

Details about the scholarships are displayed on the notice boards of the institution. The class teacher guides the students to be the beneficiaries of the various welfare schemes. The college provides those cash awards to meritorious students. Financial assistance is given to the needy & the worthy.

Students are encouraged to earn while they learn by carrying out innovative practices and participating in competitions.

b) Bank services

In collaboration with the Central Bank of India and State Bank of India, ATM facility on the campus is a boon to students

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 registered Alumni Association. Registration No. is MH/92/2013/Pune Date: 16/01/2013

- Association regularly meets and interacts with the management. It is the flag bearer of the developments in the institution.
- The alumni organize lectures on personality development. Over the years it has been helping in holding interactive sessions to motivate students regarding career seeking.
- The alumni also help the institution by influencing industries and other agencies in getting placements for the institution.
- The alumni appear for various activities and their suggestions are taken into account. Alumni day is celebrated and their achievements are recognized. The alumni are selected as guests of honor for awards.
- The institute has a social networking page and a separate link in the website where the alumni can register and connect to share their ideas.

Alumni benefits for students:

- Personality development program
- Career advising
- Industry Institute Interaction
- Mentoring
- Placement assistance
- Sponsorship
- Project assistance for final year students
- Arranging seminars for students

Alumni Objectives:

- 1. To bring together alumni in every area to act as the representative and coordinate various co-curriculur activities.
- 2. To utilize the experience, wisdom, zeal, ability and spare time of alumni for the benefit of the weaker sections of the society.
- 3. To promote and provide education, educational scholarships and medical relief useful to poor and the needy students of the institute.
- 4. To promote sports education, culture & knowledge by arranging seminars of alumni.
- 5. To make the students career oriented and attain international standard by sheer professionalism.

Sr. No.	Name	Designation
1	Prof. M. N. Navale	President
2	Dr. Mrs. S. M. Navale	Secretary
3	Dr. M. S. Gaikwad	Treasurer
4	Prof. D. D. Chaudhari	Member
5	Dr. V. N. Bapat	Member
6	Dr. D. K. Singh	Member
7	Dr. V. V. Shinde	Member
8	Mr. V. V. Deotare	Member
9	Dr. S. D. Babar	Member
10	Mr. N. A. Dhawas	Member

Table 5.1.14 List of Committee Members for alumni association

5.2 Student Progression

5.2.1 Provide the percentage of students progressing to higher Education or employment (for the last four batches) highlight the trends observed.

Department	Student Progression %	2015- 16	2014-15	2013-14	2012-13
МЕСН	UG To PG	0	14.66	10.80	12.77
MECH	Employed	39.4	62.13	61.68	63.05
E&TC	UG To PG	2.5	10.00	11.11	12.77
	Employed	42.5	62.00	74.69	75.79
COM	UG To PG	2.3	12.77	11.66	10.50
COMP	Employed	45.66	68.78	61.00	70.18
IT	UG To PG	16.45	11.66	13.33	15.00
	Employed	31.64	70.32	75.00	68.62
ELECTRICAL	UG To PG	0	10.00	11.66	NA
	Employed	50	64.81	62.26	NA

Table 5.2.1: Students progression to higher education or employment

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 a) Provide details of the programme wise pass percentage and completion rate for the last four years (college wise/batch wise as stipulated by the university)?

5.2.2 a) Provide details of the programme wise pass percentage and completion rate for the last four years (college wise/batch wise as stipulated by the university)?							
Table 5	2.2a): Prog	pramme wise pass	nercent	age and com	nletio	n rate	y)•
DEPT	17	Number of Students	Degged	First class with	First	Second	% of
	Y ear	Appeared	Passed	Distinction		Class	Pass
	2015-16	301	256	116	107	33	85.05
MECH	2014-15	125	114	33	66	15	91.2
	2013-14	80	67	25	33	9	83.75
	2012-13	69	62	19	24	19	89.86
E&TC	2015-16	294	279	175	94	10	94.9
	2014-15	200	188	20	151	17	94
	2013-14	185	182	34	144	8	98.38
	2012-13	115	111	18	86	11	98.23
	2015-16	207	184	79	94	11	88.88
COMP	2014-15	196	189	19	102	67	96.43
COM	2013-14	166	159	49	83	27	95.78
	2012-13	135	107	21	51	35	79.26
	2015-16	79	75	46	25	4	95
	2014-15	77	77	29	41	7	100
IT	2013-14	52	52	29	19	4	100
	2012-13	64	64	48	14	2	100
	2011-12	61	59	17	37	5	96.72
	2015-16	72	61	28	25	8	84.72
ELECTRICAL	2014-15	65	63	34	17	12	96.92
	2013-14	55	52	19	22	1	95.55

5.2.2 b) 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

	- 8 -	Free Press	T. T. T		
DEPT	Year	Number of Students Appeared in University	University % Passed	Institute % Passed	SAE Kondhawa
	2015-16	14238	74	85.05	90
	2014-15	9073	88	91.2	90.25
MECH	2013-14	7226	83	83.75	90
	2012-13	5204	79	89.86	97.14
	2011-12	3683	77	74.63	83.33
	2015-16	9319	85	95	96
E&TC	2014-15	8044	92	94	97
	2013-14	6896	89	98.98	64.7
	2012-13	5051	84	98.23	58.66
	2011-12	4102	79	94.53	61.48
	2015-16	9085	90	88.89	92
	2014-15	7324	91	96.43	93
COMP	2013-14	6756	87	95.78	83
	2012-13	5276	85	79.26	94
	2011-12	4682	35	80.14	83
	2015-16	3990	90	95	95
	2014-15	3996	94	100	96.67
IT	2013-14	4021	90	100	90
	2012-13	3716	85	100	89.33
	2011-12	3455	89	96.72	95.23
	2015-16	2720	82	84.72	
ELECTRICAL	2014-15	1496	87	96.92	
	2013-14	1947	90	95.55	

 Table 5.2.2b): Programme wise comparison of pass percentage with other institute

5.2.3 How does the institution facilitate student progression to higher level of education and / or towards employment?

Depending upon the inclination and aptitude of the students, the students are advised and encouraged to choose either higher studies or seek employment.

Student progression to higher level of education:

The provision for progression to higher studies is made available on campus through guidance forum for GATE/GRE/TOEFL/CAT and foreign language programs.

Student progression to towards employment:

To enhance the employability of students, institute has started step by step STP right from first year to final year. In addition the students also get career training through T & P cell. Various employability tests are conducted through AMCAT program. Institute conducts on-campus placement drive for students. MoUs have been signed with various industries to increase liaison between academics and industries.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

- Personalized guidance is being provided to students to reduce the risk of dropout.
- 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.

5.3 Student Participation and Activities

- **5.3.1** List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.
 - The institute has a wide range of sports, games, cultural and extra-curricular activities like Surabhi, Sinhgad Karandak, Dandiya, Marathon, TechTonic, etc.
 - The institute has always created a niche for itself in the field of sports.
 - The institute provides world class sport facilities to students. It has one state of the art Cricket ground and athletics track comprising two football, one hockey, two lawn tennis, two basketball and two volleyball courts.
 - The institute has since long times, 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 SURABHI is being held and students enthusiastically participate in it. Trophies are awarded to the best performers in these events. Please refer Table 5.3.1 in Annexure for more details.

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 extracurricular sports and cultural activities and bring in laurels to the institute. Please refer Table 5.3.2 in Annexure for the list of detailed achievements in every respect.

5.3.3 How does the Institute 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 departmentwise, Feedback contains information regarding institutional provisions about quality of students, students' performance in 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 valid suggestions on curriculum development as well as infrastructure facilities.
- Online suggestions are taken from graduates. These suggestions are reviewed by IQAC/AMC. Adequate measures are taken depending on committee recommendations to improve the performance.

5.3.4 How does the institute involve and encourage students to publish materials like catalogues, wall magazines, institute 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 "Drishti". This magazine is a space to showcase students' creativity. Students submit their material like articles (research, literary), stories, poetry, paintings, and photography in different languages like English, Hindi and Marathi. The editorial board consists of staffs and students.
- The students are encouraged to design brochures for Technical Student Symposia conducted annually.
- Students are motivated to publish their technical ideas, creative art, poetry in the departmental newsletter & wall magazine.

Please refer Table 5.3.4 in Annexure for details.

5.3.5 Does the institute have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

Yes, institute has student's council. Till last year the selection process was to collect the forms from eligible students. The toppers from the class form an electoral roll. Representative of the students council are elected from this electoral roll. The similar process is followed for forming other bodies.

Table 5.3.5: Student Council							
Student Council 2015-16 2014-15 2013-14 2012-13							
Chairman	Dr. M. S.	Dr. M. S.	Dr. M. S.	Dr. M. S.			
	Gaikwad	Gaikwad	Gaikwad	Gaikwad			
NSS Officer	Mr. S. R.	Mr. S. R.	Mr. S. R.	Mr. S. R.			
	Meshram	Meshram	Meshram	Meshram			

The students council and its constitution is shown in table 5.3.5

Physical Director	Mr. A. R.	Mr. A. R. Patil	Mr. A. R. Patil	Mr. R. B. Singh
	Patil			
Sports Secretary	Aakash	Mr. Abhijit	Mr. Abhijit	Mr. Abhijit
(Student)	Thakare	Kapadnis	Kapadnis	Pawar
NSS Representative	Amol Jadhav	Mr. Abhishek	Mr. Lakhan Patil	Mr. Malhari
(Student)		Pawade & Mr.	& Mr. Digambar	Gite & Mr.
		Suraj Patole	Pote	Vikas Holkar
Cultural Secretary	Avichal	Mr. Akshay	Mr. Sanket Joshi	Mr. Sahil
(Student)	Sharma	Mandre		Shinde
Girls	Ms.Deepali	Ms. Amita	Ms. Kritika Jain	Ms. Sushma
Representative-1	Wadekar	Shinde		Ambekar
(Student)				
Girls	Ms. Komal	Ms. Anuja More	Ms. Anisha	Ms. Neshma
Representative-2	Gaware		Chougule	Chudi
(Student)				

Funding:

This student council is formed by university and is funded as per norms.

Activities

The students' council organizes many activities through its representative's viz. sports coordinator, cultural coordinator & NSS coordinator.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

Following are various academic & administrative bodies having student representatives:

- ISTE Student Chapter
- NSS (National Service Scheme)
- Departmental Students Associations.
- Technical student associations.
- Entrepreneurship Development Cell (EDC)

Table 5.3.6: Academic and administrative bodies with students representatives						
Academic/Administrative Bodies	2015-16	2014-15	2013-14	2012-13		
Cultural Committee	Avichal Sharma	Mr. Akshay Mandre	Mr. Sanket Joshi	Mr. Sahil Shinde		
Sports Committee	Aakash Thakare	Mr. Abhijit Kapadnis	Mr. Abhijit Kapadnis	Mr. Abhijit Pawar		
NSS Committee	Amol Jadhav	Mr. Abhishek Pawade & Mr. Suraj Patole	Mr. Lakhan Patil & Mr. Digambar Pote	Mr. Malhari Gite & Mr. Vikas Holkar		
MESA (Mech Dept)	Abhishek Gaikwad	Mr. Nilesh Shewale	Mr. Mahesh Ingale	Mr. Pravin Karnale		
e-CITIZEN (EnTC Dept)	Mr. Shanu Gupta	Mr. Shanu Gupta	Mr. Moin Noosa	Mr. Prateek Somaiya		
ACES (Comp Dept)	Mr. Vaibhav Lasurkar	Mr. Anish Mote	Mr. Ankit Wani	Mr. Swapnil Shetye		
INFOSIT (IT Dept)	Mr. Aniket Bhoyar	Mr. Rahul Pandita	Ms. Aakansha Raj	Ms. Anisha Chougule		
EESA (Electrical Dept)	Mr. Abhijeet Gawade	Mr. Jaideep Singh	Mr. Chandrakant Bhise	Mr. Niket Deshmukh		
Microsoft Campus Club	Mr. Akshay Ithape	Mr. Niranjan Kumbhar	Mr. Sanket Ghorpade	Mr. Sanket Ghorpade		
IEEE Students Chapter	Mr. Pratik Somayya	Mr. Ankit Pawar	Mr. Prasad Kutemate	Mr. Moin Moosa		
SAE	Chinmay Chaudhary	Mr. Sujeet Fulari	Mr. Sujeet Fulari	Mr. Sujeet Fulari		
ISHRAE	Ajinkya Koshti	Mr. Akinkya Koshti	Mr. Abhinav Pawar	NA		
EDC Cell	Bipin Tatte	Ms. Nupur Sharma	Ms. Yogita Mewada	Mr. Manish Lad		

5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the institution.

Institute has registered alumni association (Reg No MH/92/2013 Date: 16/01/2013) with Student Chairman, Vice Chairman, Secretary and Members.

Alumni meetings are conducted in departments and in the institute yearly. Institute arranges lectures, seminars, workshops, and conferences by alumni or outside world expertise.

Former faculty members are invited for conducting guest lectures, participation in seminars and conferences as reviewers or session chairs.

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

उत्तमपुरूषान् उत्तमाभियंतृन् निर्मातुं कटीबध्दाःवयम्

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

Mission

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

The distinctive characteristics of the institute are defined in the mission as follows-

The institute has set up with a mission to impart knowledge and skills necessary for the holistic development of students thereby enabling them to become a competent engineer. The institution follows a three-fold curriculum involving curricular, co-curricular and extra-curricular activities. This curriculum is designed to enhance and empower the knowledge base of students through a unique value system leading to good citizen supported with transparent work culture in favorable learning environment. The focus is on developing creativity, exposure to recent trends in technologies and technology transfer through industry-institute interactions. This strategy helps to generate, preserve and share knowledge for developing a vibrant society, by imparting quality education.

6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

The governing body formulates policies and guidelines for all the institutes run by the Sinhgad Technical Education Society (STES). Regular updates and revisions are done in these by the management from time to time as per the needs of the changing requirements of stake holders.

Principal in turn frames implementation guidelines with the help of team of HoDs and Local Management Committee (LMC) and revise them from time to time based on the needs of stake holders and directions received from top management. Faculty is regularly involved in suggesting suitable requirements from the perspective of implementation at departmental level.

6.1.3 What is the involvement of the leadership in ensuring following issues?

A) The policy statements and action plans for fulfillment of the stated mission

The policy statements

The leadership of the institute which is composed of LMC, Principal, and team of HODs ensures the implementation of the policies in line with institute vision and mission.

Role of Management (Principal, Vice-Principal, LMC)

The leadership supervises the implementation of the curriculum of the affiliating university and its allied activities. The salient contributions of the leadership are

- Development of academic activity plans every semester.
- Planning of Student Training Programs to enhance employability.
- Planning of staff training and career advancement activities.
- Design of co-curricular and extra-curricular activities.
- Planning for industry liaison.
- Framing the assessment and evaluation strategies.
- Weekly review of student attendance, syllabus coverage through HOD meeting.
- Review of mid-semester online feedback from students.
- Bi-annual budget planning.
- Feedback and review mechanism
- Appraisal system
- Finalization of vacancies for staff recruitment

Role of HoDs and faculty

- Planning of STPs to enhance employability.
- Planning of staff training and career advancement activities.
- Design of co-curricular and extra-curricular activities.
- Planning for industry liaison.
- Framing the assessment and evaluation strategies
- Weekly review of student attendance, syllabus coverage through departmental meetings.
- Review of mid-semester online feedback from students.

B) Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan.

Department-wise action plans for operations are prepared by the HoDs as per the academic calender and guidelines issued by the Principal and Vice-Principal. Progress and allied

aspects are reviewed in weekly meetings of HoDs with Principal and Vice-Principal. Execution of STP is carried out by the departments in collaboration with the T&P cell of the institute. As per the guidelines from the principal's office, faculty development activities are carried out by the departments at in-house, university, state and national levels.

As per the guidelines received, co-curricular and extra-curricular activities are executed at both institute and department level. To ensure concurrent and smooth running of all the activities for overall development of students, a special coordinator is appointed at central and departmental level such as Techtonic, Surabhi, Alumni Meet etc. All these activities are marked in the academic acalender.

C) Interaction with stakeholders

To involve various stakeholders like students, and parents, institute arranges the activities like Parents' meet and Alumni meet. Institute also takes consultation of various industries through T&P department for improvement in specific skills. VAPs are designed in consulation with industries. Industries are involved in grooming of industry-ready students through setting up CoE in collaboration with them. IBM CoE, PSPL CoE etc. are actively working in the institute. IIIC is formed to coordinate all these activities.

D) Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders

The Academic Monitoring Committee (AMC) reviews the departmental progress for continuous improvement in consultation with the Principal. Based on the suggestions given by the stakeholders, efforts are done for bridging the gap between academics and industry. The institute has signed MoUs with various companies for providing additional technical training to the students. Some of the companies which provide us such support are as shown in Table 3.7.2 in annexure. Based on result analysis and students' feedback, supportive and corrective actions such as remedial classes and one to one counseling are initiated for improvement in the result. The institute also works on various need analysis of the students and conducts the programs like STP, VAPs, workshops, industrial visits, guest lectures and so on. The institute motivates students to participate and publish their research work/papers in National and International level conferences/workshops. The institute also involves students in research funding programs undertaken by the faculty to impart the research culture.

E) Reinforcing the culture of excellence

The institute organizes various FDPs and STP with hands on practice on upcoming and recent technologies so as to improve the culture of excellence. The institute inspires and creates culture of involvement, entrepreneurship and improvement.

F) Champion organizational change

The leadership of institute is always open to change in policy for achieving excellence. Taking into consideration the preceding year's performance in terms of academic results, placements, research publications, funded projects etc. appropriate corrective steps are taken. 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/ implementation.

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

The heads of various departments conduct weekly meetings with the staff to review the activities of the previous week and plan for the next week. The institute has TG scheme, where direct feedback is taken from the students about academic and non-academic activities are discussed in HOD meeting. The LMC, which has representatives from both teaching and non-teaching staff, meets twice in a year. In order to have effective implementation of the policies and to monitor and evaluate the same, various committees have been formulated.

AMC Committee:

The members of this committee monitor the instruction delivery on a regular basis so as to record the progress in theory classes and practical sessions. Student's attendance is monitored and corrective actions are taken if required by informing the parents. Feedback is taken from the students with regards to conduction of lectures and practical sessions. This feedback is conveyed to faculty for necessary action so as to improve the teaching learning process.

Examination Coordination Committee:

Smooth conduction of exams is monitored by this committee. Planning and conduction of mid semester tests/mock practical examinations are done by this committee.

Projects monitoring committee:

Encouraging students to participate in project competitions and present the papers in National and International conferences. The committee motivates the students to get industry sponsored projects. MOUs with various industries, training institutes are undertaken by this committee.

R &D, Grants and revenue generation committee:

Dean R&D periodically monitors and motivates the faculty to apply and receive grants from various funding organizations like, BCUD, DST, and AICTE and so on. The committee motivates the faculty and students for revenue generation from existing infrastructure and research facilities available in the institute. The committee promotes expert training programs by internal and external resources for the staff and students of the institute. Also monitors and motivates staff and students for the organization of conferences by the departments.

Training and Placement/Alumni/Entrepreneurship skills development committee:

Well planned STP is arranged for students from first year to final year. T&P supports the students to get better employment. This committee arranges hands-on-training, industrial visits and in-plant training. Arranges guest lectures by professionals from industry and

academics. Guidance to the students for higher education in national and international universities is the major activity of this cell.

Cultural and sports committee:

Cultural committee celebrates Teacher's day, Engineer's Day, etc. and organizes annual social gathering. The sports committee orgnizes games for the students.

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

In each department various committees have been formed to oversee efficient and smooth functioning of institute. Faculty play very important role for smooth conduction of academic functions apart from their regular role as teacher. Following leadership roles have been identified where faculty is appointed as a co-ordinator and allowed to work autonomously. They can make their decisions in the capacity of the leader of the activity or committee.

Lab incharge

Faculty as lab incharge looks after development of the assigned lab.

Course co-ordinator

Faculty as a course co-ordinator acts as an incharge for the assigned course and grooms junior teachers. The academic activities of the course are decided by this course coordinator.

Project co-ordinator, guides and review committee

Project is one of the major academic activities in engineering. Each department has appointed project coordinator. He plays vital role in all stages of project work which ranges from selection of projects, teaming, and appointment of guides, review committe and final evaluation. Faculty plays important role as guide for the group of students and also act as a member in a review committee.

Examination Coordination Committee

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.

CEO and Dept exam co ordinator

In addition to the internal exams, one faculty leads university examination as Chief Examination officer (CEO). He alongwith committee members comprising teaching and non-teaching staff is responsible for smooth functioning of university examination.

Teacher Guardian (TG)

Each faculty has been given a duty of TG. This scheme is already explained earlier.

R &D committee

This committee is headed by the senior faculty and coordinated by the departmental coordinator.

Subject Chairman

Apart from institutional work faculty also work for the university. They play 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 institute groom leadership at various levels?

Leadership is groomed at various levels as per the central office guidelines and requirement of respective campus specific needs.

Principal and Vice-Principal

They are administrative heads of the institute. The principal is autonomous to take decisions as per the requirement of mission and vision.

Head of Department (HoD)

The HODs are appointed on the basis of institutional seniority of the members of the department. They are identified from the existing faculty by the top management on the basis of their reputation as a teacher and administrative capabilities. Principal holds HOD meeting weekly in which planning, execution and various issues pertaining to the academics are discussed. HoDs are autonomous to take decisions at departmental level inline with the discussion held in HoD meeting.

Faculty level

Leadership at faculty level is grommed through various activities as discussed in 6.1.5. All faculty members are encouraged and motivated for the result oriented activities to be conducted for the benefit of the students.

Student level

Each activity has students' representatives. They are allowed to take their decisions to organize all technical and non-technical programs. They are also appreciated for their performance for proper organization.

6.1.7 How does the institute delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?

As discussed in earlier part 6.1.6, the institute delegates authority and provides operational autonomy to the departments to work towards decentralized governance system. Academic responsibilities are fairly divided among all the faculty and these responsibilities are mentioned in the academic calendar of every department. Committees are formed for the various curricular, co-curricular and extra-curricular activities to be conducted during the academic year. The departments are encouraged and given financial support to arrange various activities for the benefit of students and faculty. The administrative office is headed by the Principal and Vice-Principal. The Vice-Principal and in consultation with the Principal coordinates the day to day activities concerned with administration of the institute.

6.1.8: Does the institute promote a culture of participative management? If 'yes', indicate the levels of participative management.

Yes, the institute is keen on the involvement of staff for improvement of effectiveness and efficiency of the institutional management processes. The institute has always been in favor of participative management.

All the founder-members of the society were teachers themselves. They ensured in the constitution of the society that the institutions established by the society were all managed by the teachers and academicians themselves. As such, the teachers have always had an important say in the decision-making process within the institution.

The teaching and non-teaching staff is represented in the institute committees. The institute involves and allows the faculty members to participate voluntarily in the activities. There are various committees constituted to manage different institutional activities which require participation of faculty.

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?

Development of quality policy

The management of this institute has a formally stated quality policy and is committed to:

- Provide excellent infrastructure facilities
- Employ highly qualified and experienced faculty
- Encourage the faculty for improvement in qualifications.
- Promote Industry- Institute interaction.
- Create environment for R & D activities, Consultation work and getting industries sponsored projects for students.

The top management has framed a special internal Academic Monitoring Committee (AMC) who develops and drives the quality policies. These policies have been framed in line with the vision and mission of the institute. These are fine tuned and driven after discussions with the Principal, Vice-Principal, and Heads of the departments under the guidance of top management. The quality policy is published and disseminated to various stakeholders. The institute undertakes various activities to fulfill the quality policies.

Review of quality policy

AMC visits periodically to the institute to review and monitor quality issues. This committee keeps check on the course file, lesson plan, made by the staffs and suggests the corrections if any. It also takes the online feedback of the students and suggests the modifications to the teacher for the quality improvement. Principal, Vice- Principal and HoD takes the review of the suggestions given by committee for the effective implementation.

6.2.2: Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

Yes, the institute has a perspective plan for development. The institution takes effort in finding the key performance indicators for performance assessment and development. It addresses the issues from the stake holder's perspective and takes steps to fulfill their requirements. The institute has following perspective plans:

- Approval for Research Center by the affiliating University.
- Center of excellence in technology to serve for corporate social responsibility.
- Permanent affiliation by Savitribai Phule Pune University
- Accreditation by National agencies.

6.2.3: Describe the internal organizational structure and decision making processes.

Institute has internal organizational structure as depicted below. As per the organizational structure, all members are responsible for the smooth conduction of academic programs. Governing body and LMC has the responsibility to take the decisions at central level regarding financial, academic and administrative policies. OS is responsible for all office related administrative tasks. The Principal and Vice-Principal along with HODs of different departments are responsible for academic programs and administrative works. Training & Placement officer is responsible for training and placement of the students, and industry institute interactions. Librarian is responsible for maintaining up-to-date library resources such as books, journals, internet facility, digital library, reading hall to be made available to all concerned at appropriate time.



Fig. 6.2.3: Internal organization structure

6.2.4: Give a broad description of the quality improvement strategies of the institution for each of the following:

A. Teaching & Learning

The institute ensures effectiveness of the teaching-learning process by:

- Implementation of outcome based teaching and students centred learning methodology
- Provision for web-based learning and through multi-media
- Recruitment of well qualified and experienced staff as per AICTE norms
- Course allocation to the faculty much before the commencement of the semester to help them prepare lesson plan and notes
- To bridge the curricular gaps contents beyond the syllabus is developed
- Emphasis on imparting skills through laboratory experiments and various skill development programmes
- Promoting professional development of faculty by providing support to undergo refresher courses and improve qualification.
- Review of the academic results of the previous year.
- Online feedbacks from students to assess the teaching skills of the faculty. If the feedback of any teacher is not up to the mark then suggestions are given to the

respective faculty and if it is still continue then as per AMC directions teaching load may be changed.

• Continuous assessment of students' performance through tests, assignments, seminars and projects.

B. Research & Development

R & D cell is an integral part of the activities of the institute. This cell is one of the wings of the institute which facilitates, channelizes, records, and regulates all the academic/sponsored/ collaborative research projects and consultancy works in the institute. The institute is closely working with core industries to train the staff and students. The key goal of the cell is to provide a creative atmosphere in which higher studies and research flourish amongst the faculty and students. It also promotes and manages institute-industry interaction. The major role of this cell is in administrating research projects sponsored by various Government and non-Government, research funding agencies such as UGC, DST, AICTE, SPPU (BCUD) etc., and promotion of collaborative research partnerships for undertaking creative and advanced research.

C. Community Engagement

The institute actively participates in NSS. Students participate in the camps arranged by NSS for promoting community services. Apart from this, the institute organizes blood donation camp every year.

D. Human resource management

The institute has a well-defined and effective recruitment procedure, systematic performance appraisal system and promotion policies. The institute frequently arranges training programmes and also deputes the staff to other organizations for attending such programmes. The staff members are appreciated for their performance.

E. Industry interaction

The institution has an IIIC which promotes training and visits to reputed industries. Both UG and PG students are motivated to undertake their final year project in the relevant industries of their domain, thus exposing and preparing them to meet the requirements of the industry. The institute has signed MoUs with well-known industries to improve the interaction with industries and thereby providing better exposure to students and faculty members. These MoUs resulted in getting R&D projects from industry; which is in line with principles of Project Based Learning (PBL) which is policy of the institute. Also, the institute has independent EDC, through which entreprenureship is promoted.

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?

Student feedbacks are received formally by the online feedback system and informally through interactions. The comments from the parents received during parents meet are communicated to the Principal through HoDs. Alumni suggestions and feedback taken during alumni meets also used to review the activities of the institution. All such feedbacks received are communicated to top management through written and verbal communication.

Also, the AMC is a vital body under the constitution of the society. It meets periodically to take review of the developments in all the institutions. During the board meetings, information is shared and the resolutions passed are subsequently sent to academic and finance councils and then finally to governing body. Thus, information regarding developments in all the institutions finally reaches to the top management. Once the top management approves the information, it is circulated among other stakeholders, if necessary. The Principal also imparts necessary information to the HoDs in the periodical meetings.

The website of the institute is very much interactive and the facility for direct feedback from stakeholders is provided on the website. This feedback is available with top management which can be used to review the activities in the institute. In addition to that suggestion box and feedback register is made available at the department for the feedback. This data is made available to top management as and when required.

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

• Participative decision making

Principal involve HoDs and faculty members in decision making process. Appropriate guidance is provided to the staff for all types of activities.

• Encouragement and receiving constructive suggestions-criticism

The management always encourages faculty to involve themselves in ongoing institutional processes. Management maintains communication with the staff and is open to their suggestions.

• Involvement in activities and feedback

Faculties are the members of various committees at the institute level. Through their involvement in the said activities, they are autonomus to make appropriate changes in the operations so as to make it more effective.

• Supporting through finance

Adequate funds are made available to faculty for implementation of new concept.

• Staff training

Staff training is achieved through FDP and TAP. Thus, staff becomes change agent to improve the operationalisation of instituitional processes.

• Healthy competitions and appreciation

Institute regularly appreciate best performing department and faculty, to provide motivation to improve the institutional practices.

• Incentives for extra-efforts

Institute has well defined norms for conducting training and consultancy, through which financial incetives are gained by faculty. Thus, it helps in improving and upgrading institutional facilities and culture.

6.2.7: Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

Sr. No.	Resolution made by the Management Council	Status	
1.	Provident Fund contribution to be increased from Rs.780/- to Rs. 1800/-	Implemented from 1 st Sept 2014.	
2.	Dearness Allowance (DA) to be increased from 100% to 107% to all teaching and nonteaching staff	Implemented from 1 st March 2015.	

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If 'yes', what are the efforts made by the institution in obtaining autonomy?

The management is broadly in favor of autonomy. Although, SPPU provides, the institution has no immediate plans for obtaining autonomy.

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 following committees for hearing grievances/complaints from students, teaching and non-teaching staff.

- Local Managing Committee
- Reservation Committee
- Anti-ragging Committee
- Women's Grievance Cell
- Student Grievance Redressal Cell
- Weekly HOD meeting

Everybody in the institution is made aware of the existence of these committees. As and when the committee receives a complaint, they meet immediately, review and resolve the

problems. They also ensure that necessary actions are taken. The complaint details are filed separately and kept confidential.

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?

In last four years there is no court case against 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, in every semester the institution collects online feedback from students on teachinglearning process and facilities for the same. AMC evaluates the performance of subject teachers using the specified questionnaire. This is an online process and is conducted at the department level. A faculty and one supporting staff of the department are assigned this activity and the HoDs monitor the process. HoDs go through the feedback and convey it to staff members. After discussion, decisions are taken for the improvement of institutional performance which results in improvement in performance of teachers and university results. It resulted in improvement of university results and staff improvement.

Also, suggestions and complaints are collected through suggestion box, formal surveys and informal interaction for the improvement and development of academic standard as well as various types of facilities. Institute has well defined TG scheme, which is beneficial for improving institutional performance. Students provide their feedback on the working of the administrative office, facilities provided by the department, facilities provided by the institute and the working of the training and placement cell as well. This resulted in improving placement record.

6.3: Faculty Empowerment Strategies

6.3.1: What are the efforts made by the institution to enhance the professional development of its teaching and non teaching staff?

The institute is taking continuous efforts for the professional development of its teaching and non-teaching staff by:

- Promoting and motivating them to go for higher education.
- Supporting for Ph.D. research by funding for tution fees and other facilities.
- Providing sabattical leaves for going for Ph.D./PG research.
- Providing duty leaves and financial support to faculty and staff for attending workshops, seminars and national and international conferences.
- Staff training programmes for upgrading skills
- Providing well equipped library.
- Motivating faculty to take membership of professional bodies
- Organizing english proficiency and communication skill training for selected staff as per need.

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 strives to motivate and empower the faculty to create sense of responsibility and awareness in the teaching learning processes by:

- Sponsoring faculty to attend various programmes like National/International conferences, workshops, STTPs and FDPs carried out at different levels.
- Orgnizing various motivational and health related programmes.
- Sponsoring faculty for higher education.
- Creating a sense of belongingness amongst faculty members by involving them in various committees.

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.

SIT has designed the on line self-appraisal form for the teaching faculty. This form consists of many parameters out of which few are listed below:

- Teaching-learning process evaluation
- Research contribution in terms of projects, publications and guidance to students
- Contribution for the benefits of students and institute
- Contribution towards extra-curricular and co-curricular activities
- Specific duties / tasks assigned by HoDs
- Awards/rewards obtained by the faculty and staff
- Execution of exam duties assigned by the university
- Industrial liasoning and projects
- 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?

SIT has online appraisal system which is reviewed by the management at the end of every academic year. The parameters discussed above are reviewed and specific suggestions are given depending on the data provided in the self appraisal form. Most important outcome of this review is on deciding regularizing the staff, the regular increments and promotions of the staff. Also, the aim is to assess staff's strength and weaknesses identified through various information sources. Accordingly suggestions are given to concern staff for the further improvement.

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?

Following staff welfare schemes are available for teaching and non-teaching staff:

- Group insurance scheme
- Accidental insurance
- Staff quarters
- Free medical treatment
- Registration fee for FDP programs

- Maternity leaves are provided as per the government and university rules
- Sabbatical leaves are granted for more than 10% staff for the higher studies
- Employee Provident Fund (EPF) with 100% gratuity for all staff

6.3.6: What are the measures taken by the Institution for attracting and retaining eminent faculty?

The institute has been taking efforts to attract and retain, eminent faculty in the institute in following ways:

- 1) Special hill-station allowance is provided
- 2) Timely promotions for the eligible candidates
- 3) Providing facilties such as staff quarters and free medical benefits
- 4) Encouragement and financial support for research activities.
- 5) Transparents academic and administrative culture.

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?

The institute has a well-defined procedure to monitor effective and efficient utilization of available resources for infrastructure, development and teaching learning process. The financial resolutions of the institute is monitored and recommended by campus committee members. Finally, there are trustees of the society who approve and may guide with regard to financial transaction of the institute. In addition to this, the account of each financial year of the institute is audited by chartered accountant. Thus the utilization of financial resources is monitored at several levels.

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.

Institute impliments two level audit mechanism as follows

1) Internal audit

2) Statutory (External) audit

The last audit was done for year 2014-15 & statutory audit was completed up to 31/10/2015. There are no major audit objections in the audit report. Some minor objections in 2014-15 audits and their compliances are shown in table 6.4.2.

Sr. No.	Particular of objection in brief	Compliance by the institute
1	Non-completion of Ph.D. programme (Aalborg) in prescribed time limit of three years.	Related correspondence is done with higher authorities. Action is initiated accordingly
2	Non-completion of Ph.D. programme under Mobility for Life Fellowship Programme.	Related correspondence is done with higher authorities. Decision is awaited.
3	Free ship & scholarship receivable from 'Samaj Kalyan Department' for F.Y. 2011-12, 12-13 & 2013-14	All scholarship claims are already submitted to 'Social Welfare Dept'. Follow up is being taken through our central office.
4	Fees receivable from students due to non-availability of validity certificates Rs. 18,31,344/- details are as follows:	Fees recovery of these students is in process. Till date the status of recovery is as follows:
	1. For year 2012-13, 07 students & amount receivable was Rs. 3, 86,796/-	Academic year 2012-13 amount recoverable was Rs.3, 86,796/- out of that amount Rs. 2, 73,376/- is recovered.
	2. For year 2013-14 - 23 students & amount receivable was Rs. 14,44,548/-	Academic year 2013-14 amount recoverable was Rs.14, 44,548/- out of that amount Rs. 9, 99,123/- is recovered.

Table 6.4.2 Audit and their compliances

6.4.3: What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.

The major source of institutional receipts is from the fees of students. The deficit, if any is managed by taking advance from the central office of STES society. Audited income and expenditure statement are available with office in file and summary of is given in the following table 6.4.3.

Details	2014-15	2013-14	2012-13	2011-12
Income	39,88,23,230/-	33,41,51,484/-	25,78,04,295/-	21,56,11,978/-
Academic Expenses	19,11,07,114/-	16,07,77,963/-	15,26,67,834/-	13,62,77,067/-
Administrative Expenses	6,81,51,072/-	6,92,56,429/-	6,39,00,023/-	5,31,11,746/-

Table 6.4.3 Audited income and	expenditure statement
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All amounts are in INR

6.4.4:	Give details	on the	e efforts	made	by	the	institution	in	securing	additional
	funding and	the uti	ization o	of the sa	ame	(if a	any).			

Sr. No.	Name of the faculty	Funding agency	Year	Amount (In Rs.)	Project Name
1	Kamble Avinash G.	SPPU BCUD	2011-14	1,48,592/-	Experimental investigation on effects of process parameter of GMAW Process on AISI 410 &AISI 321 grade steel
2	Gholap Sharad B.	SPPU BCUD	2011-14	1,91,207/-	Estimate Delay & its Analysis in spectrum sensing for cognitive radio for wireless communication
3	Deotare Vilas V.	SPPU BCUD	2011-14	1,00,000/-	Design & implementation programmable digital system using hardware software co design
4	Nawale Shankar D.	SPPU BCUD	2011-14	1,88,127/-	Environmental wireless sensing based on RF Passive Tag integrated with conductive Polymer
5	Babar Rajendra	SPPU BCUD	2012-14	2,64,000/-	Synthesizing FPGA cores for software defined Radio

100% grant is received from University and utilized as per SPPU norms.

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)

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?

Institute has Academic Monitoring Committee since its establishment. The role of this committee and its constitution (shown in table 6.5.1) is enlisted below

- 1. Mentoring the students.
- 2. Developing infrastructure.
- 3. Conducting internal assessment.
- 4. Preparation of academic plan and calendar.
- 5. Collecting feedback from students and alumni.
- 6. Execution and monitoring of academic plan and activities.

Iub	Table 0.5.1 Internal Quality Assurance een (10/10)					
Sr. No.	Name of the Member	Designation				
1	Dr. M.S. Gaikwad, Principal	Chairman				
2	Prof. M.G. Bhat, Dean Engineering (STES)	Management Representative				
3.	Prof. S. B. Pharkute	Management Representative				
4.	Dr. D.D. Chaudhary, Vice-Principal	Director				
5.	Dr. D.K. Singh , Dean R&D	Member				
6.	Dr. V.N. Bapat , HOD Elect	Member				
7.	Dr. V.V. Shinde HOD Mech	Member				
8.	Dr. S.D. Babar, HOD Comp	Member				
9.	Mr. V.V. Deotare, HOD E&TC	Member				
10.	Mr. N.A. Dhawas, HOD IT	Member				
11.	Dr. P.S.Patil, HOD FE	Member				
12.	Mr. Yogesh Jadhav, T & P	Member				
13	Dr. Rajesh Kane	Estate manager				
14	Mr. Amit Chaphekar	Account officer				
15	Mr. D.R.Mali	Office Supriendent				
16	Mr.Sharad Meshram	NSS program officer				
17	Mr. Kaustubh Bharbade	Persistent, Pune				
18	Mr. Sudam Shelake	Parent				
19	Miss. Sushma B. Ambekar	Alumni				
20	Mr.Sujit Fulari	Student				
21	Mr. Vikas Raskar	Non-teaching staff				
22	Ms. Pradnya Pathade	Cultural Incharge				
23	Mr. T.A.Ansari	Network administrator				

 Table 6.5.1 Internal Quality Assurance Cell (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?

The IQAC is newly constituted but AMC of the institute is working on the same line. All most all decisions taken by the AMC are generally accepted by the institutional management. Following are the some of the important decisions taken by AMC during recent years.

- 1. Introduction of TG scheme (2008).
- 2. Infrastructure development New building for Department of Computer, IT and Electrical as an expansion of main building to accommodate increased intake (2009).
- 3. Addition of self learning session and extra inputs scheme for weak students (2010)
- 4. Modernization of the classrooms with LCD and internet (2010).
- 5. Introduce online feedback system (2011).
- 6. Application for NBA (2012).
- 7. Implimentation of Wi-Fi facility in the campus (2013).
- 8. Introduction of ERP, GEMS, K-Points (2014).
- c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

Yes, IQAC as newly constituted, have some external members in the committee The formal feed back is not available but will be taken and implemented in future.

d. How do students and alumni contribute to the effective functioning of the IQAC?

The IQAC is newly constituted but AMC of the institute is working on the same vision and mission. For the effective functioning of AMC, the students and alumni contribute as follows:

- 1. Class room feedback.
- 2. Library feedback.
- 3. Hostel feedback form.
- 4. Feedback about non-teaching staff.
- 5. Exit feedback.

In addition to this, regular feedback from students through the suggestions is received in the suggestion boxes. Alumni visit the institute during alumni meet and technical programs. At this time, feedback is collected from the alumni. The AMC receives the statistical report based on the feedback and uses the information appropriately.

e. How does the IQAC communicate and engage staff from different constituents of the institution?

The IQAC is newly constituted but AMC of the institute is working the same track. All the HoDs are the part of adcademic administration of institute. This ensures that all the faculty members of the institute are involved directly/indirectly in effective functioning of AMC. Faculty and staff of the institute are communicated through the heads of respective units. AMC members also interact with all staff member during academic year.

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. Meetings are conducted regularly for review of the same.

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.

The staff members are encouraged to attend training programmes/workshops to ensure quality enhancement. The institute has hired the services from professional trainers like 'Wren and Packers'. The staff is trained through institute level and department level training programs for effective implementation of the procedures.

The programs aim for:

- 1. Quality assurance trainings for Principals and HODs.
- 2. Quality assurance trainings for faculty members.
- 3. Upgrading the skills and knowledge of the supporting staff.
- 4. Awareness in quality assurance procedures and documentations.

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?

The academic progress of the institute is being continually monitored by the AMC. The principal communicates in this regards during the regular meetings. The HoDs review the various academic activities during the weekly departmental meetings and guide the staff members accordingly. Submission of self-appraisal reports and annual activity reports regularly is mandatory for each and every staff member of the institute.

The institute undertakes internal academic audit in following matters:

- 1. Verification of teaching plan and record of each faculty is carried out by AMC members periodically. This ensures audit of all aspects of teaching learning process.
- 2. A separate audit about coverage of syllabus is conducted by every department every month.
- 3. Every department submits the report of academic activities to the AMC at the end of every semester.

Outcome:

- 1. In case of discrepancies, suggestions are given to the respective faculty for improvement.
- 2. If the rate of completion of syllabus per month is less, then, extra lectures are suggested to the respective faculty by making necessary changes in the time table.
- 3. Departmental library books, faculty members are updated as per the requirement.

6.5.5: How is the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?.

AMC committee has ensured that internal quality policies will not conflict with external quality assurance agency policies.

- Continuous assessment scheme is an internal mechanism to generate term work marks of a student. Term work marks are included in the examination results by the university.
- AMC and the HoDs propose required infrastructure as per the AICTE norms. Infrastructure development is done accordingly.
- The AMC receives the faculty requirement data from the department heads as per the university norms and AICTE norms. Faculty is recruited accordingly.
- The librarian and faculty from each department and AMC initiate the library books and journal purchases according to the AICTE norms.
- Infrastructure and faculty status in the institute is peer reviewed by the Local Inspection Committee (LIC) of the university. Suggestions of the LIC are utilized by the AMC.

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?

AMC takes continuous review of teaching learning process in the institute. It mainly comprises of Principal, Vice-Principal, Heads of the department and departmental coordinators. Before commencement of the term, academic calendar is prepared and all the coordinators ensure that the activities are conducted as per schedule. This committee monitors class wise, faculty wise and subject wise instruction delivery.

Following mechanisms are used to continuously review the teaching learning process.

- 1. Audit of teaching plan from AMC.
- 2. Mid-semester feedback about a teacher from the students.
- 3. Departmental audit about syllabus coverage every month.
- 4. Mentoring the students every week.

Outcome:

1. The quality of academic processes in the institute has improved.

2. Individual faculty gets inputs to improve his/her performance and hence contribute to the teaching-learning quality.

3. Individual attention to students through mentoring contributes to improvement in students' performance.

6.5.7: How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders? Any other relevant information regarding Governance Leadership and Management which the institute would like to include.

Our institution communicates its quality assurance policies, mechanisms and outcomes through the Vision, Mission statement, parent meetings, alumni meets and discussions with employers and through the institute website.

The institution communicates its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders as follows:

1. Vision, Mission, Quality Assurance policies are displayed on the website of the institution.

- 2. Vision, Mission and Quality Assurance mechanisms are printed in the TG and attendance records.
- 3. Vision and Mission statements are displayed on boards at prominent places in campus.
- 4. Vision, Mission and quality assurance mechanisms are included in the information brochure.
- 5. Quality Assurance mechanisms and outcomes are informed to all during students induction program, students mentoring sessions, parents meetings, alumni meetings Principal's address at seminars/ conferences/interactive sessions with stakeholders etc.

Any other information the institute wishes to give?

The institute is a pioneering and leading institute in the SPPU and in Maharashtra state. It has maintained a high reputation in quality of teaching learning processes. Currently, it has undertaken a venture named as 'KG to PG through PBL model to enhance the industry institute interaction and employability.

CRITERION VII: INNOVATIONS AND BEST PRACTICES

7.1 Environmental Consciousness

The location of institute inspires inhabitants to be eco-friendly. Devoid of congested city environment, the staff and students enjoy the nature intimately on this campus. Besides having infrastructure as per the necessity for an educational campus, the institute puts in conscious efforts to enhance and nurture the eco-friendly environment on the campus. Monitoring and upkeep of the green environment on the campus is done by the estate department. Faculty and students take up small projects to support the maintenance of healthy environment.

7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

Since inception, the institute has maintained greenest environment on its naturally ecofriendly campus. Every care is taken to ensure that carbon emissions are kept to lowest level. Plantations, lawns, gardens have been specially developed and are maintained most green. The systems and processes are also checked for their greenness on regular basis. Hygiene and general cleanliness are indeed the most impressive features of the campus.

Green Audit: In the backdrop of the heightened sensitivity of the issue climate change, the institute has formed a Green Audit Team and has been carrying out the audit. Although this campus is fortunately located in a highly natural environment away from city pollution, the green audit serves two purposes, one to know the actual status of the campus and second to sensitize the people on the campus about the environment issues.

Energy Audit: The electrical engineering department has been carrying out electrical energy audit of the entire campus for past two years. Results and the conclusions have been drawn and submitted to management for consideration. Appropriate set of instruments such as an energy analyzer, Clamp-on meters and Lux meters is used for the exercise.

Maximized usage of day-light: The rooms are constructed in such a manner that maximum daylight should be received in class rooms and laboratories. Assessment of daylight availability and its optimum utilization is done regularly.

7.1.2 What are the initiatives taken by the institute to make the campus eco-friendly?

Awareness campaigns for energy conservation

Electrical and mechanical engineering departments jointly carry out this campaign on regular basis. The campaign includes display of posters, poster competitions, conducting awareness meetings with students and staff. Through awareness drives towards keeping the campus free of polythene, garbage and smoke, the institute has indeed accomplished the status of pride. Student bodies across departments have shown special alertness to maintaining eco-friendly campus. They regularly arrange awareness campaigns and programs.

Energy conservation:

Apart from economy point of view, energy conservation is imperative from the nation's persepctive. The best care has been taken while designing several buildings in the campus so that they are highly ventilated and well lighted by the day light. Most of the academic and administrative premises hardly require artificial lighting and ventilation during day time because of the eco-friendly design,.

In a due response to major energy sufficiency intiatives taken by the central and state governments, the institute is contemplating major green initiatives in the form of replacement of conventional tube lights by LED lighting and tapping abundant resource of solar energy. Students of the institute have surveyed and evaluated the energy conservation potential in the campus. Modern energy saving technologies are promptly adopted by the institute such as replacement of CRT monitors by their LCD versions, replacing energy intensive resistance type fan regulators by low consumption solid state regulators etc.

A. Use of renewable energy:

Solar thermal energy systems have been extensively deployed on the campus for hot water supply in hostels. Considering the cost effective solar PV technologies being available in the market and with recent announcement of renewable energy policies by central and state government, the institute has designed a solar PV generation project for the campus.

B. Water harvesting:

In view of the above-normal rainfall in Lonavala, the institute has plans to adopt the rain water harvesting to tap this natural resource to recharge the tube wells on the campus. These tube wells supply major chunk of the water to the campus habitation after being treated in the plant.

C. Efforts for carbon neutrality:

Carbon neutrality efforts are based on the theme of repair, reuse and recycle. Bio waste from trees and plants is not burnt but is put in compost plant and used in garden. Paper waste is sold for recycling and reuse. Institute promotes use of furniture made of particle board. Air conditioners, refrigerators and water coolers are of good quality and having eco-friendly refrigerant. The power backup sets of diesel generators are equipped with catalytic converter for exhaust gas. Out of 160 acre campus, lawns, plantations, big trees and jungle are spread over 50% portion.

Paperless governance is carried out through GEMS online, the ERP platform. All types of leaves by faculty and staff are submitted through GEMS only and use of paper is completely eliminated for that purpose. Institute promotes paperless communication by mail and SMS and also promotes two sided printouts for internal communications and submission of term work. Facilities like canteen, laundry, cafeteria, xerox shop, and ATM by Central Bank of India, State Bank of India are provided on campus for students and staff so that travelling time and fuel is saved.

D. Plantations:

Plantation is an ongoing activity in the campus. Maitainence of existing trees and planting new saplings is religiously done every year in an appropriate season. Success of this mission is quite evident when one visits the campus. The natural jungle like environment is intentionally preserved wherever possible.

E. Waste management:

Daily garbage is collected by housekeeping personnel and handed over to Municipal garbage vehicle. All waste water lines from toilets; bathrooms etc. are connected with Municipal drainage mains. Waste material like plastic, papers etc. are collected and sold out to scrap vendor from time to time.

F. E-waste management: The e-wastes are disposed periodically thorugh a professional e-scrap vendor.

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 institute.

In its quest for excellence, the institute continually experiments with innovations in every dimension of institute management. Some examples are as follows,

1. Administration:

a. Institute has incorporated paperless efficient e-governance for leave and staff profile management, e-communication including file transfer, pooled data filling through several Google tools etc.

2. Academics:

- a. Innovative laboratory modules and training programmes for both teachers and students are being practiced for effective learning.
- b. Special R&D committee oversees active involvement of faculty and students in applied research in liaison with industry. IBM CoE, Energy Research Centre is some of the projects that have been launched recently.
- c. Project Based Learning (PBL) methodology has been adopted under which the students take up small projects and work systematically on them from the scratch. They accomplish final objective through a meticulous processes of analysis, design and development.

3. Student Welfare:

- a. A comprehensive STP aimed at all-round development of students is being run over and above regular curriculum. The STP is provided with a two hour slot in weekly time table. The program is spread over six semesters from second through 7th. Skill trainings include soft skills, technical aptitude and skills, GD/PI skills and Advanced technologies.
- b. Recognition and Rewards: The institute encourages the students to take up innovative projects with special awards and prizes. Best outgoing student, branch toppers, best projects are identified through a systematic process every year. Such outstanding students are rewarded every year.
- c. Competitive preparatory tests like AMCAT (4), SEED IT Qualifier (1), CCSP (2), Atlas Copco Qualifier (1), Zensar ESD (2), Persistent Project Test (1), IBM Qualifier Test (1) are held per year frequency as mentioned in braces.

- d. Entrepreneurship Development Cell (EDC) and business club activities help students take to self-employment ventures. Students taking to Entrepreneurship are recognized and rewarded every year.
- e. Foreign language courses being offered in collaboration with Vinsys Services (I) Pvt. Ltd. In German and Japanese languages.

4. Staff welfare:

School of Enterprise Tie Ups (SETU) is an initiative to create a platform to initiate Industry-Institute interactions through real life contextual industrial problems.

7.3 Best Practices

7.3.1 Elaborate on any two best practices which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the institute.

A) Best Practice No.1: Project Based Learning Environment.

- a. Goal: For achieving effective learning by students.
- b. The Context: Learning happens only when one performs tasks on his own.
- c. The Process:
 - i. Students are encouraged to pick up a project in small groups in the representative list of areas prepared by the department or by him. They are required to go through a structured process of analyzing the problem, solution development and implementation.
 - ii. Student projects are then evaluated on the basis of merit.
 - iii. Necessary feedback is given to students.
 - iv. Institute has developed various schemes such as Lab innovations, VAP and IIIC which promote learning through projects.
- d. **The Outcome:** PBL shows improvement in understanding and confidence about core concepts among students. It also helps in achieving skills required for the professional practice.

B) Best Practice No.2: Comprehensive Student Training Program (STP)

- a. **Goal:** Development of core engineering aptitude among students.
- b. **Context:** STP involves provision of special training over wide spectrum of attributes an engineer is supposed to possess. The whole training is sub divided in to five phases in five semesters. Curricula for these STP phases have been designed quite thoughtfully and are reviewed and revised suitably from time to time.
- c. **Process:** Progressive stages of STP constitute the following

Module	Details of Activity	Suggestions / Activity	
01	Personal and Career Goal Setting	Cross introduction, with the help of drawing-no words, numbers. Video- SMART goals	
02	SWOT Analysis	Video, Carry out personal SWOT using colored cards-Green, Black, Yellow and red	
03	Behavioral Skills	Attitude measurement test	
04	Public Speaking	Show video and identify Do's and Don'ts	
05	Presentation Skills	Body language and gestures to be taken care of	
06	Resume Writing	Show bad 2/3 resume, actual resume writing	
07	Listening Skills	BEC listening exercise with CD	
08	Group Discussion	Identify topics	
09	Report Writing	Topics	
10	Letter / Application Writing	Show Sample bad emails and then provide Do's and don'ts	

STP I: This module consists of following:

Module	Details of Activity	Suggestions / Activity				
		1:Chinese Whispers				
		2:Audio Activity				
		3:Please Pay Attention				
01	Listening Skills	4:Story Telling				
		Suggestions / Activity1:Chinese Whispers2:Audio Activity3:Please Pay Attention4:Story Telling5:Audio Activity (Travelling Abroad)6:Audio Activity (Going to the Cinema)1:Fluency Developer Activity2:Summarizing Activity3:Word Color Conflict4:Punctuation Activity5:Read and Summarize Activity6:Comprehension Activity1:Job Ad Worksheet2:Extempore3:Guess the Movie Name4:Group Verbal Presentation5:Image Based Activity1:Role Plays2:Sentence Making3:Essay Writing4:Letter Writing5:Report Writing6:Resume Writing				
		6:Audio Activity (Going to the Cinema)				
		1:Fluency Developer Activity				
		2:Summarizing Activity				
02	Deading Skills	3:Word Color Conflict				
02	Reading Skins	4:Punctuation Activity				
		5:Read and Summarize Activity				
		6:Comprehension Activity				
		1:Job Ad Worksheet				
		2:Extempore				
03	Writing Skills	2:Extempore 3:Guess the Movie Name				
		4:Group Verbal Presentation				
		5:Image Based Activity				
		1:Role Plays				
		2:Sentence Making				
04	Speaking Skills	3:Essay Writing				
04	Speaking Skins	4:Letter Writing				
		5:Report Writing				
		6:Resume Writing				
1						

STP II: Covers following aspects

STP III in Semester V covers the following:

- Training and refreshing of technical fundamentals is provided to enhance the employability, prepare students for entrepreneurship and prepare students for higher education in India as well as Abroad.
- AMCAT test.
- Quantitative Aptitude and Logical Reasoning (QALR) Tests.
- Training need and outcome assessed using AMCAT, a job test preferred by many industries.
- Students will be provided a three year presence on AMCAT portal to seek placement.
- "To build a personality equipped with exquisite technical and non-technical skills, which are globally at par"

STP IV in Semester VI

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

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

Internship component to be added to the STP

- 1.1. Internship to optional component for interested students.
- 1.2. Internship to be undertaken after TE -II SPPU examination; during the vacation period.
- 1.3. Duration of Internship to be between 2-4 weeks.
- 1.4. Student needs to apply for "permission to attend internship" to the respected Principal through the HoD.
- 1.5. Student can either search for internship on own / seek help from the guide (definition of guide is mentioned in point 1.4) assigned for research component. In either case, guide should be kept in loop as well as take advice from for the internship component.
- 1.6. After completion of the internship, internship report needs to be submitted by the student.

2. Industry Cell to be started at every department.

- 2.1. Every department of the respective institute should start an Industry Cell.
- 2.2. The Cell should include minimum one member from following category:
 - Entrepreneur,
 - Employee with designation of Project Manager and above,
 - Established Alumni,
 - TPO of department,
 - Faculty, and
 - HOD.

2.3. Monthly, a minimum of two interactions should be scheduled in the form of guest lecture, discussion forum, training, workshop etc.

2.4. Once the Cell starts functioning, students should be allotted to external members of the Cell for personal grooming.

3. Guest lectures to be organized under STP.

- 3.1. Under the STP, every department should organize guest lectures.
- 3.2. These lectures should to be scheduled in following semesters:
 - SE Sem I & SE Sem II
 - TE Sem I
 - BE Sem I
- 3.3. Per semester, per month, 1 lecture should be organized.

4. Pre-placement Training, under STP, to be conducted for BE students

- 4.1. Training to be conducted for all BE students
- 4.2. Training to be of 10 hours, spread over 2 days, 5 hours/day
- 4.3. Training to be provided to a class of 60 students

4.4. Training to be hands on and would prepare students for GD, Personal Interview and also boost their confidence.

4.5. Training would be provided by expert trainers.

5. Placement to be improved

5.1. Every institute has submitted, department wise, list of top three companies that visit for recruitment. Similarly, list of top three dream companies have been received, department wise.

5.2. At institute level, discussions should be initiated with the top three companies that visit for recruitment. These companies should be invited to the campus under following possible banners:

- guest lectures / seminars,
- projects, and
- In-plant training of recruited students at Sinhgad Institutes.

5.3. Feedback should be taken from BE (Semester I) students at every institute to find out the dream companies for recruitment. Also, feedback should be taken from these students to improve the placement activity. At institute level, discussions should be initiated with the dream companies (listed by the department and the students). These companies should be invited to the campus under different banners and relations established so that in near future they start recruiting Sinhgad students. Possible banners are:

- Guest lectures / seminars,
- Projects, and
- Techfest.

STP V: Semester VII this phase covers

- Interview Preparation
 - Practice of Group Discussion and Personal Interview.
 - Quantitative Aptitude and Logical Reasoning Tests.
 - Adaptive test developed by experts from MIT, Harvard, IIITs and IIMs.
 - Most preferred job test in India.
- Assessment Modules

- Mandatory_modules: English, Logic, Quantitative, Personality.
- Optional modules: Attention to detail, Excel, Typing, Data Interpretation, Behavioral Assessment, GK, Computer Literacy, CP, Java, C++, Unix, SQL, Domain Specific.

Feedback provided on following aspects:

- 1. National comparison
- 2. Sub-modular grades
- 3. How to improve
- 4. Test time management
- 5. Study schedule
- 6. Job match analysis
- 7. Personality analysis.

NOTE:

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

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

Department of Mechanical Engineering

Evaluative Report of the Department

1. Name of the department: Mechanical Engineering

2. Year of Establishment: 2004

3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):

Course offered	Name of the course	Specialization	Year of Establishment
	BE(1 st shift)	Mechanical Engineering	2004-05
U.G.	BE(2 nd shift)	Mechanical Engineering	2010-11
P.G. ME Design Engineering		Design Engineering	2010-11

4. Names of Interdisciplinary courses and the departments/units involved:

Following Interdisciplinary courses are involved in curriculum of programs:

Sr. No.	Name of Interdisciplinary course	Department
1	Electronics and Electrical Engineering	Electrical Engineering & Electronics and Telecommunication
2	Engineering Mathematics-III	Engineering Science

5. Annual/ semester/choice based credit system (programme wise):

Sr. No.	Course offered	Programme	Duration	System	Evaluation
1	U.G.	Mechanical Engineering	4 Years	8 Semester	Marks
2	P.G.	Design Engineering	2 Years	4 Semester	Credit

Sr. No.	Courses offered	Department	
1	Basic Mechanical Engineering		
2	Engineering Graphics-I&II	Applied Science	
3	Engineering Mechanics		
4	Power plant Engineering	Electrical Engineering & Electronics and Telecommunication	

6. Participation of the department in the courses offered by other departments:

7. Courses in collaboration with other universities, industries, foreign Institutions, etc.

Sr No	Name of the course	Participating institution /industry	
1	Training Program on CREO Parametric	Matrix Design and Training	
	1.0 and CATIA V5R20	Institute, Pune	
2	Training Programme on ANSYS	Manage Code Cultivate, LLC,	
	Workbench and CATIA V5R20	Mumbai	
3	Process Planning and Tolerance	Mechatol Engineering Solutions,	
	analysis	Pune	
4	Automation Studio 5.7	India Soft Technologies (P) Ltd.,	
		Pune	
5	Piping design	Asian Academy of Professional	
		Training, Pune.	
6	Training programme on Autodesk Inventor, Autodesk Fusion 360, Autodesk Simulation Cfd	Impetus IT Services Pvt Ltd, Nigdi Pune	
7	GATE coaching	GATE Academy, Banglore	

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of teaching posts

For Undergraduate Programme

Professors	2
Associate Professors	3
Asst. Professors	59
Total	64

For Postgraduate Programme

Professors	1
Associate Professors	2
Total	3

10. Faculty profile with name, qualification, designation, specialization. (D.Sc./ D.Litt./Ph.D. / M. Phil. etc.,)

Sr.No.	Name	Designation	Qualification	Experience	
511100		Designation	Quanteution	Teaching	Industry
1	Dr. Shinde Vikas V.	HOD & Professor	PhD	14	Nil
2	Dr. Tayde Mohan M.	Professor	PhD	15	3
3	Mr. Kamble Avinash G.	Assoc. Prof.	Ph. D (Thesis submitted)	13	Nil
4	Mr. Kulkarni Prasad D.	Assoc. Prof.	Ph. D Mech (Pursuing),	17	3
5	Mr. Mohite Maruti A.	Assoc. Prof.	Ph. D Mech (Pursuing)	19	Nil
6	Mr. Gaikwad Sambhaji M.	Assoc. Prof.	Ph.D (Pursuing)	18	Nil
7	Mr. Puranik Laxmikant P.	Asst. Professor	M.E. (Heat Power)	10	10
8	Mr. Lakal Narendra V.	Associate Professor	Ph. D(Pursuing)	13	Nil
9	Mr. Meshram Sharad R.	Asst. Professor	M.E.(CAD/CAM)	8	3
10	Ms. Deokar Sonal V.	Asst. Professor	M.E.(Design)	6	Nil
11	Mr. Hameer Singh Keesari	Asst. Professor	Ph.D (Pursuing)	4	Nil
12	Mr. Hirulkar Nitesh S.	Asst. Professor	ME (CAD/CAM)	5	1.5
13	Mr. Mathpathi Santosh S.	Asst. Professor	Ph.D (Pursuing)	5.5	1.5
14	Mr. Wankhede Sagar V.	Asst. Professor	Ph.D (Mech.) (Pursuing)	4	Nil
15	Ms. Saddu Smita C.	Asst. Professor	M.E (Design)	3.5	Nil
16	Mr. Patil Sameer G.	Asst. Professor	ME (Design)	3.5	Nil

17	Mr. P.E. Lokhande	Asst. Professor	Ph. D (Pursuing)	3	Nil
18	Mr. M.N. Chougule	Asst. Professor	ME (Design)	6	0.6
19	Mr. P. P. Jawale	Asst. Professor	ME (Design)	2	Nil
20	Mr. A.R. Wasnik	Asst. Professor	ME (Design)	3.1	2
21	Mr. S.G. Dabade	Asst. Professor	ME (Heat Power)	3.5	Nil
22	Mr. S.V. Chavan	Asst. Professor	ME (Heat Power)	2	Nil
23	Mr. V.M. Ugare	Asst. Professor	Ph D (Pursuing)	4	1
24	Mr.A.R.Narode	Asst. Professor	M.Tech (Heat Power)	3	Nil
25	Mr.S.V. Karankoti	Asst. Professor	Ph D (Pursuing)	6	Nil
26	Mr. R.S. Patil	Asst. Professor	M.Tech (Heat Power)	6	Nil
27	Mr.P.A. Pesode	Asst. Professor	M.Tech (Manufacturing Technology)	2.5	1.5
28	Mr. S.M. Mulye	Asst. Professor	M. Tech (Heat Power)	2.5	Nil
29	Mr. C.R. Kamthane	Asst. Professor	M.Tech (Heat Power)	2	Nil
30	Mr.A.P.Ogale	Asst. Professor	M.Tech. (Thermal Engineering)	7	Nil
31	Mr. V. A. Kumbharkar	Asst. Professor	ME (Design Engineering)	2	Nil
32	Mr. B.R Chaudhari	Asst. Professor	M.Tech (Thermal Power Eng.)	2	Nil
33	Mr.S.B. Salunkhe	Asst. Professor	M.E.(Heat Power)	2.5	1.5
34	Mr.V.V. Gaikwad	Asst. Professor	M.Tech.(Mech- Production)	3	0.9

35	Mr. N.A. Shinde	Asst. Professor	M.E.(Design)	5	Nil
36	Prof. S. N. Lokhande	Asst. Professor	M.E.(Design)	3	Nil
37	Prof.V.H.Magar	Asst. Professor	PhD (pursuing)	2.5	Nil
38	Prof.S.L.Tale	Asst. Professor	M.Tech (Heat Power Engg.)	1.5	0.5
39	Prof.S.B.Bhoyar	Asst. Professor	ME Design	7.5	0.5
40	Prof.D.N.Mehtre	Asst. Professor	Ph. D Pursuing	7	Nil
41	Prof.S.P.Neharkar	Asst. Professor	ME Design	4	Nil
42	Mr. Ranjit S. Sayare	Asst. Professor	ME (Design Engineering)	2	Nil
43	Prof. S. I. Bharadiya	Asst.Prof.	ME (Design)	5.5	0.5
44	Prof. P.P. Datar	Asst.Prof.	ME (Design)	0.3	2
45	Prof. S.G. Pandit	Asst.Prof.	M.E (Design)	3	0
46	Prof. K.R. Bhiwapurkar	Asst.Prof.	M.Tech (Design Engg.)	0	1
47	Prof. A.C. Deshpande	Asst.Prof.	M.E (CAD/CAM)	2	0
48	Prof. C.C. Dube	Asst.Prof.	ME (Heat Power)	3.6	0.6
49	Prof. A.A Satpute	Asst.Prof.	M.Tech (CAD- CAM)	4	0.5
50	Prof. P.R. Gharde	Asst.Prof.	ME (Heat Power)	1	0
51	Prof. R.B. Chingale	Asst.Prof.	M.Tech (Machine Design)	0	1
52	Prof. S.J. Wadne	Asst.Prof.	M.Tech (Machine Design)	0.5	0

53	Prof. S.M. Gaikwad	Asst.Prof.	M.E (Design)	3.5	0
54	Prof. M.M.Nagargoje	Asst.Prof.	M.E (Design)	0	0
55	Prof. S.S.Bhopale	Asst.Prof.	M.E (Design)	2	0
56	Prof.T.K.Bhoskar	Asst.Prof.	M.E (Design)	2	0
57	Prof. P.P.Kapale	Asst.Prof.	M.E (Design)	0	0
58	Prof. Anantkumar A. Mhaske	Asst.Prof.	M.E (Design)	2	0
59	Prof. P.R.Mhaske	Asst.Prof.	M.E (Design)	0	0
60	Prof. Vaibhav M Pukale	Asst.Prof.	M.E (Design)	1.5	0
61	Prof. Bhargav S Desai	Asst.Prof.	M.E (Design)	1.5	0
62	Prof.V.A.Vibhute	Asst.Prof.	M.E (Design)	1.5	0
63	Prof. Saurabh R Verma	Asst.Prof.	M.E (Design)	5	0
64	Prof. Yogesh D Jadhav	Asst.Prof.	M.E (Design)	4	0
65	Prof. Nitin S Joshi	Asst.Prof.	M.E (Design)	13	0
66	Prof. Vikrant Nichit	Asst.Prof.	M.E (Design)	0	0
67	Mr. M.G.Bhat	Professor	M.E (Design)	35	

11. List of Senior Visiting Faculty:- Mr. M.G.Bhat, Professor.

12. Percentage of Lectures delivered, and practical classes handled [Program wise] by temporary Faculty: Nil

13 Student Teacher ratios:-

Year	Students' Intake	Teacher(s)	STR
2016-17	1080	67	16.12
2015-16	960	61	15.73
2014-15	720	41	17.56
2013-14	420	31	17.5
2012-13	240	25	9.6

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Type of Staff	Filled
Technical Assistant	07
Lab Assistant	02
Worksop staff	05
Administrative Staff	01

15. Qualification of teaching faculty

Sr. No	Qualification	No of Teaching faculty
1	Ph.D.	02
2	Ph.D. pursuing	13
3	P.G.	52

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

NumberoffacultywithNationalongoingprojects	Amount received	Number of faculty with International ongoing projects	Amount received
01	Nil	02	Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

Although department so far has not received any funding from above agencies, in the past we have received funding from SPPU and European Commission.

A) Sponsored Projects from Industries and SPPU

A.Y	Faculty	Title of the Project	Sponsoring Agency	Sponsorship amount	Status of Proposal
2014-15	Dr. V.V. Shinde	Training on AQInstallation of Hybrid Wind Turbine on sites	WISH	Technical Sponsorship	Completed
2012-13 & 2013-14	Dr. V.V. Shinde	Design of Non-Contact Type EGR Valve Sensors	KEDC	Technical Sponsorship	Completed
	Mr. P. D. Kulkarni	Design & development of contactless sensor for EGR (KSPG)	Automotiv es India Pyt Ltd		
	Mr. N. V. Lakal	Design & development of contactless sensor for EGR valve (KSPG)	T VI. Eld		
2011-12	Mr. A.G. Kamble	Experimental Investigation on effects of process parameters of GMAW process on AISI410 & AISI321 grade steel	BCUD	Rs.2 Lakhs	Completed
	Dr. V.V. Shinde	Design of Course level PBL Model for an Engineering Institute in India	European Commissio n	Rs.25 Lakhs	Completed

B) STES's Funding

A.Y.	Name of Faculty	Title of The Project	Amount	Status of Proposal
2014-15	Dr. V.V. Shinde	On-site Hydrogen production and its use in IC engine	Rs. 63,690	Completed
2011-12	Dr. M.M. Tayde	Design and performance optimization of miniature VCR system	Rs.97,000	Completed

18 Research Centre / facility recognized by the University:

The department has received projects from industries working in the field of energy. Thus, Energy center is being developed in the department which is not recognized by the affiliating university. Following is the list of ongoing projects of energy center.

Sr. No.	Faculty coordinator	Title of Project	Funding Agency	Status of Project
1	Mr. V.M. Ugare	Optimization of Bio Production Process &Its Performance on CI engine	Indian Bio Company, Baramati	Ongoing
2	Mr. S.V. Karankoti	On Demand Hydrogen Production using ACE Fuel Cell Technology.	Phillips Pvt. Ltd.	Ongoing
3		Portable Hydrogen Power Plant	Phillips Pvt. Ltd.	Ongoing
4	Mr. S.V. Wankhede	Design of Hybrid (Solar Wind) System	WISH energy Solutions, Pune	Ongoing

19. a) Publications per faculty:

a) Publication per 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.)

Sr. No.	Faculty Name	No. of paper published in per review journals faculty/students	No. of publication listed in International/ National conference	Monographs	Chapters in books	Books edited	Books with ISBN in International DB	Citation Index	AINS	SJR	Impact factor	h- Index Average
1	V.V. Shinde	8	6	01			3	11			2.1	1
2	A.G.Kamble	9	5									
3	P.D.Kulkarni	8	2									
4	M.A. Mohite	11	2								3.7 8	
5	S.M. Gaikwad	1	1									
6	M.M. Tayde	2	1									
7	L.P. Puranik	3									2.1	
8	N.V. Lakal	6	5								2.1	
9	S.R. Meshram	4	1					2				
10	S. V. Deokar	5	1									
11	H.S. Keesari	6	1					2				
12	N.S. Hirulkar	6	1									
13	S.S. Mathapati	3	1					1			3.8 4	
14	S. V. Wankhede	6										
15	S.C. Saddu	4										
16	S.G. Patil	5	1									
17	P.E. Lokhande	4	1								5.6	

18	M.N.	6	4	 	 	 	 	
10	D D Jawala	1	2					
19	P. P. Jawale	4	<u> </u>	 	 	 	 	
20	A.K. Washik	U	1	 	 	 	 	
21	S.G. Dabade	1	1	 	 	 	 	
22	V M Ugoro	7	1	 	 	 	 	
23	A P Narode	1	1	 1	 	 	 	
24	S V	4	1	 	 	 	 	
25	Karankoti	9		 	 	 	 	
26	R.S. Patil	4	1	 	 	 	 2.1	
27	P.A. Pesode	3	1	 	 	 	 	
28	S.M. Mulye	4	1	 	 	 	 2.1	
29	M. W. Bhalwankar	2		 	 1	 	 2.1	
30	C.R. Kamthane	3	1	 	 	 	 1.2	
31	A.P. Ogale	4		 	 	 	 2.1	
32	S.P. Dhavane	3		 	 	 	 	
33	V. A. Kumbharkar	3		 	 	 	 2.3	
34	B.R. Chaudhari	4	1	 	 	 	 	
35	S.B. Salunkhe	5	2	 	 	 	 	
36	A.V. Karande	4	1	 	 	 	 	
37	V.V. Gaikwad	4	1	 3	 	 	 	
38	N.A. Shinde	3		 3	 	 	 	
39	S.N. Lokhande	4		 	 	 	 	
40	D.N. Mhetre	1		 	 	 	 	
41	V.H. Magar	2		 	 	 	 	
42	S.B.Bhoyar	2		 	 	 	 	
43	S.P.Neharkar	2	-	 	 	 	 	
44	R.H.Kekan	4	-	 	 	 	 	
45	S.L.Tale	1		 	 	 	 	
46	S.G.Dabade	3		 	 	 	 	
47	R.S.Sayare	1		 	 	 	 	

19. b) Books and Monographs Published

Monographs -01

Books with ISBN/ISSN numbers with details of publishers-

Sr. No.	A.Y.	Name of Author	Title of Book	ISBN No.	Details of publisher
1.		Prof.S.V.Karankoti Dr.V.V.Shinde Prof.S.M.Muley	Heat transfer	978-93-332- 0300-5	Technical
2.		Prof.S.V.karankoti	Computational Fluid Dynamics	978-93-332- 0777-5	Technical
3.		Prof.S.V.Karankoti Prof.S.M.Mulye Dr. V.V.Shinde	Heat and Mass transfer	978-93-332- 1123-9	Technical
4.	2015- 16	Prof.V.V.Gaikwad Dr.V.V.Shinde	Hydraulics and Pneumatics	978-93- 33203-42-5	Technical
5.		Dr.V.V.Shinde Dr.Anette Kolmos Dr.Sandeep Inamdar	Design of course level PBL models for an Indian Engineering Institute	978-87- 91404-64-1	Phd Thesis
6.		Prof.S.R.Meshram Prof.D.M.Mate	Robotics	978-93- 5158-536-7	Success

20. Areas of consultancy and income generated

Sr. No.	A.Y.	Name of Area	Name of consultancy	Amount
1	2015-16	Metrology & Quality Control	VPSCET, Lonavala	6450/-
2.	2015-16	Project Based Learning	IUCEE, Course	50000/-

21. Faculty as members in

a)	National	committees h) Inter	national	Committees	c)	Editorial Roard-
<i>a)</i>	national	committees b) Inter	nauonai	Committees	U)	Eultorial Doaru-

Academic	Name of the	Work carried out /	External Agency /	
Year	Faculty	Activity	Consultancy	
	Dr. V.V. Shinde	Subject Expert External for Local Selection Committee	Dr. D.Y.Patil SOE , Charholi (B.K.) Pune	
2015-16	Prof.A.G. Kamble	Expert session on - one day seminar " Advances in Manufacturing "	SKN Sinhgad COE, Korti ,Pandharpur	
	Prof. M.A. Mohite	Reviewer of PGCON research paper (Design)	Dr. D.Y.Patil COE, Pimpri, Pune.	
	Prof.M.N. Chougule	Judge for event Catia & Lathe war in Maverix	Indira COE&M, Pune	
	Dr. V.V. Shinde	Resource Person for Two Days Workshop on Project Based Learning	Vishwaniketan's Institute of ME&ET Kumbhiwali , Raigad	
		Book Published for subject " Hydraulics & Pneumatics "	Technical Publication Pune	
2014-15	Prof. V.V.Gaikwad	Book Published for subject " Hydraulics & Pneumatics "	Technical Publication Pune	
	Prof. S.V. Karankoti	Expert Session on " Design of Heat Transfer Equipments " M.E. (Heat Power)	Dhole Patil COE, Wagholi Pune	
		Expert Session on " Advanced Heat Transfer " M.E. (Heat Power)	Dhole Patil COE, Wagholi Pune	
2013-14	Dr. V.V. Shinde	Keynote Speaker on " Mobility for Life Technology , Telecommunication abd Problem Based Learning "	Sandip Foundation's SIE&M Mahievani , Nashik.	
		Facilitator for One Day International Workshop on Problem Based Learning "	Sandip Foundation's SIE&M Mahievani , Nashik.	

	Prof. M.A. Mohite	Expert Session on " Advanced Mechanical Vibration " Expert Session on " Fluid	Shree Ramchandra COE, Lonikand, Pune Shree Ramchandra
	1 Iol. A.I . Ogale	Mechanics - I "	COE, Lonikand, Pune
	Prof. S.V. Karankoti	Expert Session on " Air Conditioning System" M.E. (Heat Power)	Dhole Patil COE,Wagholi Pune
		Expert Session on" Advanced Heat Transfer " M.E. (Heat Power)	Dhole Patil COE,Wagholi Pune
	Dr. V.V. Shinde	Reviewer of International European Journal of Engineering Education	SEFI European Sosiety for Engineering
2012-13		Technical Speech on " Optimization Techniques in Mechanical Engineering "	Ballarpur Institute of Technology , Chandrapur
	Prof.A.G. Kamble	Expert Session on " Mathematics & Software's	SKN COE , Pandharpur, Solapur.
		Expert Session on " Fluid Mechanics - I "	Shree Ramchandra COE, Lonikand, Pune

22. Student's projects

Sr.No.	Description	2015-16	2014-15	2013-14	2012-13
(a)	Percentage of students who have done in-house projects including interdepartmental/ programme	80.76	74.28	65.21	68.42
(b)	Percentage of students placed for projects in organizations outside the institution	19.23	25.72	34.79	31.57

23. a) Awards/ Recognitions received by faculty and students

Summary of awards is provided in the table

A) Faculty

Sr. No.	Name of Faculty	Details of Awards / Recognitions	Organization
1	Mr.M.W.Bhalwankar	Best Paper Award	IIT, Varanasi
2	Dr.V.V.Shinde	Young Innovator Award	Zee 24 Taas

Details of the patent filed by Faculty/Students

S.N.	Department	Patent	Project / Product
1	Mechanical	Dr.V.V.Shinde, 1613/MUM/2015 Dated 21/04/2015	Onsite hydrogen production and its use IC engine
2	Mechanical	Mr. Labade Aditya Madhukar, 3017/MUM/2015, Dated 10/08/2015	Supercharging of carburetor using naturally rammed air
3	Mechanical	Mr. Puneet Mathur & Bhushan Chaugule, Ravina Nangare & Dr. M.S. Rohokale, 3578/MUM/2015 Dated 21/09/2015	Duster detaching mechanism for automated motorized whiteboard
4	Mechanical	Patent filed by Mr. Puneet Mathur & Bhushan Chaugule 3341/MUM/2013 A Dated 24/10/2013	Automated Motorised Whiteboard

B) Awards / Recognitions received by students:

Academic Year	Name of Student	Details of Awards / Recognitions	Organization
2015-16	Akshay Moholkar Bhuvan Aneja 16 Arun Chavan		Zee 24 Taas
	Aditya V.Shinde	Best Outgoing student	SIT Lonavala
	Bhushan Chougule, Puneet Mathur	filed the Patent for "Automated Motorized White Board "	
2014-15	Saket Mani	Youth Ambassador for UN Millennium Program MY World Survey and the Ambassador for UNCSD Rio+20 India Program.	
	Arun Chavan, Bhuvan Aneja, Akshay Mohalkar,	Filed the Patent for 'On-site hydrogen production and its use in Internal Combustion Engine.'	
	Ms. Mayuri Deshmukh	Presented paper on Environment and damage.'	18 th NASAS national seminar on aerospace structure at VNIT Nagpur
	Shinde Aditya Dinesh	3 rd prize Technical paper presentation during 'TECHNOCHILL 2015'	ISHRAE Pune chapter
2013-14	Rahul Khullar Sagar Dalimbkar	Rahul Khullar Sagar DalimbkarII Prize for paper presentation	
2013-14	Puneet Mathur, Bhushan Chougule	Applied Patent	Indian Patent Office
2012-13	2012-13Saket ManiRepresentation by Govt. India, United Nations Conference on Biodiversi 2012		Hyderabad (Historic General assembly)
	Sujay Desai	I st ,prize XENOS 2012 TPP	S.I.T., Lonavala

Only Internal & external awards & recognition need to be considered.

Mudit Gupta , Rahul Khullar, Sujay Desai, Shantanu Batra	II nd Prize for Technical Paper Presentation" XENOS 2012 a National Level Event	S.I.T., Lonavala
Sagar Mahajan	II nd Prize in Robotics' XENOS 2012 a National Level Event	S.I.T., Lonavala
Sujay Desai, Shantanu Batra, Pankaj Shinde	II nd Prize in 'RINKISM- 12,XENOS 2012 a National Level Event	S.I.T., Lonavala
Bakul Shinde	II nd Prize for 'Optical Archery', XENOS 2012 a National Level Event	S.I.T., Lonavala
Pravin Pawar	I st Prize for 'Lathe War',XENOS 2012 a National Level Event	S.I.T., Lonavala
Reshma Chavan	I st Prize for 'Carpentry', XENOS 2012 a National Level Event	S.I.T., Lonavala

24. List of eminent academicians and scientists/ visitors to the department:

The following eminent persons have visited the institute:

Sr. No.	A.Y.	Name	Designation	Organization	Purpose of Visit
1	2015-16	Dr.P.N.Mahalle	Professor & Head Computer Engineering Department	SKNCOE, Vadgaon, Pune	Workshop on "Research Methodology"
2		Mr. A.P.Kulkarni,	Associate Professor	Vishwakarma Institute of Information Technology, Pune	Workshop on "Research Methodology"
3		Dr.A.K.Bewoor	Professor	MKSSS's Cummins College of Engineering for Women, Pune	Workshop on "Research Methodology"
4		Dr.C.S.Malvi	HOD Mech.	MITS Gwalior.	STTP on Renewable Energy
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5		Dr.Ajay Tripathi	Professor	MITS Gwalior.	STTP on Renewable Energy
6		Dr. S.S.Tipse,	Director ARAI Pune.	ARAI Pune	STTP on Renewable Energy
7		Mr. Mehul Daroka	-	Suzlon ltd pune.	STTP on Renewable Energy
8		Mr.Rajarshri Sen,	-	Wish energy Ltd Pune	STTP on Renewable Energy
9		Dr.Anindita Roy	Professor.	PCCOE Pune	STTP on Renewable Energy
10		Dr. Kumar G.N	-	NITK Surathkal	STTP on Hydrogen Energy
11		Dr. P Muthhukumar	-	IIT Kharagpur	STTP on Hydrogen Energy
12		Dr. N Saravanan	R&D Head	Mahindra Chennaai.	STTP on Hydrogen Energy
13		Dr. Phillip	General Manger	Phillips company.	STTP on Hydrogen Energy
14		Dr. Fabio Matera	Scientist	Italy.	STTP on Hydrogen Energy
15	2014-15	Mr. Avinash Pandurang Valavade	Retired Air Commodore	Indian Air Force	National Conference on Innovation in Mechanical Engineering
16		Dr D.N Malkhede	Head of Dept	College Of Engineering, Pune	State Level Workshop on Matlab for Mechanical Engineers
17	2012-13	Dr Venkanta Rao	Professor	SVNIT, Surat	National Conference on Innovation in Mechanical Engineering
18		Dr. Milind Atre	Professor	IIT Mumbai	National Conference on Advances in Thermal and Fluid Sciences.

25. S	eminars/	Conferences/Workshops	organized and	the source of	funding
a.	National	1			

Academic Year	Category	Title	Funding Agency
	Conference	4 th National Conference on "Innovations in Mechanical Engineering"	SPPU Pune
		STTP on "Renewable Energy"	Self Sponsored
			Self Sponsored
		National Level Workshop on Research Methodology	Self Sponsored
		02 days Workshop on Automobile Mechanics And I.C Engine Technology	Self Sponsored
2015-16	Workshop	02 Days Faculty Development Program on Autodesk Inventor 2015 & Autodesk Revit 2015	Self Sponsored
		03 days STP V Technical Workshop on Automation Studio 5.7, Process Planning and Tolerance Analysis and Piping Design	Self Sponsored
		Two days competition on Autodesk Inventor 3D Workshop and Challenge	Self Sponsored
		National Level Code Competition (NLCC).	Self Sponsored
		National Level Seminar on "Research Methodology"	Self Sponsored
		One day Seminar on Introduction to MATLAB	Self Sponsored
		Pre Eureka Workshop	Self Sponsored
	Workshop	Personality Empowerment and Employability Skills	Self Sponsored
2014-15	Seminar	Two days state level seminar on "Vibration Analysis & control"	Self Sponsored
	Conference	"3 rd Innovations in Mechanical Engineering"	Self Sponsored
2013-14	Workshop	Two Days Workshop on "Aspect of Academic writing "	Self Sponsored

		Three Days workshop on Robotics level 1 and Basics of Aviation on 6 th to 8 th September,2013	Self Sponsored
		Two Days Workshop on "ANALYSIS using ANSYS 11.0"	Self Sponsored
2012-13	Workshop	Two Days State Level Workshop on "Matlab for Mechanical Engineers"	Self Sponsored
	Ĩ	Three Days Workshop on Robotics level 1 and Basics of Aviation on 24 th to 26 th	Self Sponsored

b. International

Academic Year	Category	Title	Funding Agency
2015-16	Workshop	STTP on "Research oppurtunities and challenges in Hydrogen Energy"	Self Sponsored

26. Student profile programme/course wise:

A) UG Details

	Applications received	Soloctod (Total	Enrolled		
Academic Year	(CAP Allotment @ 80%)	Admissions)	Μ	F	
2015-16	288	362	349	13	
2014-15	288	370	352	18	
2013-14	288	371	346	25	
2012-13	192	250	233	17	

*M=Male F=Female

B) PG Details

Acadomia	Applications	CAP	Selected	Enr	olled
Academic	received (CAP		(Total		
1 cai	Allotment @ 80%)	Admissions	Admissions)	Μ	F
2015-16	14	8	18	17	1
2014-15	14	4	12	12	0
2013-14	14	9	17	15	2
2012-13	14	0	18	15	3

A. Y.	Male	Female	% Male	% Female
2015-16	349	13	93.26	3.59
2014-15	351	17	95.38	4.62
2013-14	346	25	93.26	6.74
2012-13	232	20	92.06	7.94

27. Diversity of Students

A.Y.	OPEN	OBC	SC	ST	DT/VJ	NT-1	NT-2	NT-3	OTHER
2015-16	179	104	28	4	5	6	17	13	6
2014-15	200	88	37	3	4	3	11	9	13
2013-14	218	84	29	5	1	5	11	9	9
2012-13	114	58	26	6	6	4	7	8	26

A. Y.	PUNE UNIVERSITY	OTHER UNIVERSITY	% PUNE UNIVERSITY	% OTHER UNIVERSITY
2015-16	184	178	50.83	49.17
2014-15	140	228	38.04	61.96
2013-14	55	316	14.82	85.18
2012-13	116	136	46.03	53.97

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc?

Academic Year	Number of Students participated in National & State Competitive Examinations					
	GATE	GRE	TOEFL	CAT		
2015-16	05	02	01	01		
2014-15	08	01	01	0		
2013-14	0	1	01	0		

29. Student progression

Student progression	Against enrolled				
	2015-16	2014-15	2013-14	2012-13	
UG to PG	-	14	7	7	
PG to M.Phil.	NA				
PG to Ph.D.	NA				
Ph.D. to Post-Doctoral	NA				
Employed					
 Campus selection 	99	33	16	7	
• Other than campus recruitment	2	39	26	31	
Entrepreneurship/Self- employment	3	1	4	_	

30. Details of Infrastructural facilities

- a) Library
- b) Internet facilities for Staff & Students
- c) Classrooms with ICT facility
- d) Laboratories

a. Library – YES

Departmental library contains books, journals, magazines, video lectures, E- journals, seminar reports and project reports of last four year for reference.

Sr. No.	Title	Details
1	No. Of Titles	32
2	No. Of Volumes	234
3	No. Of Journals(National)	28
4	No. Of International(E-Journals)	-

b. Internet Facilities for Staff & Students –Yes.

Wi- Fi Facility is given. Wi-Fi facility is upgraded to 64 Mbps for staff and students, the residential staff of all institutes, in the campus.

Internet is provided to all faculties with LAN connection. Personel Computers are provided to all faculties and some faculties are using their own laptops.

c. Classrooms with ICT facilities

Classrooms with ICT facilities Number of classrooms = Number of classrooms PG = Number of Seminar Rooms = Number of tutorial rooms =

1) Details of Classrooms

	r	
Room Descriptions	Capacity	Rooms equipped with
		Glass Board, OHP Screen with
D-103	80 students	OHP, LCD*, Fans, tubes
		internet, curtains
		Glass Board, OHP Screen with
D-106	80 students	OHP, LCD*, Fans, tubes,
		internet, curtains
		Glass Board, OHP Screen with
D-107	80 students	OHP, LCD*, Fans, tubes,
		internet, curtains
		Glass Board, OHP Screen with
D-108	80 students	OHP, LCD*, Fans, tubes,
		internet, curtains
		Glass Board, OHP Screen with
D-205	80 students	OHP, LCD*, Fans, tubes,
		internet, curtains
		Glass Board, OHP Screen with
D-208	80 students	OHP, LCD*, Fans, tubes,
		internet, curtains
		Glass Board, OHP Screen with
D-209	80 students	OHP, LCD*, Fans, tubes,
		internet, curtains
		Glass Board, OHP Screen with
D-210	80 students	OHP, LCD*, Fans, tubes,
		internet, curtains
		Glass Board, OHP Screen with
D-305	80 students	OHP, LCD*, Fans, tubes,
		internet, curtains
		Glass Board, OHP Screen with
D-306	80 students	OHP, LCD*, Fans, tubes,
		internet, curtains
D_307	80 students	Glass Board, OHP Screen with
D-307	ou sinnenns	OHP, LCD*, Fans, tubes,

			internet, curtains	
			Glass Board, OHP Screen with	
	D-309	80 students	OHP, LCD*, Fans, tubes,	
			internet, curtains	
Details of	of Seminar Hall			
	Room Descriptions	Capacity	Rooms equipped with	
	D-102	120 students	OHP Screen with OHP, LCD*, Fans, tubes, curtains, PA System, Podium	

Details of PG Class Rooms:

Room Descriptions	Capacity	Rooms equipped with	
D-302	20 students	Glass Board, OHP Screen with OHP, LCD*, Fans, tubes, curtains	
D-309 (Shared)	20 students	Glass Board, OHP Screen with OHP, LCD*, Fans, tubes, curtains	

Details of Tutorial Rooms:

Room Descriptions	Capacity	Rooms equipped with	
WF-001	20 students	Glass Board, OHP Screen with OHP, LCD*, Fans, tubes, curtains	
WF-002	20 students	Glass Board, OHP Screen with OHP, LCD*, Fans, tubes, curtains	

d. Details of Laboratories

Sr. No.	Name of the lab	Name of faculty In charge	Room No
1	Theory of Machines	Ms. P. P.Jawale	D-005
2	Dynamics of Machines	Mr. A.R.Wasnik	D-006

3	Hydraulics and Pneumatics	Mr. V. V. Gaikwad	D-004
4	Metrology and Quality Control	Mr. N.V.Lakal	D303
5	Fluid Mechanics	Mr. V.M.Ugare	D-003 ,D-004
6	Heat Transfer	Mr. S.V.Karankotti	D-109, D-111
7	Mechatronics	Mr. M.M.Tayde	D-207
8	CAD/CAM – I	Mr. C.R.Kamthane	D203
9	CAD/CAM – II	Mr. N. S. Hirulkar	D202
10	ME Lab	Mr. H.S. Keesari	D104
11	Refrigeration and Air Conditioning	Dr. B.R.Chaudhari	D-207
12	Metallurgy	Mr. P. E. Lokhande	D-109, D-111
13	Basic Mechanical Engineering	Mr. S.M.Muley	D-308
14	Turbo Machines	Mr. A. G. Kamble	Shed (S002)
15	Power Plant Engineering	Mr. A.R.Narode	Shed (S001)
16	Drawing Hall	Mr. S.V. Chavan	M1, M2
17	Project Laboratory	Mr.R.S.Sayare	G-105
18	Skill Development	Mr. S.I.Bharadia	G-102
19	Energy Research Center	Mr. S.V.Karankoti	D-008
20	Applied Thermodynamics	Mr. R. S. Patil	Shed (S004)
21	Strength of Material	Mr. M.N.Chougule	Shed (S003)
22	Workshop, SE (Mech) TE (Mech)	Mr. P. D. Kulkarni	Workshop (G Building)
23	Store	Department	D-007

31. Number of students receiving financial assistance from College, university, government or other agencies

Year	Category	No. of Students
	EBC	232
	NT	36
	SC	28
2015-16	OBC	104
	SBC	6
	VJ	5
	ST	4
	EBC	225
	NT	22
	SC	37
2014-15	OBC	75
	SBC	4
	VJ	4
	ST	3
	EBC	230
	NT	25
	SC	28
2013-14	OBC	76
	SBC	6
	VJ	1
	ST	5
	EBC	135
	NT	19
	SC	26
2012-13	OBC	55
	SBC	2
	VJ	7
	ST	6

	EBC	77
	NT	6
	SC	12
2011-12	OBC	24
	SBC	2
	VJ	1
	ST	3

32. Details on student enrichment programmes (special lectures / workshops / seminars) with external experts

Sr. No.	Student Enrichment Programmes Details	No. of Participants	
	Academic year 2015-16		
	1. Value Addition Programs		
1	Autodesk Inventor 2015	30	
2	Creo Parametric 1.0	42	
3	CATIA V5	30	
	2. Guest Lectures		
1	GRE Preparation by Mr. Dayanand M., GRE Coaching		
1	Institute Pune. 6 July 2015	85	
2	Automotive Industry by Mr. A. S. Ranade, Retired		
Δ	manager from TATA Motors 7 July 2015	80	
3	GATE Coaching and Preparation by Mr. Nitin Prasad & Mr.		
5	Gaurab Barua, GATE Academy Banglore 9 Sept. 2015	180	
	3. Workshop / Conferences organized		
1	02 days (10th and 11th Aug., 2015) National Level	67	
1	Workshop on Research Methodology	02	
2	02 days Workshop on Automobile Mechanics And I.C	08	
2	Engine Technology	90	
2	02 Days Faculty Development Program on Autodesk	50	
3	Inventor 2015 & Autodesk Revit 2015	30	
	03 days STP V Technical Workshop on Automation Studio		
4	5.7, Process Planning and Tolerance Analysis and Piping	213	
	Design		
5	One day Seminar on Introduction to MATLAB	45	
6	Two days competition on Autodesk Inventor 3D Workshop	73	
0	and Challenge	15	
7	National Level Code Competition (NLCC).	66	
8	LOGO Competition	12	
4. Industrial Visits			
1	Pethe Engineering Pvt. Ltd 9–10 sept. 2015	223	
2	Adlabs Imagica, Raigad 15 sept. 2015	46	
3	Parle Biscuits Pvt. Ltd. Khalapur 24 sept. 2015	50	
4	Vindhyachal Hydro Power Plant Ltd. Pune, 9 Jan 2016	127	

5	PMC Water Supply Division, Pune, 13 Feb 2016	127	
6	Pethe Engineering Pvt. Ltd 8-9 March 2016	222	
	Academic year 2014-15		
	1. Value Addition Programs		
1	Ansys workbench 03rd Feb 2015 to 25th march 2015	25	
2	Catia V5R20- 6th Jan 2015 to 2nd Feb. 2015	25	
3	CREO Parametric 1.0 Batch2-27th July 2014 To 4th September 2014	25	
4	CREO Parametric 1.0 Batch1-17th July 2014 To 17th August 2014	25	
5	CATIA V5R 20 9th July 2015 To 17th August 2014	25	
	2. Guest Lectures		
1	Energy Audit 20 th March 2015 Mr. Sachin Deshpande & Mr. Pramod Daspute	53	
2	Defense Exam Preparation 14 th March 2015 Mr. Prasad Jagtap	80	
3	Personality Development 21 February 2015 Mr.Ganesh Thevar	35	
4	CFD Applications For Research 9 th September 2014, Mr.Sameer Latkar	30	
5	Personality Development Techniques, 1 st September 2015, Mr. Rahul Deshmukh	78	
6	Importance Of Materials Science. 25 th August 2014, Mr.Aniket Jadhav	40	
7	Heat Transfer, 16 th August 2014, Late Col. O.P.Mishra	70.	
	3. Workshop / Conferences organized		
1	Two Day Workshop on "Personality Empowerment & Employability Skills Enhancement", Mr. Ramesh Sood, 26 th and 27 th February 2015	100	
2	3 rd national conference on "innovations in mechanical engineering", Jan 9–10 th , 2015	85	
3	Two days state level seminar on "Vibration Analysis and control, Dr. R.B.Ingale, Mr. Sidhartha Gupta, Mr. Nitin Desai , Mr. Pawan Goswami, Dr. S. Maniwasgam, 12th Sept & 13 th Sept 2014	153	
4	"Robo racing event,Destino 3d challenge,Lathe war,Hovercraft racing,Energy contraption" in TechTonic 14 a National Level workshop held on 18 th – 20 th Jan 2015	Open to all	
4. Industrial Visits			
1	Maharashtra Jeevan Pradhikaran Water Management, Badlapur. 14 th Feb 15	148	
2	Sant Tukaram Sakhar Karkhana 25 th Oct, 15 And 27 th Oct.	450	

	15	
3	Pethe Engineering, Lonavala 21 st Sept, 2014	25
4	PMC's Biomethanation Cum Power Generation Plant, Pune.18/9/2014	20
5	Study Of Automation By Means Of Hydraulic And Pneumatic System, Adlabs Imagica, Lonavala 10 th Sept, 2014	120
6	ABU Robocon International, Pune., 24th Aug, 2014	15
7	Volkswagen Chakan Plant, Pune, 29th July, 2014	60
	Academic year 2013-14	
	1. Value Addition Programs	
1	"ANSYS" By Matrix Solutions, Pune 20 th Jan, 2014 to 12 th March 2014	25
2	"Creo" By Matrix Solutions, Pune 13 th July, 13 to 19 th July, 13	70
	2. Guest Lectures	
1	Online software for Machine Design, 04 th April, 2014, Mr. Ghanashya Warke, (Manager Business Development)	50
2	Robotics & Its Current Application in Industry. 20 th Feb, 2014, Mr. Diwesh Meshram, (Asst. Professor)	130
3	Current Trends in software Application, 21/02/2014, Mr. Ameya Khambete, (Software Developer)	216
4	Simulation & automation of m/c, 16 th Oct, 2013, Mr. Nilesh Uplap (India soft Tech. Pvt. Ltd)	38
5	Recent trends in cad-cam & its application, 17 th August 2013, Prof G.S.Waghmare, (SITS, Narhe)	72
6	How to prepare gate exam 2014. 17 th August 2013, Mr. Manoj Mugale (NBNCOE Pune)	68
7	Energy management, 18 th July 2013, Mr. Nikhil Jain(Elekin Power Pvt. Ltd,Pune)	40
8	Introduction to mechanical design software, 13 th July 2013, Mr.Vikram Chakradhar (Idea map Pvt. Ltd Pune)	95
9	Management techniques, 13 th July 2013, Mr. N.S.Joshi (SIT MBA)	78
10	Process development software, 05 th July 2013, Miss Tanushree Mehta (EDS Technology Pune)	150
11	Introduction to CAD/CAM & CAE, 28 th June 2013, Mr. Ashish Bafna (Matrix Design & Training Institute of Pune)	150
	3. Workshop / Conferences organized	
1	Workshop on Aspects of academic writing-23 rd August 2013 to 24 th August 2014	39
2	"Robo racing event, Destino 3d challenge, Lathe	Open to all

war,Hovercraft racing,Energy contraption" in TechTonic 14 a National Level workshop held on 4 th -6 th Feb. 2014						
4. Industrial Visits						
1	1 Pethe Engg Pvt Ltd, Lonavala. 02 nd April 2014					
2	Gas Turbine power station Uran. 03 rd March 2014	76				
3	Maharashtra Jeevan Pradhikaran Water management, Badlapur. 01 st March 2014	123				
4	Hydro Electric power Plant, Chas Kaman. 15 th Feb 2014	120				
5	Katraj Dairy Pune. 16 th Oct 2013	152				
6	Piaggio vehicles, Baramati. 22 nd Sept, 2013	59				
7	Pethe Engg Pvt Ltd. Lonavala. 21 st Sept 2013	250				
8	Enprotech solution Pvt. Ltd, Pune. 13 th Sept 2013	70				
	Academic year 2012-13					
	1. Value Addition Programs					
1	VAP, LCD and Lab Innovations are the major platforms to develop skills.(MATLAB)	40				
	2. Guest Lectures					
1	Guest lecture on Youth leadership training programmed arranged by NSS Cell., July 2012	50				
	3. Workshop / Conferences organized					
1	United Nations Conference on Biodiversity 2012 held at Hyderabad (Historic General assembly) (Saket Mani) 9 th – 12 th Oct-2012	01				
2	"Technical Paper Presentation, Robotics, Lathe War, RINKISM-12" XENOS 2012 a National Level Event Organized by S.I.T., Lonavala 31 st Aug- 01 st Sep-2012	Open to all				
3NCC Annual training Camp held at Shivne Dist: Pune, 26 th June to 5 th July 20121		12				
	4. Industrial Visits					
1	M/S Enprotech Solutions,Pune	71				
2	Someshwar Sahakari Sakhar Karkhana Ltd, Baramati , Pune	150				

33. Teaching methods adopted to improve student learning

Department practice blend of Activity based and Project based learning in addition to traditional lecture-based learning.

To improve classroom learning, department has applied following practices

- Teachers are allotted subject as per their choice and specialization
- Teachers are asked to prepare semester-long teaching plan and course file before the start of the semester.
- Each teacher is asked to prepare soft copies of their notes and Powerpoint presentations for the course content. Same is shared with the students by using ERP software and in the classrooms.
- To simplify Teaching Learning process teaching aids are provided for conducting lectures.
- Models, videos, and animations are used by faculty members to elaborate concepts as per the complexity of the topic.
- Lab experiments and homework in the form of assignments is given to students
- Lectures with self-learning session and mid-lecture activities are added to the timetable.

Project Based and Active Learning

- Department has designed three courses based on the Project Based Learning (PBL) concept. In these courses, students are asked to work on the projects. Students informed that learning in PBL environment is better that traditional lectures. Also, it is useful for promoting professional and process skills.
- Lab Innovations is another activity in line with PBL principles, in which students are allowed to work on their ideas. This activity also results in improved learning and creation of useful lab models.
- Also, students are motivated to work on of ongoing research projects.
- Capstone projects are compulsory projects for the final year students.
- Project exhibition and various technical festivals provide an opportunity for active learning.
- Expert talks and Industry expert Seminars are arranged to bridge the knowledge gap of the students.

Assessment Method

- Direct assessment of the course was done by alumni, industry and experts from professional bodies.
- Various tests (Unit test and Prelim, Online, etc.) are used for assessment.

- Mock tests are conducted to evaluate the students' understanding.
- Industry experts are included during the revision of the course at university level.
- Feedback from alumni and final year student are taken into account during the revision of the PEO's at the institute.
- Indirect assessment is done through campus interviews and performance of students in competitive exams like GATE, GRE, and CAT, etc.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

	A.Y.	2015-16
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Sr. No	Day and Date	Program	Details	Participation
1	3- 5 March 2015	Gadsanvardhan Shibir	University Level Camp for maintaining heritage and to clean the Forts	2 Volunteer
2	21 June 2015	Yoga Day	Yoga Shibir was Organized on the Occasion of International Yoga Day	
3	25 -31 December 2015	Winter Camp Kadade Village, (Tal Maval Dist: Pune)	 Activities in Camp Save Girl Rally and Drama Tree Plantation Renewable Energy Lecture Computer Knowledge to rural Students Mental Development of Students Awareness amongst Villagers for importance Toilet in Home 	25 Volunteer + 1 Programme Officer
4	2015-2016	Motivational Lectures	 One of our staff member works as a motivational speaker. He visited no.of villages to motivate farmers, students and sparking them to find their role in the development of Country 	

A.Y. 2014-15

Sr. No	Day and Date	Program	Details	Participation
1	11- 25 Jan 2015	Road Safety Programme	Organized Lecture on Road Safety, Street Play and Rally	25 Volunteer
2	14 Feb 2015	Blood Donation Camp	Organized and Participated Blood Donation Camp in support of Smt Kashibai Navale Hospital	130 Students
3	26 Jan 2015	Street Play on Helping Victim Of accident	Organizes Street plays	15 Volunteer
4	24 Feb - 2 March 2015	Winter Camp	Pawana Nagar (Kamshet) Tal Maval Dist: Pune	25 Volunteer + 1 Programme Officer

A.Y.13-14

Sr. No.	Day and Date	Program	Details	Participation
1	26 Jan 2014	Tree Plantation on Republic Day	Tree Plantation on the occasion of Republic Day in Presence of President M.N Navale	50 Volunteers
2	02 Feb 2014	Blood Donation Camp	Organizes and Participate Blood Donation Camp at Reading Hall	50 volunteers
3	Jan 2014	Street Play –Stri Shakti Naka Smajo Kami	Organize street play on the occasion of college Gathering	20 Volunteers
4	28 Jan 2014 - 3 rd Feb 2014	Special Camp	Vill Chiklase Tal Maval Dist Pune	25 volunteers

Sr. No.	Day and Date	Program	Details	Participation
1	Nov 2012	Youth Development Art Of Living Foundation	Conduct Programme for the personality development of Students	35
2	5 Sept 2012	Celebration of Teacher Day	Celebrate Teacher Day	50
3	1March 2014	Visit Ghodegao (Junnar)	Visit Schedule Tribal Area For understanding the problem of Tribal People	10
4	26 Feb 2013 to 4 march 2013	Organized Special Camp at Asade ,Tal Mulsi Dist Pune Special Camp	Conducted School Development programme, Shramdhan at village ,Computer literacy programme	25

A.Y.12-13

35. SWOC analysis of the Mechanical Engineering Department and future plans

SWOC Analysis

Strength Weakness Opportunity Challenges (SWOC) analysis used to identify the acquired and inherent strengths along with weaknesses of the department. Furthermore, it is also carried out to identify the opportunities to excel and improve, to negotiate the challenges faced by the department from the internal and external environment.

Strengths:

- Learning environment is a blend of traditional teaching and Project Based Learning and Activity Based Learning.
- The mechanical department has pool of well qualified and experienced faculty
- Faculty from IIT and NIT for academic and research work
- Well maintained labs to support curriculum
- Classrooms equipped with good quality LCD projectors, screen, and ambiance.
- State of the art patent based research
- MoU with the industries for research and development

• Research publication and books

Weaknesses:

- Inadequate Professor
- Inadequate consultancy activities

Opportunities:

- To achieve university rank
- Interdisciplinary approach in research & industrial training
- Good opportunity for community projects
- Opportunity to become renewable energy model department
- Environmental consciousness

Challenges:

- Admission challenge due to geographic location
- Low ranks and diversity of incoming students.
- Induction and retention of faculty

Future Plans:

- To establish an Energy research Centre
- Centre for Project Based Learning research
- To establish a Ph.D. center

Department of Electronics and Telecommunication Engineering

Evaluative Report of the Department

- 1. Name of the department: Electronics and Telecommunication Engineering
- 2. Year of Establishment: 2004
- 3. Names of Programs / Courses offered:

Course	Name of the	Specialization	Year of
offered	course	Specialization	Establishment
	BE (1st shift)	Electronics and Telecommunication	2004 05
UG	D.L.(1st shift)	Engineering	2004-03
0.0.	BE (2nd shift)	Electronics and Telecommunication	2010 11
	D.E.(2110 SHITt)	Engineering	2010-11
P.G.	M.E.	E&TC (VLSI & Embedded System)	2010-11

4. Names of Interdisciplinary courses and the departments/units involved:

Following Interdisciplinary courses are involved in curriculum of programs:

Sr.No	Name of Interdisciplinary course	Department
1	Engineering Mathematics-III	Engineering science
2	Data Structures	Computer Engg.
3	Environmental Studies	Engineering science
4	Computer Network	Computer Engg./ IT

5. Annual/ semester/choice based credit system (programme wise):

Sr.No.	Course Offered	Programme	Duration	System	Evaluation
		Electronics and	4 vears	8	
1	U.G.	Telecommunication	r years	Somostor N	Marks
		Engineering		Semester	
2	DC	E&TC (VLSI & Embedded	2 100000	4	Cradita
	F.U.	System)	² years Semester	Credits	

6. Participation of the department in the courses offered by other departments:

Sr.No.	Courses Offered	Department
1	Electronics and Electrical Engineering	Mechanical Engg.

2	Mechatronics	Mechanical Engg.
3	Basic Electronics Engineering	Engineering Science

7. Courses in collaboration with other universities, industries, foreign Institutions, etc.:

Sr.No.	Name of the course	Participating institution /industry
1	VAP-Industrial Automation	Educate to Automate, Nigdi, Pune
2 VAP - Programming with		Global Infotech,Sahyadri
2	C,C++,Core Java	Heights,Lonavala
3	Gate Training	Imperial institute of Excellence,Pune
4	Introduction to Indusrial	Vantra Harvest Energy Dut I to Dune
4	Automation training programme	
5	IIT Spoken Tutorials	IIT Bombay

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of teaching posts

A. For Undergraduate Programme

Teaching posts	Sanctioned	Filled
Professors	4	3
Associate Professors	8	4
Asst. Professors	36	40
Total	48	47

B. For Postgraduate Programme

Teaching posts	Sanctioned	Filled
Professors	02	01
Associate Professors	02	03
Total	04	04

9. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil., etc.,)

Sr. No.	Name of faculty	Designation	Qualificatio n	Specialization	No. of Years of Experi ence	No. of Ph.D. Studen ts guided for the last 4 years
1	Dr. M S Gaikwad	Professor & Principal	Ph.D.	Communication	32	01
_	Dr. D. D.	Professor	M.E			
2	Chaudhary	&Vice Principal	Ph.D.	Communication	30	Nil
		HOD & Asso.	M.E.	VLSI &	17	
3	Mr. V.V. Deotare	Prof.	Ph.D. Pursuing	Embedded Systems	17	N1l
			M.E.	Electronics		
4 Mr.D.S. Mantri	Mr.D.S. Mantri Asso. Prof.	Ph.D. Pursuing	Wireless communication	24	Nıl	
5	Dr. D. K. Singh	Professor & Dean R &D	Ph.D.	Electronics	25	Nil
6	Ms. S.S. Patil	Asso. Prof.	M.E. Ph.D.Pursuin g	Electronics Wireless Communication	18	Nil
7	Mr. S. B Gholap	Asso. Prof	M.E. Ph.D. Pursuing	Communication Cognitive radio	20	Nil
			ME	Communication		Nil
8	Dr. J.R. Gangane	Professor	MI.L.	communication	25	Nil
			Ph.D. Pursuing	wireless communication		Nil
9	Mr. V.V. Mapare	Asst. Prof	M.E.	Electronics and Telecommunicatio n	18	Nil
			Ph. D. Pursuing	Wireless communication		
10	Mrs. S .V. Mapare	Asst. Prof	M.E. Ph. D.	Electronics Wireless Sensor	16	Nil
	T. T		Pursuing	Network		

11	Mr. P. R. Dike	Asso. Prof	M.E PhD Pursuing	Electronics	10	Nil
12	Mr. R.V. Babar	Asso. Prof	M.E. Ph.D. Pursuing	VLSI & Embedded	10	Nil
13	Mrs .P. A. Kamble	Asst. Prof	M.E.	Digital System	10	Nil
14	Mrs. S. S.Bhardwaj	Asst. Prof	M.E.	Digital System	12	Nil
15	Mrs.S.V. Shinde	Asst. Prof.	M.E. PhD Pursuing	Digital System	8	Nil
16	Mrs.V.S. Baste	Asst. Prof	M.E.	Communication	10	Nil
17	Mrs. D.K. Shende	Asst. Prof	M.E.	VLSI & Embedded	11	Nil
18	Mr. A.R. Patil	Asst. Prof	M.E.	VLSI & Embedded	14	Nil
19	Mr. A. A. Labade	Asst. Prof	M. Tech	Communication	13	Nil
20	Ms. V. G. Rajeshwarkar	Asso. Prof	M.Tech. PhD Pursuing	Wireless Communication	17	Nil
21	Mr. G V Lohar	Asst. Prof	M.E.	Wireless Communication	15	Nil
22	Mrs. S. K. More	Asst. Prof	M.E.	Digital System	5	Nil
23	Mr. M.K. Bhosale	Asst. Prof	M.E.	Wireless communication	4	Nil
24	Mr. S.A. Bhad	Asst. Prof	M.E	Telecommunicatio n Engineering	10	Nil
25	Mr. M .S. Jadhav	Asst. Prof	M.S	Wireless communication	4	Nil
26	Mr. S.N. Shinde	Asst. Prof	M.Tech.	Control system	4	Nil
27	Mr. V. M. Chavan	Asst. Prof	M.E.	VLSI & Embedded System	5	Nil
28	Mrs. V. V. Velhal	Asst. Prof	ME	Electronics	10	Nil
29	Miss. L. D. Desai	Asst. Prof	ME	Electronics	7	Nil
30	Mrs. D. N. Duche	Asst. Prof	ME	Communication	7	Nil
31	Mr. D. B. Patil	Asst. Prof	M.E. Ph.D. Pursuing	Communication	6	Nil

32	Mr. P. C. Latane	Asst. Prof	M.E.	Communication	14	Nil
33	Mr. M. S. Raut	Asst. Prof	M.Tech, Ph.D. Pursuing	VLSI and Embedded System	2.5	Nil
34	Mrs. P. S. Mhetre	Asst. Prof	M.E	VLSI and Embedded System	2	Nil
35	Mr. S. D Shinde	Asst. Prof	M.E	E&TC	1	Nil
36	Mr. Tushar D.Mohite	Asst. Prof	ME	VLSI & Embedded System	1	Nil
37	Mr. N.N. Pachpor	Asst. Prof	MCA, MTech Pursuing	Computer Science Engineering	10	Nil
38	Miss S.R. Kharabe	Asst. Prof	ME	VLSI and Embedded System	0	Nil
39	Miss N.B. Shitole	Asst. Prof	ME Ph.D. Pursuing	VLSI and Embedded System	2	Nil
40	Mr. G.A.Bhalerao	Asst. Prof	ME	Electronics (Digital System)	13	Nil
41	Mr. N.S.Nalawade	Asst. Prof	ME	E&TC	5	Nil
42	Miss P.K. Nirajane	Asst. Prof	ME	VLSI and Embedded System	0	Nil
43	Mr. Amol Nagime	Asst. Prof	ME	VLSI and Embedded System	2	Nil
44	Jain Dheeraj D.	Asst. Prof	ME	VLSI and Embedded System	1	Nil
45	Nadgouda Amrut M.	Asst. Prof	ME Pursuing	VLSI and Embedded System	1	Nil
46	Choudhari Ashlesha S.	Asst. Prof	ME Pursuing	VLSI and Embedded System	1	Nil
47	Rathod Mohan P.	Asst. Prof	ME Pursuing	VLSI and Embedded System	1	Nil
48	Khot Sandip B.	Asst. Prof	ME Pursuing	VLSI and Embedded System	1	Nil
49	Patle Bhavika M.	Asst. Prof	ME Pursuing	VLSI and Embedded System	1	Nil
50	Raut Mohini S.	Asst. Prof	ME Pursuing	VLSI and Embedded System	1	Nil

51	Wawge Ananta N.	Asst. Prof	ME Pursuing	VLSI and Embedded System	1	Nil
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11 List of Senior Visiting Faculty: - Nil

12 Percentage of Lectures delivered, and practical classes handled [Program wise] by temporary Faculty: Nil

13 Student Teacher ratios:-

Year	Students' Intake	Teacher(s)	STR for UG	STR for PG
2015-16	720	51	15:1	12:1
2014-15	720	47	15:1	12:1
2013-14	660	34	17:1	14:1
2012-13	480	30	16:1	9:1

14 Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Type of Staff	Sanctioned	Filled
Technical Assistant	2	4
Lab Assistant	4	6
Administrative Staff	1	1

15 Qualification of teaching faculty

Sr. No	Qualification	No of Teaching faculty
1	Ph.D.	04
2	Ph.D. pursuing	12
3	P.G.	27
4	P.G.pursuing (U.G.)	08
	Total	51

16 Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Number of faculty with National ongoing projects	Amount received	Number of faculty with International ongoing projects	Amount received
02	2,82,000/-	01	INR 1,32,000

17. Departmental projects funded by DST, FIST; UGC, DBT, ICSSR, etc. and total grant received

Sponsored Projects

A.Y	Faculty	Title Of The Project	Sponsoring Agency	Sponsorship Amount	Status Of Proposal
2015-16	Mr.S.B. Gholap	Cognitive radio testbed for spectrum sensing application	BCUD University of Pune	INR 75,000/-	On going
2014-15	Mr.S.B. Gholap	Cognitive radio testbed for spectrum sensing application	BCUD University of Pune	INR 75,000/-	On going
	Mr.S.D. Nawale	RFID Tag	Erasmus Mundus Mobility for Life	INR 12.96 Lac	Completed
2012-13	Mr. S.D. Nawale	"Design and Implementation of Dual – Band Microstrip Filter"	BCUD University of Pune	INR 1,90,000/-	Completed
	Mr. V.V. Deotare	"Digital System Modeling and partitioning using HW/SW Co-Design and Validation on FPGA".	BCUD University of Pune	INR 2,00,000/-	Completed
	Mr. S.B. Gholap	"Estimate delay and its Analysis in Spectrum Sensing for Cognitive Radio for Wireless Communication."	BCUD University of Pune	INR 2,00,000/-	Completed
	Mr. R.V. Babar	"Synthesizing FPGA cores for Software Defined Radio."	BCUD University of Pune	INR 2,64,000/-	Completed

A.Y.	Name Of Faculty	Title Of The Project	Amount Of Funding	Status Of Proposal
2015 16	Prof.S.S.Patil	"Energy Aware Management for Internet of Things"		
2015-16	Prof.D.S.Mantri	"Energy Efficient Bandwidth management in Wireless Sensor Network"	31 5 Lac	Ongoing
	Prof.S.S.Patil	"Energy Aware Management for Internet of Things"	5115 Luc	ongoing
	Prof.D.S.Mantri	"Energy Efficient Bandwidth management in Wireless Sensor Network"		
2012-13	Dr. J.R. Gangane	"Performance of SC-FDMA with Diversity Techniques for Land Mobile Satellite Channel "	7.5 Lac	Completed
	Dr.T.S. Dhope	"Cognitive Radio Networks Optimization with Spectrum Sensing Algorithms"	7.5 Lac	Completed
	Dr.V.M. Rohakale	Ph.D. at Alborg University, Denmark	31.5 Lac	Completed

B) STES's funding

18 Research Center /Facility recognized by the university: NIL

19. Publication

Sr. No	Name of Faculty	No. of papers published in peer- reviewed journals Faculty/students	Number of publications listed in International National conference	Monographs	Chapter in Books	Books Edited	Books with ISBN in international DB	Citation Index	SNIP	SJR	Impact Factor	h-index
1	Dr.Gaikwad Manik Sakharam	5	7	-	-	-	-	59	-	-	-	5
2	Dr.Chaudhary Dilip Damodar	4	5	-	-	-	01	108	-	-	-	4
3	Dr.Singh Dhananjay Kumar	3	2	-	-	-	-	-	-	-	-	
4	Mr. Mantri Dnyaneshwar Shriranglal	7	16	-	-	1	1	77	-	-	-	5
5	Mr. Deotare Vilas Vasudeo	8	4	-	-	-	-	35	-	-	-	2
6	Mrs. Rohokale Vandana Milind	4	1	-	1	-	-	-	-	-	-	
7	Mr. Gholap Sharad Balasaheb	9	1	-	-	-	-	1	-	-	-	0
8	Ms. Patil Sulakshana Sudhakar	5	2	-	-	-	-	0	-	-	-	0
9	Mr. Nawale Shankar Dattatraya	4	1	-	-	-	-	64	-	-	-	4
10	Mrs. Gangane Jyoti Ramesh	6	4	-	-	-		-	-	-	2.125	2
11	Mrs. Dhope Tanuja S	2	3	-	-		-	-	-	-	0	
12	Mr. Kate Sandeep M	2	1	-	-	-	-	0	-	-	-	0
13	Mr. Dike Prashant Rajaramji	1	1	-	-	-	-	0	-	-	-	0
14	Mr. Babar Rajendra Vithal	12	11	-	-	-	-	1	-	-	-	1
15	Mrs. Kamble Pradnya Avinash	0	2	-	-	-	-	0	-	-	-	0
16	Mrs. Bhardwaj Sanika Sagar	8	1	-	-	-	-	-	-	-	-	
17	Mrs. Shinde Shilpa Vikas	2	3	-	-	-	-	0	-	-	-	0
18	Mrs. Baste Vaishali Sandeep	3	0	-	-	-	-	0	-	-	-	0
19	Mrs. Shende Dipali	5	0	-	-210	-	-	-	-	-	-	

	Kedar											
20	Mr. Labade Anand Arjun	0	1	-	-	-	-	0	-	-	-	0
21	Ms. Rajeshwarkar Vijaya Gopalrao	2	2	-	-	-	-	0	-	-	-	0
22	Mr. Wagh Sharad	1	1	-	-	-	-	0	-	-	-	0
23	Mr. Mapare Vilas Vasantrao	3	7	-	-	-	-	-	-	-	-	
24	Mrs. Mapare Shital Vilas	2	4	-	-	-	-		-	-	-	
25	Mr. Lohar Ganesh Vanji	0	3	-	-	-	-	0	-	-	-	0
26	Mrs. More Shital Kiran	2	0	-	-	-	-	0	-	-	-	0
27	Mr. Bhad Sharad Arun	1	1	-	-	-	-	0	-	-	-	0
28	Mr. Chavan Vikram Madhukar	0	1	-	-	-	-	0	-	-	-	0
29	Mrs. Vaishali V. Velhal	0	1	-	-	-	-	0	-	-	-	0
30	Ms. Desai Lina Dinkar	0	1	-	-	-	-	0	-	-	-	0
31	Ms. Duche Dipashree Navanath	1	2	-	-	-	-	0	-	-	-	0
32	Mr. Patil Deepak Balaso	1	1	-	-	-	-	0	-	-	-	0
33	Mr. Latane Pravin Chandrakant	3	2	-	-	-	-	0	-	-	-	0
34	Mr. Raut Mayur Sahebrao	6	0	-	-	-	-	0	-	-	-	0

20. Areas of consultancy and income generated

Title of Project	Industry Name	Amount in Rs.
Wireless Home Security System	Combit Technology Pune	25,000.00
Machine Vision Tools and Algorithm	Halconminds Tech.LLP Pune	40,000.00

21 Faculty as members in

a) National committees b) International Committees c) Editorial Boards

Sr.No.	Committees	No. of Faculties
1	National Committees	01
2	International Committees	03
3	Editorial Board	01

Name of Faculty	Committee	Conference and Journal		
	Editorial Boards	International Journal of Wireless&		
	Eutonal Boards	Mobile Netwrk		
	International Conference	2013 IEEE SYMPOSIUM ON		
Dr. D. D. Chaudhary	(Technical Committee)	COMPUTER &INTERNET		
	International Committee	ICIBM 2012		
	(Reviewer)	ICARCV2010		
	International Journal	MDPI 2015		
	(Reviewer)			
Prof D S Mantri	Editorial Boards	AdHOC Networks Elsevire		
1 101. D. S. Manuf	Eutonal Doards	Amsterdam, Netherlands		
	International Journal	Athens Journal of Technology &		
	(Reviewer)	Engineering May 2016		

22. Student projects

Sr.No.	Description	2015-16	2014-15	2013-14	2012-13
(a)	Percentage of students who have done in-house projects including interdepartmental/ programme	86.00%	82.86%	97.95%	87%
(b)	Percentage of students placed for projects in organizations outside the institution	14.00%	17.14%	2%	13%

23. Awards/ Recognitions received by students & faculty:

a) Awards/ Recognitions received by faculty:

Sr. No.	Name of Faculty	Patent	Project/Product
1	Dr. D. D. Chaudhary	1912/MUM/2013 Dated 31/05/2013	Innovative vehicle regulatory system using wireless vehicle terminal unit
2	Mrs. S. V. Mapare	4177/MUM/2015 Dated 21/12/2015	Design of Electronic Sensor for Soil Monitoring

b). Awards / Recognitions received by students:

Inter -institute Awards gain by students

Academic	Name of The	Details of Awards /	Organization
Year	Student	Recognitions	
	Shubham Rachalwar	Winner in ECC Championship (Volley Ball)conducted by e- SITizen club	SIT Lonavala
	Onkar Patil	Winner in ECC Championship (Volley Ball)conducted by e- SITizen club	SIT Lonavala
	Amar Gadve	Winner in ECC Championship (Volley Ball)conducted by e- SITizen club	SIT Lonavala
	Pankaj Pandhare	Winner in ECC Championship (Volley Ball)conducted by e- SITizen club	SIT Lonavala
2015 16	Sandeep Kumar	Winner in ECC Championship (Volley Ball)conducted by e- SITizen club	SIT Lonavala
2013-10	Gajanan Dalve	Winner in ECC Championship (Volley Ball)conducted by e- SITizen club	SIT Lonavala
	Madhuresh Singh	Winner in ECC Championship (Volley Ball)conducted by e- SITizen club	SIT Lonavala
	Sagar Sawale	Winner in ECC Championship (Volley Ball)conducted by e- SITizen club	SIT Lonavala
	Akshada Phaple	Winner in Mehandi Competition in Surabhi	SIT Lonavala
	Gardli Dipali	Rain Merathon(1 st)	SIT,Lonavala
	Pratik Somaiya	Entrepreneurship development cell	SIT,Lonavala

	Ujwal Jhalani	Selected as employability Leader	Employability leadership program2015,Hotel,Hyult	
	Pawar Govindrao Gopal	Selected as employability Leader	Employability leadership program2015,Hotel,Hyult	
	Pratik Somaiya	Winner in value addition program competition(Core java)	SIT Lonavala	
	Shubham Ramgundwar	Winner in Mini Project Competition(Contraption 2K16)	SIT Lonavala	
	Neha PanPaliya	2 nd Position in LOGO QUIZ competition held by Business club	SIT Lonavala	
	Gaurav Kadu	Runner up in Lab Innovation Competition	SIT Lonavala	
	Rohit Sonawane	Winner in PCB Designing	SIT Lonavala	
	Pratik Somaiya	Course core Java with A+ grade	SPPU Ð research Lab,Pune	
	Pratik Somaiya	Course core Java with A+ grade	Global Infotech Lonavala	
	Prajyot Argulwar	Project Presentetion(1 st)	Babasaheb Naik CmalOE,Pusad,Yavt	
	Prajyot Argulwar	Participation in Indian Engg Olympiad exam	Indian Engg Olympiad	
	Prajyot Argulwar	Course core Java with A grade	Global Infotech Lonavala	
	Satanik Mitra	Runner-up in Summit National Level Sports	MIT, Pune	
	Sriram Nandakumar	Debating Competion(1st)	Indira College of commerce & science)	
	Arvind Kumar	Debating Competition(3rd)	Indira College of commerce & science)	
	Pratik Honnakare	Hampta Pass trek(14,500 feet)	Himachal Pradesh ,India	
	Rajat Sontake	Volleyball(M)/Runner Up	MIT Pune	
	Anirudha Pole	VollevballRunner Up	MIT Pune	
	Vikrant Bhosale	Football Runner Up	MIT Pune	
	Pritesh Kumar	Roborace(Runner Up)	NMIET.Pune	
	Ishan Khade	Basketball(Runner-up)	MIT.Pune	
2014-15	Ankush Bajaj	Basket ball(Runner up)	MIT.Pune	
	Prakash Show	Basketball(Runner-up)	MIT.Pune	
	Umesh Patil	Robotic workshop(1st)	Dhole Patil COE Pune	
	Rajat Goalraw	Robotic workshop(1st)	Dhole Patil COE Pune	
	Ashwini Nikam	Brainteaser(Runner-up)	RIT,Sakharale	
	Mahesh Matere	Embedded technologies(A+grade)	ATS Infotech, Pune	
	Aniket Pawale	Embedded technologies(A+grade)	ATS Infotech,Pune	
	Harshad Thakur	Embedded technologies(A+grade)	ATS Infotech,Pune	
	Dolo Animudh Anil	Basket Ball(2nd)	Dr. Babasaheb	

			Ambedkar
			Univ,Aurangabad
	Pole Anirudh Anil	Basket Ball(member of SPPU	Bharti Vidyapeeth
		team)	,Pune
			Pravra rural
	Keskar Appasaheb	Paper presentation (2nd)	engineering
			college,Loni
	Antro Mohosh	Paper presentation (2nd)	Pravra rural
	Anue Manesh	Paper presentation (2nd)	college Loni
	Archil Katiyar	Cricket tournament(Quarter Final)	MIT,Pune
	Sriram Nandakumar	Debating competition(1st)	Indira COC & Science,Pune
	Arvind Kumar	Line follower(Cynrosure2014)	JSPM Group Of iInstitutes, Wagholi
2014-15	Arvind Kumar	Debating competition(3rd)	Indira COC & Science,Pune
	Rajat Sontakke	First position in circuit programming	AISSMS's IOIT PUNE
	Umesh Patil	Second Position In Circuite Designing	AISSMS's IOIT PUNE
	Ganesh Mahajan	Runner Up in Basket Ball Karandak	SCOE Kondhawa
	Paresh Maheshwari	Papyrus(Paper presentation)2nd	Bharti Vidyapeeth COE for Women,Pune
	Shirish chavan	Catenaccio(football)1st runnerup	SKN,SIT & Science ,Pune
	Dhanjay Babludi	Proj-GSM, Based Robo(2nd)	Dyangaganga Polytechnic,Gov of Maharashtra,Mumbai
2013-14	Aysh Bhatnagar	IEEE Paper Presentation(3rd)	Krishna Chandra COE,Thane
	Ajay Modi	Pass with C grade "Risk Analysis & Insurance Planning.'	FPSBI,Mumbai
	Ajay Modi	Pass with B grade "retirement Planning & employee Benefits	FPSBI,Mumbai
	Ajay Modi	21 NCA's(Appreciation)	ICICI Securities Ltd
	Ajay Modi	Taken session	ICICI Securities Ltd
	Avichal Sharma	Line follower	JSPM Wagholi,Pune
2013-14	Prasad Khulenate	Line follower	JSPM Wagholi,Pune
	Arvind Kumar	Line follower	JSPM Wagholi,Pune
2012-13	Arti Bandkar	International Level Event TECHLONS-2013(Paper presentation)	P.R.Pote (PatilP GOE, Dept of science & tech, Govt of India,

		Amravati.
Priyanka Deshmukh	International Level Event TECHLONS-2013(Paper presentation)	P.R.Pote (Patil P GOE, Dept of science & tech, Govt of India, Amravati.

24 List of eminent academicians and scientists/ visitors to the department:

The following resource persons have visited the institute and conducted state level conference/seminar:

Sr. No.	Name	Designation	Organization	Purpose of Visit
1	Thirukuman	Technical Head	SAT Info Coimbatore, Tamil Nadu, India	Online Network Simulator (NS-2 & NS-3) Training
2	Dr. Suvra Sekhar Das	Asst. Professor	IIT Campus, Kharagpur	5G Waveform design GFDM FBMC UFMC
3	Dr. Ashok Chandra	Ex-Wireless Advisor to the Government of India	Avk Global Trainers New Delhi	Guest Lecture on IOT
4	Mr. Venugopal Chilivuri	Director Sale	Amigo Optima, Hyderabad	Mathematica
5	Ingrida Smuka	Research Associates	Lativa, Europe	Presentation on Education system in Europe and Importance of Physical Education in Life
6	Prof. Sanjay Singh Thakur	Professor	Padmashri Vasantdada Patil COE, Mumbai	Presentation on Microwave Communications and RADAR Engineering
7	Mr. Shankar Shivram	Research Associates	Colorado Univ. USA	Presentation on Higher Education Opportunities in USA
8	Mr. Rajeev Khosla	Research Associates	Reliance 4G Communications, Mumbai	Presentation on Emotional Quotient (EQ), Intelligent Quotient (IQ), Spiritual Quotient (SQ)

25. Seminars/ Conferences/Workshops organized and the source of Funding

National

Academic Year	ademic Year Category Title		
	Workshop	Two Days workshop on "Mind Wave Control Robot, 5th & 6th September 2015	Institute
		IETE State Level Workshop on "Embedded Linux Development on ARM 9-ELDARM9- 2015, 17th to 19th September 2015.	Institute
2015-16		Workshop on Haptics :The Robo Arm, 13th & 14th Feb. 2016	Institute
		Two days workshop on Let us C Linux under Techtonic2016, 14-15 March 2016	Institute
		One Day Workshop on ARM Cortex, 27/03/2016	Institute
	Seminar	Seminar on "Industrial Automation	Institute
		Two Days Workshop on "Electronics 2."	Institute
		Latex Workshop	Institute
	Workshop	LET US C 'LINUX.'	Institute
		NEC Workshop	Institute
		Two Days Workshop on "PCB Designing."	Institute
2014-15	Seminar	Programmable system on Chip	Institute
		"Industrial Automation Exposure for Engineering Students"	Institute
	Conference	e-PGCON 2014-15	Savitribai Phule Pune University
	Workshop	One Day Workshop On "PACKET TRACER."	Institute
2012 14		2- Days Workshop on "PLC."	Institute
2013-14	Seminar	"Android Application Development"	Institute
	Conference	National level technical paper presentation(TECHNICO KNOCKDOWN)	Institute
2012-13	Workshop	One day workshop on Opportunity in Electronic System Design & Manufacturing Sector	D.Y.Patil-Dept. of Electronics and Information Technology,Govt. of India
		Fundamentals of protocol Design and Implementation in WSN using NS-2."	UOP
	Seminar	Spectrum management in CRN	Institute
	Semma	Mathematica	Institute
	Conference		

b) International						
Academic Year	Category	Title	Funding Agency			
2014-15	Conference	GCWCN-2014, International Conference	Institute			

26. Student Profile Program/Course Wise:

Name of the course/program	Year	Applications received	Selected	Enrolled *M/*F	Pass percentage
E&TC (SE)	2012-2013	214	214	161/53	47.80/50.90
E&TC (SE)	2013-2014	267	267	189/78	73.02/82.05
E&TC (SE)	2014-2015	237	237	156/81	64.74/61.72
E&TC (SE)	2015-16	226	226	182/44	28.8/30.1

*M=Male F=Female

27. Diversity of Students (Data to be filled centrally)

Name of the Course (E&TC)AND Year	% of students from the same state	% of students from other States	% of students from abroad
2012-2013	82,25%	17.74%	
2013-2014	83.87%	16.12%	
2014-2015	80%	20%	
2015-2016	64.57%	35.43%	

28. How many students have cleared national and state competitive Examinations such as NET, SLET, GATE, Civil services, Defense Services, etc?

Academic Year	Number of Students participated in National & State Competitive Examinations			
	GATE	CAT	MBA-CET	HIGHER STUDY
2012-13	-	-	-	24
2013-14	-	-	-	17
2014-15	7	-	-	7
2015-16	3	1	3	4
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29. Student Progression

Student progression	Against % enrolled			
Year	2015-16	2014-15	2013-14	2012-13
UG to PG	06/240 (2.5%)	10/180 (5.5%)	16/180 (8.8%)	17/120 (14.16%)
PG to M.Phil.	NA	NA	NA	NA
PG to Ph.D.	NA	NA	NA	NA
Ph.D. to Post-Doctoral	NA	NA	NA	NA
Employed	102/240	50/180	45/180	45/120
 Campus selection 	(42.50%)	(27.77%)	(25%)	(37.5%)
• Other than campus recruitment		20/180	42/180	39/120 (32,5%)
Entrepreneurship/Self- employment	01/240 (0.41%)	01/180 (0.5%)	04/180 (2.2%)	

30. Details of Infrastructural facilities

- a) Library
- b) Internet facilities for Staff & Students
- c) Classrooms with ICT facility
- d) Laboratories

Library

Departmenta	No of Titles No of '	No. of Volume	No. of Journals	
Departments	no. of thies	No. of volume	Nationals	International
E&TC	98	98	2	2

Internet facilities for Staff & Students –YES; Wi-Fi facility is available

Classrooms with ICT facility- YES, Classrooms-08

Laboratories -YES, Labs -13

Sr. No.	Laboratory Name	Area in Sq. M.	Cost
01	ADSP Lab I & II	72	1201674.82
02	Electronics Circuit Lab	72	589311.58
03	Communication I	72	2756191.12
04	Communication II	72	616051.45
05	Network & Power Lab	72	2053295.25
06	Communication Network Lab	108	1192729.58
07	Digital Electronics Lab	72	270011.40
08	Microwave & Radar Lab	72	1177954.74
09	Microprocessor & Microcontroller Lab	72	1823826.26
10	Embedded System Lab	72	638822.18
11	Project Lab	72	1784493.18
12	VLSI Lab	72	1459052.08
	TOTAL		15563413.63

31. Number of students receiving financial assistance from College, university, government or other agencies

Year	Category	No. of Students
	SC	36
	OBC	194
2015 16	SBC	21
2015-16	VJNT	92
	ST	0
	EBC	219
	SC	100
	OBC	184
2014 15	SBC	25
2014-15	VJNT	93
	ST	02
	EBC	519
	SC	64
	OBC	180
2013-2014	SBC	08
	VJNT	56
	ST	09

	EBC	432
	SC	48
	OBC	135
2012 12	SBC	08
2012-15	VJNT	42
	ST	10
	EBC	313

2 Details on student enrichment programmes (special lectures / workshops / seminars) with external experts

Sr. No.	Student Enrichment Programmes Details	Target Audience			
Acader	Academic year2015-16				
1.	1. Value Addition Programs				
1	C Progamming, Global Infotech, Lonavala Sem-1, Batch-1	SE/TE			
2	C Progamming, Global Infotech, Lonavala Sem-1, Batch-2	SE/TE			
3	Core JAVA, Global Infotech, Lonavala Sem-1	SE/TE			
4	C Progamming, Global Infotech, Lonavala Sem-2	SE/TE			
5	C++ Progamming, Global Infotech, Lonavala Sem-2	SE/TE			
6	Core JAVA, Global Infotech, Lonavala Sem-2	SE/TE			
10.	. Guest Lectures				
1	Internet of Things and Mini Projects	T.E			
2	Skilled required & Opportunities for students in Industrial	T.E			
2	Automation				
3	Information Security	S.E			
4	Control Systems	S.E			
5	Challenges in Wireless Communication	SE,TE,BE			
6	Cyber and Mobile Security	S.E			
7	Recent Trends on PLC	T.E			
8	Carrier Opportunities in FPGA based Embedded System	M.E			
11.	Research publication in seminar / conference				
1	X-plore16 (paper Presentetion) 2 nd Position Jagdamba COE, Yavatmal.	T.E.			
2	International conf(Paper Presentetion) Sahyadri Valley COE & technology,Rajpuri,Pune	ТЕ			
3	National conference(Paper Presentetion) SITS,Narhe,Pune41	TE			
4	Papyrus(Paper Presentation) BVCOE for women Pune43	SE			
5	Papyrus(Paper Presentation) BVCOE for women Pune43	SE			
12.	Workshop / Conferences organized				
1	Two Days workshop on "Mind Wave Control Robot, 5th & 6th September 2015	SE, TE , BE			
2	IETE State Level Workshop on "Embedded Linux Development on ARM 9-ELDARM9-2015, 17th to 19th September 2015.	Staff & PG Students			
3	Workshop on Haptics : The Robo Arm, 13th & 14th Feb. 2016	SE,TE, BE			
4	Two days workshop on Let us C Linux under Techtonic2016, 14-15 March 2016	SE,TE,BE			
5	One Day Workshop on ARM Cortex, 27/03/2016	SE,TE,BE			
13.	Industrial Visits				

1	Industrial Visit to high power transmission station at sinhgad fort pune.	BE
2	Industrial visit to KELTRON AUTOMATION PVT LTD, Kerala.	TE,BE

Acader	Academic year2014-15				
1.	1. Value Addition Programs				
1	C Progamming, Global Infotech, Lonavala Sem-1	SE/TE			
2	C Progamming, Global Infotech, Lonavala Sem-2	SE/TE			
3	C++Progamming, Global Infotech, Lonavala Sem-2	SE/TE			
4	Core JAVA, Global Infotech, Lonavala Sem-2	SE/TE			
2.	Guest Lectures				
1	Industrial Automation Exposure for Engineering Student, 10/07/2014	T.E. Students			
	Mr.NitinLokhande,Educate to automate Ltd Pune				
-	Overview of Radar Unit, Recent Trends in Electronics,	B.E. Students			
2					
	Mr.Parag Bari, Sr. Engg Next Step Technologies				
3	Programmable System on ChipPSOC. 06/09/2014	S.E. and T.E. Students			
	Corpor Advancement Scheme 10/01/2015	SE and TE Students			
4	Prof Sachin R. Wankhede SIBACA Lonavala Pune	S.E. and T.E. Students			
3	Research publication in seminar / conference				
5.	"Effect of Mutual Coupling on Microstrin Antenna"				
1	Akash Joshi Sanket JoshiPratik Honnakore	BF Students			
1	Fr. ConceicaoRodrigues COE Bandra	DE Students			
4	Workshop / Conferences organized				
1	Ouad Copter.2 Days. Akshay Shah and Mayur	S.E. and T.E. Students			
	Design of Implementation of WSN node Using NS2. 2 Days.				
2	Pranav Pawar(SKN Vadgaon)	B.E. Students			
3	Electropics 2,2 Days,NisargDongare, AjinkyaKohokade	S.E. and T.E. Students			
4	Latex,1 Day,Mrs. J.R Gangane	S.E. and T.E. Students			
5	Linux,1 Day,Mrs. D.K Shende	S.E. and T.E. Students			
6	Recent trends in mobile communication,1 Day, Mr.Nimbalkar, Mr.Dabade	S.E. and T.E. Students			
7	NEC workshop,1 Day,Supriya Patil, Sinella	T.E. Students			
8	Magneto Robo Making, 2 Days, NisargDongare, AjinkyaKohokade	S.E. and T.E. Students			
9	Electropics-3,3 Days, Ajinkya Kohokade	S.E. and T.E. Students			
10	Electropics-4,3 Days, Nisarg Dongare, Ajinkya Kohokade	S.E. and T.E. Students			
11	Programming and Interfacing 89C51, 2 Days, Prof. G.V. Lohar	S.E. and T.E. Students			
12	Workshop on PLC,1 Days,KishorPatil	S.E. T.E. Students			
13	Workshop on Aurdino, 1Day, Nisarg Dongare	TE			
14	Workshop on PCB,1Day,Sanket Joshi	SE			
5.	Industrial Visits				
1	PLC, ElectronicsRamani Industries PVT LTD, Chandigarh 25/12/2014 to 2/1/2015	TE,BE			

2	TVE Prasar Bharati at Sinhgad Fort, Pune .25/2/2015	BE
3	Antenna GMRT Narayangaon 08/02/2015	TE

Acade	Academic year 2013-14			
1.Valu	1.Value Addition Programs			
1	C Progamming, Global Infotech, Lonavala, Sem-1	SE		
2	PCB Design Techniques, Pillai's HOC College of Engg., Rasayani and team members, Sem-1	SE		
3	PCB Design Techniques, Pillai's HOC College of Engg., Rasayani and team members, Sem-1	SE		
4	C Progamming, Global Infotech, Lonavala, Sem-2	SE		
2.Gues	t Lectures			
1	Higher Education Opportunities in the USA 04/07/2013,Mr. Shankar Shivram, Colorado Univ. USA	T.E. Students		
2	Cloud Computing, 04/07/2013 Mr.ChetanNawale and Mr.Vijaykumar ATOS India Ltd. Pune	B.E. Students		
3	Embedded Systems, 01/08/2013 Mr. Manoj Patil, Bright Technologies, Pune	T.E. and B.E. Students		
4	Emotional Quotient (EQ), Intelligent Quotient (IQ), Spiritual Quotient (SQ), 05/09/2013 Mr. Rajeev Khosla Reliance 4G Communications, Mumbai	T.E. Students		
5	Wireless Sensor Networks 11/01/2014 Mr. D.S. Mantri,HOD E&TC SIT Lonavala	T.E. Students		
6	Android Application Development 25/01/2014 Mr.Arpit Mishra, Mr. Pratik Jangale And Mr.Akshat Mishra, USA	T.E. and B.E. Students		
7	Technical Paper Writing- How to Write IEEE Paper?, 01/03/2014 Dr. V. M. Rohokale .SIT Lonavala	T.E. Students		
3.Rese	arch publication in seminar / conference	Ι		
1	Credenz'13(Paper Presentation) PriyankaYalasangi, PICT, Pune	BE Students		
4.Workshop / Conferences organized				
1	NEC Antenna Design workshop,2 days,Anjikya, Alumni Student of E&TC	T.E. Students		
2	Electropics,2 days,AjinkyaKohokade (BE),NisargDongare(SE), Bakul Sheikh (TE)	S.E. and T.E. Students		
3	FPGA & Its Industry Applications",2 days,Mr. Manojkuma enterprises, Pune	BE		

4	Solar Clan,2 days, Mr.Chanchal&Mr.Rohan	S.E. and T.E. Students
5	Programming & Interfacing With 89c51 Microcontroller,2 days, Prof. G.P.Jain (WIT,Solapur)	TE
6	PCB Design,2 days,Mr. Sanket Joshi and Mr.Shailesh Rao	SE
7	PLC and SCADA,2 days,Mr.Jayant Deo, Just Engg.Pvt Ltd.	SE
8	Robojunkies 'Invictus' Workshop,2 days, ShreeramVaidyanathan(Gold Chair IEEE Student Bombay Section)	SE
9	Low noise Amplifier byRFIC Ltd. Nagpur,1 day RenukaWankhede RFIC Design,Nagpur	SE
10	PCB Design workshop, 1day, Prof. R. N. Duche Assistant Professor Pillai College of Engg. HOC Rasayani	SE
11	CISCO PACKET TRACER,1 day, AbhishekkumarDhote (BE Div-B)	ТЕ
12	Intellectual Property Rights (IPR) and Financial Incentives from Government,1 day, Mr. Nishikant Deshpande, Inspireal Consultancy Pune	SE
13	Ns-2 Implementation of Wireless Sensor Networks, 2 days, Mr.PranavPawar, Asst. Professor, Dept. of IT SKNCOE, Vadgaon, Pune	TE
5.Industrial Visits		
1	PLC and SCADAJust Engineering, 19/08/2013	SE, TE, BE
2	TVE Prasar Bharati at Sinhgad Fort, Pune., 14/03/2014	BE

	Academic year 2012-13					
	1. Value Addition Programs					
1	Linux Programming Jet king Hardware, Pune Sem-1	SE,TE				
	2. Guest Lectures					
1	Spectrum Management in Cognitive Radio Network 14/01/2013 Prof. Kishor P. Patil HOD E&TC, SAE Kondhwa, Pune	SE/TE				
2	How to face GD? 19/07/2012 Swati Malhotra,Director, APART, Pune	ТЕ				
3	How to select Industry Projects?, 27/07/2012 Prof. D. D. Chaudhary, Vice Principal, SIT, Lonavala	TE,BE				
4	How to improve presentation skills?, 27/07/2012 Prof. Mrs. J.R. Gangane, Assoc. Prof. SIT Lonavala	ТЕ				
5	Educational Tours and Outdoor Education, 28/07/2012 SuhasPunekar Educational Tours and Travels, Pune	SE,TE				
6	Mathematica, 03/08/2012 Mr.VenugopalChilivuri Director Sales, Amigo Optima, Hyderabad	ТЕ				
7	Education system in Europe and Importance of Physical Education in Life 20/09/2012 IngridaSmuka,Research Associates, Latvia, Europe	SE,TE				
8	Microwave Communications and RADAR Engineering, 27/09/2012 Prof. Sanjay Singh Thakur, Professor, Pad. VasantdadaPatil COE, Mumbai	BE				
3.	Research publication in Seminar / Conference	•				
1	RFID Security using Lightweight Cryptography Lambert Academic Publishing(978-3-659-21833-0) 2012.Prof. S. D. Nawale	SE				
2	Xenos2012 SaqibPalkar SIT Lonavala	SE,TE& BE				
4.	Workshop / Conferences organized					
1	Opportunity in Electronic System Design & Manufacturing Sector,1 Day, Mr.MunirSayyad, Head, R4G Lab, Rancore Technologies	SE`				
2	Fundamentals of protocol Design and Implementation in WSN using NS-2",5 Days, Thirukkumaran, SAT Infosys, Coimabotare	ТЕ				

Industrial Visits					
1	Robotics Falcon Electro-Tek Pvt. Ltd, 8/09/2012	TE			
2	DC GMRT ,Narayangaon ,4/2/2013	TE			
3	AC Tata Docomo, Khandala, 9/2/2013	SE			

33. Teaching methods adopted to improve student learning

- Department practice blend of Activity based and Project based learning in addition to traditional lecture-based learning.
- To improve classroom learning, department has applied following practices
- Teachers are allotted subject as per their choice and specialization
- As far as a possible teacher who taught that particular course is allotted to teach that course.
- Teachers are asked to prepare semester teaching plan and course file before the start of the semester.
- Each teacher is asked to prepare soft copies of their notes and Powerpoint presentations for the course content. Same is shared with the students by using ERP software and in the classrooms.
- To simplify Teaching Learning process teaching aids are provided for conducting lectures.
- Models, videos, and animations are used by faculty members to elaborate concepts as per the complexity of the topic.
- Lab experiments and homework in the form of assignments is given to students
- Lectures with self-learning session and mid-lecture activities are added to the timetable.

Active Learning

- Lab Innovations is another activity in line with PBL principles, in which students are allowed to work on their ideas. This activity also results in improved learning and creation of useful lab models.
- Also, students are motivated to work on ongoing research projects.
- Project exhibition and various technical festivals provide an opportunity for active learning.
- Expert talks and Industry expert Seminars are arranged to bridge the knowledge gap of the students.

Assessment Method

- Direct assessment of the course was done by alumni, industry and experts from professional bodies.
- Various tests (Unit test and Prelim, Online, etc.) are used for assessment.
- Mock tests are conducted to evaluate the students' understanding.
- Industry experts are included during the revision of the course at university level.
- Feedback from alumni and final year student are taken into account during the revision of the PEO's at the institute.
- Indirect assessment is done through campus interviews and performance of students

Sr. No.	Extra- Curricular Activity	No. of Events Conducted under Specified Activity	Description
1	5th Sept2015	Orphanage Visit	40 students from institute spend time with primary school orphanage girl students from five to fifteen on Computer training.
2	NSS	Four Different events per year 7 days NSS camp was organized in the village for sustainable development.	At institute level, 50 Students have participated in different NSS activities throughout the year. Minimum working hours per student per year is 120 hrs. 25 students from the institute have participated in NSS special camp of 7 days for sustainable development of one village in the area of the University of Pune.
3	Cultural Events	Once in a year.	The Cultural event comprises drama, dance, singing competition, etc. Also various other cultural activities like a cultural day, painting competition, etc. are organized by the students.
4	Earn and Learn Scheme	Throughout the year	About 20 students at Institute level have participated in earn and Learn Scheme of the University of Pune.

34 Participation in Institutional Social Responsibility (ISR) and Extension activities

35. SWOC analysis of the department and Future plans

Strengths:

- Major statistical assessment platform to assess employability in the form of Aspiring Minds Computer Adaptive Test (AMCAT) is undertaken which is well accepted by Top MNC's.
- Co-Curricular Activities (Sinhgad Karandak and Techtonic fests) organized and participated by the students from all over the country.
- Multi-Disciplinary activities (TTT and TAP) and knowledge sharing are carried out across the sister concern colleges of our management.
- Various activities such as Group discussion (GD), Personal Interview (PI) sessions, Test Series of Quantitative Aptitude (QA) Logical Reasoning (LR) are conducted throughout the curriculum.
- Teacher Guardian practice adopted for the students for close monitoring of student performance and regular interaction with parents.
- Additional skill areas like Soft skill and add on technical skill are covered for student development through exclusively designed Student Training Program (STP) and Value Addition Program (VAP).
- Eminent Guest speakers from academia, Industry, and Service sector are invited for Interaction and exposure to best practices for the students and faculty.
- NBA Accredited for two years from September 19, 2013, to September 18, 2015.

Weakness

- Faculty qualification improvement.
- Research, Publications, and consultancy

Opportunities

- Scope for strengthening the industry institution interaction for better placements of students.
- To develop R&D activities by interacting with premier industries and reputed higher learning institutions.
- Enter into collaborative projects with industries and other institutions for better exposure.

- Networking with other institutions for sharing/acquiring know how of advanced technologies.
- Interdisciplinary approach

Challenges

- To get maximum employment.
- To cope up with international/global challenges in terms of academic quality.

Future Plan:

Short Term:

- Enhancing the training activity for placements.
- To establish Post graduate courses in relevant discipline.
- To establish professional bodies/ students forum for life skill development and latest business environment
- To initiate relevant value addition programs and certifications for improving
- Employability.
- Estabilishment of Centre of Excellence.

Long Term:

- To practice Project Based Learning (PBL) approach for UG and PG
- Programs by creating collaborations with national and International
- Institutions of reputation.
- To create opportunities for students to expose to industry environment
- Through value addition programs, projects, etc for practical training.
- To establish a world class R & D institute for patent based research
- Creating opportunities for faculty to be resource persons.

Department of Computer Engineering

Evaluative Report of the Department

1. Name of the Department: Computer Engineering

2. Year of Establishment: 2004

3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated PhD, etc)

Course offered	Name of the course	Specialization	Year of Establishment
U.G.	B.E.(1 st shift)	Computer Engineering	2004-05
	B.E. (2^{nd} shift)	Computer Engineering	2010-11
P.G.	M.E.	Computer Engineering	2010-11
P.G.	M.E.	Computer Network	2012-13

4. Name of Interdisciplinary courses and the departments / Units involved:

Following Interdisciplinary courses are involved in curriculum of programs:

Sr. No.	Name of the course	Department involved
1	Discrete Structures	Engineering science
2	Digital Electronics and Logic Design	E&TC Engineering
3	Microprocessor Architecture	E&TC Engineering
4	Engineering Maths-III	Engineering science
5	Microprocessors and Interfacing Techniques	E&TC Engineering
6	Data Communication and wireless sensor network	E&TC Engineering
7	Digital Signal processing applications	E&TC Engineering

5. Annual/ semester/choice based credit system (Programme wise)

Sr. No.	Course Offered	Programme	Duration	System	Evaluation
1	U.G.	Computer Engineering	4 years	8 Semester	Marks
2	P.G.	Computer Engineering	2 years	4 Semester	Credits
3	P.G.	Computer Network	2 years	4 Semester	Credits

6. Participation of the department in the courses offered by other departments:

Sr. No.	Courses offered	Department
1	Discrete Structures	Information Technology
2	Object Oriented Modelling and	Master of Computer Application
	Design	
3	Data Structures and Files	E&TC
4	Theory of Computation	Information Technology

5	Fundamentals	of	Programming	Engineering science
	Language			

Sr. No.	Name of the course	Participating institution /industry
1	Training and certification of IBM on different technologies (IBM RAD, DB2etc.)	IBM India Pvt.ltd., Pune
2	Microsoft .NET(C# & ASP.NET)	Microsoft/ATS Infotech, Delhi
3	C ++	IBM Pvt. Ltd., Pune
4	PHP & Web development, Hadoop, Advanced Java (STP 5 VAP)	Mass Technologies, Pune
5	C / C++ / Java	Global InfoTech, Lonavala
6	Ethical Hacking & Cyber Security	ATS Infotech, Delhi

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of teaching posts.

Programme /	/ Undergraduate		Post graduate Programm		
Teaching Tost	Sanctioned Filled		Sanctioned	Filled	
Professors	04	01	02	01	
Associate Professors	08	05	05	03	
Asst. Professors	24	29			
Total	36	35	07	04	

10. Faculty profile with name, qualification, designation, specialization (D.Sc. /D.Litt. /Ph.D. / M. Phil. etc.)

Faculty for UG

Sr. No	Name	Designation	Qualification	Specialization	No. of year s of Exp.	No. of Ph.D. Students guided for the last 4 years
1	Dr.S. D. Babar	Professor	Ph.D in CSE,	Wireless	15	-
			Alborg University	Communication		
2	Mr. S. B. Nimbekar	Associate Professor	M. E. Electronics	Digital Signal processing	16	-
3	Ms. Geetika Narang	Associate Professor	M.E. Computer	Computer Network	8	-
4	Mrs. A. B. Lamgunde	Associate Professor	M.E. Computer	Wireless Network	14	-
5	Mrs. B. L. Dhote	Associate Professor	M.E. Computer Engineering	Programming Language, Cyber Security	12	

6	Mr. J. E. Nalavade	Associate Professor	M.E. Computer Engineering	Programming Language, Data Mining and Warehousing	9	-
7	Mrs. V. N. Dhawas	Assistant Professor	M.E. Computer Engineering	Programming Language, Wireless Sensor Network	10	-
8	Mrs. J. P. Chavan	Assistant Professor	M.E. Information Technology	Programming language, Algorithms	9	-
9	Mr. N. K. Patil	Assistant Professor	B.E. Computer Engineering , ME *	Computer Network	21	-
10	Ms. R. S. Shishupal	Assistant Professor	M.E. Computer Engineering	Programming Language, Wireless Sensor Networks	8	-
11	Mr. S. G. Phule	Assistant Professor	M.E. Computer Networks	Programming Language	7	-
12	Mrs. M. N. Galphade	Assistant Professor	M.E. Computer Engineering	Compiler	8	-
13	Mr. S. M. Nalawade	Assistant Professor	M.E. Computer Engineering	Digital Signal Processing, Wireless Communication	7	-
14	Mr. A.N. Bandal	Assistant Professor	M.E. Computer Engineering	Programming Language	8	-
15	Mr. A. V. Nadargi	Assistant Professor	M.E. Computer Engineering	Database Management Systems	7.6	-
16	Mr. K. R. Shah	Assistant Professor	M.E. Computer Engineering	Data Structure	7	-
17	Mr. S. N. Wandre	Assistant Professor	M.E. Computer Network	Operating Systems	4	-
18	Ms. D. S. Patil	Assistant Professor	M.E. Computer Engineering	Network Security	4	-
19	Mr. S.M. Shedole	Assistant Professor	M. Tech. Computer Engineering	Database Management	8	-

20	Mr. A. V. Sagare	Assistant Professor	M.E. Computer Networks	Computer Network	8	-
21	Mr. N.P. Karleker	Assistant Professor	M.E. Computer	Cloud Computing	14	-
22	Mr. S. B. Waykar	Assistant Professor	M.E. Computer	Image Processing	14	-
23	Mr. S. G. Shaikh	Assistant Professor	M.E. Computer Engineering	Programming Language	9	-
24	Ms.T.V. Adikane	Assistant Professor	M. Tech. Computer Science	Artificial Intelligence	3	-
25	Mrs. R A. Maske	Assistant Professor	M. Tech. Computer Science	Network Security	7	-
26	Mrs. Y. M. Jadhav	Assistant Professor	M.E. Computer Engineering	Image Processing	1	-
27	Mr. J.G. Kotwal	Assistant Professor	ME Computer Engineering	Genetic Algorithm	7	-
28	Mr. P. V. Raut	Assistant Professor	ME Computer Engineering and Science	Computer Network	7	-
29	Ms. T. A. Pawar	Assistant Professor	ME Computer Engineering and Science	Database Management	7	-
30	Mr.P.B. Dongre	Assistant Professor	M.E. Computer Engineering	Algorithm and Network Security	3	-
31	Ms. N. M. Bhavsar	Assistant Professor	ME Computer Engineering	Cloud Computing	7	-
32	Ms. S. N. Lohar	Assistant Professor	ME Information Technology	Network Security	4	-
33	Ms.M.N.Kum bhar	Assistant Professor	ME Computer Engineering	Information Security and Data Mining	3	-
34	Ms.R.R Mudholkar	Assistant Professor	MTech Computer Science and engineering	Image Processing	1	-
35	Mr.H.D. Bhakte	Assistant Professor	ME Computer Engineering	Software Engineering	0.2	-

36	Mr. A. B. Pawar (FE)	Assistant Professor	M.E. Computer Network	Computer Network, Programming Language	4	-
37	Ms. Sunita Jadhav (FE)	Assistant Professor	MCA	Computer security	5	-
38	Ms.A.S. Jadhav(FE)	Assistant Professor	ME Computer Engineering	Network Security	0.2	-
39	Ms.S.V. Surwase(FE)	Assistant Professor	ME Computer Network	Computer Security	1	-

Faculty for PG

Sr. No	Name	Designati on	Qualification	Specialization	No. of years of Exp.	No. of Ph.D. Students guided for the last 4 years
	Dr. T. J.	Professor	Ph.D CSE,	Network	23	-
1	Parvat		Indraprastha	Security		
			University, New			
			Delhi			
2	Mr. M. S.	Associate	M.E. Electronics	Wireless	22	-
	Chaudhari	Professor		Communicatio		
				n		
3	Mrs. S. R.	Associate	M. Tech.	Artificial	14	-
	Patil	Professor	Information	Intelligence		
			Technology			
4	Mr. V. S.	Associate	M. Tech.	Operating	13	-
	Kadam	Professor	Computer	System,		
			Science and	Compilers		
			Engineering			

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: Nil

Year	Students' Intake	Teacher(s)	STR
2016-17	540	35	15.42:1
2015-16	540	36	15:1
2014-15	540	31	17.41:1
2013-14	540	26	20.76:1
2012-13	540	27	20:1

13. Student - Teacher Ratio (Programme wise)

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Type of Staff	Sanctioned	Filled
Technical Assistant	05	03
Lab Assistant	05	06
Administrative Staff	01	01

15. Qualifications of teaching faculty with DSC/ D.Litt. /Ph.D. / MPhil / PG.

Sr. No	Qualification	No of Teaching faculty
1	Ph.D.	02
2	PhD pursuing	11
3	P.G.	29
4	P.G. pursuing (U.G.)	01

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: 01

Number of faculty with National ongoing projects	Amount received	Number of faculty with International ongoing projects	Amount received
Nil	Nil	1	12,00,000 /-

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: 01

Sr. No.	A.Y.	Faculty	Title Of The Project	Sponsoring Agency	Sponsorship amount	Status Of Proposal
1	2010-15	Dr. A. M. Kanthe	Secure Routing Protocol from DoS Attack in Mobile Adhoc Network	European Commission	Rs.12,00,000/-	Completed

C) Sponsored Projects from Industries:01

D) STES's Funding

A.Y.	Name of Faculty	Title of The Project	Amount of Funding	Status of Proposal
2010-15	Dr. S. D. Babar	Security Framework & Jamming Detection for IoT	Rs. 31,00,000/-	Completed

18. Research Centre /facility recognized by the University: Nil

19. Publications: National and International Journals

a) Publication per faculty

Sr. No.	Name of Faculty	Number of papers published in peer reviewed journals by faculty and students	Number of publications listed in National and international conference	Monographs	Chapter in Books	Books Edited	Books with ISBN/ISSN numbers with details of publishers	Citation Index	SNIP	SJR	Impact Factor	h-index
1	Mr.S. D. Babar	7	4	-	1	3	3	124	-	-	2.5- 6.39	4
2	Mr.T. J. Parvat	8	5	-	1	-	_	11	-	-	1.27 - 3.13	2

			_								.458	
3	Mr.A. M. Kanthe	4	5	-	-	-	-	15	-	-	- 3.12	-
1	Mr. M. S. Chaudhari	8	2							_	1.1-	
4	Wit. Wi. S. Chaddhall	0	2	-	-	-	-	-	-	-	6.5	-
5	Mr. S. B. Nimbekar	7	-	-	-	-	-	-	-	-	0.3-	-
(Ma Castila Norona	4									1.7-	
6	Ms. Geetika Narang	4	-	-	-	-	-	-	-	-	6.5	-
7	Ms. A. B. Lamgunde	1	-	-	-	-	-	-	-	-	0- 65	-
0	Mr. I. F. Nalavada	0	1					2			0.3-	1
8	Mr. J. E. Nalavade	9	1	-	-	-	-	2	-	-	2.39	1
0	MaD C Chishungl	(2			2.24	1
9	MS.R. S. Shishupai	6	-	-	-	-	-	2	-	-	- 6.57	1
10	Ma V. N. Dhowag	4	2					2			1.38	1
10	MS. V. N. Dilawas	4	2	-	-	-	-	5	-	-	-4.5	1
11	Mr. A. V. Nadargi	5	-	-	-	-	-	-	-	-	0-	-
											0.91	
12	Mr.A.N.Bandal	7	1	-	1	-	1	-	-		-6.5	-
13	Ms.J.P.Chavan	4	_	-	-	-	_	-	-	-	0-	-
		_									6.5	
14	Ms.M.N.Galphade	5	-	-	-	-	-	-	-	-	5.28	-
15	Mc B I Dhote	3						4			2.8-	2
15	MS. D. L. Dhote	5	_	_	-	_	_	т	-	_	6.5	~
16	Mr S G Phule	1	1		_	_	_	_		_	2.24	1
10	WII. S. G. I Hule	T	1	_	-	-	_	_		-	3.94	T
17	Mr K R Shah	2	3	_	_	_	_	_	_	_	0-	_
17											3.6	
18	Mr SN Wandre	6	_	_	_	_	_	_	_	_	3.84	_
10		0									3.69	
19	Ms. D.S. Patil	2	1	_	-	_	_	_	_	_	0.9-	_
17	1115. D.D. I util	-	-								2.29	
20	Mr. S.M. Shedole	1	-	-	-	-	-	-	-	-	0- 2.11	-
											1.76	
21	Mr. S. G. Shaikh	3	1	-	-	-	-	2	-	-	-	1
											4.14	
22	Mr.A.V.Sagare	2	1	-	-	-	-	-	-	-	5.33	-

23	Mr.N.P.Karlekar	4	-	-	-	-	-	-	-	-	2.14 - 2.24	-
24	Mr.S.B.Waykar	6	-	-	-	-	-	-	-	-	2.11 - 5.08	-
25	Mr.V.S.Kadam	4	-	-	-	-	-	-	-	-	2.5- 5.09	-
26	Mr.Jameer Kotwal	6	-	-	-	-	-	-	_	-	0- 2.39	-
27	Mr.P.V.Raut	2	2	-	-	-	-	-	-	-	0- 1.03	-
28	Ms.S.R.Patil	4	-	-	-	-	-	-	-	-	1.76 6.57	-
29	Mr.N.K.Patil	2	-	-	-	-	-	-	-	-	0- 6.5	-
30	Mr.R.P Kulkarni	6	4	-	-	-	-	-	-	-	0- 4.43	-
31	Mr.R.K.Ambekar	2	-	-	-	-	-	-	-	-	0- 2.28	-
32	Mr.S.M.Nalawade	2	-	-	-	-	-	-	-	-	0- 5.33	-
33	Ms.D.A.Lokre	4	-	-	-	-	-	-	-	-	3.12 - 6.13	-
34	Mr.A.B.Pawar	1	1	-	-	-	-	-	-	-	0- 4.5	-

20. Areas of consultancy and income generated

Sr. No.	Name of the Company	Amount (Rs.)
1	CELTSOFT Software Solution, Pune	Rs.48,000/-

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards....

Sr. No.	Committees	No. of Faculties
(a)	National committees	01
(b)	International Committees, GISFI	01
(c)	Editorial Boards	01

1. Dr.S. D. Babar as a member of selection committee for SPPU,Pune

- 2. Dr.S. D. Babar as a member of Global ICT standardization forum for India
- 3. Ms. Geetika Narang appointed as Sub-Editor of JAES (Journal of Advance Engineering Science), Sinhgad Technical Education Society.

22. Student projects(a) UG Project Details :

Sr. No.	Description	2015-16	2014-15	2013-14	2012-13
(a)	Percentage of students who have done in-house projects including interdepartmental/ programme	95.31%	90.32%	86%	85.71%
(b)	Percentage of students placed for projects in organizations outside the institution	4.68%	9.67%	14%	14.28%

Past 3 Years Details:

Year	Total No of Batch	Industry Project	In-House / Own Project
2012-13	35	05	30
2013-14	50	07	43
2014-15	62	06	56
2015-16	64	03	61

(b) PG Project Details :

Sr. No.	Description	2014-15	2013-14	2012-13
(a)	Percentage of students who have done in-house projects including interdepartmental/ programme	100%	100%	100%
(b)	Percentage of students placed for projects in organizations outside the institution	Nil	Nil	Nil

Past 4 Years Details :

Year	Total No of Projects	Industry Project	In-House / Own Project
2012-13	18	Nil	18
2013-14	42	Nil	42
2014-15	36	Nil	36
2015-16	27	Nil	27

23. Awards / H	Recognitions received by faculty and students
a.	Awards / Recognitions received by faculty:

Particulars	2015-16	2014-15	2013-14	2012-13
Awards	01	01	02	NIL

Sr. No	Year	Faculty Name	Award	Organization
1	2015-16	Mr.A.V.Nadargi	Best Paper	VIT, Vellore
2	2014-15	Mr Vikas Kadam	Rest Teacher	EMC^2
3	2013-14	Mr.Vikas Kadam	Best Teacher	EMC ²
4	2013-14	Ms.Geetika Narang	Best Mentor	IBM
5	2011-12	Mr. M. S. Chaudhari	Best Teacher	Cognizant
6	2010-11	Dr. S. D. Babar	International Certification	Mission 10X

b. Awards / Recognitions received by students:

Academic Year	Name of Student	Details of Awards / Recognitions	Organization
	Akshay Ithape	Selected as National Finalists in Imagine cup India national finals 2016	Microsoft
	Himanshu Singh	Selected as Google Ambassador	Google
2015 16	Ankush Vats and team	Secured 2 nd position in Digital Pune Hachathon, PSPL, Pune	Persistent Ltd.Pune
2013-16	Khushal ADlakha	Selected as Campus Ambassador by HackerEarth	HackerEarth
	Jai Desai	Selected as Campus Ambassador by HackerEarth	HackerEarth
	Darshan Kadam	CEO and Founder	Inceptum Technologies Pvt. Ltd.

	Sumesh Kumar	Director of Human Resources	Inceptum Technologies
	Deepak Petiwala	Director of Human Resources	Pvt. Ltd. Inceptum Technologies Pvt I td
	Sanket Ghorpade,Divya Damahe,Akshay Tak	Secured winning position in Microsoft Imagine Cup 2015	Microsoft
	PremKishan Edhara, Akshay Gadekar	Secured winning position in IBM TGMC-2013 contest	IBM,Pune
	Pratik Deshmukh	National Linux Security Championship	Red Hat
	Disha Garg	Certified by Microsoft virtual Academy	Microsoft
	Disha Garg	Certificate for completion of c training by IIT Mumbai	IIT
	Disha Garg	Certificate for completion of C++ training by IIT Mumbai	IIT
2014-15	Akshay Ithape	Selected as a Microsoft student partner	Microsoft
	Hardik Nagda	National Linux Security Championship	Red hat
	Hardik Nagda	Certificate for completion of c training by IIT Mumbai	IIT
	Hardik Nagda	Certificate for completion of C++ training by IIT Mumbai	IIT
	Ruchit Gupta	Secured winning position in Guess IT Right in FunFiesta	STEs
	Varun Rajdan	Recognized as a Microsoft Technology associate security fundamentals	Microsoft
	Ravi Shah	Recognized as a Microsoft Technology associate security	Microsoft

	fundamentals	
Hrishikesh Dolas	Recognized as a Microsoft	Microsof
	Technology associate security	
	fundamentals	
Bamnkar J. P	Secured 2 nd position in national	STEs
	level technical festival Techtonic	
	2015 Blind Coding	
Divya Damane	Selected as a Microsoft Student	Microsof
	partner	
Niranjan Kumbhar	Selected as a Microsoft Student	Microsof
	partner	
Ruchi Sable	Certified by Central Railway	Central
	Training	Railway
Rahul Jaiswal	Selected at Final Round in state	
	level leadership competition	
Karan Arora	Recognized as a Microsoft	Microsof
	Technology associate	
Rishi Kankriya	Recognized as a Microsoft	Microsof
	Technology associate security	
	fundamentals	
Shekhar Pande	Recognized as a Microsoft	Microsof
	Technology associate	
Kailas Pophale	Recognized as a Microsoft	Microsof
	Technology associate	
Renoy Zacharah	Successfully completed the	Google
	Google Adword Certification	
	Exam	
Renu Rawat	Recognized as a Microsoft	Microsof
	Technology associate Web	
	Development Fundamentals	
Sanket Ghorpade	Recognized for Best Azure	Azure
	Powered Solution	
Swapnil Sapkal	Recognized as a Microsoft	Microsof
	Technology associate Web	

	Development Fundamentals	
Shubham Agnihotri	Recognized as a Microsoft Technology associate Web Development Fundamentals	Microsoft
Shubham Agnihotri	Secured 1 st postion in Code C-kers at P.E.S. Modern COE,Pune	P.E.S. Modern COE,Pune
Vignesh Ganesh	Recognized as a Microsoft Technology associate Web Development Fundamentals	Microsoft
Sanket Ghorpade	Chief Developer at Manage Code Cultivate	Manage code cultivate
Shobhit Soni	Imagine Yearn Obtain(IYO)	ΙΥΟ
Pratik Raut	Acconix Software Solution	Acconix
Anand Chauhan	Mythos Infotech	Mythos
Vaibhav Kanth	Director at Manage Code Cultivate	Manage code
Arti Patel	Recognized as Microsoft Technology Associate for Web Development Fundamental	Microsoft
Vijay M Katare	Recognized as Microsoft Technology Associate for Web Development Fundamental	Microsoft
Naveen Yadav	Recognized as Microsoft Technology Associate for Web Development Fundamental	Microsoft
Sanjeev Pandey	Recognized as Microsoft Technology Associate for Web Development Fundamental	Microsoft
Renoy Zachariah	Recognized as EMC Acedemic Associate for Information Storage and Management	EMC ²
Arti Patel	Recognized as EMC Acedemic Associate for Information Storage	EMC ²

		and Management	
	Rohitkumar Mishra	Recognized as EMC Acedemic Associate for Information Storage and Management	EMC ²
	Sanket Ghorpade	Secured First Position in National Andriod Apps Developmant Championship	Windows
	Vaibhav Kanth	Microsoft Student Partner & Microsoft Research Ambassador	Microsoft
	Divya Nanda	Google student Ambassador	Google
	Pooja Ahuja	Official Firefox Student Ambassador for University of Pune	Mozilla
	Rahul Meshram	Google Student Ambassador	Google
	Mayur Shirsagar	Design head and Director of Pustakmandi	Pustakamndi
	Vipul Madhani	CEO & Founder of pustakmandali	Pustakmandi
2013-14	Renoy Zachariah	Recognized as a Microsoft Technology associate for Web Development Fundamentals	Microsoft
	Nazneen Shaikh	Recognized as a Microsoft Technology associate for Web Development Fundamentals	Microsoft
	Rajshekhar Humbe	Recognized as a Microsoft Technology associate for Web Development Fundamentals	Microsoft
	Shravankumar Mane	Recognized as a Microsoft Technology associate for Web Development Fundamentals	Microsoft
	Siddarth Saxena	Awarded as PC Guru by Microsoft	Microsoft
2012-13	Sanket Gorpade	Guinness record holder for participation in the world's largest	Windows
	Parag Vade	application development marathon	

Niranjan Kumbhar	for developing applications for	
Neha Pardeshi	Windows 8 Operating System and	
	the record was for coding 18 hours	
Shrikrishna Iyengar		
Siddarth Saxena		
Renu Rawat		
Kritika Jain		
Renoy Zachariah		
Rohit Mishra		
Rahul Patel		
Rishi Kankariya		
Shubham Agnihotri		
Bhagyashree Jog	Secured 2 nd position in XENOS-	SIT
Aditi Parab	12,technical paper presentation	
Amrita Dalal	Secured 2 nd position Mega	G.H.Raisoni
Arya mane	Technical Event at G.H.raisoni	COE,Pune
	COE,Pune	
Humayu Mulla	Secured 2 nd position in XENOS-	SIT
	12,technical paper presentation	
Mayur Kshirsagar	Secured First position in state	SIT
Sushibnit Rajan	level project competition	
	a tath which the	XX7' 1
Sanket Gnorpade	intercollegiate National Event	Windows
Ankur Soni	Business website	Radhika
	www.radhikakangan.com	Kangan
	anganpalace	
	ankursoni.leonardo@gmail.com	
	11100 - 9020297233	
Rahul Nagare	Livestrong Technologies	Livestrong Technologies
	Website:	reennoiogies
	www.livestrongtechnologies.com	

Sanket Ghorpade	Selected as Microsoft Student partner	Microsoft
Manish Kungwani	Director, IT Services at Bloom Consulting Services India, Nagpur	Bloom Consulting
Sanket Ghorpade	Successfully published application on Windows Phone Marketplace	Windows

24. List of eminent academicians and scientists / visitors to the department

Sr. No.	Name	Designation	Organization	Purpose of Visit
1	Dr.Subhasish Choudhari	Deputy Director (AIA)& Professor	IIT Bombay	Conducted guest Lecture on Haptics
2	Dr. Jayesh Minase	Member	Sinhgad Over Seas Cell	Conducted guest Lecture Study Abrod
3	Mr. Pushkar More and Mr. Ajay Tiwari	Innovation Head	Patronix Technologies Pvt.Ltd, Chinchwad	Conducted guest Lecture Embedded and software development
4	Mr. Ankit Wani & Ms. Pooja Ahuja	Research Intern	Machine Learning at IIT Bombay	Guest Lecture conducted on Artificial Intelligence
5	Mr. Ganesh Thevar	Head	Bureau Mail Today Mumbai	Guest Lecture Conducted on Personality Development & Improving Attention through Sahaja Yoga
6	Mr. Mangesh Edake	Co-Founder	Four Byte Embedded Solutions Pune	Guest Lecture Introduction conducted on Introduction to BeagleBone Black
7	Mr. Pratik Patil Mr. Anil Raj	Project manager	Cyber Soft, Hinjewadi, Pune	Guest Lecture conducted on Cyber Security
8	Mr. Sunny Gupta	Developer and trainer	Android Apps Development, Navi	Conducted workshop for

			Mumbai	Android App
				Development
	Mr Sanket		Manage code	Conducted
0	0 Chormodo	Trainar	cultivate	workshop for
7	Unorpade		cultivate	Windows App
				Development
	Mr. Shirish		Codewala Software	Conducted
10	Bhosale	Project Leader	Ltd, Pune.	Workshop on Go
				Cloud
11	Mr. Ashish	Software Engineer	Avaya,Pune	Judge for Code
11	Pathak	Software Engineer		Master event
			Densistant Systems	Conducted
12	Mr. Pramod	Module lead	Persistent Systems	Workshop on
12	KRS Palla		110	Groovy and
				Grails
	Mr. Doiiy			Conducted
12	Wii. Kajiv Khogla	Vice President	Reliance (4G Project),	workshop on
15	KIIOSIa	Vice President	Mumbai	Stress
				Management
	Mr. Nironion			Conducted
14	Dutolo	Software Trainer	Career Mint	Workshop on
14 Bu	Dutola	Software Trainer	Delhi, India	Android App
				Development
	Mr. Sachin	IDM Acadomic		Conducted
15	Kumar R S	IBM Academic	IBM India Pvt Ltd	workshop on
		minative		IBM worklight

- 25. Seminars/ Conferences/Workshops organized & the source of funding
- a) National

Academic Year	Category	Title	Funding Agency
2016-17	Seminar	Cloud Computing	Pune Salesforce student developer group
		ETHICAL HACKING, 13th to 14th Jan 2016	Self-financed
2015-16	Workshop	WEB DESIGNING, 13th to 14th Jan 2016	Self-financed
		LINUX BOOTING13th to 14th Jan 2016	Self-financed
	Seminar	AUGMENTED REALITY,13th 2016	Self-financed
014-15	Workshop	Performance Evaluation of Cloud Through Web, 28 th FEB to 2 nd MAR 2015	SPPU, Pune

		GO Cloud, 18 th to 19 th Jan 2015	Self-financed
		Groovy & Grails, 20 th to 21 st Jan 2015	Self-financed
		Android app development, 18 th to 20 th Jan 2015	Self-financed
	Seminar	-	-
	Conference	-	-
	Workshop	Android Application Development workshop, 11 th to 12 th Jan 2014	SPPU, Pune
2013-14		Windows Phone Apps Development, 18 th to 19 th Jan 2014	Self-financed
		Techtonic (Android + Windows), 5 th to 7 th Feb 2014	Self-financed
		IBM Worklight workshop, 13 th Feb 2014	Self-financed
	Seminar	-	-
	Conference	-	-
2012-13	Workshop	STTP on "Simulation and Protocol Implementation using NS-2 for Wireless Research, 6 th Aug to 10 th Aug 2012	SPPU, Pune
	Seminar	Introducing CISCO on 13 th July 2012	Self-financed
	Conference	-	-

b)International: NIL

Acadamia	Applications	Salastad (Tatal	Selected (Total Enro		
Year	received (CAP Allotment @ 80%)	Admissions)	Μ	F	Pass percentage
2012-13	149	186	142	44	79.26
2013-14	148	185	134	51	95.78
2014-15	147	184	134	50	96.43
2015-16	148	186	142	44	97

26. Student profile programme/course wise

27. Diversity of Students

Name of the Course		% of students from the same state	% of students from other States	% of Students from abroad
	2012-13	84.17	20.83	
UC	2013-14	70.83	32.50	
UG	2014-15	79.17	25.00	
	2015-16	65.59	34.40	
DC	2012-13	100	00.00	
PG	2013-14	100	00.00	
Enginoaring	2014-15	83.33	5.56	
Engineering	2015-16	83.33	Nil	
DC	2012-13	100	00.00	
Computer Network	2013-14	91.67	8.33	
	2014-15	37.50	00.00	
	2015-16	0.04	Nil	

28. How many students have cleared national and state competitive examinations such as NET, <u>SET</u>, <u>GATE</u>, <u>Civil</u> services, <u>Defence</u> services, etc.?

Academic Year	Number of Students participated in National & State Competitive Examinations						
	GATE	GATE GRE CAT					
2012-13	5	4	1				
2013-14	2	5	-				
2014-15	-	5	-				
2015-16	-	-	-				

29. Student progression

	Against %	Against % enrolled			
Student progression	2015-16	2014-15	2013-14	2012-13	
UG to PG	Nil	12.96%	11.68%	10.57%	
PG to M.Phil.	NA	NA	NA	NA	
PG to Ph.D.	Nil	Nil	Nil	Nil	
Ph.D. to Post-Doctoral	Nil	Nil	Nil	Nil	

Employed Campus selection	45.66%	46.91%	37.66%	52.88%
Other than campus recruitment	0.01%	16.04%	16.23%	10.57%
Entrepreneurship/Self- employment	0.02%	0.030%	0.012%	0.028%

30. Details of infrastructure facilities

- a) Library
- b) Internet facilities for Staff & Students
- c) Class rooms with ICT facility
- d) Laboratories
- a) Library :

Sr. No.	Particulars	Numbers
1.	Book Volumes	94
2.	Titles	94
3.	Project Reports	100

- b) Internet facilities for Staff & Students
 - ➢ Wi-Fi and wired Internet facility is available for Staff & Students
 - > All faculty members provided internet connectivity
 - Central Server for Networking
- c) Class rooms with ICT facility
 - ➢ Class rooms with ICT facility: 07
 - Classrooms provided with LCD projectors and Internet
 - PA Systems in Seminar Hall.
- d) Laboratories:13

The labs in the department are well equipped with Pentium 5 processors, 1-4GB Ram,500 GB HDD with internet facility and Wi-Fi devices.

Curriculum Lab Description	Exclusiv e use/Shar ed?	Space/# Students	No. of Machines	Quality of instruments	Lab manual
CRT-I Lab	Exclusive	Adequate /15-20	28		Available
CRT-II Lab	Exclusive	Adequate /15-20	19		Available
PG –I Lab	Exclusive	Adequate /15-20	18	- Maintenance Maintenance during vacation - Obsolescence is removed by periodic	Available
Microprocessor & DELD	Exclusive	Adequate /15-20	09		Available
CG & OOPS Lab	Exclusive	Adequate /20	25		Available
RDBMS	Exclusive	Adequate /15-20	23		Available
Software Lab	Exclusive	Adequate /15-20	23	replacement	Available
Network Lab	Exclusive	Adequate /15-20	23		Available

LINUX Lab	Exclusive	Adequate /15-20	22	Available
PL-I Lab	Exclusive	Adequate /15-20	22	Available
PL-II Lab	Exclusive	Adequate /15-20	22	Available
PG Lab II	Exclusive	Adequate /15-20	18	Available

31. Number of students receiving financial assistance from college, university, Government or other agencies:

Year	Category	No. of Students	
	SC	37	
	OBC	161	
	SBC	11	
2015-16	VJNT	64	
	ST	Nil	
	EBC	-	
	SC	76	
	OBC	142	
2014 15	SBC	14	
2014-15	VJNT	63	
	ST	NIL	
	EBC	102	
	SC	29	
	OBC	89	
2013 2014	SBC	11	
2013-2014	VJNT	34	
	ST	01	
	EBC	109	
	SC	32	
	OBC	89	
2012-13	SBC	05	
2012-13	VJNT	27	
	ST	NIL	
	EBC	95	

32. Details on student	enrichment programmes	(special lectures	/Workshops /	Seminar)
with external experts				

Academic	Nome of the programme	Name of Expert /	No. of	Data
year	Name of the programme	Coordinator	students	Date
2016-17	Contribution of ETL	Mr.Kranthi Kumar	85	7/2/2016
	mechanism for prosessing	Singamaneni		
	of Data from OLTP to			
	OLAP			
	Haptics	Dr.Subhasish	26	12/06/2015
2015-16		Choudhari Deputy		
		Director(AIA) &		
		FIOLESSOI III DOIIDAY		
	Study Abroad	Dr.Jayesh Minase	70	26/06/2015
		Member, Sinhgad		
		Overseas Cell		
	Comprehensive student	Mr Ashish Covel	80	27/06/2015
	based system	Founder at Konnect	80	27/00/2013
	based system	Services Pvt. Ltd.		
		Services r vi. Edu.		
	Orientation program on	Mr. Manish Pal Singh	40	29/06/2015
	cloud computing			
	Embedded and software	Mr. Pushkar More and	60	09/07/2015
	development	Mr. Aiay Tiwari	00	07/07/2015
	51 · · · · · · · · · · · · · · · · · · ·	Innovation head,		
		Patronix Technologies		
		Pvt.Ltd,Chinchwad		
	Linux Operating System	Mr Yogesh Bahar	70	29/07/2015
	Linux operating bystem	System Engineer Red	70	2)/07/2013
		Hat Linux, Pune		
	Introduction to C++ and	Mr. Yogesh	50	22/12/2015
	JAVA	Knandelwal,Global		
		morech		
	SCRUM Technology	Ms.Nehal Joshi,Scrum	60	23/12/2015
		Technology		
	Libiquitous Computing	Ms Pooia Abuia	00	25/03/2016
	Conquitous Computing	Research Intern &	70	23/03/2010
		Teaching Assistant at		
		IIT Mumbai		
	T 11 P 1		- ^	00/01/2011
	Inspiring Entrepreneurship	Mr. Bharat GC	70	03/04/2016
		Operation Head, 13		
	Introduction to Latex	Narayan Arjunwadkar	90	24/01/15
2014-15		Freelance Trainer		
	Groovy and Grails	Mr.Pramod Palla,	65	20/01/15 to

		Module lea, Persistent technology, Pune		21/01/15
	Android Apps development	Mr. Sunny Gupta, Developer and trainer, Android Apps, Navi Mumbai Mr. Sanket Ghorpade Trainer, Manage code	100	18/01/15 to 20/01/15
	Go Cloud workshop	Mr.Shirish Bhosale, Project Leader, Codewala Software Ltd, Pune	40	18/01/15 to 19/01/15
	Introduction to Beagle Bone Black	Mr. Mangesh Edake,Co- Founder at FourByte Embedded Solutions Pune	70	10/01/2015
	Introduction to LaTex	Mr. Ganesh Thevar Head of Bureau Mail Today,Mumbai	60	24/01/2015
	Personality Development	Dr. Vandana Rohokale Associate Professor SKNSIT	80	06/02/2015
	Future Wireless Technology & Security	Mr. Ankit Vani,Ms. Pooja Ahuja, Research Intern in Machine Learning & Teaching Assistant at Indian Institute of Technology, Mumbai	50	14/02/2015
	Artificial Intelligence	Mr. Narayan, Arjunwadkar, Freelance Trainer	50	28/02/2015
	Industrial Visit	Mr.J. E. Nalavade, Ms.T.V.Adikane	25	17/03/2015 to 25/03/2015
2013-14	Struts and ,AJAX	Mr. Amol Ghotankar Technical Director, Cursive Technology Pvt.Ltd.	150	13/07/2013
	Improving IQ,EQ,SQ	Mr. Rajiv Khosla, Vice President, Reliance (4G Project), Mumbai	100	04/09/2013
	Industrial Visit	Mr.A. N. Bandal, Mr.A. V. Nadargi	55	15/3/14 to 19/3/2014
---------	----------------------	--	----	-------------------------
	Introducing CISCO	Mr. Patankar	74	13/07/2012
		Trainer Consultant IT Professional		
2012-13	GD Guidance	Ms. Swati Malhotra, Director of Training at APART Education India Pvt. Ltd,Pune	80	19/07/2012
	Employability Skills	Ms. Chitra	77	14/08/2012

33. Teaching methods adopted to improve student learning

The teaching methodologies vary according to the heterogeneous group of students. For the benefits of the students we adopt following teaching and learning practises:

- ➤ Lectures
- ➢ Lab experiments
- > Assignments/Tutorials
- ➢ Industrial visits
- > Viva and Tests
- Extra input sessions or remedial classes or practice sessions or Self learning sessions
- LCD Presentations
- Expert Lectures or invited talks
- ➤ Lab innovation
- Value addition program
- Project Based Learning

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Sr. No	Day and Date	Program	Details	Participation
1	Sat,26 th Dec 2015	"Ek Hat Madticha" Help to Drought Affected People	Program to help needy farmers at Ausa Gaon,Latur	20
2	Fri,4 th Sep 2015	Celebration of Teachers Day	Celebrated Teachers day	100
3	Tue,15 th Sep 2015	Celebration of Engineers day	Celebrated Engineer's day	120
4	Wed,30 th Dec 2015	Tree plantation at Kurunj	Tree Plantation	100

Sr. No	Day and Date	Program	Details	Participation
1	Sat, 14 th Feb 2015	Blood Donation Camp	Organized and Participated Blood Donation Camp in support of Smt Kashibai Navale Hospital.	130 Students
2	Fri, 5 th Sept 2014	Celebration of Teacher Day	Celebrate Teacher Day	100 Students
3	Mon, 15 th Sept 2014	Celebration of Engineers Day	Celebrate Engineer Day	110 Students

A.Y.14-15

Sr. No.	Day and Date	Program	Details	Participation
1	Sun, 02 nd Feb 2014	Blood Donation Camp	Organizes and Participate Blood Donation Camp at Reading Hall	50 volunteers
2	Sun, 26 th Jan 2014	Tree Plantation on Republic Day	Tree Plantation on the occasion of Republic Day in Presence of	60 Volunteers
3	Thur, 5 th Sept 2013	Celebration of Teacher Day	Celebrate Teacher Day	100 Students

A.Y.13-14

A.Y.12-13

Sr. No.	Day and Date	Program	Details	Participation
1	Wed, 5 th Sept 2012	Celebration of Teacher Day	Celebrate Teacher Day	100 Students
2	Fri, 8 th March 2013	Street Play on Women Empowerment	Organizes Street plays	20 Volunteer

35. SWOC analysis of the department and Future plans

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

STRENGTHS:

- 1. Qualified, Experienced and Dedicated Faculty
- 2. Well-equipped and Furnished Laboratories
- 3. Students are exposed to Eminent Guest speakers from academia, industry and service sectors.
- 4. Good results and Placements.
- 5. Fully WiFi enabled department

- 6. Students are promoted for internship to do projects.
- 7. Close monitoring of student performance and system of communicating regularly with parents.
- 8. Classrooms are equipped with internet facility and projector Students Club Association (ACES) which arranges number of social and technical events every semester.

WEAKNESSES

- **1.** Consultancy work need to be improved
- 2. Lack of PhD program and research center
- **3.** R&D needs to be strengthened.

OPPORTUNITIES

- 1. Students can develop many innovative applications through IBM center of Excellence
- **2.** Organize various training program for student and staff for the emerging technologies through IBM and Persistent COE.
- 3. Scope for more placement and Industry projects
- 4. Students participate in various activities like inter college competitions
- 5. Workshops and seminars conducted for the faculty members to develop their skill and academic challenges.
- **6.** Existence of Microsoft Campus club. Zero Club, Business club, EDC cell, Google Club for promoting technology.

CHALLENGES

- 1. Students with diverse background
- 2. Rapid changes in technology
- 3. Improving student communication skills.
- 4. Provide placements to all the Students.

FUTURE PLANS

- To encourage the faculty to register for Ph.D. programmer and increase the Ph.D.'s in the department.
- > To offer consultancy services.
- Planning to apply for research projects
- ➤ To increase the collaboration with industries and conduct more events with industry collaborations.
- > To motivate the students to become an entrepreneur and set up their own business.
- \blacktriangleright To motivate the staff and the students to increase the research publications.
- > To obtain considerable improvement in the results and placement.
- > To secure more University ranks.

To practice Project Based Learning (PBL) approach for UG and PG programs by creating collaborations with national and

Department of Information Technology Evaluative Report of the Department

- 1. Name of the department: Information Technology
- 2. Year of Establishment: 2004
- 3. Names of Programs / Courses offered (UG, PG, MPhil, PhD, Integrated Masters, Integrated PhD, etc.):

Course	Name of the course	Specialization	Year of
offered			Establishment
U.G.	B.E.	Information Technology	2004-05

4. Names of Interdisciplinary courses and the departments/units involved: Following Interdisciplinary courses are involved in curriculum of programs:

Sr. No.	Name of Interdisciplinary course	Department
1	Engineering Mathematics – III	Engineering Science
2	Discrete Structures	Engineering Science
3	Digital Electronics and Logic Design	E&TC Engineering
4	Processor Architecture & Interfacing	E&TC Engineering

5. Annual/ semester/choice based credit system (program wise):

Sr. No.	Course Offered	Programme	Duration	System	Evaluation
1	U.G.	Information Technology	4 years	8 Semester	Marks

6. Participation of the department in the courses offered by other departments:

Sr. No.	Courses Offered	Department
1	Industrial Management	E&TC Engineering
2	Industrial Management	Computer Engineering

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

Sr. No.	Name of the course	Participating institution /industry
1	Training and certification of IBM on different technologies (IBM	IBM India pvt.ltd.

	RAD, DB2etc.)	
2	Microsoft .NET(C# & ASP.NET)	Microsoft/ATS solutions
3	C ++	IBM Pvt. Ltd.
4	PHP & Web development, Hadoop, Advanced Java (STP 5 VAP)	Mass Technologies.

8. Details of courses/program discontinued (if any) with reasons: Nil

9. Number of teaching posts:

	Sanctioned	Filled
Professors	1	0
Associate Professors	2	2
Asst. Professors	9	10
Total	12	12

10. Faculty	v profile	with	name,	qualification,	designation,	specialization,	(D.Sc.	/
D.Litt.	/ Ph.D. /]	M. Ph	il. Etc.,):				

Sr. No.	Name	Designation	Qualification	Specialization	No. of Years of Experie nce	No. of Ph.D. Students guided for the last 4 years
1	Mr. N. A.	Associate	ME	Information	20 Yrs.	Nil
	Dhawas	Professor &		Technology		
		HOD	PhD	Electronics &		
			Pursuing	Electrical		
				Engineering		
2	Mrs. P. P.	Associate	ME	Computer	11 Yrs.	Nil
	Ahire	Professor		Engineering		
			PhD	Computer		
	ļ		Pursuing	Engineering		
3	Mrs. V.P.	Asst. Professor	ME	Computer	12 Yrs.	Nil
	Tonde	1100001101000001		Engineering		
4	Mrs A P	Asst. Professor	ME	VLSI &		Nil
	Kulkarni			Embedded	8 yrs.	
	Kuikailli			Systems		
5	Mr. G. M.	Asst. Professor	ME	Computer	9	Nil
	Gaikwad			Engineering	o yis.	
6	Mr. R. S.	Asst. Professor	ME	Computer	7 vrs	Nil
	Badodekar			Engineering	/ y15.	
7	Ms. S. B.	Asst. Professor	ME	Computer	5 vrs	Nil
	Ware			Engineering	5 915.	
8		Asst. Professor	M.Tech	Computer		Nil
	Mr. B. J.			Engineering	5 vrs.	
	Deokate		PhD	Computer	<i>c j z s i</i>	
			Pursuing	Engineering		
9	Mrs. S. B.	Asst. Professor	ME	Computer	6 vrs.	Nil
10	Jadhav			Engineering		
10	Mr. F. S.	Asst. Professor	MCA	Computer	6 Vac	N1l
	Ghodichor			Engineering	0 I IS.	
11	Mrs P K	Asst. Professor	MCA	Computer		Nil
	Pathak			Engineering	5 Yrs.	
12	Mr V N	Asst. Professor	ME	Computer		Nil
	Alone			Engineering	2 Yrs.	
	Alone			Linginicering		

11. List of senior visiting faculty: Nil

- 12. Percentage of lectures delivered and practical handled (program wise) by temporary faculty: Nil.
- 13. **Student-Teacher Ratio** (program wise):

Year	Students' Intake	Teacher(s)	STR
2015-16	180	12	15:1
2014-15	180	12	15:1
2013-14	180	12	15:1
2012-13	180	12	15:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Type of Staff	Sanctioned	Filled
Technical Assistant	2	0
Lab Assistant	2	2
Administrative Staff	1	1

15. Qualifications of teaching faculty with DSc. / D.Litt/ Ph.D/ MPhil/PG:

Sr. No	Qualification	No of Teaching faculty
1	PhD	0
2	PhD Pursuing	4
3	P.G.	8
4	P.G. Pursuing (U.G.)	0

- 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. Faculty Publications:

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 numbers with details of publishers, Citation Index, SNIP, SJR, Impact factor, h-index

Sr. No.	Name of Faculty	No. of papers publish ed in peer review ed journal s	No. of publication s listed in Internation al / National Conference	Chapt er in Books	Boo ks Edit ed	Books with ISBN in intern ationa I DB	Cita tion Inde x	SNIP	SJR	Impa ct Facto r	h- Ind ex ave rag e
1	Mr. N. A. Dhawas	15	17	0	0	0	11	0	0	2.117	2
2	Mrs. P. P. Ahire	6	5	0	0	3	3	0	0	2.117	1
3	Mrs. V. P. Tonde	2	2	0	0	0	0	0	0	2.117	0
4	Mr. G. M. Gaikwa d	2	7	0	0	0	0	0	0	2.117	0
5	Mr. R. S. Badode kar	3	8	0	0	0	0	0	0	2.117	0
6	Ms. S. B. Ware	3	2	0	0	0	3	0	0	2.117	1
7	Mrs. S. B. Jadhav	2	1	0	0	0	0	0	0	0	0
8	Mrs. A. P. Kulkar ni	6	3	0	0	0	2	0	0	2.117	1

20. Areas of consultancy and income generated: Nil

21. Faculty as members in : a) National committees b) International Committees c) Editorial Boards:

Sr. No.	Committees	No. of Faculties
1	National committees	Nil
2	International Committees	Nil
3	Editorial Board	Nil

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/programme

Sr. No.	Description	2015-16	2014-15	2013-14	2012-13
(a)	Percentage of students who have done in-house projects including interdepartmental/ programme	90.47%	91.30%	86.66%	94.73%
(b)	Percentage of students placed for projects in organizations outside the institution	9.5%	8.69%	13.33%	5.26%

b) Percentage of students who have done industry projects:

23. Awards/ Recognitions received by faculty and students:

a. Awards/Recognitions received by faculty:

Sr.	Nome of Faculty	Details of Awards /	Organization
No.	Name of Faculty	Recognitions	
1	Prof. N. S. Bansode	Best paper presentation	cPGCON – 2014 at
1		award	Nashik
	Prof. P. P. Ahire	Best paper presentation	3rd International
2		award	Symposium, Coventry
			University UK
2	Prof. P. P. Ahire	Best paper presentation	IETE, Mumbai
5		award	

b. Awards / Recognitions received by students:

Academic	Name of Student	Details of Awards /	Organization
Year	Name of Student	Recognitions	

		Ninth Rank in "SEED	SEED InfoTech
	Piyush Kumar	IDOL" Pune among 18000	along with SPPU,
2015 - 16		students	Pune
2013 - 10		Stood among 50 students out	SEED InfoTech
	Sagar Khan	of 18000 students at "SEED	along with SPPU,
		IDOL" Competition	Pune
	Ujjain Dhar	First prize in Attractive	SIT Lonavala
		Graphics Design	
		Competition at TechTonic -	
		15	
	Ajinkya Bhintade	Second prize in Attractive	SIT Lonavala
		Graphics Design	
		Competition at TechTonic -	
2014-15	Dania Dan	15 Amonda da muida CISCO	CIECO
	Pooja Das	CCNA Certification with	CISCO
		90% Percentile	
	45 Students of SE	Certified by Microsoft	Microsoft
	& TE	Technology Associate	Technology
		(MTA) for .Net	Associate
	Atul Pagare.	First prize in Paper	Vidvashram
	Prathamesh	Presentation Vidyashram	Techfiesta
	Chavan	Techfiesta 2013(National	reennesta
		Conference on recent trends	
		in Engineering)	
	Komal Pandey,	Participated in Paper	Vidyashram
	Prachi Dawedar	Presentation Vidyashram	Techfiesta
		Techfiesta 2013(National	
		Conference on recent trends	
	T 1 A 1	in Engineering)	
2013-14	Lucky Atkare,	First prize at AIT Movie	Army Institute of
	Ronit Lad, Pritesn	Making Competition Pune	Technology, Pune
	Bnavsar	(Movie Named The Collin	
	Pahul Pandita &	Nall) Participated in Avishkar	PSCOE Dune
	Vikash Singh	2014	RSCOL, I unc
	Abhishek Alate	Won first prize at Xenos	SIT Lonavala
	Thomshok Thute	2012 Photoshop $(31/08/12 \&$	511 Lonavala
0010 10		1/9/12)	
2012-13	Jaideep Singh	Xenos 2011(Coding	SIT Lonavala
		Competition) 23rd-24th Sep	
		2011	

24. List of eminent academicians and scientists / visitors to the department:

No. Visit	Sr. No.	Name	Designation	Organization	Purpose of Visit
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	Dr. G. V. Garje	BOS IT,	PVG College of	BE IT
1		Pune	Engineering, Pune	Syllabus
				Revision
2	Dr. S. D. Navale	Principal	NBNCOE, Solapur	Guest Lecture
2	Dr. K. J. Karande	Principal	SKNCOE, Korti,	Guest Lecture
3			Pandharpur	
4	Mr. Advait Lele	Project	InfoSys	Invited talk on
4		Manager		ITPM

25. Seminars/ Conferences/Workshops organized & the source of funding:

Academic Year	Category	Title	Funding Agency
	Workshop	Six days Workshop on "Android & Application Development" from 8 th March 2016 to 13 rd March 2016	Institute
	Workshop	Six days Workshop on"BigData & Hadoop" from 18 th March 2016 to 23 rd March 2016	Institute
	Workshop	Two days Workshop on "LaTex" from 06 th March 2016 to 07 th March 2016	Institute
2015 – 16	Workshop	Two days workshop on "Video Creation & Editing" from 14 th Jan 2016 to 15 th Jan 2016	ATS Infotech, Bitwise Infosystems and Vijay Web Solutions
	Seminar	One day seminar on "Internet of Things" on 13 th Jan 2016	ATS Infotech, Bitwise Infosystems and Vijay Web Solutions
	Workshop	A state level Faculty Development Programme on "Cloud Computing & Infrastructure" on 2 nd & 3 rd March 2015	SPPU, Pune
2014-15		Workshop on "Attractive Graphics Design"	IYO Lonavala
	Seminar	Seminar on "Intellectual Property Rights"	ATS InfoTech, Pune

2012 14	Workshop	Workshop on "Ethical Hacking & Cyber Security"	ATS InfoTech, Pune
2013-14	Seminar	Seminar on "Wireless Sensor Networks"	Institute Sponsored
2012-13	Workshop	Red Hat Linux Basics & Administration	Institute Sponsored
	Seminar	Software Testing & Quality Assurance	Institute Sponsored

26. Student profile program /course wise:

Admission process is governed by DTE

Academic	Applications received	Selected (Total	Enr	olled	Pass
Year	(CAP Allotment @	Admissions)	Μ	F	percentage
	80%)				
2012-13	51	64	49	15	72.88%
2013-14	50	63	37	26	60.00%
2014-15	48	60	41	19	52.00%
2015-16	48	63	45	18	73.01%

27. Diversity of Students

Name of the	Academic	% of student	% of student	% of student
Course	Year	from same	from other	from abroad
		state	state	
	2012-13	93.75	6.25	0
UG	2013-14	90.47	9.52	0
	2014-15	86.66	13.33	0
	2015-16	94.74	5.26	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc?

Academic Year	Number of St	Number of Students participated in National & State Competitive Examinations				
	GATE	GRE/GRE	CET/CAT			
2012-13	4	4	1			
2013-14	6	3	0			
2014-15	3	3	1			

2015-16	13	0	0

29. Student progression

Student Progression	2015-16	2014-15	2013-14	2012-13
UG to PG	17	07	05	09
Employed Campus selection	20	13	14	17
Employed other than campus recruitment	06	27	08	09
Entrepreneurship/Self employment	00	02	03	01

30. Details of Infrastructural facilities

a. Library Books Available:

- i. Department Books : 73
- ii. Project Reports : 270
- iii. Seminar Reports: 270
- iv. Lab Innovation CDs : 70
- v. Technical Magazines (CSI/ISTE): 60
- vi. Conference Reports : 05

b. Internet facilities for Staff & Students:

- i. 35 Mbps leased line internet and Wi-Fi Campus.
- ii. Departmental separate computer labs.
- iii. Each faculty with system and Internet facility.
- iv. Class rooms with teaching facility: 02

c. Class rooms with ICT facility: 02

Room Description	Usage	Capacity	Rooms equipped with
F-202	Second Year Classes	80 Students (96.47 Sq. Meter)	Black Board, LCD, Computer & Internet Facility
F-203	Third Year & Final Year Classes	80 Students (96.47 Sq. Meter)	Black Board, LCD, Computer & Internet Facility

d. Laboratories: 04

Sr. No.	Name of the lab	Name of faculty In charge	Room Description
1	DBMS Lab	Mrs. V. P. Tonde	F-124
2	SDTL Lab	Mrs. S. B. Jadhav	F-123 A
3	Microprocessor Lab	Mrs. A. P. Kulkarni	F-123 B

4	DS Lab	Mr. G. M. Gaikwad	F-123 C
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31. Number of students receiving financial assistance from college, University, government or other agencies:

*The following	data	indicates	institute	level	information.

Academic Year	Category	No. of Students
	SC	9
	OBC	35
2012-13	SBC	1
	VJNT	7
	ST	1
	SC	20
	OBC	44
2013-14	SBC	2
	VJNT	18
	ST	1
	SC	32
	OBC	52
2014-15	SBC	1
	VJNT	27
	ST	1
	SC	7
	OBC	14
2015-16	SBC	1
	VJNT	3
	ST	0

32. Details on student enrichment programmes (special lectures/workshops/ Seminar) with external experts:

a. Guest Lectures

Academic Year 2012-13					
Sr. No.	Name of Expert	Subject	Date		
1	Ms. Sonia & Ms. Chitra	Improvement of Communication Skills and Personality Development	14/08/2012		
2	Mr. Nitin Jawalkar	Human Being: Cognitive Science & Self Realization	20/07/2012		
3	Gaurav Chatur & Shashank Kothare	Current Scenario & Expectations from IT Industry	09/02/2013		
4	Mr. Sanjay Gandhi	Software Testing & Quality Assurance	17/08/2012		
5	Ms. Swati Malhotra	How to face Group Discussion (GD)	18/01/2013		
	A	cademic Year 2013-14			
Sr. No.	Name of Expert	Subject	Date		
1	Mr. S. Shivaramakrishnan	Introduction to Data warehouse	13/07/2013		
2	Mr. Himmat Sankla	Introductions to Intellectual Property Rights	27/07/2013		
3	Mr. Atul Deshmukh	Wireless Sensor Networks	21/8/2013		
4	Mr. Sachin Albhar	Software Testing	31/08/2013		
5	Mr. Rajesh Agarwal	PHP Programming	14/09/2013		
6	Dr. Vandana M. Rohokale	Future Wireless Networks	28/12/2013		
7	Prof. D. S. Mantri	Research areas in Wireless Sensor Networks	11/01/2014		
8	Mr. Amey Chandrakant Tambe	Ethical Hacking & Information Security	13/01/2014		
9	Mr. Sanket Ghorpade Co-founder, Senior Developer,	Windows Phone Application Development	17/01/2014		
10	Mr. Ajit Saley	Agile Technology	08/02/2014		

Academic Year 2014 – 15				
Sr. No.	Name of Expert	Subject	Date	
1	Mr. Manish Singh	Introduction to .Net	13/07/2014	
2	Mr. Kunal Shah	Meditation Programme on Manashanti	27/07/2014	
3	Mr. Manish Singh	Microsoft Professional Courses	28/12/2014	
4	Mr. Ajay Kumar & Mr. Vimal Srivastav	GATE & IES Exam Preparation	16/01/2015	
5	Mr. Himmat Sankhla	Introductions to Intellectual Property Rights	20/01/2015	
	Α	cademic Year 2015-16		
1	Mr. Manish Singh	Orientation Programme conducted by of ATS Infotech on Microsoft Professional Courses	25/08/2015	
2	Mr. Ajit Shinde	Drupal	23/08/2015	
3	Mr. Vishal Salvan	C#.Net	21/08/2015	

b. Workshops

Academic Year 2012-13				
Sr. No.	Name of Expert	Subject	Date	
1	Mr. Rohan Alai	Software Testing & Quality Assurance	17/08/2012	
2	Mr. Sanjay Gandhi	Red Hat Linux Basics & Administration	16/07/2012	
	Α	cademic Year 2013-14		
Sr. No.	Name of Expert	Subject	Date	
1	Mr. Bipin Kulkarni & Mr. Amey Tambe	Ethical Hacking & Network Security	04/02/2014 to 06/02/2014	
2	Mr. Sanket Ghorpade	Windows Phone Application Development	17/01/2014	
	Ac	ademic Year 2014 – 15		
Sr. No.	Name of Expert	Subject	Date	
1	Mr. Bipin Kulkarni	Cloud Computing & Infrastructure	04/03/2015 to 06/03/2015	
2	Attractive Graphics Design	Mr. Shobhit Soni	18/01/2015 to 20/01/2015	
3	IT Security & Cyber Forensics	Ms. Rinu Mathew	24/08/2015 to 27/08/2015	
	A	cademic Year 2015-16		

1	Mr. Mahesh Bodhagire	Six days Workshop on "Android & Application Development" from 8 th March 2016 to 13 rd March 2016	06/03/2016 to 07/03/2016
2	Mr. Jayant Mohite	Six days Workshop on"BigData & Hadoop" from 18 th March 2016 to 23 rd March 2016	18/03/2016 to 23/03/2016
3	Mr. Adnan Ghadiyali	Two days Workshop on "LaTex" from 06 th March 2016 to 07 th March 2016	08/03/2016 to 13/03/2016

c. Value Addition Programmes

	Academic Year 2012-13				
Sr. No.	Name of Organization	VAP			
1	ATS Infotech Pvt. Ltd., Delhi	C# & ASP.Net			
	Academic Yea	r 2013-14			
Sr. No.	Name of Organization	VAP			
1	ATS Infotech Pvt. Ltd., Delhi	C# & ASP.Net			
	Academic Year	2014 – 15			
Sr. No.	Name of Organization	VAP			
1	ATS Infotech Pvt. Ltd., Delhi	C# with Cloud Computing			
	Academic Year 2015-16				
Sr. No.	Name of Organization	VAP			
1	ATS Infotech Pvt. Ltd., Delhi	C# with Cloud Computing			

d. Industrial Visits

Academic Year 2012-13				
Sr. No.	Name of Industry	Date		
1	Technosoft Dut I to Jainur	04/03/2012 to		
1	rechnosoft Pvt. Ltd. Jaipur	25/03/2012		
2	Persistent Pvt. Ltd. , Pune	11/02/2013		
	Academic Year 2013	3-14		
Sr. No.	Name of Industry	Date		
1	Alliance Prosve Hydershed	14/08/2014 to		
1	Amance Frosys, Tryderabad	18/08/2014		
2	Persistent Pvt. Ltd., Pune	24/07/2014		
Academic Year 2014 – 15				
Sr. No.	Name of Industry	Date		
1	Rular Dynasty Infotech Pvt. Ltd.,	17/03/2015 to		

	Amritsar, Punjab	25/03/2015
2	Persistent Pvt. Ltd., Pune	28/03/2015
	Academic Year 2015	- 16
1	Goa Information Technology Innovation Centre, Goa	13/03/2016
2	Persistent Pvt. Ltd., Pune	23/02/2016

33. Teaching methods adopted to improve student learning:

- 1. Structured Learning Methodology is adopted
- 2. Various teaching methods like Multimedia Learning Techniques, Web based teaching; Practical Learning and E-learning are followed by the Faculty.
- 3. Teaching aids such as OHP/LCD are used.
- 4. At least one additional Experiment is given to student apart from the experiments in the regular Course. Additional Experiments are given apart from the curriculum and syllabus.
- 5. Use of GD, Role Play, Poster Wall Magazine etc., as part of class room teaching.
- 6. Focus on student centred teaching is practiced by the Faculty members.
- 7. Innovation in effective utilization of lecture time

To improve classroom learning, department has applied following practices

- Teachers are allotted subject as per their choice and specialization
- As far as possible teacher who taught that particular course is allotted to teach that course.
- Teachers are asked to prepare semester long teaching plan and course file before start of the semester.
- Each teacher is asked to prepare soft copies of their notes and Power point presentations for the course content. Same is shared with the students by using ERP software and in the classrooms.
- To simplify Teaching Learning process teaching aids are provided for conducting lectures.
- Models, videos and animations are used by faculty members to elaborate concepts as per the complexity of the topic.
- Lab experiments and homework in the form of assignments is given to students
- Lectures with self learning session and mid lecture activities are added in the timetable.

Project Based and Active Learning

- Lab Innovations is an activity in line with PBL principles, in which students are allowed to work on their ideas. This activity is also resulted in improved learning and creation of useful lab models.
- Students are motivated to work on of ongoing research projects.
- Project exhibition and various technical festivals provide opportunity for active learning.
- Expert talks and Industry expert Seminars are arranged to bridge the knowledge gap of the students.

Assessment Method

- Direct assessment of the course was done by alumni, industry and experts from professional bodies.
- Various tests (Unit test and Prelim, Online etc) are used for assessment.
- Mock tests are conducted to evaluate the students' understanding.
- Industry experts are included during the revision of the course at university level.
- Feedback from alumni and final year student are taken into account during revision of the PEO's at the institute.
- Indirect assessment is done through campus interviews and performance of students in competitive exams like GATE, GRE, and CAT etc.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- 1. Providing Training programs for students towards soft skills.
- 2. Training Program on Android Application Development, Ethical Hacking & Security for self-aided group.
- 3. Students participate in Blood Donation Camp, Orphans relief measure, and Health awareness programs & Meditation in various clubs.
- 4. Promotion of leadership qualities through extra/co-curricular activities such as NSS, Technical Festivals, Cultural Gathering, Farewell Programmes, Various day's like Engineer's Day, Teacher's Day.
- 5. Students are regularly participating in Clean and green programs conducted by various welfare organization.

Sr. No.	Extra- Curricular Activity	No. of Events Conducted under Specified Activity	Description
1	15th Sept 2014	Blood Donation Camp	185 students from institute donated blood in blood donation camp organized in association with SKN Medical College
2	NSS	 Four Different events per year 7 days NSS camp was organized in the village for sustainable development. 	 At institute level 50 Students have participated in different NSS activities throughout the year. Minimum working hours per student per year is 120 hrs. 25 students from institute have participated in NSS special camp of 7 days for sustainable development of one village in the area of University of Pune.
3	Cultural Events	Once in a year.	 Cultural event comprises drama, dance, singing competition etc. Also various other cultural activities like cultural day, painting competition etc. are organized by the students.

4	Earn and		• About 20 students at Institute level
	Learn	Throughout the year	have participated in earn and Learn
	Scheme		Scheme of University of Pune.

35. SWOC analysis of the department and Future plans

Strengths:

- NBA Accredited
- Experienced Faculty
- Co-Curricular Activities (Project Contests and Web Contests)
- Eminent Guest Speakers from academia, industry and service sectors
- Good results in University exams
- Internship for doing projects in reputed companies
- Close monitoring of student performance and system of communicating regularly with parents

Weaknesses:

- Research culture & Publications
- Lack of online journals in departmental library
- Lack of Research
- Faculty qualification improvement

Opportunities:

- Industry Institute interaction
- Industrial projects
- Entrepreneurship development

Challenges:

- Diversified students intake
- Induction & retention of faculty
- Improving students communication skills
- Adaptive preparation of students to sustainability in global competitive world

Future Plan:

- Promote Faculty for Research & Development work
- Improve placements
- Strengthen alumni interaction

Annexure:

Evaluative Report of IT department

Table: IT.19 a) Publication Details of Faculty

Sr.	Name of Staff	Paper Title	Publisher	Year
No.				
		Advance Computer Efficient Streaming and Sharing in the Clouds	International Journal of Advance Research in Computer & Communications Engineering Vol. 4 Issue 4, ISSN 2278 – 1021	April 2015
		Invisible Video Watermarking for Data Integrity and Security based on Discrete Wavelet Transform	International Conference on Recent Trends in Engineering, Technology - 2014	March 2014
		Design and Generate Dynamic Access Code for Video Watermarking based Data Security System	Emerging Trends in Technology and It's Applications - ICETTA- 2014	February 2014
		Design of System Model for Invisible Video Watermarking to detect	Yadavrao Tasgaonkar College Of Engineering & Management, in association with University of Mumbai	February 2014
		VANET Based Communication For Emergency Vehicles	IJARCSEE	January 2013
1.	Mr. N. A. Dhawas	Safety Communication For Emergency Vehicle in VANET	RITSICAEM	January 2013
		Safety Communication for Emergency Vehicle in VANET	CPGOCN PICT, Pune	March 2013
		Image Compression for Authentication & Integrity of Data Based on Discrete Wavelet Transform	International Journal of Engineering Inventions (IJEI), Vol. 1 Issue 5, PP. 04-09,(ISSN 2278-7461)	September 2012
		Introduction to KEA-Means Algorithm for Web Document Clustering	InternationalJournalofEngineeringTrendsandTechnology (IJETT), Vol. 3Issue4, PP. 630-634, (ISSN 2231-280)	July- August 2012
		Implementation of Privacy Technique to Location Privacy System	International Journal of Computer Science and Management Research, Vol 1, Issue 1, ISSN: 2278-733X.	August 2012
		Web Document Clustering By Using KEA-Means Algorithm	InternationalConferenceonComputerScienceandEngineering (ICCSE-2012), Pune.	June 2012

2.	Mrs. P. P. Ahire	Use of Cryptography and Secrete Sharing riven the Secrete into Multi-Cloud Enriching Forensic Analysis process for Tampered Data in Database Facial Expression Recognition	International Journal of Advance Research in Computer & Communications Engineering Vol. 4 Issue 4, ISSN 2278 – 1021 International Journal of Computer Science and Information Technologies (IJCSIT), Vol. 3(5), 5078-5085.ISSN: 0975-9646 International Journal of Advanced	April 2015 March 2012
		Using Facial Movement Features (Impact Factor 4.582)	Research in Computer and Communication Engineering, Vol. 4, Issue 4	April 2015
		Road Quality and Ghats Complexity analysis using Android sensors	International Journal of Advance Research in Computer & Communications Engineering Vol. 4 Issue 4, ISSN 2278 – 1021	April 2015
3.	Mrs. V. P. Tonde	Real Time Background subtraction on GPU using CUDA	International Journal of Next Generation Computer Application (IJNGCA) Vol. 1 Issue 5,ISSN 2319- 524X	Feb 2013
		GPUImplementationofExtendedGaussiansMixtureModelforBackgroundSubtractionSubtraction	Proceedings of C-PGCON-12, Computer Engineering - PG Conference	April 2012
		Detection of Vampires in Ad- hoc sensor networks	International Conference on Power Circuit & Information Technologies	April 2015
4.	Mr. G. M. Gaikwad	Image Validation by Demosaicing	International Journal of Advance Research in Computer & Communications Engineering Vol. 4 Issue 4, ISSN 2278 – 1021	April 2015
		SNMP Based Network Monitoring System	Proceedings of C-PGCON-12, Computer Engineering - PG Conference	April 2012
5	Mrs. A. P.	Efficient fuzzy type Ahead search in XML data	International Journal of Advance Research in Computer & Communications Engineering Vol. 4 Issue 4, ISSN 2278 – 1021	April 2015
5.	Kulkarni	SOPC Based Convolutional Encoding and Viterbi Decoding	International Journal of Engineering Trends and Technology (IJETT), Vol. 3 Issue 4, PP. 476-479, (ISSN 2231-5381)	July- August 2012
6.	Mr. R. S.	Data Leakage Detection Using LSB	International Journal of Advance Research in Computer & Communications Engineering Vol. 4 Issue 4, ISSN 2278 – 1021	April 2015
б.	Badodekar	Traffic and Criminal Vehicle Detection Using Smartphone (Impact Factor 4.582)	International Journal of Advanced Research in Computer and Communication Engineering	April 2015

		Interaction with Projection Screen using camera and laser beam	International Journal of advances in Management, Technology & Engineering Sciences	February 2014
		Interaction with Projection Screen using camera and laser beam	International Journal of advances in Management, Technology & Engineering Sciences, Organized by OXFORD College of Engineering	March 2014
		Survey On: Intrusion Detection System Based on Network Attacks Pattern	National conference on recent trends in Engineering Vidyashram Techfiesta -2013	March 2014
		Human Action Recognition	International Conference on Internet Computing and Information Communications (ICICIC 2012)	December 2012
		Cost Estimation for Distributed Systems using Case Diagram	2nd International Conference on New Horizons in Green Energy with Smart Communication Systems (ICGESCS 2013), - Thiruvannamalai, Tamil Nadu, India.	February 2013
		Human Action Recognition	Proceedings of C-PGCON-12 Computer Engineering - PG Conference	April 2012
		An Efficient Fast Re-Route Method	International Journal of Computer Science and Technologies Research	April 2015
7.	Ms S B Ware	Introduction to KEA-Means Algorithm for Web Document Clustering	InternationalJournalofEngineeringTrendsandTechnology (IJETT), Vol. 3Issue4, PP. 630-634, (ISSN 2231-280)	July- August 2012
		Web Document Clustering By Using KEA-Means Algorithm	International Conference on Computer Science and Engineering (ICCSE-2012), Pune.	June 2012
		Web Document Clustering By Using KEA-Means Algorithm	Proceedings of C-PGCON-12, Computer Engineering - PG Conference	April 2012
8.	Mr. N. S. Bansode	Network analysis IDS Alert By Using neural network and Fuzzy cluster Decision Support Techniques	Computer Post Graduate Conference, C-PGCON-14	March 2014

Table: IT.19 a) Publication Details of Students

Sr. No.	Paper Title	Title of Research Journal	Publisher	Volume Number & Year	Author / Co- author	ISSN
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1	Advance Computer Efficient Streaming and Sharing in the Clouds (Impact Factor 2.117)	International Journal of Advanced Research in Computer and Communication Engineering	IJARCCE. 2015	Vol. 4, Issue 3, April 2015	Nitesh Chainani, Kishor Phapale, Roshan Pawar, Sagar Deshmukh	ISSN (Online) 2278- 1021
2	Data Leakage Detection Using LSB (Impact Factor 2.117)	International Journal of Advanced Research in Computer and Communication Engineering	JJARCCE. 2015	Vol. 4, Issue 3, April 2015	Sanchit S. Mhatre, Vaibhav V. Kakhandaki , Bhagyashri P. Yeola	ISSN (Online) 2278- 1021
3	Traffic and Criminal Vehicle Detection Using Smartphone (Impact Factor 4.582)	International Journal of Advanced Research in Computer and Communication Engineering	IJARCCE. 2015	Vol. 4, Issue 4, April 2015	Snehal Dere, Ninny Kachirayil , Anuja More, Pooja Sharwale	ISSN (Online) 2278- 1021
4	Use of Cryptography and Secrete Sharing riven the Secrete into Multi-Cloud (Impact Factor 2.117)	International Journal of Advanced Research in Computer and Communication Engineering	IJARCCE. 2015	Vol. 4, Issue 3, April 2015	Sanket Bora, Sandip Karale, Dheeraj Katariya, Ganesh Shejwal	ISSN (Online) 2278- 1021
5	Facial Expression Recognition Using Facial Movement Features (Impact Factor 4.582)	International Journal of Advanced Research in Computer and Communication Engineering	IJARCCE. 2015	Vol. 4, Issue 4, April 2015	Abhay Fegade, Dashrath Godbole, Priyanka Sonawane, Sayali Munde	ISSN (Online) 2278- 1021
6	Image Validation by Demosaicing (Impact Factor 2.117)	International Journal of Advanced Research in Computer and Communication Engineering	IJARCCE. 2015	Vol. 4, Issue 3, April 2015	Pravin Dangale, Prashant Amage,Siddha rth Ubale, Dnyaneshwar Jadhav	ISSN (Online) 2278- 1021
7	Detection of Vampires in Adhoc Sensor Network	International Conference on Power Circuit & Information Technologies	ICPCIT- 2015	27-28 April 2015	Kratika Malik, Ravikiran Pise, Lucky Atkare,Sneha Warade	Online <i>ISSN</i> : 1998- 1090

	Road Quality	International Journal	IJARCCE.	Vol. 4,	Amol Jadhav,	ISSN
8	and Ghats	of Advanced	2015	Issue 3,	Shreyas	(Online)
	Complexity	Research in		April 2015	Shinde, Ashish	2278-
	analysis using	Computer and			Dhoka,	1021
	Android	Communication			Sandeep	
	sensors (Impact	Engineering			Bablade	
	Factor 2.117)					
	An Efficient	International Journal	IJCSITR -	Vol. 3,	Rushabh	ISSN
	Fast Re-Route	of Computer Science	2015	Issue 2, pp: Mo	Mehta, Kartik	2348-
0	Method	and Technologies		(62-66),	Dhumale,	120X
9		Research		Month:	Sakshi Shah,	(online)
				April -	Deepa	
				June 2015	Gaikwad	
	Efficient fuzzy	International Journal	IJARCCE.	Vol. 4	Akash	ISSN
	type Ahead	of Advance Research	2015	Issue 4,	Chaporkar,	(Online)
	search in XML	in Computer &		ISSN 2278	Prathamesh	2278-
10	data	Communications		- 1021	Chavan,	1021
		Engineering			Harshad	
					Dahiwadkar,	
					Yogesh Kale	

Department of Electrical Engineering Evaluative Report of the Department

- 1. Name of the department: Electrical Engineering
- 2. Year of Establishment: 2010
- **3.** Names of Programmes / Courses offered

Course offered	Name of the course	Specialization	Year of Establishment
U.G.	BE	Electrical Engineering	2010-11
P.G.	ME	Electrical Power System	2013-14

4. Names of Interdisciplinary courses and the departments/units involved:

Following Interdisciplinary courses are involved in curriculum of programs:

Sr.No.	Name of Interdisciplinary course	Department
1	Industry & Technology Management	Mechanical Engineering
2	Engineering Mathematics III	Engineering Science
3	Research Methodology	Mechanical Engineering

5. Annual/ semester/choice based credit system (programme wise):

Sr. No.	Course offered	Programme	Duration	System	Evaluation
1	U.G.	Electrical	4 Years	8 Semester	Marks
		Engineering			
2	P.G.	Power System	2 Years	4 Semester	Credit

6. Participation of the department in the courses offered by other departments:

Sr.I	No.	Courses offered	Department
1	1	Basic Electrical Engineering	Engineering Science
2	2	Electrical & Electronics Engineering	Mechanical Engineering

7. Courses in collaboration with other universities, industries, foreign Institutions etc. Nil

8. Details of courses/programmes discontinued (if any) with reasons:

Nil

9. Number of teaching posts

For Undergraduate Programme

	Sanctioned	Filled
Professors	1	0
Associate Professors	2	2
Asst. Professors	13	14
Total	16	16

For Post graduate Programme

	Sanctioned	Filled
Professors	1	1
Associate Professors	3	1
Assistant Professor	-	1
Total	4	3

9. Faculty profile with name, qualification, designation, specialization.

Sr.No	Name	Designatio n	Qualification	Specialization	No.of Years of Experie nce	No.of Ph.Ds. Guided for the last 4 years
1.	Mr A A Kalage	Associate Professor	ME	Power System	15	
2.	Dr. V. N. Bapat	Adjunct	Ph D	Control System	22	7
	Dr. v. N. Bapat	Professor	ME	Control System	33	1
3.	Dr. Shenbagalakshmi R.	Associate Professor	Ph D	Power Electronics	14	
4.	Mr D M Chahyal	Assistant Professor	ME Pursuing	Power System	23	
5.	Mr M N Kalgunde	Assistant Professor	ME	Power System	14	
6.	Mr A V Tamhane	Assistant Professor	ME	Power System	14	
7.	Mrs S V Tade	Associate Professor	ME	Control System	10	
8.	Mr J A Khobragade	Assistant Professor	ME	Control System	9	
9.	Mr G R Walke	Assistant Professor	ME	Power System	7	
10.	Mr S L Mhetre	Assistant Professor	ME	Power System	7	
11.	Mr S B Jadhav	Assistant Professor	ME	Power System	4	
12.	Ms M U Naik	Assistant Professor	ME	Electrical Drives	5	
13.	Mr Ch Subramanyam	Assistant Professor	ME	Power System	2.5	

14.	Mr N M Rao	Assistant Professor	ME	Power System	4	
15.	Mr R M Narkar	Assistant Professor	ME Pursuing	Control System	12	
16.	Ms P D Sonwane	Assistant Professor	ME	Power System	3	
17.	Ms. Geetanjali Yadav	Visiting Faculty	ME	Power System	2	
18.	Ms. Bangar P. A.	Visiting Faculty	ME Pursuing	Power System	3	
19.	Mr Gavali I. R	Visiting Faculty	ME Pursuing	Power System	1	

10. List of Senior Visiting Faculty:-

1) Dr. V. N. Bapat

12. Percentage of Lectures delivered and practical classes handled [Program wise] by temporary Faculty: Nil

13. Student Teacher ratios:-

Year	Students' Intake	Teacher(s)	STR
2016-17	180	12	15:1
2015-16	180	12	15:1
2014-15	180	12	15:1
2013-14	180	11	16.36:1
2012-13	120	9	13.33:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Type of Staff	Sanctioned	Filled
Technical Assistant	2	2
Lab Assistant	2	2
Administrative Staff	1	1

15. Qualification of teaching faculty

Sr. No	Qualification	No of Teaching
		faculty
1	Ph.D.	02
2	Ph.D. pursuing	02
3	P.G.	12
4	P.G. pursuing (U.G.)	03

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.a) Publications per faculty:

Sr No	Name of Fcaculty	Number of papers published in peer reviewed journals (national /international) by faculty and students	Number of publications listed in International / National Conference	Monographs	Chapters in Book	Books Edited	Books with ISBN/ISSN numbers with details of publishers	Citations	SNIP	SJR	i10-index	h-index
1	Dr. V. N. Bapat	11	12					83			3	6
2	Dr. R. S. Lakshmi	07	0					9				
3	Mr. A. A. Kalage	3	3					10				1
4	Mr. G. R. Walke	2	4									
5	Mr. M. N. Kalgunde	0	1									
6	Ms. S. V. Tade	1	1									
7	Mr. S. L. Mhetre	1	1									
8	Mr. J. A. Khobragade	1	1	-	-	-		-		-	1	
9	Mr. A. V. Tamhane	2	2									
10	Mr. Subrahmany an CH	0	2									
11	Ms. M. U.	1	0									

	Naik							
10	Ms. P. D.	1	0					
12	Sonawane	T	0	 	 	 	 	
12	Mr. N. M.	1	0					
13	Rao		U	 	 	 	 	

19. b)Books and Monographs Published

--Nil

20. Areas of consultancy and income generated

Sr. No.	Faculty coordinator	A.Y.	Name of Area	Name of consultancy	Amount (Rs)
1	Dr. V. N. Bapat	2014- 15	Third Party Inspection of 11 Solar Micro-Grid Installations	PragatiPratishthan, Thane, 18, 19 May 2015	15000/-

Providing Laboratory Services

Sr. No.	Faculty coordinator	A.Y.	Name of Area	Party	Amount (Rs)
1	Manohar N. Kalagunde Amol A. Kalage	2013- 14	High Voltage Engg. Switchgear and Protection	Dattakala Group of Institutions Faculty of Engineering, Daund	18000/-
2	Manohar N. Kalagunde Amol A. Kalage	2014- 15	High Voltage Engg. Switchgear and Protection	Dattakala Group of Institutions Faculty of Engineering, Daund	25000/-

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards Dr V. N. Bapat was member of two AICTE inspection committees

22. Student's projects

Sr.No.	Description	2015-16	2014-15	2013-14	2012-13
(a)	Percentage of students who have done	3/19	16/18	11/15	

	in-house	projects	including	(15.78%)	(88.88%)	(73.33%)	
	interdepartn	nental/ program	nme				
(b)	Percentage projects in institution	of students organizations	placed for outside the	1/19 (5.26%)	2/18 (11.11%)	4/15 (26.67%)	

23. a) Awards/ Recognitions received by faculty and students

Academic Year	ademic YearNameDetails of Awards / Recognitions		Organization
	Sujeet Ghamande	First Prize in Star	IEEE India SAC and Lambda
2014-15	Selwyn Martin	Innovator	Edulabs at Sathyabama
	Shreeniwas Kulkarni	Workshop	University, Chennai.

b. UNIVERSITY RANK HOLDER DETAILS:

Year	Name of Student	Class	University Rank
2012-13	Jasdeep Singh	SE (Electrical)	1
	Chandrakant Bhise	SE (Electrical)	6
	Sujeeta	SE (Electrical)	7
	Ganesh Thombre	SE (Electrical)	10
2013-14	Harishchandra Sankpal	SE (Electrical)	3
2013-14	Jasdeep Singh	TE (Electrical)	1
2014-15	Jasdeep Singh	BE (Electrial)	1

24. List of eminent academicians and scientists/ visitors to the department:

Sr. No.	Name	Designation	Organization	Purpose of Visit
1	Mr S S Gharpure	Proprieter	JEE associates	Information of
1			Electr. Consultants	Electrical Panels
c c	Mr S. M.	Ex. Engineer	MSEDCL Mumbai	Lecture on Reactive
2	Mujumdar			Power Management
3	Mrs Rajlaxmi	Tech. Head	B & R Auto. Pvt Ltd,	W/S on PLC SCADA
1	Mr. Kedar Pathak	MD	Urja Park Kamshet	Demo of energy
4				solutions equipments

25. Seminars/ Conferences/Workshops organized and the source of funding

Academic Year	Category	Title	Funding Agency
		"Linking Faculty to Industry Through IOT	SIT, Lonavala
2015-16	Workshop	A Workshop on PSIM software. Introduction & Applications in Electrical Engg	SIT, Lonavala
		Workshop on PLC SCADA	SIT, Lonavala

		Ckt design competetion using Auto	SIT, Lonavala
		CAD	
		Policy & Regulatory Framework,	Savitribai Phule
		Technologies & Financial Options in	Pune University
		Solar PV Generation in India	
	Workshop	Ckt design competetion using Auto	SIT, Lonavala
2014 15		CAD	
2014-13	Seminar	Large Scale Integration:	Savitribai Phule
		Opportunities & Challenges	Pune University
2012 14	IIT Spoken	Certification Course of SciLab	SIT, Lonavala
2013-14	Tutorial		

26. Student profile programme/course wise:

Academic	Applications	Selected	Enr	olled	Pass
Year	received (CAP	(CAP+MGM	Μ	F	percentage
	Allotment @ 80%)	T+JK)			- 0
2012-13	48	62	52	10	70%
2013-14	48	60	49	11	52%
2014-15	48	60	48	12	60%
2015-16	48	64	55	09	44%

27. Diversity of Students (2015-16)

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
UG (Electrical)	84%	16%	Nil
PG (Electrical Power System)	92%	8%	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc?

A andomia Vaan	Number of Students cleared in Competitive Examinations				
Academic Year	GATE	GRE	TOEFL	BANK Exams	
2013-14	20	1	0	0	
2014-15	23	0	0	0	
2015-16	02	0	0	0	

29. Student progression

Student Progression	Percentage against enrolled			
	2010-14	2011-15	2012-16	
UG to PG	21.81%	12.30%		
Employed				
# Campus Selection	21.81 %	10.77%	44.23%	
# Off campus	36.36 %	49.23%	10.34%	
recruitment				
Entrepreneurs	1.82% (1/55)	4.61% (3/65)		

30. Details of Infrastructural facilities

Sr No	Infrastructural Facility	Quantity Details		
1	Library- department	No. of volumes: 70		
		No. of titles : 40		
2	Internet for students	Available - 45 Mbps (1:1) Leased Lir	ne	
3	Internet for staff	Available - 45 Mbps (1:1) Leased Lir	ne	
4	Classrooms with ICT facility	3		
5	Faculty Rooms	6		
6	Students Laboratories	Laboratory Name	Area (sqM)	
		Electrical Machines Lab (F026)	70	
		Electrical Measurements &	70	
		Instrumentation Lab (F026)		
		HV Engg Lab (F025)	50.60	
		Control System Lab (F024)	50.60	
		Power System Lab (F024)		
		Power Electronics & Drives Lab (F023)	50.60	
		Computer Lab 1(F022)	70	
		Computer Lab 2 (F022)	70	
		PLC & SCADA Lab (F007)	50.60	
		Switchgear & Protection Lab	50.60	
		(F007)		
		Renewable Energy Lab (F002)	36.42	

31. Number of students receiving financial assistance from College, university, government or other agencies

The following data indicates institute level information.

Year	Category	No. of Students	Amount in Rs.
	SC	212	20334158
	OBC	564	24927237
2012-13	SBC	46	3948192
	VJNT	240	20805595
	ST	17	1481156
	SC	269	27109766
	OBC	653	30188638
2013-14	SBC	57	5095331
	VJNT	290	26486914
	ST	15	1391548
2014 15	SC	337	34783903
2014-13	OBC	668	31544428
SBC	54	5013408	
------	-----	----------	
VJNT	306	28358779	
ST	16	1535893	

32. Details on student enrichment programmes with external experts

				Resource Person	No.of
Sr.No.	Title	Particulars	Class	Affiliation	Participant
1.	Industrial Visit	SIRUM substation Hadapsar	TE Electrical	Mr Jagdish Ghoghare	40
2.	Value Addition Program	Certification Course of SciLab	TE Electrical	Spoken Tutorial IIT, Powai	74
3.	Industrial Visit	Kalyan Locoshed	TE Electrical	Sr Engineer, Kalyan Locoshed	65
4.	Industrial Visit	Automatic Electricals, Lonavala	SE Electrical	Mr Dhande, Design Engg, AE Ltd	68
5.	Guest lecture	Intelluctual Property Act (Patent)	TE, BE, ME	Ashutosh Prachand, Archana Joshi IP face Pune	55
6.	Guest lecture	UPSC Exam Information	SE, TE, BE	Mr Yogesh Bhise Satara	70
7.	Business Club	Business Opportunity in Electrical Engg	SE, TE, BE	Mr S. M. Mujumdar Ex. Engineer MSEDCL Mumbai	80
8.	Guest lecture	Reactive Power Management	BE, ME	Mr S. M. Mujumdar Ex. Engineer MSEDCL Mumbai	64
9.	Value Addition Program	Workshop on PLC SCADA	BE	B & R Automation Pvt Ltd, Mrs Rajlaxmi	65

33. Teaching methods adopted to improve student learning

Department practice blend of Activity based and Project based learning in addition to traditional lecture based learning.

- a. Teaching Aids
 - LCD Projector facility in the classroom
 - NPTEL Videos
 - Industry Visit

b. Teaching methods

- Programmed Learning (Teaching Plan, Course File)
- Project based Learning
- Application based conceptual learning
- Software programming sessions on specific applications
- Mini projects
- Guest Lectures
- Provision to participate in conferences and symposiums in other institutes.

34. Participation in Institutional Social Responsibility (ISR)and Extension activities

Sr. No	Day andDate	Program Details Part		Participation
1	11- 25 Jan	Road Safety	Organized Lecture on	25 Volunteer
	2015	Programme	Road Safety ,Street Play	
			and Rally	
2	14 Feb 2015	Blood Donation	Organized and Participated	130 Students
		Camp	Blood Donation Camp in	
			support of	
			SmtKashibaiNavale	
3	26 Jan 2015	Street Play on	Organizes Street plays	15 Volunteer
		Helping Victim		
		Ofaccident		
4	24Feb-2	Winter Camp	Pawana Nagar (Kamshet)	25 Volunteer +
	March 2015	_	Tal MavalDist: Pune	1 Programme
				Officer

A.Y. 2014-15

A.Y.13-14

Sr. No.	Day and Date	Program	Details	Participation
1	26 Jan 2014	Tree Plantation on Republic Day	Tree Plantation on the occasion of Republic Day in Presence of President M.N Navale	50 Volunteers

2	02 Feb 2014	Blood Donation Camp	Organizes and Participate Blood Donation Camp at Reading Hall	50 volunteers
3	Jan 2014	Street Play on Stri Shakti Naka Smajo Kami	Organize street play on the occasion of college Gathering	20 Volunteers
4	28 Jan 2014 – 3 rd Feb 2014	Special Camp	VillChiklase Tal MavalDist Pune	25 volunteers

A.Y.12-13

Sr. No.	Day and Date	Program	Details	Participation
1	Nov 2012	Youth DevelopmentArt Of Living Foundation	Conduct Program for the personality development of Students	35
2	5 Sept 2012	Celebration of Teacher Day	Celebrate Teacher Day	50

35. SWOC analysis of the Department and future plans

SWOC Analysis

Strength Weakness Opportunity Challenges (SWOC) analysis used to identify the acquired and inherent strengths along with weaknesses of the department. Furthermore, it is also carried out to identify the opportunities to excel and improve, to negotiate the challenges faced by the department from internal and external environment.

Strengths

- Aptly qualified, experienced and hard-working faculty and staff.
- Adequate student activities to ensure development of leadership qualities among students.
- State-of-the-art laboratory facilities.
- Computer Laboratories with more than 14 technical soft-wares.
- A set trend of producing University Rankers.
- Alumni entrepreneurs

Weaknesses

- Consultancy work to be enhanced.
- Less number of sponsored research projects and patents
- Course duration is fixed as both brighter and slow learners take the coursefor the same duration.
- Publication by faculty in books with ISBN number is relatively less.

• Lack of sufficient PhD supervisors in affiliating Savitribai Phule Pune University, hence slow pace in quality research and publication.

Opportunities

- Faculty could be motivated and encouraged to take up R & D and Consultancy assignments from industry and PSUs and Government agencies.
- Further encouragement for Publications at International / National levels.
- Enrich Project Based Learning model to enhance skills among students.
- Involving students in R&D projects by faculty.
- Online Resources like NPTEL, Video lectures given by experts
- Collaboration with foreign universities for faculty exchange program
- Enetreprneurship development

Challenges

- To promote the academic standard of students on par with international level.
- Training the students for the ever changing Industry scenario.
- Monitoring weak students in this highly distracted world
- Faculty adoption to new changing technologies
- Greater challenge in placing our students in appropriate company, due torecession.
- More number of R&D Projects/Consultancy work to be achieved in theforth coming years.
- More students should be motivated to write GATE/UPSC exams.
- To teach students from rural and urban backgrounds effectively.
- Inculcating ethical values in the minds of students.

Future Plans:

- To enrich teaching learning process through PBL model.
- Conduct laboratories through '*do it yourself first*' methodology.
- Emphasize skill building among students.
- All faculties should involve in research and development of recent technologies and publish considerable number of publications in reputed journals.
- Increase Ph.D. enrollment of existing faculty.
- Obtain funded projects from various organizations.
- Register patents.
- Faculty shall involve in testing and consultancy work.
- Enhance student placement.



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/1-2450733250/2015/EOA

Date: 07-Apr-2015

To, The Secretary, Tech. & Higher Education Deptt. Govt. of Maharashta, Mantralaya, Annexe Building, Mumbai-400032

Sub: Extension of approval for the academic year 2015-16

Ref: Application of the Institution for Extension of approval for the academic year 2015-16

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	Western	Application Id	1-2450733250
		Permanent Id	1-5285631
Name of the Institute	SINHGAD INSTITUTE OF TECHNOLOGY	Institute Address	GAT NO.309/310, OFF MUMBAI-PUNE EXPRESSWAY, KUSGAON (BK), LONAVALA, TAL - MAVAL, DIST - PUNE, LONAVALA, PUNE, Maharashtra, 410401
Name of the Society/Trust	SINHGAD TECHNICAL EDUCATION SOCIETY	Society/Trust Address	SR. NO- 44/1, OFF - SINHGAD ROAD, VADGAON (BK.), PUNE, Maharashtra, 411041
Institute Type	Unaided - Private		

Opted for change from	No	Opted for change of	No	Opted for change of	No
Women to Co-ed		name		site	
Change from Women to	Not Applicable	Change of name	Not Applicable	Change of site	Not Applicable
Co-ed approved		Approved		Approved	

To conduct following courses with the intake indicated below for the academic year 2015-16

Application Number: 1-2450733250*

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Application Id: 1-2450733250		Course	e	Affiliating Body	-15	oved for	al status	al status	laboration atus	
Program	Shift	Level	•	Full/Part Tin		Intake 2014	Intake Appn 15-16	NRI Approv	PIO Approv	Foreign Col Approval st
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUA TE	COMPUTER ENGINEERING	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUA TE	COMPUTER NETWORKS	FULL TIME	University of Pune, Pune	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUA TE	ELECTRICAL POWER SYSTEMS	FULL TIME	University of Pune, Pune	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUA TE	ELECTRONICS & TELE- COMMUNICATION ENGINEERING	FULL TIME	University of Pune, Pune	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUA TE	MECHANICAL ENGINEERING	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUA TE	COMPUTER ENGINEERING	FULL TIME	University of Pune, Pune	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUA TE	ELECTRICAL ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUA TE	ELECTRONICS & TELE- COMMUNICATION ENGINEERING	FULL TIME	University of Pune, Pune	180	180	NA	NA	NA

Application Number: 1-2450733250*

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7th Floor, Chandralok Building, Janpath, New Delhi- 110 001

PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 <u>www.aicte-India.org</u>

Application Id: 1-2450733250		Course	e	Affiliating Body	-15	oved for	al status	al status	laboration atus	
Program	Shift	Level		Full/Part Tir		Intake 2014	Intake Appr 15-16	NRI Approv	PIO Approv	Foreign Col Approval st
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUA TE	INFORMATION TECHNOLOGY	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUA TE	MECHANICAL ENGINEERING	FULL TIME	University of Pune, Pune	240	240	NA	NA	NA
ENGINEERING AND TECHNOLOGY	2nd Shift	UNDER GRADUA TE	COMPUTER ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	2nd Shift	UNDER GRADUA TE	ELECTRONICS & TELE- COMMUNICATION ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	2nd Shift	UNDER GRADUA TE	MECHANICAL ENGINEERING	FULL TIME	University of Pune, Pune	120	120	NA	NA	NA

Note: Validity of the course details may be verified at www.aicte-india.org>departments>approvals

The above mentioned approval is subject to the condition that SINHGAD INSTITUTE OF TECHNOLOGY shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Application Number: 1-2450733250*

Note: This is a Computer generated Letter of Approval.No signature is required.

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7th Floor, Chandralok Building, Janpath, New Delhi- 110 001 PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

> Dr. Avinash S Pant Actg Chairman, AICTE

Copy to:

- 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
- The Principal / Director, SINHGAD INSTITUTE OF TECHNOLOGY GAT NO.309/310, OFF MUMBAI-PUNE EXPRESSWAY, KUSGAON (BK), LONAVALA, TAL - MAVAL, DIST -PUNE, LONAVALA, PUNE, Maharashtra, 410401
- The Secretary / Chairman, SINHGAD TECHNICAL EDUCATION SOCIETY SR. NO- 44/1, OFF - SINHGAD ROAD, VADGAON (BK.),PUNE, Maharashtra,411041
- 6. Guard File(AICTE)

Application Number: 1-2450733250*

Note: This is a Computer generated Letter of Approval.No signature is required.

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Letter Printed On:11 April 2015

STECHNICAL EDUCATION SOCIE

SINHGAD TECHNICAL EDUCATION SOCIETY'S

SINHGAD INSTITUTE OF TECHNOLOGY

(Affiliated to University of Pune & Approved by AICTE)

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

inhgad Institutes

 PROF. M. N. NAVALE
 DR. (MRS.) SUNANDA M. NAVALE
 DR. M. S. GAIKWAD

 M E (Elect.) MIE, MBA
 B A, MPM, Ph D
 M E, Ph D (Electronics Engg.)

 Founder President
 Founder Secretary
 Principal

DECLARATION BY THE HEAD OF THE INSTITUTTION

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 tear visit.

Date :- 31st December 2015 Place :- Lonavala, Pune



wad) PPRINCIPAL SINHGAC INSTITUTE OF TECHNOLOGY Kusgaon (Bk.), Lonavala-410401

दूरथ्वना क्रमाक : ०२०-२५६९१२३३ २५६०१२५७ २५६०१२५८ २५६०१२५९ 15010077	सावित्रीबाई फुले पुणे वि (पूर्वीचे पुणे विद्यापीठ)	द्यापीठ टेलिग्राफ फॅक्स वेबसाइट इ-मेल	शैक्षणिक विभाग गणेशखिंड, पुणे-४११००७. : 'युनिपुणे' : ०२०-२५६९१२३३ : www.unlpune.ac.in : dyracademic@unlpune.ac.in
संदर्भ क्र.: सीए १८३९			R .: 02/04/2094
प्रति,			
मा. प्राचार्य,			
सिंहगड टेकिनकल एजुकेशन सोसार	पटी सिंहगड		
डन्स्टिटयट ऑफ टेक्नॉलॉजी पता:	गट नं ३०९ ३१०		

कुसगांव बु लोणावळा ता.: मावळ जि: पुणे

विषय:- अटींच्या पूर्ततेच्या पडताळणी अहवालबाबत...

महोदय,

वरील विषयासंदर्भात विद्यापीठ अधिकार मंडळाने घेतलेल्या निर्णयानुसार आपणास कळविण्यात येते की, आपल्या महाविद्यालयांस शैक्षणिक वर्ष २०१५-२०१६, या वर्षाकरिता खालील रकान्यात नमूद केलेल्या अभ्यासक्रमांच्या सलग्नीकरणाच्या नुतानिकरणास / नैसर्गिकवाढीस अखिल भारतीय तंत्रशिक्षण परिषद, नवी दिल्ली व तंत्रशिक्षण संचालनालय, महाराष्ट्र शासन यांचे अभ्यासक्रम व प्रवेश क्षमता मान्यतेच्या अधीन राहून पडताळणी अहवालातील अटींची पूर्तता करण्यात आलेली आहे.

अनु. क्र.	अभ्यासक्रमाचा तपशील	विद्यार्थी संख्या	प्रथमपाळी/व्दितीय पाळी	संलग्नीकरणाद्या प्रकार
1	एम. ई. (इ ॲंड टीसी) एम्बेडेड सिस्टम्स ॲंड व्ही. एल. एस. आय. डिज़ाइन	24	2015-2016 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
2	एम.इ. (इलेक्ट्रिकल पॉवर सिस्टीम)	24	2015-2016 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
3	एम.इ. (कॉमप्यूटर) 18 विंदतिय- Div No.1,,		2015-2016 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
4	एम.इ. (मेकॅनिकल डिझाइन) 18		2015-2016 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
5	एम.इ. कॉमप्यूटर (कंप्यूटर नेटवर्क)	24	2015-2016 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
6	एम.बी.ए.	60	2015-2016 : - वर्ष दुसरे- Div No.1,,	नूतनीकरण •
7	एम.सी.ए.	60	2015-2016 : - वर्ष व्दितिय व तृतीय- Div No.1,,	नूलनीकरण
8	बी.ई. (इन्फर्मेशन टेक्नॉलॉजी)	60	2015-2016 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण
9	बी.ई. (इलेक्ट्रिकल)	60	2015-2016 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण

1 Of 2

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सिंहगड इन्स्टिट्युट ऑफ टेक्नॉलॉजी कुसगांव (बु।।) लोणावळा-४१०४०१.

10	बी.ई. (इलेक्ट्रॉनिक्स अँड टेलिकम्यूनिकेशन)	240	2015-2016 : - वर्ष पहिले ते चौथे- Div No.1, - वर्ष पहिले ते चौथे- Div No.2, - वर्ष पहिले ते चौथे- दुसरी पाळी Div No. 3,- वर्ष पहिले ते तिसरे- Div No.4,,	नूतनीकरण
11	बी.ई. (कॉमप्यूटर)	180	2015-2016 : - वर्ष पहिले ते चौथे- Div No.1, - वर्ष पहिले ते चौथे- Div No.2,- वर्ष पहिले ते चौथे- दुसरी पाळी Div No. 3,,	नूतनीकरण
12	बी.ई. (मेकॉनिकल)	360	2015-2016 : - वर्ष प्रथम व व्दितिय- Div No.5, - वर्ष पहिले ते चौथे- Div No.1, - वर्ष पहिले ते चौथे- Div No.2, - वर्ष पहिले ते तिसरे- Div No.4, - वर्ष पहिले ते तिसरे- दुसरी पाळी Div No. 3,- वर्ष प्रथम व व्दितिय- दुसरी पाळी Div No. 6,,	- नूलनीकरण
13	बी.ई. (इलेक्ट्रॉनिक्स अँड टेलिकम्यूनिकेशन)	240	2015-2016 : - वर्ष चौथे- Div No. 4,,	नैसर्गिकवाढ
14	बी.ई. (मेकॅनिकल)	360	2015-2016 : - वर्ष चौथे- Div No. 4,- वर्ष चौथे- दुसरी पाळी Div No. 3,- वर्ष तिसरे- Div No. 5,- वर्ष तिसरे- दुसरी पाळी Div No. 6,,	नैसर्गिकवाढ

कळावे,

आपला,

प्रा सिंहगड इन्स्टिट्युट ऑफ टेक्नॉलॉजी कुसगांव (बु।।) लोणावळा-४१०४०१.

105/15 उपकुलसचिव शैक्षणिक विभाग