

Self Study Report ***(SSR)***

Submitted to



National Assessment and Accreditation Council

Submitted by



Sinhgad Institutes

Sinhgad Institute of Technology and Science

(Approved by AICTE & Affiliated to Savitribai Phule Pune University)
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[March 2016]

Self Study Report

(SSR)

Submitted to

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Sinhgad Technical Education Society's

Sinhgad Institute of Technology and Science

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

Narhe, Off Westerly Bypass, Pune – Mumbai Expressway,

Narhe, Pune – 411 041 (Maharashtra)

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ABBREVIATIONS

AC	-	Academic Calendar
ACR	-	Academic Class Representative
AICTE	-	All India Council for Technical Education
AMCAT	-	Aspiring Minds Computer Adaptive Test
ARAI	-	Automotive Research Association of India
ARC	-	Application-Form Receipt Center
AY	-	Academic Year
BCUD	-	Board of College and University Development
BE	-	Bachelor of Engineering
BOS	-	Board of Studies
CAP	-	Centralised Admission Process
CCAO	-	Co-Curricular Activity Outcomes
CEO	-	Course Educational Objectives
CESA	-	Civil Engineering Student Association
CET	-	Common Entrance Test
CGPA	-	Cumulative Grade Point Average
CIVIL	-	Department of Civil Engineering
CIM	-	Computer Integrated Manufacturing
CO	-	Course Outcomes
COMP	-	Computer Engineering
CPC	-	Centralized Placement Cell
CR	-	Class Representative
CTA	-	Computer Technocrats Association
CSI	-	Computer Society of India
CT	-	Class Teacher
CV	-	Curriculum Vitae
CWPRS	-	Central Water and Power Research Station
Dept.	-	Department
DG	-	Diesel Generator
DRDO	-	Defence Research and Development Organization
DTE	-	Directorate of Technical Education
EBC	-	Economically Backward Class
E&TC	-	Electronics and Telecommunication
ES	-	Embedded Systems
FCPC	-	Faronics Core Programming Competition
FDP	-	Faculty Development Programmes
FE	-	First Year Engineering
FEA	-	Finite Element Analysis
FGM	-	Functionally Graded Material
FITE	-	Forum of IT Engineers
FOSS	-	Free and open-source software

FPGA	-	Field Programmable Grid Array
FY	-	Financial Year
GATE	-	Graduate Aptitude Test for Engineering
GB	-	Governing Body
GCWCN	-	Global conference on Wireless Computing and Networking
GEMS	-	Governing Educational Management System
GITAM	-	Gandhi Institute of Technology and Management
GoM	-	Government of Maharashtra
GPS	-	Global Position System
HOD	-	Head of the Department
HTML	-	Hyper Text Mark-up Language
IEEE	-	Institute of Electrical and Electronic Engineers
IETE	-	Institute of Electronics and Telecommunication Engineers
I-I-I	-	Industry Institute Interaction Cell
IIT	-	Indian Institute of Technology
IoT	-	Internet on Things
IPR	-	Intellectual Property Rights
IQAC	-	Internal Quality Assurance Cell
IRG	-	Internal Revenue Generation
ISTE	-	Indian Society for Technical Education
IT	-	Information Technology
LAN	-	Local Area Network
LMC	-	Local Management Committee
MBA	-	Master of Business Administration
Mbps	-	Megabits per seconds
ME	-	Master of Engineering
MECH	-	Department of Mechanical Engineering
MESA	-	Mechanical Engineering Student Association
Mgt.	-	Management
MIDC	-	Maharashtra Industrial Development Corporation
MNC	-	Multinational Company
MoU	-	Memorandum of Understanding
NA	-	Not Applicable
NAAC	-	National Assessment and Accreditation Council
NGO	-	Non-Governmental Organization
NIT	-	National Institute of Technology
NPTEL	-	National Programme on Technology Enhanced Learning
NSS	-	National Service Scheme
N/W	-	Network
OD	-	On Duty
OER	-	Open Educational Resources
OS	-	Operating System
PDF	-	Portable Document Format

PEO	-	Program Educational Objectives
PEO	-	Program Educational Objectives
PI	-	Principal Investigator
PID	-	Preoperational Integral Derivative
PO	-	Program Outcomes
PO	-	Program Outcomes
QALR	-	Quantitative Aptitude and Logical Reasoning
RC	-	Research Committee
R&D	-	Research & Development
SAAS	-	Student Alumni Association of SITS
SCS	-	Student Council Meeting
SEDA	-	Second year Engineering Direct Admission
SGPA	-	Semester Grade Point Average
SMS	-	Short Message Service
SN	-	Serial Number
SoC	-	System on Chip
SKN-GHMC	-	Smt. Kashibai Navale General Hospital and Medical College
SPPU	-	Savitribai Phule Pune University
STES	-	Sinhgad Technical Education Society
STP	-	Student Training Programme
SVNIT	-	Sardar Vallabhbhai National Institute of Technology
SWD	-	Social Welfare Department
SWOC	-	Strengths-Weaknesses-Opportunities-Challenges
SYSTEM	-	System Department
TAP	-	Teachers Advancement Program
TCT	-	The College Times
TFWS	-	Tuition Fee Waiver Scheme
TG	-	Teacher Guardian
T-L-P	-	Teaching Learning Practices
TTT	-	Train the Trainer
TW	-	Term Work
VAP	-	Value Added Programme
VLSI	-	Very Large Scale Integration
WiFi	-	Wireless Fidelity

Prof. M. N. Navale
M. E.(Elect.), MIE, MBA
FOUNDER PRESIDENT

Dr. (Mrs.) Sunanda M. Navale
B.A. MPM, Ph.D.
FOUNDER SECRETARY

Dr. Suresh. N. Mali
M.E. (Electronics), Ph.D.
PRINCIPAL

Ref: SITS/OFF/2015-16/986

Date: 17/02/2016

To,
The Advisor,
National Assessment and Accreditation Council,
P.O.Box No. 1075, Opp. NLSIU,
Nagabhavi, Bangalore – 5600 072.

Subject: Submission of Self Study Report (SSR)

Respected sir,

We are submitting herewith the Self Study Report (SSR) of STES's, Sinhgad Institute of Technology and Science, Narhe, Pune – 411041. We would like to inform you that the copy of SSR is also uploaded on our institute website on 17/02/2016 for your kind perusal.

www.sinhgad.edu

http://cms.sinhgad.edu/sinhgad_engineering_institutes/sits_narhetechnicalcampus.aspx

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

This is for your kind information and consideration please.



DR. SURESH N. MALI
PRINCIPAL



NAAC STEERING COMMITTEE

SN	Name of Staff Member	Designation	Designation for Steering committee
1	Prof. (Dr.) Suresh N. Mali	Principal	Chairman
2	Prof. Milindkumar S. Mali	Asst. Professor	Coordinator
3	Prof. (Dr.) Sachin D. Khandekar	Asso. Professor & HOD Civil	Member
4	Prof. Uday C. Aagshe	Asst. Professor & HOD Mechanical	Member
5	Prof. Dhananjay E. Upasani	Asst. Professor & HOD E&TC	Member
6	Prof. Mrs. Geeta S. Navale	Asst. Professor & HOD Computer	Member
7	Prof. Tanaji D. Khadtare	Professor & HOD IT	Member
8	Prof. Hemant B. Patil	Asst. Professor & HOD MBA	Member
9	Prof. Soojey R. Deshpande	Asst. Professor & HOD FE	Member
10	Prof. Pradip D. Darade	Asst. Professor & HOD FE	Member
11	Mr. Dhananjay M. Palne	I/c Registrar	Member

A - PREFACE

Education sector, especially, the technical education sector is growing rapidly in our country. The growth in quantity has to be matched with the developments on quality front. We understand that a good quality education is necessary to provide all learners with capabilities to build them economically productive, contribute to peaceful and democratic societies and enhance individual well-being. National Assessment and Accreditation Council (NAAC) have the objectives to facilitate the improvement of quality through accreditation. It also brings more transparency in the accreditation process with the help of 360-degree feedback mechanism and enhances credibility of the institute.

Sinhgad Institute of Technology and Science (SITS), Narhe, Pune, established in 2008 under the umbrella of Sinhgad Technical Education Society (STES) with a vision committed to produce not only good engineers but good human beings, also. Holistic development of students and teachers is what we believe in and work for. We strive to achieve this by imbibing a unique value system, transparent work culture, excellent academic and physical environment conducive to learning, creativity & technology transfer. Our mandate is to generate, preserve, and share knowledge for developing a vibrant society. We believe that with the help of NAAC guidelines and procedures, it is possible to achieve our mission in the best possible way.

The institute runs five undergraduate programs (Bachelor of Engineering), two postgraduate programs (Master of Engineering) and Master of Business Administration (MBA). All these programs are approved by All India Council for Technical Education (AICTE), New Delhi and affiliated to the Savitribai Phule Pune University (SPPU).

This Self Study Report (SSR) has been prepared based on information given by our faculty and staff. On the basis, we would like to apply for the assessment by NAAC. We, at SITS, are committed to complete the process of accreditation with the help of wholehearted involvement of each one of us.

Congratulations and thanks to the members of Steering Committee and the Internal Quality Assurance Cell (IQAC) for sharing the responsibility of drafting the SSR. All heads of the departments, faculty, supporting staff of library and administrative office have taken lot of efforts and given their best of best services to satisfy all the stakeholders. This SSR reflects all the efforts taken by SITS faculty and staff with strong support of the management.

PRINCIPAL

B - EXECUTIVE SUMMARY

Sinhgad Technical Education Society (STES) established in the year 1993 under the dynamic leadership of Prof. M. N. Navale, Founder President, with an objective of providing quality education in the fields of Engineering, Management, Hotel Management, Architecture, Medicine (General and Dental), Nursing, Pharmacy, Science, Arts, Commerce etc. and the basic school education from kindergarten to higher secondary. There are more than 80 institutes under the aegis of STES offering School Education, Diploma, Graduation, Post-Graduation and Ph.D. programs in various fields enlisted above.

All the institutes under STES are recognized by the concerned statutory authorities by meticulously fulfilling the norms and standards. The STES has handpicked eminent personalities from the fields of Education and Industry as members of the Management Committee, who are committed to provide necessary guidance and advice, both on academic and professional fronts from time to time. To serve the interest of the student community as well as the corporate industrial sectors, STES maintains a close liaison with the industry and other leading organizations.

Sinhgad Institute of Technology and Science (SITS), Narhe, Pune was established in 2008. SITS is a premium self-financed institute with strong brand of STES with necessary infrastructural facilities in place to support all academic activities in each department. The institute is focused for its highest academic excellence and committed to provide quality education. Teaching-Learning-Practices (T-L-P) in all the departments are streamlined for the improvement of academic performance and holistic development of the students. Learning methodology, quality in teaching, planning, and flexibility in working are the integral part of culture and practices at SITS. Various activities entrust our students with the required skills to command in dynamic and challenging global environment.

Criterion I: Curricular Aspects

SITS is affiliated to the SPPU and follows the curriculum stated by the university. Faculty members participate in the curriculum design workshops conducted by the university and also organizing Faculty Development Programs (FDP) at SITS. Feedback from industries and alumni with respect to curricular aspects are helping the departments while designing the syllabus and enrichment courses to be given to the students. As we follow SPPU syllabus, limited flexibility is available in curricula design with few elective subjects that can be offered as per the choice of final year students.

Every department frames the academic calendar to nurture the students in right direction. Experienced faculty and staff are putting their efforts to enable students to get good academic performance in the university examinations. Continuous monitoring of syllabus coverage by individual faculty and assessment of students at proper stages of the semester helps in achieving consistent improvements. Student Training Programme (STP) conducted in every semester is used to bridge the gap between curriculum and industry. Seminar, workshops, site visits, tie-ups through Memorandum of Understanding (MoU) with industries, industrial visits, participation in various technical activities and Value Added Programmes (VAP) are also helping the students to learn beyond the syllabus. Various certificate courses are conducted for professional development of the students.

Criterion II: Teaching-Learning and Evaluation

The institute follows admission process as per the guidelines given by the Directorate of Technical Education (DTE), Government of Maharashtra (GoM) through Centralized Admission Process (CAP). Admitted students are coming from diversified background of the state as per the reservation policy of GoM. The institute has a strategy to support the students to get financial assistance from GoM, various Non-Government Organizations (NGOs) and facilitate them by providing required documents and proper follow up.

Qualified, experienced and competent faculty of SITS has developed an effective T-L-P to transfer the knowledge to the students. All the departments of the institution systematically develop action plans for effective implementation of the curriculum considering the SPPU academic calendar, SITS policies and administrative decisions. A healthy and conducive working environment at SITS has made every faculty to build a quality in imparting the academics. All the students get academic and personal guidance and livelihood counseling from the concerned Teacher Guardians (TGs), Class Teachers (CTs) and Heads of the Departments (HODs).

The T-L-P is monitored and governed by Academic Monitoring Committee (AMC). Faculty members of SITS are encouraged and financially supported to participate in seminars, workshops, conferences, etc. for improving their knowledge and qualification. The salary is paid as per the pay scale defined by the GoM. Hence, the faculty retention rate at SITS is very good.

The examination reforms, structure and evaluation processes of SPPU as well as SITS are informed to the students and parents time to time. The institute has developed formative and summative continuous assessment methods of students for ensuring the attainment of stated graduate attributes. The institute has defined Programme Educational Objectives (PEOs) and Programme Outcomes (POs) for each program. The student performance in university examinations and enhancement in placement indicates achievement of learning outcomes of programs.

Criterion III: Research, Consultancy and Extension

The institute promotes research culture across the faculty as well as students by facilitating and motivating them to participate in research and related activities. The Research and Development (R&D) cell of the institute is taking initiatives to develop research environment in every department. While doing so, faculty and students are encouraged to publish their research work in reputed journals and conferences. Students are also actively involved in innovative projects and participating in various competitions.

Board of College and University Development (BCUD) of SPPU supports research activities of the institute by providing research grants in addition to the provision of seed money in the annual budget of the institute. The R&D cell has a plan to conduct multidisciplinary projects and cultivate research approach. An interaction with research organizations and industries also gives platform to take live problems of the society while doing research activities.

Criterion IV: Infrastructure and Learning Resources

Institute has sufficient infrastructure and state-of-the-art laboratory in every department as per the AICTE norms for quality T-L-P and R&D. The campus is supported with hostels for boys and girls along with the necessary facilities. Classrooms are equipped with LCD

projector facility. The computing facility within the campus is supported by LAN with 100 Mbps backbone, three dedicated servers, 45 Mbps internet connectivity, and Wi-Fi.

The institute library consists of 2,313 numbers of titles and 13,311 of volumes along with e-journals. The reading hall facility is available for all the students up to 2am. Library with computing and internet facility gives easy access to ScienceDirect, IEEE explorer and e-journals. A book bank facility is also provided for needy students.

Institute encourages the students to participate in various sports tournaments. Students avail indoor sports facilities in the campus. A separate section in workshop has been provided to the students to experiment their innovative projects while participating at national and international competitions. Cultural activities of the students are also encouraged in the institute by providing them financial and infrastructural support. Free medical facilities to faculty, staff and students are provided at Smt. Kashibai Navale General Hospital and Medical College (SKN-GHMC) of STES.

The institute has 125 KVA Diesel Generator (DG) set as power backup to the campus. Server room of the campus is also supported with Uninterrupted Power Supply backup. Solar water heating systems are provided for the hostels. A separate water filtration plant provides pure drinking water to the campus. The institute has a committee to supervise the maintenance of the equipment and computing facilities of the institution.

Criterion V: Student Support and Progression

The institute facilitates students to get scholarships from Social Welfare Department (SWD) of GoM and various NGOs. Financial support is available to economical weaker students through 'Earn and Learn' scheme of SPPU. The institute has accidental insurance policy for all the students. Students are availing support services and facilities of the institute while completing their academics as well as preparing themselves for civil services, competitive examinations and higher studies. Extra-curricular and co-curricular activities promoted by the institute are acting as a catalyst for the holistic development of the students and their personality.

The regular academic activities are very well supported by the TG scheme. This scheme is not only monitoring the academics of the students but also supports in solving their individual problems. To give opportunity and platform to advanced learners and sports students, SITS organizes annual sports, technical & cultural events called "Sinhgad Karandak". All these events are organized by students' council established at the beginning of every academic year. Our students have excelled in sports at university and national level.

Anti-ragging committee, women's grievance redressal cell and disciplinary committee have been established every year to take care of students. The registered alumni association of college is functioning actively. Institute organizes alumni meet and their interaction throughout the year by inviting them in their respective departments to guide the current students. The Central Placement Cell (CPC) of SITS is well supported by all the departments while giving campus placement and career guidance to the students.

Besides organizing extra classes for slow learners, institute also organizes personality development and communication skills enhancement programs. VAPs are also organized in

every department for the awareness of new technologies to bridge the gap between academics and industry. Industrial visits and site visits are also integral part of our regular academics.

Criterion VI- Governance, Leadership and Management

The management of SITS plays important role to provide excellent infrastructural facilities and healthy teaching - learning environment. Principal and HODs provide academic leadership and try to percolate the qualities of leadership among faculty, staff and students.

HODs in consultation with Principal decide strategies of individual department. They also take review of academics, research, placement and execution of various activities of all the departments. The parameters of performance appraisal system of faculty and staff are in place to evaluate and ensure the effectiveness of individuals. Various sources of feedback are available to the management from stakeholders that are used to ensure reinforcement of the culture of excellence. Welfare scheme available at SITS for faculty and supporting staff has resulted into sense of ownership and their retention.

The financial plan of the institute reflects in the annual budget based on requirements of non-recurring and recurring expenditure. Every department prepares their budget depending upon their requirements. The institute has mechanisms for internal and external audit to ensure the budget utilization and proper documentation with respect to books of account.

The institute has a perspective development plan to become center of excellence in the field of technical education and research. The plan also consists of activities for making association with industry and do research in collaboration with them. The IQAC with existing AMC has significant role in achieving academic excellence.

Criterion VII- Innovations and Best Practices:

The institute is committed to adopt environment-friendly policies with regard to plantation, waste management, use of renewable energy sources and water harvesting. Various activities like students' awareness programs for energy, water conservation systems, and wastewater recycling mechanisms are carried out to maintain the campus eco-friendly. Every year the institute organizes and celebrates environmental awareness campaigns of World water day, Ozone day, Earth hour day and Shri Ganesh idol donation camps. The different types of e-waste generated in the institute are collected and dispensed to an external e-waste recycling agency.

For the excellence of academics and administration, institute has implemented various innovative practices such as uniform file system for documentation across all the departments, TG scheme for counselling of students, acknowledgement of efforts taken by the faculty for academic excellence.

One of the best innovative practices - STP is being implemented to enhance the quality of the students by empowering them with skills for their holistic development. Implementation of STP has shown remarkable effect on overall development of students and their placement. Another best practice followed in the institute is paperless governance through Management Information System (MIS) software system – Governing Educational Management System (GEMS). With the help of this system, majority of the academic processes of the institute are automated.

SWOC analysis of the institute

Strengths

- State-of-the-art laboratories and infrastructure
- Faculty and staff retention
- Student centric learning environment
- Transparent and conducive work environment
- Consistent good academic performance
- Effective team work culture
- Well planned and organized STP and VAP
- Support to faculty for pursuing higher education
- Library with ample number of books, reading hall and digital access
- Internet bandwidth and campus Wi-Fi facility
- Participation of students in technical, cultural and sports activities
- Parental care of the students through TG
- Emphasis on holistic development of students

Weaknesses

- Number of faculty with Ph.D. qualification
- Number of research publications
- Moderate industry institute interactions
- Consultancy and extension activities
- Low strike rate in placement
- Patents

Opportunities

- Center of excellence in specific domains
- Inter-disciplinary approach
- Development of web based learning mechanisms
- Networking with institutes of national and international repute
- Alumni networking to enhance the academic and placement activities
- Collaborative research with corporate world
- Faculty up-gradation
- Enhancing student's placements in renowned industries

Challenges

- Enhancing employability skills as per industrial need in an affiliated institute
- Attract meritorious students at national level
- Dynamic curriculum that acclimatizes new technologies
- Adaptability to globally changing industrial scenario

C-PROFILE OF THE AFFILIATED / CONSTITUENT COLLEGE



C –PROFILE OF THE INSTITUTE

1. Profile of the Affiliated/Constituent Institute

1. Name and Address of the Institute:

Name:	STES's, Sinhgad Institute of Technology and Science		
Address:	49/1, Opp. Westerly bypass, Near Pune- Mumbai Expressway, Narhe		
City:	Pune	Pin: 411 041	State: Maharashtra
Website:	http://cms.sinhgad.edu/sinhgad_engineering_institutes/sits_narhetechnicalcampus.aspx		

2. For Communication:

Designation	Name	Telephone With STD code	Mobile	Fax	Email
Principal	Dr. S. N. Mali	O:02066831702	8550990118	02066831710	principal_sits@sinhgad.edu
Steering Committee Co-ordinator	Mr. M. S. Mali	O:02066831761	9689901156	02066831710	msmali_sits@sinhgad.edu

3. Status of the Institution:

Affiliated Institute	☒
Constituent Institute	☐
Any other(specify)	☐

4. Type of Institution:

a. By Gender

i.	For Men	☐
ii.	For Women	☐
iii.	Co-education	☒

b. By Shift

i.	Regular	☒
ii.	Day	☐
iii.	Evening	☐

5. It is a recognized minority institution?

Yes

No

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

☐
☒

Profile of the Institute

6. Sources of funding:

Government	☐
Grant-in-aid	☐
Self-financing	☒
Any other	☐

7. a. Date of establishment of the Institute: 30/06/2008

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

Savitribai Phule Pune University (SPPU), Pune.

c. Details of UGC recognition: NA

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks(If any)
i.2(f)	NIL	
ii.12(B)	NIL	

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

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

Under Section/ clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
i.	AICTE, New Delhi	07/04/2015	(01 Year) 2015 - 16	Renewed every year since 2008
ii.	DTE, Mumbai	30/06/2008	Since 2008	-
iii.	SPPU, Pune	24/06/2015	(01 Year) 2015 - 16	Renewed every year since 2008

(Enclose the recognition/approval letter)



All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-india.org

F.No. Western/1-2454025216/2015/EOA

Date: 07-Apr-2015

To,
The Secretary,
Tech. & Higher Education Deptt.
Govt. of Maharashtra, Mantralaya,
Annexe Building, Mumbai-400032

Sub: Extension of approval for the academic year 2015-16

Ref: Application of the Institution for Extension of approval for the academic year 2015-16

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F.No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	Western	Application Id	1-2454025216
		Permanent Id	1-4606451
Name of the Institute	SINHGAD INSTITUTE OF TECHNOLOGY AND SCIENCE	Institute Address	49/1 NARHE - AMBEGAON (BK.), OFF WESTERNLY BYPASS, PUNE - MUMBAI EXPRESSWAY, PUNE, PUNE, PUNE, Maharashtra, 411041
Name of the Society/Trust	SINHGAD TECHNICAL EDUCATION SOCIETY	Society/Trust Address	44/1, VADGAON(BK.) OFF. SINHGAD ROAD,PUNE 411 041,PUNE,PUNE,Maharashtra,411041
Institute Type	Unaided - Private		

Opted for change from Women to Co-ed	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2015-16

Application Number: 1-2454025216*

Page 1 of 4

Note: This is a Computer generated Letter of Approval.No signature is required.

Letter Printed On:11 April 2015

Printed By : AE098111



All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-india.org

Application Id: 1-2454025216			Course	Full/Part Time	Affiliating Body	Intake 2014-15	Intake Approved for 15-16	NRI Approval status	PIO Approval status	Foreign Collaboration Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	MACHINE DESIGN	FULL TIME	University of Pune, Pune	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	VLSI AND EMBEDDED SYSTEMS DESIGN	FULL TIME	University of Pune, Pune	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	University of Pune, Pune	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING	FULL TIME	University of Pune, Pune	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION TECHNOLOGY	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	University of Pune, Pune	180	180	NA	NA	NA
ENGINEERING AND TECHNOLOGY	2nd Shift	UNDER GRADUATE	COMPUTER ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA

Application Number: 1-2454025216*

Page 2 of 4

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Application Id: 1-2454025216			Course	Full/Part Time	Affiliating Body	Intake 2014-15	Intake Approved for 15-16	NRI Approval status	PIO Approval status	Foreign Collaboration Approval status
Program	Shift	Level								
MANAGEMENT	1st Shift	POST GRADUATE	MASTERS IN BUSINESS ADMINISTRATION	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA

Note: Validity of the course details may be verified at www.aicte-india.org/departments/approvals

The above mentioned approval is subject to the condition that SINHGAD INSTITUTE OF TECHNOLOGY AND SCIENCE shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Dr. Avinash S Pant
Actg Chairman, AICTE

Copy to:

- The Regional Officer,**
All India Council for Technical Education
Industrial Assurance Building
2nd Floor, Nariman Road
Mumbai - 400 020, Maharashtra
- The Director Of Technical Education,**
Maharashtra
- The Registrar,**
University of Pune, Pune

Application Number: 1-2454025216*

Page 3 of 4

Note: This is a Computer generated Letter of Approval.No signature is required.

Letter Printed On:11 April 2015

Printed By : AE098111



All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-india.org

4. **The Principal / Director,**
SINHGAD INSTITUTE OF TECHNOLOGY AND SCIENCE
49/1 NARHE - AMBEGAON (BK), OFF WESTERNLY BYPASS, PUNE - MUMBAI EXPRESSWAY, PUNE,
PUNE, PUNE,
Maharashtra, 411041
5. **The Secretary / Chairman,**
SINHGAD TECHNICAL EDUCATION SOCIETY
44/1, VADGAON(BK) OFF. SINHGAD ROAD, PUNE 411 041,
PUNE, PUNE,
Maharashtra, 411041
6. **Guard File(AICTE)**

Application Number: 1-2454025216*

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Note: This is a Computer generated Letter of Approval. No signature is required.

Letter Printed On: 11 April 2015

Printed By : AE098111

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 college applied for availing the autonomous status?

Yes ☐ N ☒

9. Is the Institute recognized
a. By UGC as a Institute with Potential for Excellence (CPE)?

Yes ☐ N ☒

If yes, date of recognition :(dd/mm/yyyy)

- b. For its performance by any other government agency?

Yes ☐ N ☒

If yes, name of agency

Date of recognition :(dd/mm/yyyy)

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

Location*	Rural
Campus area in sq. mts.	54632 Sq. mts
Built up area in sq. mts.	15301 Sq. mts.

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

Profile of the Institute

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

Auditorium/seminar complex with infrastructural facilities	√
Sports facilities:	√
playground	√
Swimming pool	√
Gymnasium	√
Hostel	√
Boys' hostel	√
Number of hostels	01
Number of inmates	448
Facilities(mention available facilities):	
✓ Loading and Boarding	
✓ Electricity Generator Backup	
✓ Laundry	
✓ Wi-Fi	
Girls' hostel	√
Number of hostels	02
Number of inmates	656
Facilities(mention available facilities)	
✓ Loading and Boarding	
✓ Electricity Generator Backup	
✓ Laundry	
✓ Wi-Fi	
Working women's hostel	No
Number of hostels	
Facilities(mention available facilities)	
Residential facilities for teaching and non-teaching staff (give numbers available—cadre wise)	√
Principal (01), Faculty (04), Supporting Staff (11)	
Cafeteria	√
Health center	√
First aid, Inpatient, Outpatient, Emergency care facility, Ambulance.....	√
Health center staff	√

Profile of the Institute

Qualified doctor	Fulltime	☐	Part-time	√
Qualified Nurse	Fulltime	☐	Part-time	√
Facilities like banking, post office, book shops				√
Transport facilities to cater to the needs of students and staff				
Animal house				
Biological waste disposal				√
Generator or other facility for management/regulation of electricity and voltage				√
Solid waste management facility				√
Waste water management				
Water harvesting				

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

Sl. No.	Program me Level	Name of the Programme/ Course	Duration	Entry Qualificati on	Medium of instructio n	Sanctione d/ approved Student strength	No. of student s admitt ed
01	Under- Graduate	Civil Engineering	04 Years	12 th Pass	English	120	120
		Computer Engineering	04 Years	12 th Pass	English	60	60
		Computer Engineering (2 nd Shift)	04 Years	12 th Pass	English	60	60
		Information Technology	04 Years	12 th Pass	English	60	60
		Electronics and Tele- communication Engineering	04 Years	12 th Pass	English	120	119
		Mechanical Engineering	04 Years	12 th Pass	English	180	179
02	Post- Graduate	Master's in Business Administration (MBA)	02 Years	Graduation Pass	English	60	33
		VLSI and Embedded Systems Design (E&TC)	02 Years	Graduation Pass	English	24	06
		Design Engineering (MECH)	02 Years	Graduation Pass	English	24	17

13. Does the institute offer self-financed Programmes?

Yes

☐

No

☒

If yes, how many?

Profile of the Institute

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

Yes		No	√	Number	

15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.)

Faculty	Departments (Eg. Physics, Botany, History etc.)	UG	PG	Research
Science, Arts, Commerce	NA			

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

a.	Annual system	
b.	Semester system	08
c.	Trimester system	

17. Number of Programmes with

a.	Choice Based Credit Ssystem	
b.	Inter/Multidisciplanry Approach	
c.	Any Other	

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

Yes		No	√

19. Does the Institute offer UG or PG programme in Physical Education?

Yes		No	√

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

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor					
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC/University/ State Government <i>Recruited</i>	3	0	3	2	52	23	NA	NA	NA	NA
<i>Yet to recruit</i>	10	5	20	11	24	23	NA	NA	NA	NA
Sanctioned by the Management/ society or other authorized bodies <i>Recruited</i>	0	0	0	0	20	19	47	23	15	3
<i>Yet to recruit</i>	10	5	20	11	4	4	6	5	4	4

21. Qualifications of the teaching staff:

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
D.Sc./D.Litt	0	0	0	0	0	0	0
Ph.D.	2	0	3	2	1	2	10
M.Phil.	0	0	0	0	0	0	0
P. G.	1	0	0	0	64	39	104
P. G. Pursuing	0	0	0	0	4	4	8
Temporary Teachers							
Ph.D.	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0
P.G.	0	0	0	0	14	08	22
Part Time Teachers							
Ph.D.	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0
P.G.	0	0	0	0	0	0	0

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

22

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

	2011-12		2012-13		2013-14		2014-15	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	28	10	34	16	39	10	50	5
ST	06	01	07	02	07	0	14	0
OBC	56	23	82	39	108	38	131	43
General	208	49	290	88	236	74	314	98
Others	36	19	42	16	47	20	61	19

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

Type of students	UG	PG	M.Phil.	Ph.D.	Total
Students from the same State where the Institute is located	2769	137	NA		2906
Students from other states of India	148	03			151
NRI students	NA				
Foreign students					
Total	2917	140			3057

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

UG

2.0

PG

3.5

26. Unit Cost of Education

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

(a) Including the salary component

Rs. 68,498.00

(b) Excluding the salary component

Rs. 21,445.00

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

Yes

☐

No

☒

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

Teacher – Student ratio for: **UG –1:19 & PG –1:15**

29. Is the Institute applying for

Accreditation:	Cycle1	☒	Cycle2	-	Cycle3	-	Cycle4	-
Re-Assessment:								

(Cycle1 refers to first accreditation and Cycle2, Cycle3, and Cycle4 refers to re-accreditation)

30. Date of accreditation*(applicable for Cycle2, Cycle3, Cycle4 and re-assessment only) – NA

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

240

32. Number of teaching days during the last academic year

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

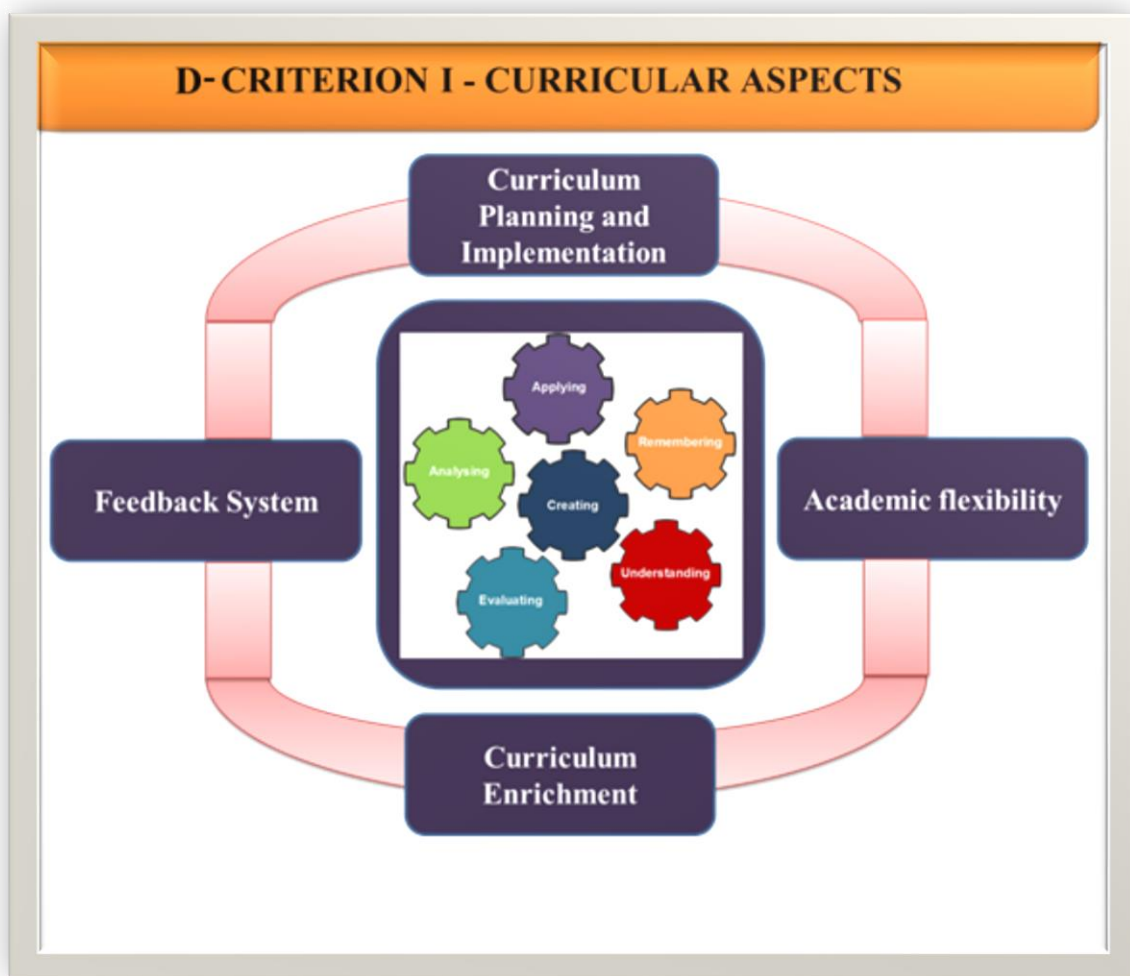
180

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

Currently AMC is looking after the quality performance of the academics. Proposed IQAC is from AY 2016-17

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

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



CRITERION I: CURRICULAR ASPECTS

1.1. Curriculum Planning and Implementation

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

Vision

उत्तमपुरुषान् उत्तमाभियंतृन् निर्मातुं कटीबद्धाः वयम्।

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

Mission

Holistic development of students and teachers is what we believe in and work for. We strive to achieve this by imbibing a unique value system, transparent work culture, excellent academic and physical environment conducive to learning, creativity & technology transfer. Our mandate is to generate, preserve and share knowledge for developing a vibrant Society.

Goals and objectives of the Institution

- To achieve quality academic performance of the students at university examinations by implementing adaptive and effective T-L-P
- To ensure all-round development of students by providing STPs and VAPs
- To motivate students to participate in various technical, sports, co-curricular and extra-curricular activities
- To inculcate research culture in faculty and students and encourage them by providing state-of-the-art research facilities and Industry Institute Interaction I-I-I
- To motivate faculty and staff to improve their qualification and make themselves suitable in the new era of education
- To update the knowledge of the faculty by giving them consistent up-to-date awareness of new technologies through FDP and Train the Trainer (TTT) Program
- To inculcate moral integrity in students and make them socially responsible and good human beings

Communication to Stakeholders:

The vision, mission and objectives of the institution are communicated to all the stakeholders and are displayed on the Institute website, at various locations of the Institute building such as the Principal's office, HOD Cabin, CPC and library. These statements are also communicated to the students through notice boards of all the departments and Institute

Criterion – I: Curricular Aspects

brochure. It is also communicated to all FE students and their parents through the FE induction program at the beginning of every year. We make sure that all the entities of our academic calendar will one or the other way becomes responsible for the fulfillment of our objectives.

1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).

The departments of the institution systematically develop action plans for effective implementation of the curriculum considering the SPPU academic calendar, SITS policies and administrative decisions. Faculty is encouraged to impart the curriculum through innovative teaching methods such as presentations, assignments, discussions, workshops, seminars, industrial visits.

Along with the university curriculum, every department also plans meticulously for various activities throughout the semester to achieve the overall development of students. The execution model of the SITS departments has been summarized in **Figure 1.1**.

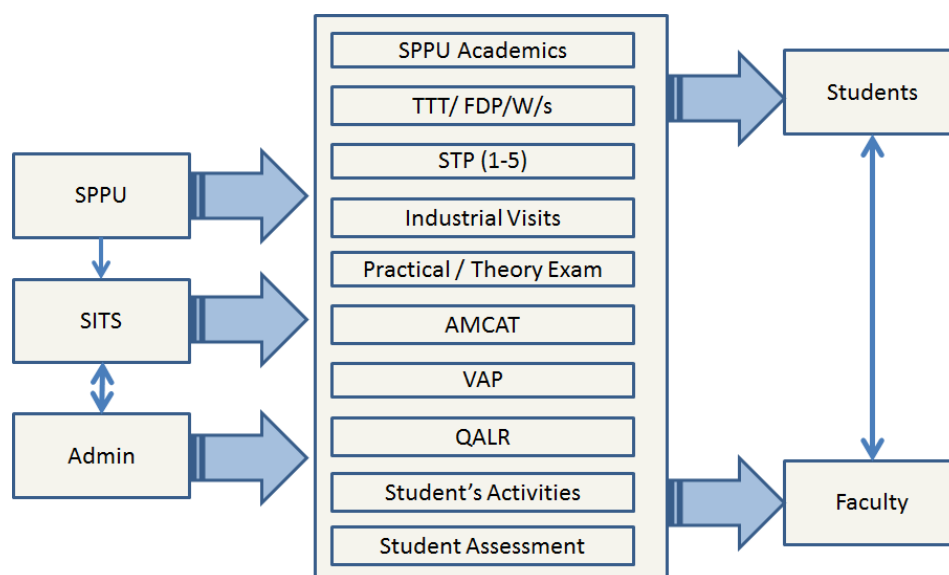


Figure: 1.1 Departmental Execution Model

Teaching Learning Practices:

The overall T-L-P in all the departments has been outlined in **Figure 1.2**.

- Academic calendar is prepared well before the commencement of every semester of academic year by each department. This calendar consist of plan of conducting in-house tests, STP, VAP, Quantitative Aptitude and Logical Reasoning (QALR) test, mock practical / oral examinations, university examination schedules etc.
- HOD allots academic workload in consultation with the faculty and principal. Few faculties are also allocated to other departments to take specific subjects.
- Class timetables are prepared and displayed before commencement of semester. Individual faculty timetables, classroom utilization timetables and laboratory utilization timetables are also prepared.

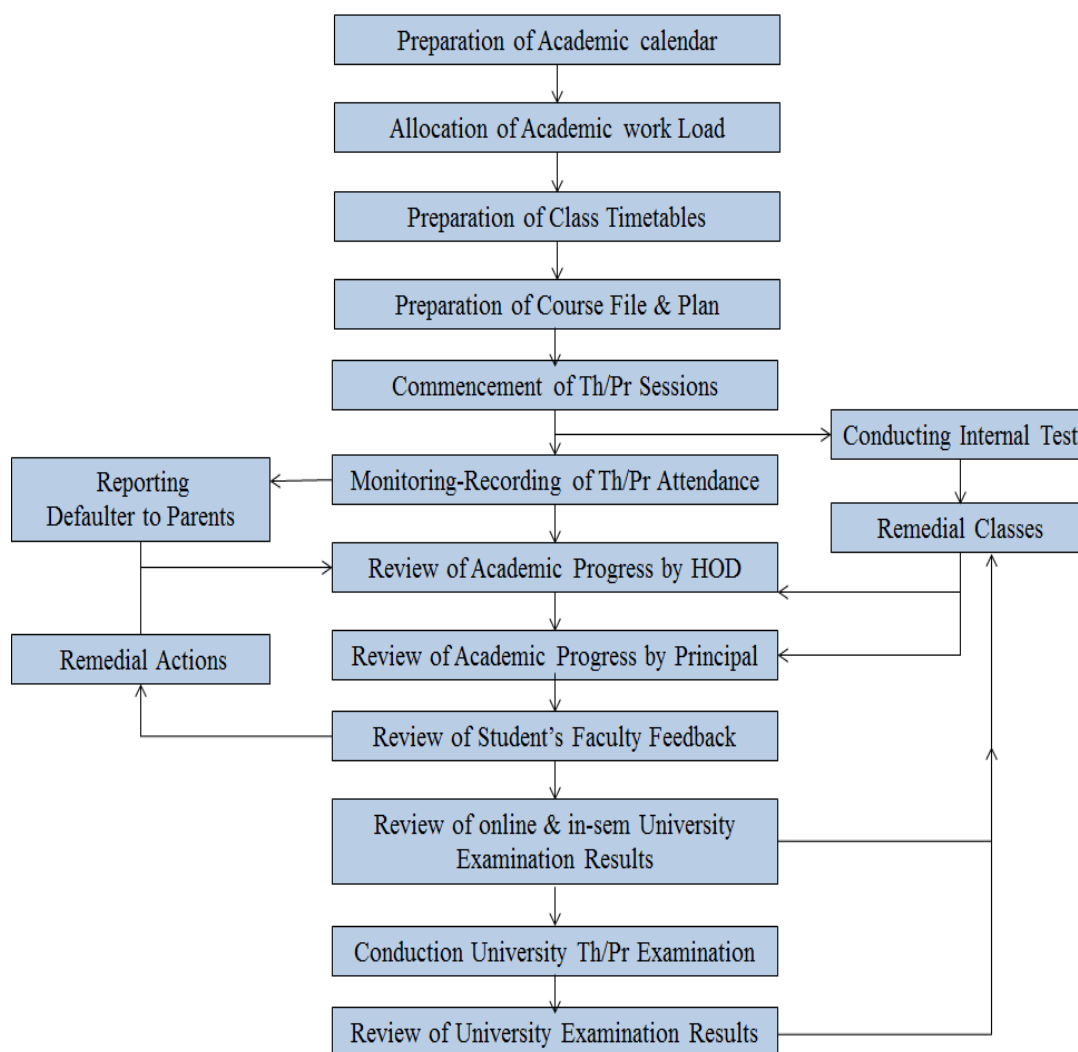


Figure: 1.2 Teaching Learning Practices

- Every faculty prepares the course file, lesson plan and get it approved from HOD before the commencement of the semester. Every time the faculty is supposed to add innovations in the teaching methodology.
- Faculty also puts the previous SPPU exam question papers and results of respective subjects to understand the performances of previous students. They also discuss with previous assigned faculty to get an idea about the focus of the subject.
- Attendance booklets (green books) are provided to all faculties to make a record of attendance of the students during Theory (TH) and Practical (PR) sessions. This booklet also gives information about the assignments given to the students.
- Teaching and learning is carried out by all faculties with the help of chalk and board and other teaching aids. All HODs make sure about conduction of every class and practical sessions of the department as per scheduled timetable.
- Every fortnight, department academic progress is reviewed by HOD and every month by the Principal. This review consists of attendance of the students, syllabus coverage, practical assignments completed and internal examination performances of the students.
- Results of university on-line examinations and mid semester examinations are analyzed and necessary remedial classes are conducted. Extra sessions are normally

Criterion – I: Curricular Aspects

required for the weaker students and slow learners.

- Internal tests and preliminary examinations are conducted to confirm the percolations of subject matter to the students by the faculty as per the schedule in the academic calendar.
- Internal mock practical / oral examinations are conducted to test the student's practical knowledge before they actually appear for the University practical / oral examinations.
- Process of monthly review of student's attendance and reporting the defaulters to respective parents is carried out to maintain the discipline of continuous evaluation.
- Learning beyond syllabus is achieved by arranging guest lectures. The industry persons are invited in all the departments to give awareness of new technologies in the field. These interactions also helps to guide the students while selecting their projects in final year and talks about future scope of the respective discipline.
- Conduction of STP modules in every semester gives awareness of corporate culture and inculcates skills among the students that are needed to make them compatible to the corporate world.
- Conduction of Aspiring Minds Computer Adaptive Test (AMCAT) examinations and its results gives an opportunity for the students to do their Strengths-Weaknesses-Opportunities-Threats (S-W-O-T) analysis and allow them to think on areas to be improved upon. These examinations are conducted in every semester.

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

The support given by the Institute to the faculty for effectively translating the curriculum and improving teaching practices has been summarized in **Figure: 1.3**.

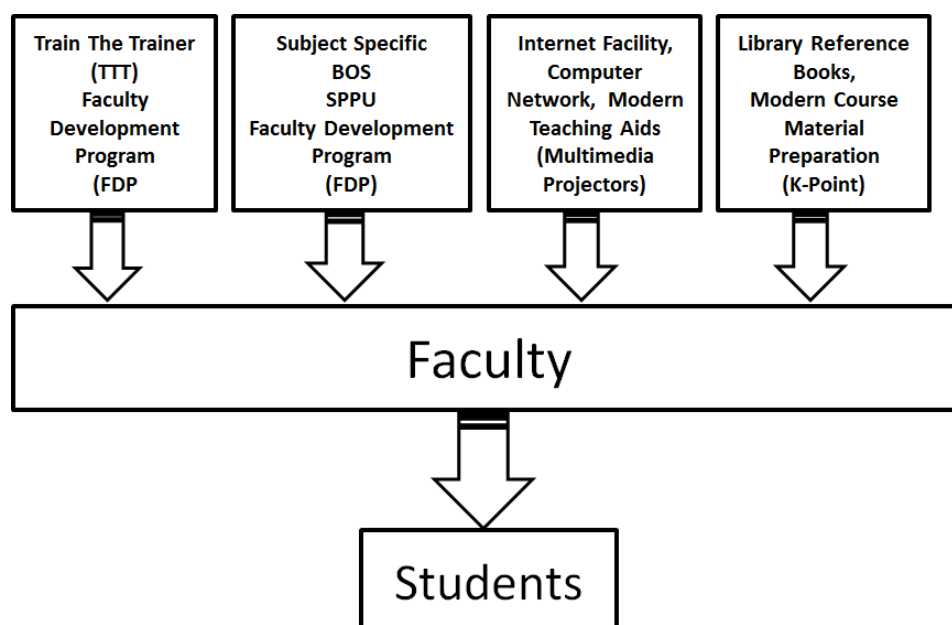


Figure: 1.3 Support given by the Institute to the Faculty

- **Training of Faculty:** While effectively translating the curriculum and improving T-L-P, the institute helps faculty by giving appropriate training through TTT program. The institute also conducts various FDPs, workshops, seminars on behalf of SPPU.
- **Modern teaching aids:** The faculty uses modern teaching aids such as multimedia, LCD and K-point solutions to prepare for conduction of classes more effectively.
- **Internet facility and digital library:** The faculty members are provided with internet facility and digital library to prepare their course materials. The institute library is also well equipped with text and reference books and other reference materials such as e-journals, magazines to ensure the availability of subject matter while preparing the course assigned to the faculty.
- **Counseling by senior faculty:** Senior faculty member having more experience in the subject of interest acting as mentor and gives guidance to newly joined faculty members while preparing the subject matter.

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.

- Every faculty prepares a course file consisting of lesson plan and list of syllabus points to be discussed during the sessions with respect to expected outcome. The lesson plan also gives links between various related topics, expected university questions and practical applications related with syllabus points.
- After analyzing the result of in-semester examinations, faculty identifies slow learners from the class and takes additional remedial sessions for effective transformation of subject matter to them.
- The second year students admitted late and missed early introductory classes due to lengthy admission process are handled separately by every department. For such students make up classes and practical sessions are conducted to complete the syllabus within time.
- The student avails the reading room and digital library facilities at institutional library. The book bank facility is also provided to needy students. The individual department is also facilitating the students by providing them additional learning materials in departmental library. It also consist of lab manuals, data sheets, reference books, magazines, previous seminar and project reports, CDs of video lectures from NPTEL, IISc etc.
- The institute gives industrial exposure to the students by means of industrial visits and site visits. These visits are helpful in understanding the theoretical concepts applied to solve the specific problems of the society.

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

Every department has I-I-I cell. This cell consists of members from the industry, research organizations, and alumni. Expert lectures of industry expert to understand new technologies and best practices executed at corporate level. The interactions are as follows:

- Experience of alumni to prepare current students for getting placed in industry
- Interaction with industry experts to understand the problem statements and to get sponsored projects
- Interaction with research organizations to get research projects for PG students
- Expert lectures to guide students regarding career opportunities in the industry

Criterion – I: Curricular Aspects

- Video sessions to demonstrate lectures of expert faculty from renowned organizations such as IITs, IISCs, etc.
- Interaction of students while preparing for aptitude tests, group discussions, and personal interviews while appearing in placement drives.

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.)

- SPPU has a practice of revising the syllabus after every five years. As the institute is affiliated to SPPU, all the departments are executing theoretical and practical sessions as per the program structure.
- Senior faculty members of the departments are actively participating while deciding the curriculum of various subjects by the BoS.
- Every department also conducts the faculty orientation program for the entire institute under the SPPU to understand the new curricula and its implementation.
- Experts from industry are also invited during this program to understand the subject delivery from industry perspective.
- Few faculty members are also acting as a subject experts and chairman of the subject while setting up the theory question papers as well as framing the assignments during practical sessions of SPPU level.
- Faculty members from various departments have been contributing at university level for curricula developments are listed in **Table 1.1.6**.

Table 1.1.6: Faculty Involved in University Curriculum Development

SN	Dept	Name of Faculty	Role (subject chairman/ subject expert/ syllabus preparation)
01	E&TC	Dr. S N Mali	BoS Member
02	E&TC	D E Upasani	Subject Chairman
03	E&TC	S R Deshpande	Subject Chairman
04	E&TC	M D Patil	Paper setter
05	CIVIL	Dr. S D Khandekar	Subject Chairman
06	CIVIL	A K Kanse	Subject Chairman
07	MECH	M S Mali	Subject Chairman
08	MECH	U C Agashe	Paper setter
09	MECH	P D Darade	Paper setter
10	IT	T D Khadtare	Subject Chairman
11	IT	Mrs Dr A P Adsul	Paper setter
12	IT	S R Gote	Paper setter
13	COMP	Mrs G S Navale	Subject Chairman
14	COMP	P S Dhotre	Paper setter
15	COMP	N M Ranjan	Subject Chairman
16	FE	Dr. B S Waghe	BoS Member
17	MBA	H B Patil	Subject Chairman

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 offers STP, from second year first semester to final year first semester, to develop the students in all respects. The institute has designed various models of STP-I to STP-V to groom the students for communication skills, soft skills, and VAPs beyond the university curricula. Industry professionals and corporate experts are also invited to get awareness of new technologies and innovations in the respective domains of the department.
- The institute also offers specific certificate programs and skill-based programs to the students to prepare themselves while designing and implementing their final year projects.

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

- Every faculty member has to concentrate on **PEOs and POs** defined by the university.
- The course file consisting of lesson plan is in line with PEOs. There are six units in the curricula of every subject. The online multiple choice question examination of SPPU is conducted on first four units for first year and second year students.
- In-semester examination is conducted on first three units to third and final year students. The **Table 1.1.8** shows the theory subject examination scheme in detail.

Table 1.1.8 University Examination Scheme

Year	Marking Scheme			
	Online I on unit-I and unit-II Online II on unit-III and unit-IV for FE-SE	In-Semester on first 3 units for TE-BE	End-Semester on all 6 units with 50% weightage to last 2 and 3 units FE-SE and TE-BE respectively	TOTAL
FE	50	NA	50	100
SE	50	NA	50	100
TE	NA	30	70	100
BE	NA	30	70	100

- The department analyses the results of online examination and in-semester examination of all the subjects immediately after the conduction of respective examination. This analysis gives an idea of performance of the students in terms of stated PEOs. The analysis also helps in understanding the weaker students within the class for specific subject for which the remedial classes are to be conducted.
- Every practical assignment performed by the student is evaluated after the completion of experiment. The students are supposed to submit assignment of every experiment in terms of journal. At the end of semester, internal mock practical/oral examination is conducted to understand the preparation of the students for university practical/oral examination. The remedial practical sessions are conducted for proper understanding

Criterion – I: Curricular Aspects

of experiments by the students. The overall process of execution of practical sessions provides continuous evaluation of students, which is used while giving the term work marks to the students.

- The process of evaluation, analysis and remedial actions help the departments in understanding the achievements of the stated objectives of every subject of the curriculum.

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.

The objectives of offering certificate courses to the students are as follows:

- To increase the awareness of the technical domain this is not included in SPPU syllabus.
- To add value in their overall knowledge.
- To enhance student's curriculum vitae.
- To give the skill sets that are required to complete their final year projects.

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

No, institute is not offering any program that facilitates the students for dual degree.

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond: Range of Core/Elective options offered by the University and those opted by the Institute. Choice Based Credit System and range of subject options Courses offered in modular form Credit transfer and accumulation facility Lateral and vertical mobility within and across Programs and courses, Enrichment courses

Considering the feedback of the industry, our few students are not up to the mark in three areas:

- i. Communication skills
- ii. Fundamental knowledge
- iii. Lack of new technologies

Therefore, these students are undergoing through various training programs and certifications through STPs and additional certificate courses offered other than the University syllabus. The AMCAT examination used to identify the student's need. The objective is to develop overall personality of students by enhancing their communication skills and soft skills. The departments are also taking many efforts in enhancing their fundamental concepts and knowledge of core subjects of respective discipline. VAP and certificate programs offered by other reputed universities are helping the students to increase their fundamental concepts as well as increasing their awareness of new technologies.

Criterion – I: Curricular Aspects

In the four-year degree program, a student can specialize in any one of the following fields: Computer Engineering (COMP), Information Technology (IT), Mechanical Engineering (MECH), Civil Engineering (CE), and Electronics & Telecommunication Engineering (E&TC). All the students have the choice of selecting their own elective subjects from the list of subjects offered by SPPU.

Even if the curriculum decided by SPPU, flexibility given to the individual departments of institutes to decide their “open elective” in consultation with the industry. However, currently there are no such courses offered in modular form for Credit transfer.

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, institute is not offering any self-financed Programs.

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.

Yes, the institute is providing additional skill oriented programs, relevant to regional and global employment need of markets. At SITS level, a need was identified and an innovative STP is developed from the year 2013. This helps the students to build a personality equipped with exquisite technical and non- technical skills. The objectives of the STP are to:

- Enhance the employability opportunity,
- Prepare students for entrepreneurship and
- Prepare students for higher education in India as well as abroad.

STP Program Details:

The duration of STP is of 120 hours that spread over 5 semesters. It is to be undertaken by the student from the start of the second year of engineering. The details of the program are as follows:

A. Introduction to Student Training program: F.E. – SEM I

This program aims at giving introductory information about the Program to the F.E. Students.

- Motivational lectures- 2 lectures of 2 Hrs each per division branch wise
- QALR tests – 2 Nos.
- Audio backed lectures by expert faculty with video illustrations for all subjects.

B. STP 1: S.E. – SEM I

At this level, the Students of S.E. are trained for the following 10 basic modules, which comprises of presentations, training and assignments for each module for 2 hrs.

All Students undergo first AMCAT Test in each semester.

Criterion – I: Curricular Aspects

- Module 1 - Personal and career goal setting
- Module 2 - SWOT analysis
- Module 3 - Behavioral skills
- Module 4 - Public speaking
- Module 5 - Presentation skills
- Module 6 – Resume writing
- Module 7 – Listening skills
- Module 8 – Group discussion
- Module 9 – Report writing
- Module 10 – Letter/Application writing

The TEST is based on 4 Modules:

Quantitative aptitude, Logical reasoning, English & Personality

AMCAT assessment is used to assess the training need of the student for training in soft skills.

C. STP 2: S.E. – SEM II

Based on the AMCAT scores of the Students in the AMCAT Exam taken in the first Term the Students Weaknesses are identified and the further Training in this SEM is planned accordingly. This consists of 4 main Criteria as follows:

- **Speaking Skills** – Module 1- Module 3
- **Listening Skills** – Module 1- Module 3
- **Reading Skills** – Module 1- Module 3
- **Writing Skills** – Module 1- Module 3

All students undergo AMCAT test 2 in this term. AMCAT reassessment is used to evaluate the soft skills of the student after training.

D. STP 3: T.E. – SEM I

This level of training aims at training and refreshing of technical fundamentals. The students are provided with the training for improving basic domain knowledge and concepts of all core subjects for the respective branches. All students undergo AMCAT test 3 in this semester. AMCAT assessment is used to evaluate the technical and soft skills of the students.

The TEST is based on 6 Modules:

Quantitative Aptitude, Logical Reasoning, English & Personality and 2 modules on any 2 domain subjects

Scores are used to assess the need for training in technical skills. QALR practice tests are conducted every week.

E. STP 4: T.E. – SEM II

Training from outside experts provides benefit to CV. All students undergo AMCAT test 4 in this semester. AMCAT reassessment is used to evaluate the technical and soft skills of the student. The research component is also added at STP 4 level.

The TEST is based on 6 Modules:

Quantitative Aptitude, Logical Reasoning, English & Personality and 2 modules on any 2 Domain Subjects

These AMCAT Scores of the students remain on the company's website for next 3 years, to be accessed by various organizations for placements. QALR practice tests are conducted every week.

F. STP 5: B.E. – SEM I

Training from internal faculty and outside experts is provided for practicing Group Discussion and Personal Interview (GD-PI). QALR practice tests are conducted every week. VAP is also a part of STP 5.

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

NO, University does not provide any flexibility of combining the conventional face-to-face and distance mode of education for students to choose the courses/combination of their choice.

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?

Every department is taking additional efforts to face the current trends in competitive areas. A series of meetings of the faculty members at departmental level and I-I-I always focuses on the limitations in the syllabus. To make up deficiencies if any, the institute supplements the SPPU curriculum by:

- Arranging guest lectures from industry experts
- Organizing site visits and industrial tours
- Arranging workshops and seminars
- Conducting Soft Skill sessions through STP
- Conducting Remedial classes for slow learners
- Allow students to participate in ROBOCON, BAJA, SUPRA like competitions

Every department takes maximum efforts while executing the University curriculum. The Institute academic calendar is prepared every semester with the active involvement of the HODs and the system monitoring committee. The institute and every faculty make sure that the curriculum framed by the University is implemented to get best of best performances in SPPU examinations. In addition, every student develops his or her personality to compete in the global market. All are performing their duties in such a way that the output of their work reflects —Vision and Mission of the institute.

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?

Criterion – I: Curricular Aspects

As every department is under the umbrella of SPPU, we strictly adhere to the syllabus designed by SPPU. However, while delivering curriculum content to the students, our faculty enrich it with their own expertise and experience so that the students also gain employable qualities that enables them to get jobs in this highly competitive world.

The CPC regularly interacts with the HR managers of companies and collects first-hand information about the demands and expectations of the corporate sector regarding required skill sets of students. These demands of the companies are then communicated to the HOD, who in turn formulate add-on courses and extra classes which are then conducted to make up for the deficiencies in the students to make them employable. As we are executing SPPU syllabus, the department takes care of enriching the curriculum by supplementing it with value added courses so that the students are benefited in the best possible manner.

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?

- Scholarship schemes from GoM are implemented as per the norms.
- Earn and learn scheme is implemented in the Institute as per the guidelines of SPPU, where students from economically weaker sections work after institute hours and gets benefited through this scheme.
- The Women's Grievance Redressal has been formulated to address the problems of students and staff.
- Students Anti Ragging cell gives frequent visits to hostels to understand problems of the students.
- The institute organizes seminars/workshops under Art of living by inviting experts to share and deliver their experiences.
- TGs are assigned as mentors for a group of students for a period of 3 years. This is tracking every student for their academic performances as well as to understand and council their personal problems, if any.
- The Local Managing Committee (LMC) communicates to the management meets twice in a year for all sorts of issues including new purchase and maintenance.
- The institute arranges various programmes under the NSS to alert students about various issues such as cleanliness, traffic etc.
- List of student's activities supported by the institute is shown in **Table 1.3.3**.

Table 1.3.3: Student Activities Supported by the Institute

Sr. No	Activity	Date
1	Blood Donation Camp	01/10/2015
2	Tree Plantation	24/09/2015
3	Police Mitra	17/09/2015 – 27/09/2015
4	Engineers Day	15/09/2015
5	Yoga Camp	09/09/2015 – 01/09/2015
6	Teachers Day	05/09/2015
7	Raksha Bandhan	29/08/2015

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

The institute consistently organizes/conducts various value-added courses/enrichment programmes to ensure holistic development of students. Few examples of these programmes offered are as follows:

- World of Visual Computing & Good Programming Practices
- Big data Project Opportunities
- Industrial Application of Database and Data Warehouse
- Disaster Management
- STAAD Pro Training
- Structural Design Software
- Signal Coding & Estimation Theory
- Wave Theory and Antenna
- Automation Studio Workshop
- Soft to Hard Workshop

Moral and Ethical values: The NSS group of the institute engages the students in community development activities that motivate the students to take up the cause of Social Service. The NSS team regularly visits surrounding areas and villages where people are made aware about various social, moral, and ethical issues. The students are also motivated by way of special lectures to instill moral and ethical values in them. The institute has established Student Council, which organizes various events, where students from all the departments can participate. The institute also publishes a yearly magazine, which is a means for educating students regarding cultural and social values.

Employable and Life Skills: The institute understands that the communication skills, soft skills are vital for students along with technical skills. Hence, this is fulfilled by organizing various competitions amongst the students, guest lectures, STPs for developing communication competency among the students. Students are also allotted different responsibilities in various forums, clubs, department associations etc. This helps them to improve their team building and organizational skills.

Better career options: The institution has signed MoUs with various companies to conduct different value added certification courses as well as to understand the industry environment and practices to reduce the gap between education and employment. Students are encouraged voluntarily enroll for these courses to enhance their employability skills. For building student confidence and improve the placement skill sets, the institute conducts various tests such as QALR, Employability Test (ET), and GD - PI. All the students undergo AMCAT test. AMCAT assessment is used to evaluate the technical and soft skills of the students.

Community Orientation: As a part of community orientation, the Institute NSS team regularly visits surrounding rural areas and villages where people are made aware about various social, moral and ethical issues. The members of NSS conducts IT awareness programmes, health care, women education etc. The institute also organizes blood donation camp, street plays.

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

The institution has various channels to collect and document responses on curriculum from the stakeholders. The institution collects feedback from the stakeholders in enriching the curriculum in the following manner:

- Mid semester and end semester feedbacks are taken from students.
- Alumni feedback is collected every year during alumni meet.
- Feedback is collected about project groups from project examiners appointed by SPPU.
- Feedback is taken from recruiters, when they come for campus recruitments.
- Parents and Employer's feedback are collected during parents' meet and placement activities respectively.

The inputs are obtained from the stakeholders regularly and further used for enriching the curriculum that helps to improve the overall competency of the students for employability. The feedback responses are presented before HOD for consideration and decisions are taken accordingly. Thus for instance if the students have expressed displeasure with any of the staff members including faculty (which is very rare), the concerned staff member is given due hearing with the authorities and if found requiring some improvement, is given an opportunity to keep pace with student's expectations.

The Institute has a Student's Council which is another source of feedback for the Institute authorities. The Council notes areas of concern, if any, from the student's point of view and places them before the Principal for necessary action.

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

The institution has a transparent way to monitor and evaluate the quality of various enrichment programmes initiated by it. The feedback in the form of interactions, discussions, and suggestions are analyzed by a specially constituted committee and a report is submitted to the HOD. The Institution makes sure that the programmes offered in the curriculum include contribution to national development, fostering global competencies among students, inculcating a value system among students, promoting the use of technology and quest for excellence. The Institute efforts to ensure that the curriculum bears a thrust on these core values include the initiative for contribution to national development.

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?

Faculty members regularly attend workshops and seminars on revision of curriculum. Some faculty members of the Institute are on the BoS of faculty of Engineering in the University. They actively contribute to develop the curriculum of the University. The Institute forwards the suggestions of its faculty to the University through the members of BoS. The design and development of the curriculum is the responsibility of the University. Institute deputed the faculty for attending curriculum development workshops organized by the University.

Criterion – I: Curricular Aspects

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?

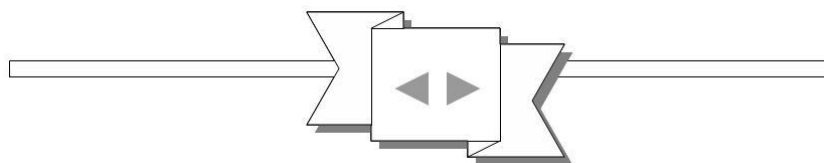
Yes, there is a mechanism to obtain feedback from stakeholders like students, alumni, industry, etc. on curriculum development. At the end of every semester, faculty collects feedback from students representing fast learner, average learner and slow learner. Feedbacks are also taken during placement activities from industry, industry experts visiting to institute for guest lectures, seminars or during industrial visits by faculty.

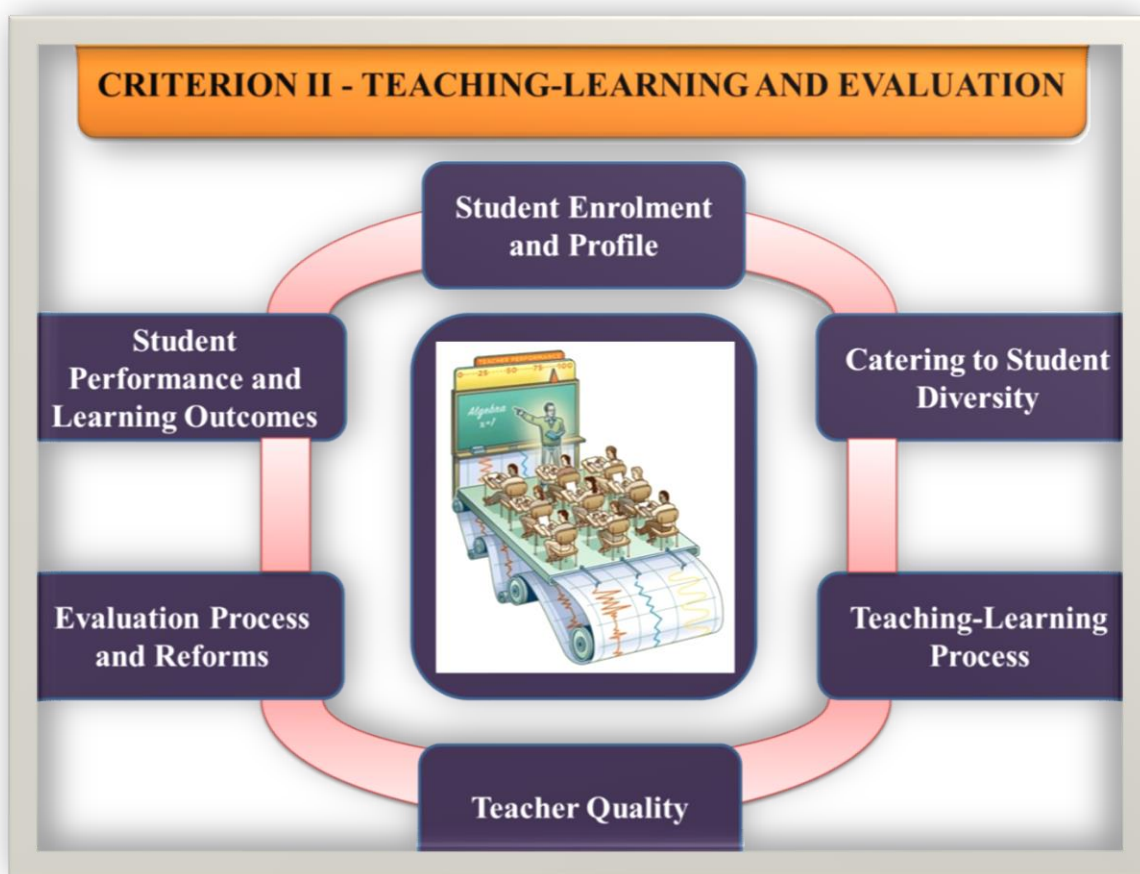
Based on these feedbacks, HODs and subject experts report to the BoS members of SPPU who are involved in curriculum development. In addition to this, to bridge the gap between industry requirements and present curriculum, the institute conducts VAPs every year in all departments, organizes industrial visits, technical fest, competitions etc.

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.

During the last four years, the institute has not introduced any new programme/course.

To meet ever-changing needs of the industry, the institute has introduced VAPs and STPs across all the departments every year. In addition, SPPU has made provision and given authority to every department, to add open elective for final year. With prior approval from BoS and academic council of SPPU, any department can add open elective for final year. Hence, the industry based advanced technology learnings can be designed and introduced. At present, institute has not introduced such open electives, but will have a plan to add open elective for final year in the next academic year.





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:

- Admission notification is published by DTE, Maharashtra state in all leading national and regional daily newspapers.
- The advertisements for admission to different courses are published in all leading newspapers from time to time and the same is displayed on the notice board of the institute. The advertisement contains detailed information about courses, eligibility, process of admission and academic as well as support facilities.

Transparency

- Transparency is maintained throughout the admission process. The admission process is strictly controlled by DTE, Maharashtra through Centralized Admission Process (CAP).
- Students interested in taking admission have to fill on line application form through DTE admission portal after the admission notification before the last date.
- Application-Form Receipt Center (ARC) verifies all the necessary documents and gives confirmation of application form to the candidate.
- Provisional merit list displayed on DTE website and after the cognizance of the entire grievances final state level merit list is prepared. The same is kept in the Institute office as public information.
- All admissions are strictly through state level merit in all criteria as per the flow chart of admission shown in **Figure 2.1.1**.
- Students can fill the choice of stream and Institute through online registration. While doing so they can get Institute information through DTE admission information brochure.
- The institute strictly adheres to the rules and regulations regarding admissions prescribed by the state government and SPPU by giving proper affidavit to DTE.
- Institute level seats are filled by giving proper advertisement in Times of India as well as local newspapers. 20% admissions are carried out at institute level according to the guidelines of DTE and GoM.
- Admission cell is formulated for counselling the students and parents seeking admissions to Engineering and Management.
- Counselling cells are also taking part in education fairs at various cities for institute level admissions.
- Admission to Master of Engineering (ME) and Master of Business Administration (MBA) are also carried out transparently in similar way.
- There is no provision for direct second year admission in any branch at institute level. The entire direct second year admissions are carried out by DTE, Government of Maharashtra.

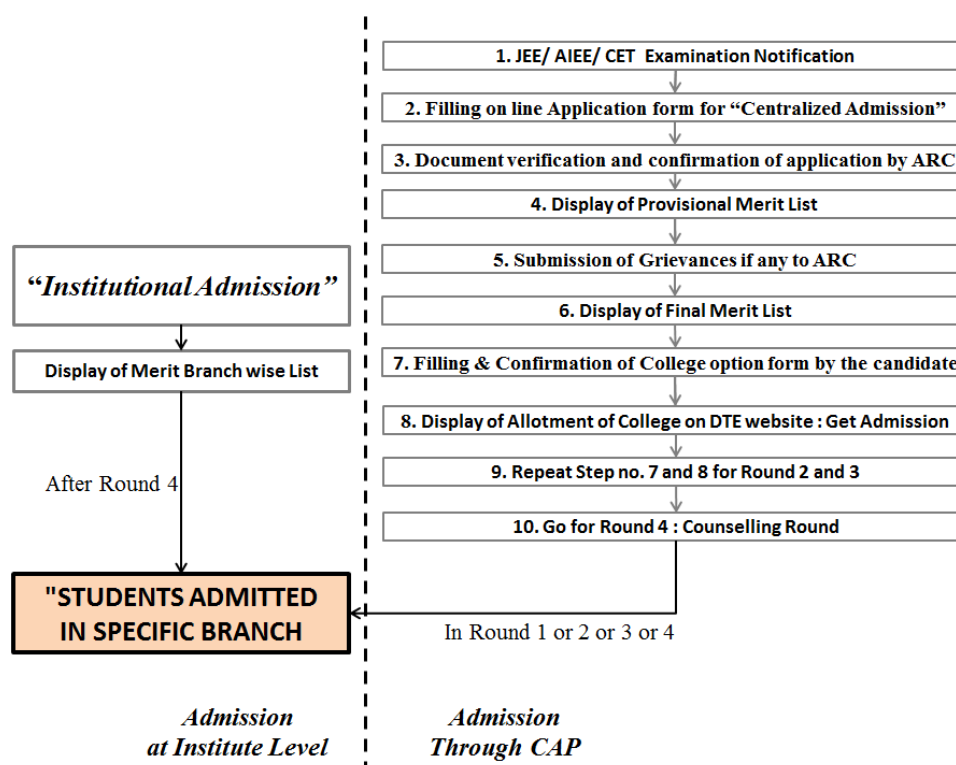


Figure 2.1.1 Admission Process for Centralized and Institute Level Admission

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

The Institute follows the admission process as per the guidelines given by DTE, GoM. CAP of DTE governs the eligibility criteria for selection of students to first year, direct second year, master of engineering and MBA. Broadly, the admission criterions are based on:

- i) Entrance Examination CET/JEE/AIEEE for FE and MBA whereas GATE for ME
- ii) Physics, Chemistry and Mathematics marks of HSC Examination for FE admissions
- iii) Vocational Subjects at HSC Examination for FE admissions
- iv) Graduation marks for ME and MBA
- v) Final year Marks of Diploma for 2nd year of Engineering Direct Admission (SEDA)
- vi) Reservation Policy

The minimum eligibility criteria for admission to FE, ME, SEDA, MBA are decided by DTE, GoM and it changes year to year. The process of admission is as shown in **Figure 2.1.1** for FE admission and it is similar of kind for other admissions.

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.

Admission process is as per the rules and regulations of DTE, GoM. **Table 2.3.1(a)** and **Table 2.3.1(b)** are giving the details of *minimum and maximum percentile/ Common Entrance Test (CET) marks* at entry level for the last two academic years for FE admissions.

Criterion – II: Teaching - Learning and Evaluation

Academic Year 2015-16:

Table 2.3.1(a): FE Admission Minimum and Maximum Percentile 2015-16 with respect to Nearby Institutes under SPPU

Sr. No.	Department	SITS, Narhe		Zeal, Narhe		JSPM, Narhe	
		Min	Max	Min	Max	Min	Max
01	Computer Engineering	75.79	83.12	47.02	63.17	54.30	65.95
02	Information Technology	61.51	75.74	23.03	36.85	----	----
03	Electronics & Tele-communication Engineering	53.72	57.94	14.46	14.46	26.24	34.09
04	Mechanical Engineering	73.91	83.34	50.40	60.4	53.7	64.58
05	Civil Engineering	68.43	81.18	50.70	57.11	47.92	58.97

The comparison shows that our institute has higher cut off percentile/CET marks for all the courses as compare to other nearby institutes Zeal Education Society's Dynaganga Institute of Engineering (Zeal), Narhe and Jaywantrao Sawant Prasarak Mandal's Institute of Engineering (JSPM), Narhe for last two academic years as shown in **Figure 2.1.3 (a) and 2.1.3 (b)**.

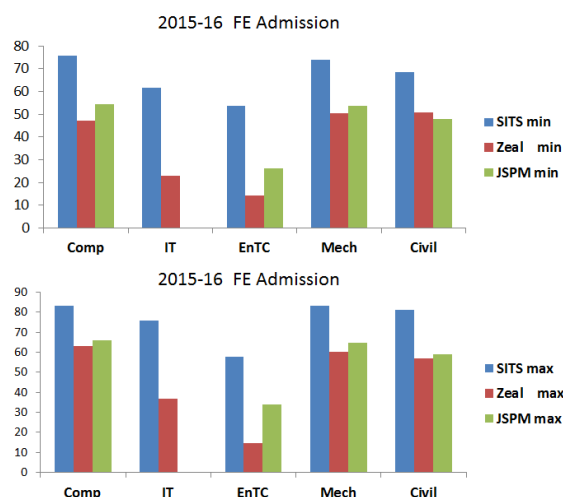


Figure 2.1.3 (a) SITS, Zeal and JSPM FE Admissions in AY 2015-16

Academic Year 2014-15:

Table 2.3.1 (b): FE Admission Minimum and Maximum Percentile 2014-15 with respect to Nearby Institutes under SPPU

Sr. No.	Department	SITS		Zeal		JSPM, Narhe	
		Min	Max	Min	Max	Min	Max
01	Computer Engineering	73.86	83.06	48.57	58.47	54.58	65.21
02	Information Technology	57.72	71.32	27.41	28.74	----	----
03	Electronics & Tele-communication Engineering	43.16	64.79	17.65	30.08	39.01	30.20
04	Mechanical Engineering	77.43	85.13	57.90	73.38	58.81	69.40
05	Civil Engineering	71.24	80.70	42.78	50.05	56.58	62.59

Criterion – II: Teaching - Learning and Evaluation

We are also comparing our admissions with well-known and well established (more than 18 years) Institutes under SPPU: Sinhgad Institute of Engineering (SCOE) and Maharashtra Institute of Technology (MIT) with their *minimum and maximum* cut off marks as shown in **Table 2.3.1 (c)** and **Figure 2.1.3 (c)** shows its comparison.

Table 2.3.1 (c): FE Admission minimum and maximum percentile 2015-16 with respect to nearby Institutes under SPPU

Sr. No.	Department	SCOE		MIT		SITS	
		Min	Max	Min	Max	Min	Max
01	Computer Engineering	90.27	95.08	93.71	96.6	75.79	83.12
02	Information Technology	78.41	91.6	89.43	93	61.51	75.74
03	Electronics & Tele-communication Engineering	80.28	91.52	88.72	95.03	53.72	57.94
04	Mechanical Engineering	93.34	96.14	90.49	97.33	73.91	83.34
05	Civil Engineering	85.53	92.65	91.42	93.73	68.43	81.18

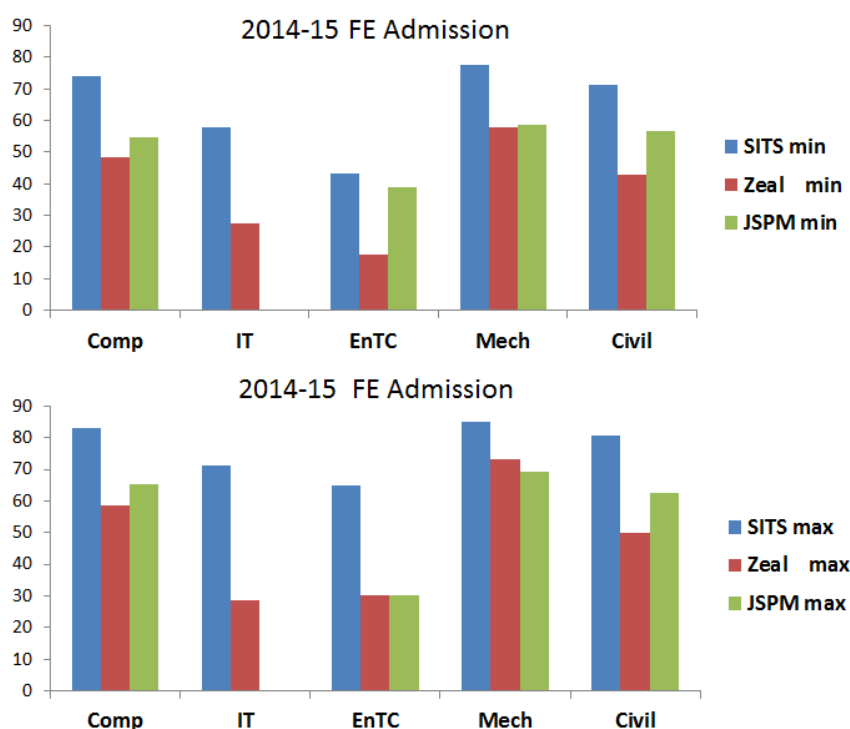


Figure 2.1.3 (b) SITS, Zeal and JSPM FE Admissions in AY 2014-15

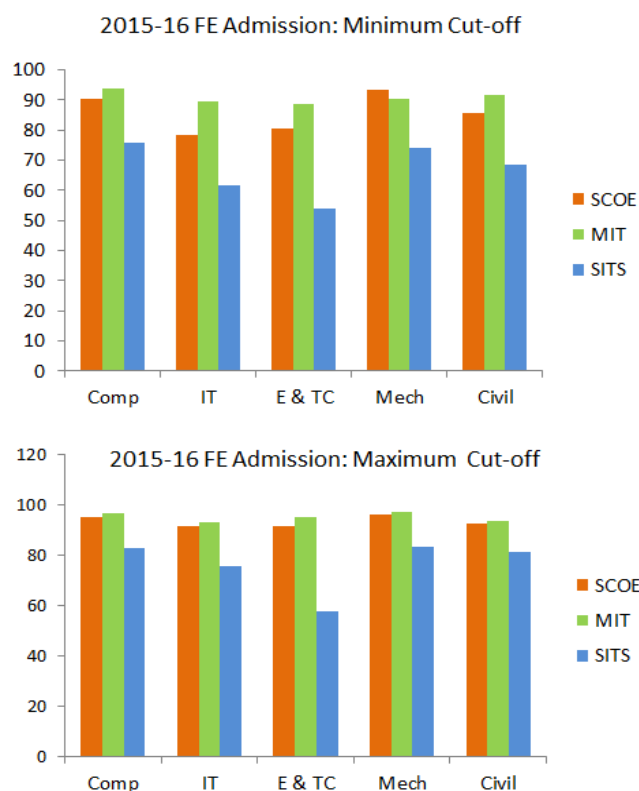


Figure 2.1.3 (c) SCOE, MIT and SITS FE Admissions in AY 2015-16

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 institute has mechanism to review the admission process and student profiles annually.
- Though, DTE governs the Engineering admission process in the state and the institute follows rules, regulations and guidelines set up by the GoM, we usually compare our FE student's admissions branch wise in terms of number of admissions and quality of students that are taking admissions.
- Considering the lesser admissions in the state, SITS takes keen interest in making name and fame of the institute by means of advertisements and participating in educational exhibitions all over India.
- The admission information is also available on institute website **www.sinhgad.edu** OR **http://cms.sinhgad.edu/sinhgad_engineering_institutes/sits_narhetechnicalcampus.aspx**. On-line registrations and counselling during educational exhibitions is the modern time improvements and has become part of admission process.
- As a result, our admissions are good in terms of quantity and quality since inception of the institute.

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

inclusion SC/ST, OBC, Women, Differentially abled, Economically weaker sections, Minority community, Any Other

The strategy adopted by the institute during the admission process is to give following information while counselling the students for admissions:

- The Institute follows all the rules and norms laid down by DTE, GoM regarding admission of students in the reservation criteria.
- It offers seats to SC/ST, OBC, women, economically weak students Tuition Fee Waiver Scheme (TFWS) as per the government norms, rules and regulations.
- There is a special quota for the candidates of Jammu and Kashmir as per DTE norms.
- Economically Backward Class (EBC) Scholarship scheme of Government of Maharashtra is given to all the eligible students admitted through CAP.
- The total social reservation is 50 % of total sanction intake that is segregated as; Open – 50 %, SC –13%, ST - 7%, OBC – 19%, VJNT –11% and Women – 33% (in individual categories).
- Institute follows earn and learn scheme of SPPU and book bank scheme of Social Welfare Department (SWD) for economically weaker students.
- **Figure 2.1.5 (a)** shows percentage boys and girl students in the institute in various departments and **Figure 2.1.5 (b)** shows percentage boys and girl students in each category.

The institute also has a strategy to allow the students to get financial assistance from various NGOs and benefit the students coming from diversified background of the state. The institute gives support to all such students by providing required documents and proper follows up.

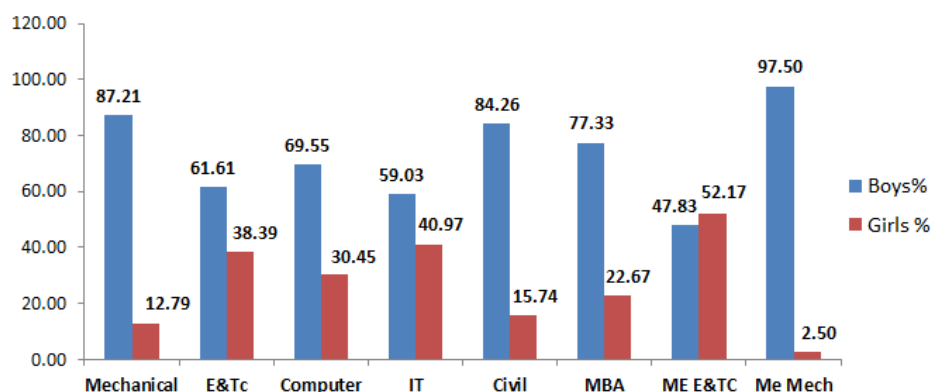


Figure 2.1.5 (a) Current Boys and Girls Percentage in the Institute

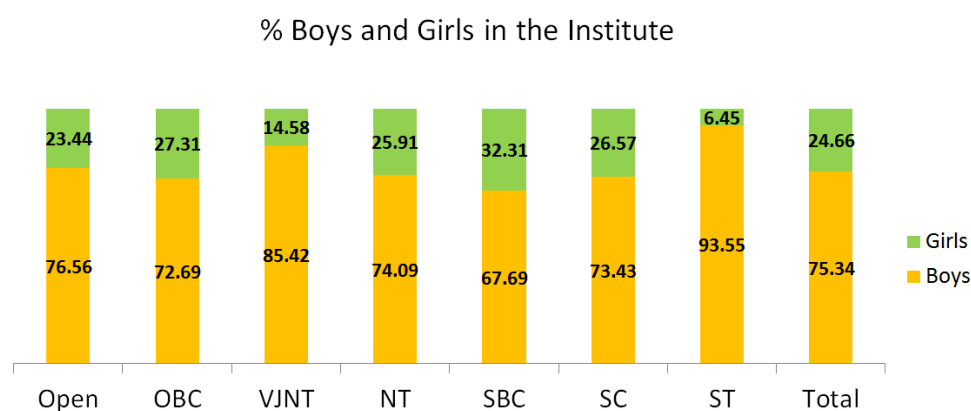


Figure 2.1.5 (b) Current Boys and Girls Percentage in each Category

Criterion – II: Teaching - Learning and Evaluation

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.

- All admission process is prescribed and conducted by government authorities through CAP for all engineering institute in Maharashtra through DTE web portal.
- Institute has no role to play with respect to number of applications received and number of students giving options to our institute during CAP. Hence, it is not possible to calculate demand ratio.
- However, demand ratio with respect to intake in each programme can be used to understand admission trends.
- The admission statistics of previous four years and calculated demand ratio with respect to intake for UG & PG are shown in **Table 2.1.6 (a)** and **Table 2.1.6 (b)** while **Figure 2.1.6** shows admission trend of FE.

Table 2.1.6 (a): UG Admission Demand Ratio 2012-2015

UG Prog.	2012-2013			2013-2014			2014-2015			2015-2016		
	NOA	NSA	DR	NOA	NSA	DR	NOA	NSA	DR	NOA	NSA	DR
COMP	120	119	99	120	120	100	120	119	99	120	120	100
IT	60	57	95	60	46	76	60	59	98	60	60	100
E&TC	120	112	93	120	92	76	120	104	86	120	119	99
MECH	180	178	98	180	179	99	180	178	98	180	179	99
CIVIL	120	120	100	120	116	96	120	119	99	120	120	100
NOA – No of applications [Intake], NSA – No of students admitted and DR - Demand Ratio = NSA*100/NOA												

Table 2.1.6 b: PG Admission Demand Ratio 2012-2015

PG Prog.	2012-2013			2013-2014			2014-2015			2015-2016		
	NOA	NSA	DR	NOA	NSA	DR	NOA	NSA	DR	NOA	NSA	DR
ME (M)	24	23	95	24	23	95	24	23	95	24	17	70
ME (E)	24	24	100	24	24	100	24	18	75	24	06	25
NOA – No of applications [Intake], NSA – No of students admitted, ME (M) – ME Mechanical (Design Engineering), ME (E) – ME E and TC (VLSI and ES), DR - Demand Ratio = NSA*100/NOA												

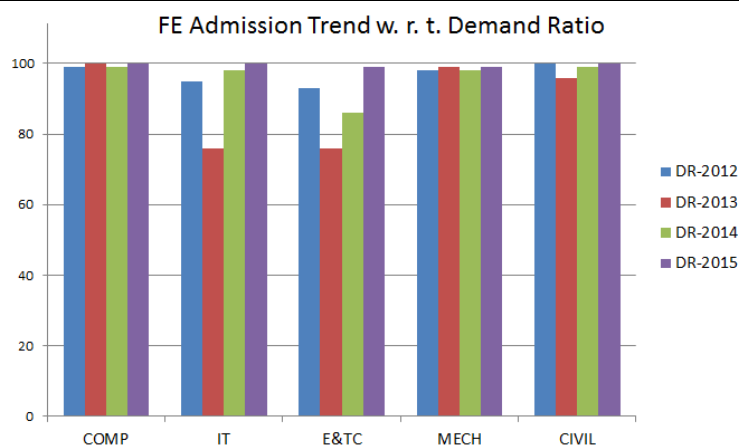


Figure 2.1.6 FE Admission Trend

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

- Global and national employment scenarios are mostly responsible for admissions.
- The students mostly select the institutes based on the surrounding locality and placement trend of particular institute.
- Every year new institutes are establishing as well as there is increase of intake in existing institutes for various programmes in the state of Maharashtra.
- State-of-the-art technology in the area and trends of students opting postgraduate courses in India and abroad matters a lot during PG admissions.

Action initiated for improvement in placement and as a result in admissions:

- Providing effective training and placement activities
- Conducting value added courses in consultation with Industry
- Organizing awareness programmes
- Counseling before and during admission

2.2 Catering to Student Diversity

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

The Institute caters to the needs of differently abled students as per the requirements of the individual student. In addition, the institute makes special arrangements for these students in University examination as per the SPPU guidelines. The institute is fully adhering to government policies regarding the needs of differently abled students.

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

The Joint Entrance Exam (JEE Main) is conducted at national level for Maharashtra as well as Out of Maharashtra State (OMS) students, for admission to the First Year of Engineering. Considering the JEE scores, the Institute assesses the student's needs in following ways:

- The qualifying marks and overall ranking in the merit list of the students gives an idea about the caliber of the students for entry-level analysis.
- Institute organizes orientation programme for newly admitted students and their parents to help them in understanding the engineering curriculum and university examination process.
- Introductory lectures for all subjects are delivered to discuss and understand special needs of the students.
- Induction program for parents and admitted students are conducted at the beginning of First Year of Engineering where all students and their parents are being introduced. Guardian teachers are also assigned during this program to understand background of all FE 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?

After mapping the gap of the newly enrolled students in their respective domain, we conduct the following bridge/remedial/add-on/enrichment courses:

Criterion – II: Teaching - Learning and Evaluation

- Useful practical training is given to the students during the laboratory sessions.
- In-plant trainings are provided to the students to fill their knowledge gap.
- Additional laboratory exercises are conducted to the enrolled students beyond the scheduled class timings.
- Special training is given to the students on the recent needs of the industries through STP 1 to STP 4.
- Faculty members provide extra efforts to the students by giving information on contents beyond syllabus to enrich their knowledge.
- Experts from the industries, researchers are invited for giving lectures to bridge the knowledge gap of the enrolled students.
- QALR tests are conducted.
- Special training to the students is provided by conducting VAP as STP 5 and add-on courses to minimize the knowledge gap of the students during the regular class itself.
- Technical site visits and industry visits are conducted to understand corporate world.

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

The Institute always tries to create awareness amongst students and faculty about the values of gender equality, inclusive development and environmental conditions. This is carried out in following ways:

- Institute provides equal opportunity for all to participate in administrative, co-curricular and extra-curricular activities. The Institute also deputed faculty for orientation courses and higher studies (post-graduation and Ph.D.). Faculty members are nominated in committees without any discrimination (gender, caste, religion).
- The institute gives equal opportunities to boys and girls in leading various students' activities and allows them to become member of student's council that is formed well at the beginning of every academic year.
- Institute arranges special social activities to maintain good social environment under NSS such as Blood Donation camps, rural development, Swachha Bharat Abhiyan etc.
- Every year a special camp of NSS is organized in rural areas. The objectives of such camps are to create awareness among villagers about cleanliness and health care, rainwater harvesting and women education etc.
- There is no gender discrimination in policies for all stakeholders.
- Special programs for girl students and woman faculty such as 'Self Defense', 'Special guidance on diet', 'Medical Checkup', 'Mazi Aai Mazya Mahavidyalayat' etc. are arranged on regular basis within the campus.
- The staff members and students are treated equally in religious aspects.
- Women grievances cell is activated and it functions separately for the benefit of the women employees and girl students.
- During the admission process DTE, GoM has already a provision of 33% girl's students' quota.
- At present 33.33%, staff-members are women employees and 24.66 %students are girl students in the institute.

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 term works and assignments, punctuality and personal interactions. The institute offers opportunities for bright students to augment their talent and meet their learning needs.

- Institute has signed MoUs with various leading organizations to expose the students for advanced learning.
- Students are encouraged to identify the problems from nearby industries and taken it as a sponsored project to solve this problem as a part of academic curriculum. They are also encouraged to take part in different contests floated by industries.
- Institute organizes TECHTONIC, technical event every year where the students are encouraged to participate in various innovative technical competitions. These events are totally organized by the students for the students.
- Students are motivated to participate in different project competitions like AVISHKAR, Society of Automotive Engineers (SAE) BAJA, Institute of Electronics & Telecommunication Engineers (IETE) Project Competition, Pariyojana Pratiyogita, CONVENE-SKNCOE, Innovation 2K15 (QUASAR) -Cummins COE, Impetus - PICT, PROWAR – RSCoE, Gravity 2K15- KJCoE, SANSHODHAN- MIT, NCPCI-VIIT, Abhivyakti, Nirman, Jeevan Filter, Concube Shilp, Ground Reality, AutoCAD, Green building etc.
- Advanced learners are facilitated with a well-equipped library provided with latest edition of books, e-Books, online and printed journals and modern labs.
- Enrichment courses are conducted to fulfill the knowledge thirst of advanced learners.
- Advanced learners are instructed to undertake GATE (GATE Tutor – Civil and IT), GRE examinations and are guided for higher studies. Students are also participating in various technical competitions conducted by industry.
- Students are getting awarded with various civil services examinations. Seminars are also arranged to motivate the students for such competitive examinations.
- Students are also exposed to various certificate courses of well-known foreign universities. Registration for such certification is carried out in various departments and extra lab sessions are given for attending webinars related with such courses.
- Students are attending workshops, auto exhibitions to get more knowledge about new technologies and its applications in various fields.
- ROBOCON is an interdisciplinary activity that students from Mechanical Engineering work along with students from Computer and E&TC Engineering to complete the task of mechanical design along with electronics design and programming.

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

The office and respective TG maintain information of the students who are economically weak, slow learners or belonging to socially disadvantaged section.

Collection and analysis of Information:

To get information about student's performances following procedure is followed:

- Every department carries out University exam result analysis.
- The mid-semester tests as well as result of mock tests and online examinations help to get information about students at the risk of dropout and slow learners.
- TG is assigned a batch of students. The TG regularly interacts with these students, from which institute gets information about slow learners, physically challenged and economically weak students.
- Medical check-up is carried out every year for first year students to check their physical fitness.
- Admission information gives information of number of students admitted in SC/ST, OBC, Minority, EBC categories.

Institute uses the data and information as follows:

- For slow learners, every department arranges remedial classes where individual attention is given to each student.
- Regular interaction with parents of slow learners also helps to know the requirements of such students and helps to improve their learning capabilities.
- For economically weak students the institute facilitates scholarship schemes offered by GoM and provide the students information about government and NGO aids, scholarships etc.
- Earn and learn scheme of SPPU is implemented by the institute every year in which economically weaker students are taken care of. In this scheme, students are working in laboratory and library and remunerated through SPPU grant with the support of the institute.
- SC/ST, OBC, Minority, EBC student gets the benefit of reservation in admission and scholarships as per government norms. They are also benefited through book bank scheme of the institute library with the help of funds available from SWD.
- Institute facilitates TFWS for economically backward students including women and handicapped students, every year.
- Physically challenged students are also treated separately during the teaching and learning phase as well as during the examinations on case-to-case basis.

2.3 Teaching Learning Process

2.3.1 How does the Institute plan and organize the teaching, learning and evaluation schedules?

Typical plan of the department consist of various activities of teaching, learning and evaluation schedules as shown in **Figure 2.3.1(a)**.

Start of Semester
Commencement of Teaching
Internal Tests/ AMCAT Schedule
On-line/ In-Sem. SPPU Exam Schedule
Parents' Meet
STP/ Students' Activities
Industrial Visits
End of Teaching
Prelim Exam. Schedule
MOC Practical Exam. Schedule
End of Semester
SPPU Practical /Theory Exam.
Assessment of Answer Papers
Vacation
Commencement of Next Semester

Figure 2.3.1 (a): Typical Academic Plan of the Department

Plan of teaching and learning process:

SPPU has laid down the number of days that would be available for teaching and evaluation of a course. The subject teacher and the departments take utmost care to complete teaching and evaluation within the stipulated time by implementing following strategies:

- At the onset of each semester, the requirements of faculty according to the new/current syllabus are considered and if required, new faculties are recruited maintaining the institute level teacher - student ratio of 1:17.
- The requirement for instruments / equipment /software as per the new/current syllabus is taken from faculty and the purchase procedure is carried out three months in advance.
- Conditions of the existing instruments/equipment are inspected before the commencement of each semester and maintenance work is undertaken.
- At the start of each semester, academic calendar of SITS is prepared. Typical contents of SITS academic calendar are followed by every department as shown in **Figure 2.3.1(a)**.
- HOD, with the help of load distribution committee, distributes the workload, after which the timetable is prepared by timetable committee in consultation with other departments.
- HOD also assigns the responsibilities of various activities to be conducted in the department to the competent faculties.
- All the guidelines given by AMC are followed while assigning the theory and practical subjects to the faculty.
- Schedules of STP and VAP to be conducted for SE, TE and BE students are also essential part of timetable of every department. The concerned faculty members are also trained to take such program well at the beginning of every semester.

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- Books needed for the current curriculum are updated in the library with the co-operation of library coordinator of each department.
- Faculty members prepare, update their course files: University syllabus, Objectives of course, Relevance of the subject in curriculum, Teaching plan, Notes, PPTs, Question banks, University question papers with model solutions, Last three years results of that subject at SITS & SPPU.
- The timetable is displayed on notice boards and CT and TG are appointed for each class.
- Once the semester starts, instruction delivery takes place according to the timetable.
- CT and AMC ensure smooth instruction delivery.
- Records of lectures delivered as per the time table are maintained and verified by the CT and AMC.
- The HOD conduct weekly meetings of faculties to discuss the lacunae/ shortcomings/ problems and possible solutions to overcome them based on policies decided in the HODs meeting with Principal on every Tuesday.

Continuous Evaluation Process:

- Student's performances are continuously evaluated through tutorials, practical assignments, mid-semester tests and necessary remedial actions are undertaken.
- Mid-semester tests, online results are analyzed and academically weaker students are counseled and provided the necessary help.
- List of students with poor attendance is prepared at the end of each month and the TG mails letters to their parents highlighting the students' performance.
- Extra lectures are allocated in the timetable to cover the curriculum in more elaborated way as per the subject requirement.
- The term work marks are given to the students based on continuous evaluation process with the distribution of marks as shown in **Figure 2.3.1 (b)**.

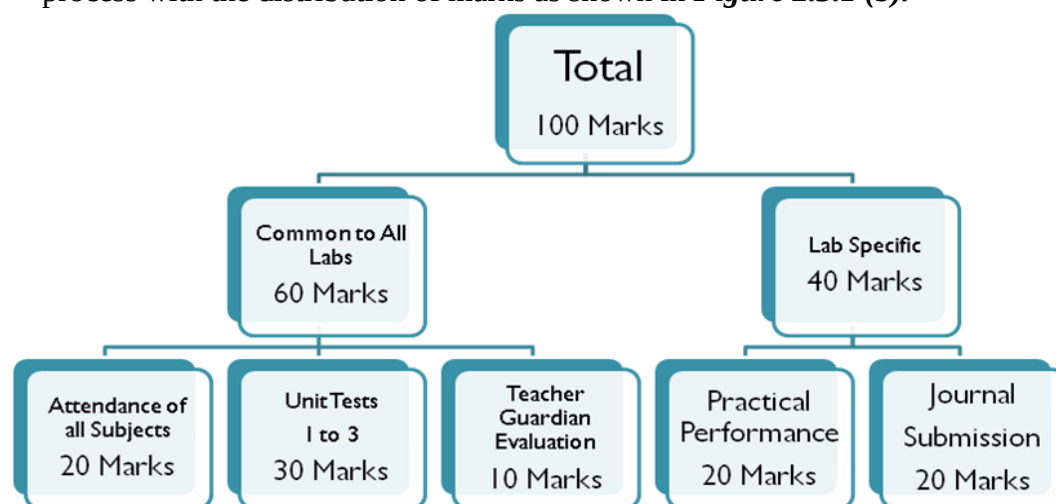


Figure 2.3.1(b): Term Work Mark Distribution

- TG counsels students having poor attendance and performance. TG also conducts meetings with their parents periodically. Thus, parents are kept informed about the performance of their ward regularly.
- Revision and remedial classes are conducted towards the end of the course and suitable assignments are given to them.

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- Submission of practical is done in the allotted time and term work marks are evaluated based on continuous assessment.
- SPPU examination schedule is displayed on the notice board and examinations are conducted as per the university rules and regulations.
- Result analysis is carried out after the declaration of university exam result. The record is used to seek the guidelines from it for further improvement.
- As a part of Continuous Evaluation Process, the term work given to every student is based on overall attendance, marks of unit tests conducted in the class, TG evaluation based on extracurricular activities, practical performance, and timely submission of neat journals, assignments, and tutorials. The details are shown in **Figure 2.3.1(b)**.
- The distribution of these percentage marks is notified to all the students well at the beginning of the semester and invariably all the departments are strictly following the same.

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

IQAC has been proposed from next academic year. Currently the T-L-P is monitored and governed by the AMC that will become integral part of the proposed IQAC. The primary aim of IQAC is to develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution.

Function:

- Development of quality parameters and benchmarks for the academic and administrative activities of the institution
- Acquire feedback from stakeholders with respect to quality parameters
- Suggest remedial actions/ plans to improve academic and administrative activities of the institution
- Dissemination of information of expected quality in education systems by AICTE/ UGC/ DTE/ SITS
- Document verification of quality parameters / activities leading to quality improvement
- Acting as a nodal agency of the institution for imparting quality-related activities

Mechanism: IQAC aims to maximize the quality outcomes of the institute in terms of:

- Academic performance
- Placement scenario
- Research contribution by faculty and students
- Overall satisfaction of stakeholders: Society, Industry, Alumni, Parents, etc.

While doing so the IQAC will work in a close loop system with faculty, staff, students and management in developing a unique work culture in the institute. **Figure 2.3.2** gives an overall idea of this closed loop system.

The IQAC analyzes the performance of the institute with parameters in terms of:

- **Teaching and learning:** Faculty, students, teaching methodologies used
- **Administrative systems:** Supporting staff performance, implementation of policies
- **Documentation process with respect to:** Management strategies, budget allocation/utilization and requirement of additional infrastructure

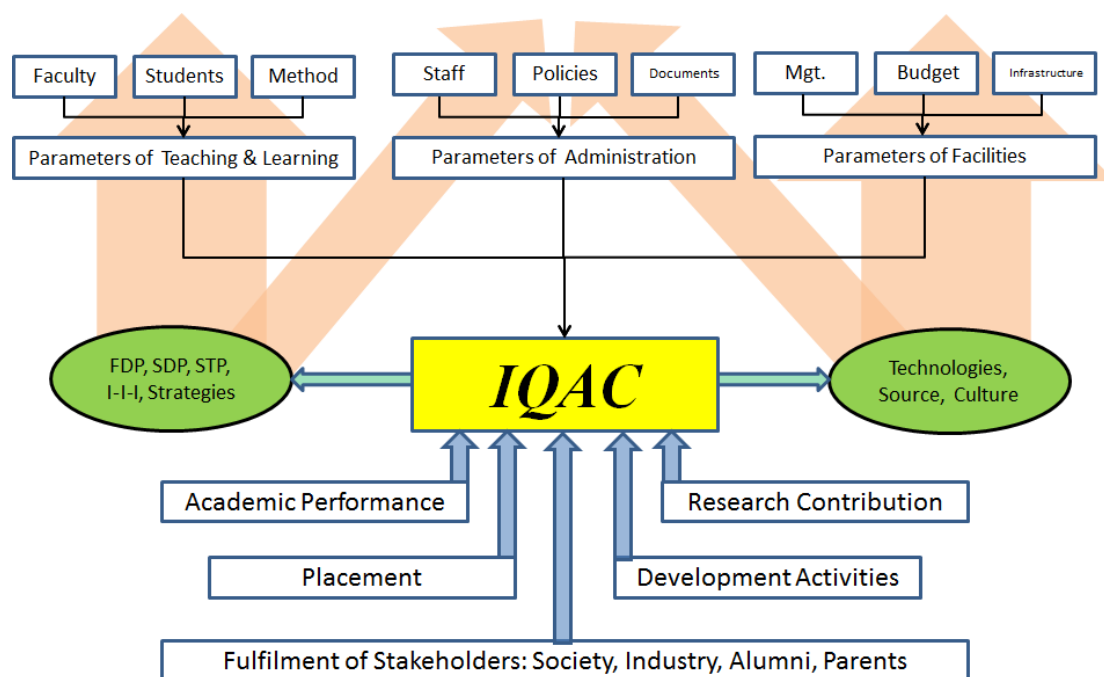


Figure 2.3.2: IQAC Closed Loop System

The IQAC analyzes these parameters consistently and suggests remedial actions for ensuring timely, efficient and progressive performances in academics, administration and development of facilities in the institute.

Benefits:

The analysis and suggestions by IQAC will benefit the institutional progress in quality education and research. It will also make sure about keeping the transparency in faculty, staff and management with respect to objectives towards attainment of the mission and vision of the institute. IQAC create a mechanism to integrate various academic activities, enhance supportive administrative tasks and effectively communicate to achieve quick actions and get an impact on quality objectives of the institute.

AMC shown in **Table 2.3.2 (a)**, committee is chaired by the head of the institute and consist of two SITS directors as advisors along with all the HODs as members. AMC use to monitor all the academics, student feedback and overall T-L-P to achieve maximum academic performance of the students. Guidance of AMC advisors in terms of teaching load distribution, new faculty recruitments and procurement of new equipment also helps in building academics. Library books are always helping the individual department to improve their performance. Faculty and staff appraisals are looked after by AMC where it not only monitors the performance of individual faculty, but also guide them to achieve their own objectives. AMC also keeps an eye on critical subjects from FE to BE and advise HODs to perform in the best possible way.

Table 2.3.2 (a): Members of Academic Monitoring Committee (AMC)

Sr.	Name of Staff Member	Designation	Designation
1	Prof. (Dr.) S. N. Mali	Principal	Chairman
2	Prof. M. G. Bhat	Director, Engineering	Advisor

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3	Prof. S. B. Pharkute	Director, Academic	Advisor
4	Dr. S. D. Khandekar	HOD, Civil	Member
5	U. C. Aagshe	HOD, Mechanical	Member
6	D. E. Upasani	HOD, E&TC	Member
7	Mrs. G. S. Navale	HOD, Computer	Member
8	Prof. T. D. Khadtare	HOD, IT	Member
9	H. B. Patil	HOD, MBA	Member
10	S. R. Deshpande	HOD, FE	Member
11	P. D. Darade	HOD, FE	Member

The institute has constituted IQAC from this academic year as shown in **Table 2.3.2 (b)**.

Table 2.3.2 (b): Members of Institute Quality Assurance Cell (IQAC)

Sr	Name of the Member	Designation	IQAC Designation
1	Prof. (Dr.) S. N. Mali	Principal	Chairman
2	Prof. (Dr.) A. V. Deshpande	Director, Administration	Advisor
3	Prof. M. G. Bhat	Director, Engineering	Advisor
4	Prof. S. B. Pharkute	Director, Academic	Advisor
5	Dr. Mrs. A. P. Adsul	Assistant Professor	Coordinator
6	Dr. S. D. Khandekar	HOD, CIVIL	Member
7	U. C. Aagshe	HOD, MECH	Member
8	D. E. Upasani	HOD, E&TC	Member
9	Mrs. G. S. Navale	HOD, COMP	Member
10	Prof. T. D. Khadtare	HOD, IT	Member
11	H. B. Patil	HOD, MBA	Member
12	S. R. Deshpande	HOD, FE	Member
13	P. D. Darade	HOD, FE	Member
14	Prof. (Dr.) B. S. Waghe	Head, Engg. Mathematics	Member
15	Mrs. V. S. Patil	Sports & Cultural In-charge	Member
16	P. S. Tiwari	Training and Placement Officer	Member
17	Sanjay Sapate	Industry Person	Member
18	Dr. S. D. Munde	Parent, Computer Education	Member
19	Mrs. M. D. Joshi	Women Redressal In-charge	Member
20	N. M. Ranjan	Assistant Professor	Member
21	R. V. Patil	Assistant Professor	Member
22	Nilay Haryal	Alumni	Member
23	Nishant Dudhwala	GS, Current Student	Member
24	Ms. Ishwari Borawke	LR, Current Student	Member
25	D. M. Palne	Registrar	Member

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

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Students are the most important stakeholders of the institute. All efforts are being taken to groom them as social engineers. **Figure 2.3.3** shows various student-centric T-L-P adopted in all the departments.

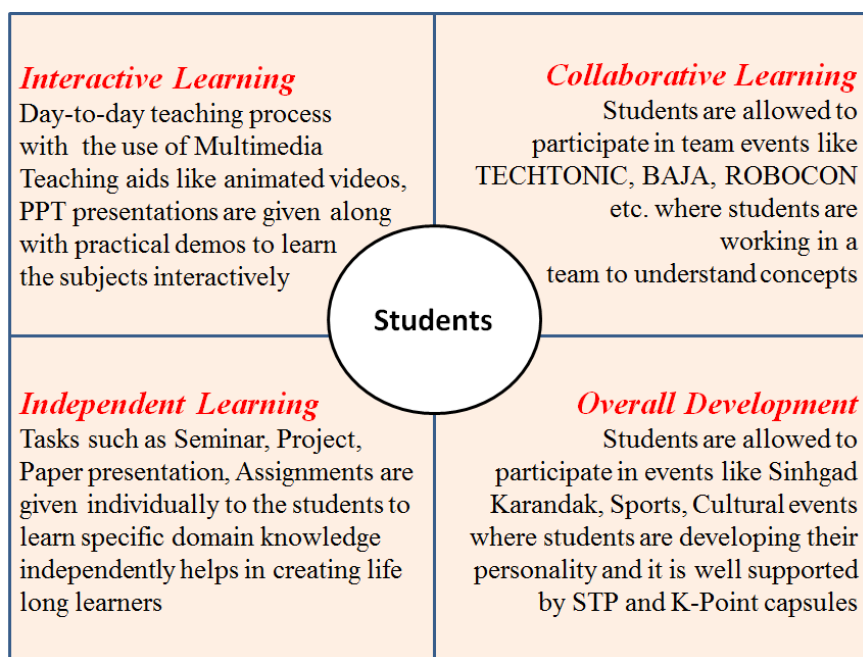


Figure 2.3.3: Teaching Learning Methodologies

Following major points highlights student-centric approach of T-L-P:

- Multimedia teaching aids like animated videos, demo videos, PPTs are incorporated in the day-to-day teaching process to enhance the students understanding of the subject.
- Practical assignments are given during practical sessions to complete the task with the help of faculty interactions.
- Guest lectures by experts from the industry and add-on courses are organized by the respective departments, to cover content beyond syllabus.
- Students are allowed to take part in team events such as TECHTONIC, SAE BAJA, SUPRA, AVISHKAR, ROBOCON for collaborative learning.
- STP and K-Point capsules are designed to make overall development of students by the institute.
- Inter-collegiate events are organized to bring out the potential of the students.

In addition to T-L-P following activities are helping the students in acquiring state-of-the-art knowledge in engineering education:

- Industrial visits and technical courses are arranged throughout the year to give hands-on experience to students.
- The institute library is well equipped with technical magazines, journals, and NPTEL video lectures.
- MoU are signed with leading industries to bridge the gap in the curriculum.

Wi-Fi facility available in the campus allows students to access technical resources. State-of-the-art laboratory in the department gives them opportunity to enhance their practical skills. A supportive activity makes the students all the time active and energetic to develop

themselves during their tenure in the campus. Further, any proposal from the students related with academic/overall development are very well appreciated and supported by the entire faculty.

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?

Various activities and forums held by institution for nurturing critical thinking, creativity, and scientific temper among the students to transform them into life-long learners and innovators are as follows:

- Institute organizes technical buzz competitions and allows the students to participate in ROBOCON to build and expose the talent of students on an interdisciplinary platform.
- The institute organizes intra and inter-collegiate technical competition -TECHTONIC in respective departments under various students associations like Mechanical Engineering Students Association (MESA), Computer Technocrats Association (CTA), Electronics and Telecommunication Students Association (ETSA), Civil Engineering Students Association (CESA) and Forum of IT Engineers (FITE).
- Faculty encourages the students to participate in different technical paper writing and poster competitions organized by various reputed institutes like IITs, PICT, COEP, SCOE, etc.
- Awareness seminars are organized in the institute for building entrepreneurship skills 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 project competitions/seminars/conferences/workshops and publish their work in national/international journals and conference proceedings.
- Industrial training is imparted to students and they are prepared to undertake industrial problems as a part of their final year projects.

Figure 2.3.4 summarizes few activities to nurture the students for critical thinking, creativity, and scientific temper.

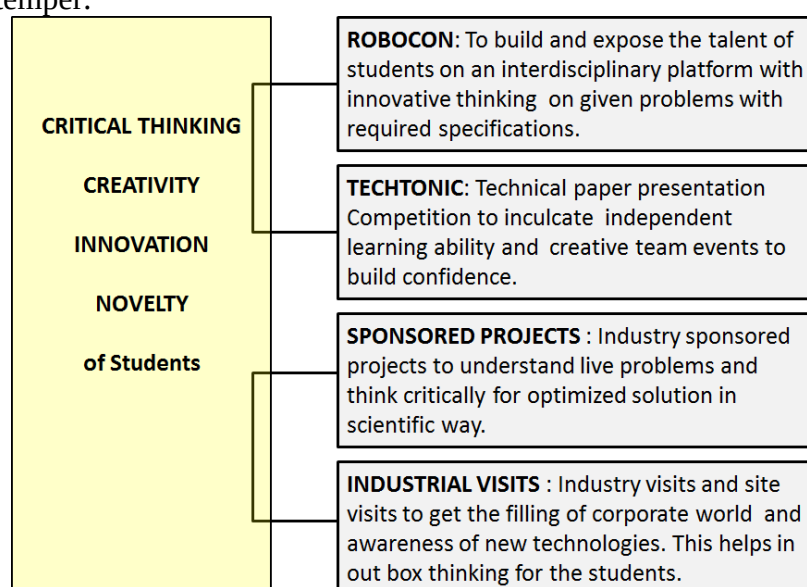


Figure 2.3.4: Few Activities to Nurture the Students

- Participation of students in various activities are making them lifelong learners and innovators due to their self-study attitude developed while handling live problems and their possible solutions.
- Industrial visits and site visits of students organized on regular basis to bridge the gap between current syllabus and industry requirements. This also helps the students in understanding new technologies and industrial culture for better solution of live problems.
- Faculty members engage with their research work in association with potential students and they always try to share their innovative concepts in different areas of multidisciplinary engineering fields with the students.
- Along with the course teaching, teaching learning includes workshops, group discussions, skill acquisition, paper presentation etc.
- Every department strives to interact with industry to get an idea about live problems and promote their students to take projects on these problems to think innovatively for its optimum solution.
- Departmental visits of alumni and industry people during I-I-I also helps the students in deciding their domain area and possible carrier opportunities at early stage of their student life. This also helps them in preparing themselves for the new corporate era.

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) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.

The institute has technologies and facilities available for the effective teaching. They are as follows:

- **Virtual laboratory:** The state-of-the-art embedded systems are the need of time. This is to incorporate in present academic institutions. The MoU at department of E&TC targets the advancement of students to access the remote hardware platform like Raspberry Pi, ARM, SoC and FPGA development through virtual lab environment. The lab intended to provide support for innovative R&D upheld by the industry standards. Endurance concentrates all available resources for filling up the gap between the industry and the academics by supporting the students to work on these industry standards platforms. The research culture is being cultivated among the students and the faculties. The virtual lab also targets the best educational practices for the students as well as faculty with free of cost.
- **E-learning Resources:** K-point technology used in the institute is helping the students and faculty to take their lessons online. The K-point software can help the students to access the PPT of various subjects along with the audio explanation. K-point is the need of the age as it saves time and money of the learner. It also provides a multi-media archive that offers self-paced learning for every class. Teachers can use it to teach online or give presentations before the class and can publish it online. The institute has developed K-point presentations for all FE subjects as well as SEM-I subjects of all the branches. Students as well as newly joined faculty members are taking the advantages of these e-learning resources during their T-L-P.

- **NPTEL:** The NPTEL program implemented for all students and faculty in the institute through our computer network and internet facility to enhance the quality of education through video and web courses. All the courses designed and developed by experienced professors of seven IITs, IISc Bangalore, and other premier institutions as a collaborative project. At IIT Madras, the project is evolving and it is our intent to provide learning materials, digitally taped classroom lectures, supplementary materials, and links to state-of-the-art research materials in every subject possible.
- **Open educational resources:** edX courses consist of weekly learning sequences. Each learning sequence is composed of short videos interspersed with interactive learning exercises, where students can immediately practice the concepts from the videos. The courses often include tutorial videos that are similar to small on-campus discussion groups, an online textbook, and an online discussion forum where students can post and review questions and comments to each other and teaching assistants. Our students are using these edX courses and being certified. These certifications are value added to all the students and going to help them during their placement.
- **E-journals:** ScienceDirect (website operated by the Anglo-Dutch publisher Elsevier) is available. With the help of this platform, one can access nearly 2,500 academic journals and over 26,000 e-books. The journals grouped into four main sections: Physical Sciences and Engineering, Life Sciences, Health Sciences, and Social Sciences *and* Humanities. For most articles, abstracts are freely available; access to the full text (in PDF and, for newer publications in HTML) is also available through a subscription. IEEE e-journal subscription is available at central library from where any student or faculty can demand PDF of specific IEEE published paper.
- **Wi-Fi facility:** The entire campus is Wi-Fi enabled with world-renowned CISCO router access points and wireless controller. There are more than 14 access points situated at different locations within the campus through which students can access the internet. Hostel, canteen, and areas around the institute have been Wi-Fi enabled 24 x 7 for all the students and faculty.
- **Advanced Software:** Every department is equipped with necessary advanced software to cope up with new technologies. This software is available to almost every department with the help of LAN and advanced servers.

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

Students and faculties exposed to advanced level of knowledge and skills by various means such as workshops and seminars on advanced topics, alumni interaction, industry interactions, technical paper and poster presentations at conferences, research interactions and project design etc. The details of these various exposures for faculty and students are as shown in **Figure 2.3.6**.

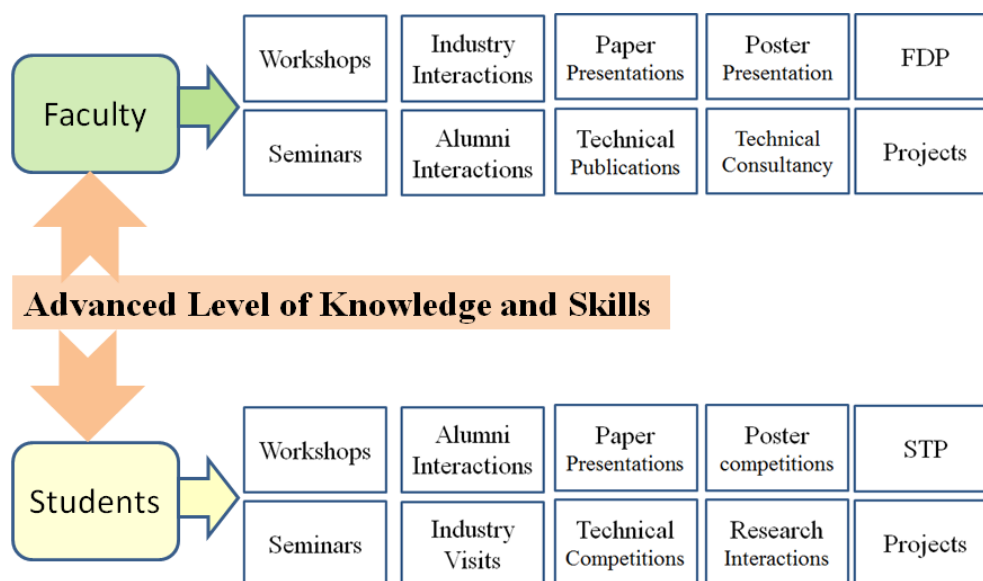


Figure 2.3.6 Advanced Level of Knowledge and Skills by Faculty and Students

Students:

- The institute organizes various technical competitions such as project competitions, quiz competitions, paper and poster presentation competitions etc.
- The institute promotes students to participate in National/International competitions.
- Eminent speakers invited from the industry to deliver lectures to expose the students to the current developments in the corporate world.
- The faculty encourages students to undertake projects on advanced technologies, industry sponsored projects and R&D projects. **Table 2.3.6** shows a department wise number of final year sponsored and in-house projects.

Table 2.3.6: Sponsored & In-house Projects

Department	Number of Projects done by Students							
	2015 - 2016		2014 – 2015		2013 -2014		2012 - 2013	
	S. P.	I. H	S. P.	I. H	S. P.	I. H	S. P.	I. H
COMP	26	14	7	14	11	11	8	13
IT	03	18	02	20	02	20	02	17
E&TC	03	44	11	36	20	15	02	23
MECH	20	30	8	14	14	8	20	2
CIVIL	6	28	2	16	3	8	NA	NA
MBA	43	-	39	0	59	0	58	0
S. P. = Sponsored Projects, I. H. = In-house Projects								

Faculty:

- The institute promotes the faculty to participate in different technical conferences/workshops at State, National, and International levels.
- The institute provides faculty the latest available technical information through memberships of reputed journals like ScienceDirect and IEEE.
- The institute organizes different FDPs in collaboration with well-known organizations.

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 advise) provided to students?

All the students get academic and personal guidance from the concerned TG, CT, and HOD.

- TG assigned to a batch of 15-20 students from the department. The responsibilities of TG are as follows:
 - ✓ Maintain records of all students in standard format
 - ✓ Conduct at least one meeting every week
 - ✓ Update attendance of students under his/her supervision
 - ✓ Monitor academic performance of the students
 - ✓ Bring to the notice of respective CT & HOD about the excessive absentee, if any.
 - ✓ Convey the performance and attendance to parents every month
 - ✓ Improve the performance of slow learners by counseling the students and parents.
 - ✓ Maintain a record of efforts taken for improvement of students
 - ✓ Call parents if the attendance of the student is poor
 - ✓ Try to solve any problem of students apart from academics
 - ✓ Recommend grant of term to HOD through CT at the end of semester
 - ✓ Recommend leave of the student to HOD with consultation of the student's parent
 - ✓ Submit all the records to HOD at the end of semester
 - ✓ Assign term work marks for the students based on continuous evaluation
- Remedial and revision classes conducted for academically weak students.
- The institute has developed STP for imparting soft skills and placement skills to the students.
- Normally home sick students are in first year who use to express their fillings to TG. Such students are handled separately by HOD with proper counselling.
- We advise to take professional counseling only if the things go beyond our control.
- The institute conducts medical check-up of students to ensure their medical fitness.
- TG, HOD, and Principal are taking care of students who are seeking psychological support on case-to-case basis. In extreme cases, the parents advised to take help of specialized doctors.
- Residential wardens are continuously monitoring behavior of students staying in the hostel and report to the Principal about abnormal cases immediately if any.
- More than 80 students have benefited through our system and all of them are performing well in their engineering career.

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

The Institute always gives full support to the faculty in adopting various innovative teaching practices. Faculties have full freedom about the methods of curriculum delivery. **Figure 2.3.8** gives summary of efforts and facilities provided by the institute for innovative teaching approaches/methods adopted by the faculty.

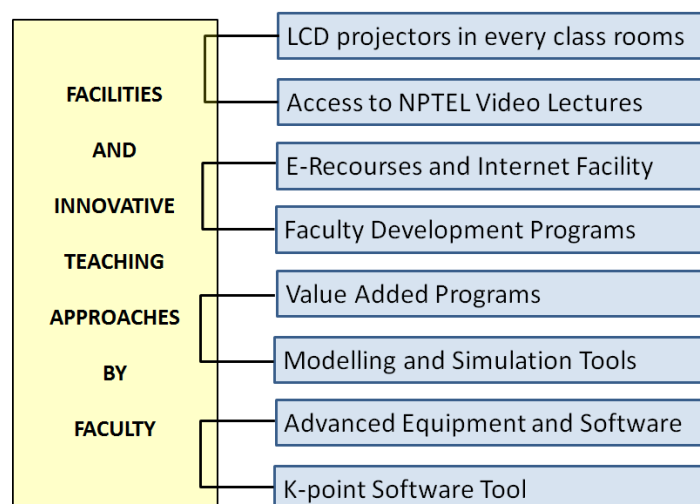


Figure 2.3.8: Efforts and facilities for Innovative Teaching Approaches/Methods

The institute has provided all necessary modelling and simulation tools to the various laboratories. The details of these tools and the number of students' benefited from this, are as shown in **Table 2.3.8**.

Table 2.3.8: Use of Modelling and Simulation Tools

Sr. No.	Modelling /Simulation	Students Benefited
1	Xilinx Simulation	240
2	Lab VIEW	240
3	MATLAB	240
4	Micro-wind Lite	240
5	Xilinx ISE	240
6	Microwind	240
7	MULTISIM	240
8	CAD-FEKO	240
9	Proteus	240
10	CNC Lathe Trainer	350
11	ANSYS	350
12	Mastercam X5 – X9	350
13	Rational Rose	360

The following practices followed for making teaching more innovative and interesting:

- The institute encourages the faculty to use proactive teaching methodologies such as role-play; quiz, brainstorming, group discussion, and NPTEL lecture videos for effective instruction delivery.
- Prepare question banks that help students to prepare for their examinations.
- The institute has classrooms with facility of LCD projectors and fully equipped laboratories for effective instruction delivery to students.
- The Wi-Fi system in the campus enables faculties to access technical resources as and when required.

Criterion – II: Teaching - Learning and Evaluation

- Faculty members are deputed for participating in the FDP, workshops, and industrial trainings to update their skills on recent technologies.
- Identify industry-curriculum gap and bridge it with VAP & industry interactions.
- Special attention on learning beyond syllabus through modern techniques such as webinars
- Use of PPTs/videos/animations/K-point tools for better understanding of complex subjects
- As a part of TTT, K-point preparation of capsules for FE and SE subjects for the benefit of students and newly joined faculty

K-point capsules for seven subjects of First year Engineering Semester-I and all the subjects of Second-year Engineering Semester-I for AY 2015-16 are already developed and available to all the students and faculty on <https://my.kpoint.com>.

- Five webinars have been provided in department of Computer Engineering for training the students.
- Students are provided with platforms like seminars, project exhibitions etc. for their presentation skill development.
- Hands on training with the help of modelling and simulation tools

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

The institute faculties use the library resources to enhance the T-L-P in following ways:

- The institute library has a rich collection of reference books and handbooks.
- Online journals, hardbound journals, and magazines are available in the library.
- The institute has membership of Computer Society of India (CSI), Institution of Electronics & Telecommunication Engineers (IETE) Student Forum, and Indian Society for Technical Education (ISTE).
- The institute library has NPTEL videos, CD submitted by authors along with books, educational CDs having lectures of renowned professors
- To update themselves with the current news and latest technological developments, students and staff avail the facilities of newspapers and magazines
- Students are provided with the book bank facility.
- Question paper sets of all subjects of previous university examinations are available.
- Old project reports of students are maintained in departmental library that are referred regularly by students.
- Institute library has circulation timing from 8.00 am to 11.00 pm and reading room from 8.00 am to 2.00 am (late at night).
- Reading rooms are provided with proper seating arrangement, fans, tubes and ventilation, water facilities.
- To make photocopy of question papers, articles or any other study material, the reprographic facility is available.
- Magazines, newspapers, and newsletters are available to provide information about current happenings all over the world. This makes readers to think about social, economic, and environmental issues.
- For general reading and to understand the corporate updates the library also provides different periodicals and magazines such as Readers Digest, Electronics for You, CSI Communication etc.
- Digital library resources are another source used to augment the T-L-P

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, there are few challenges in completing the curriculum within the planned timeframe and calendar. These are elaborated as follows:

Challenges:

- Although lesson plans are prepared by faculty as per teaching scheme mentioned in SPPU syllabus, some subjects require more time depending upon the difficulty level of the subject.
- The institute has limited scope in admission process for first year and second year direct admissions (SEDA). Therefore, it is difficult to synchronize admission schedule with academic calendar of FE and SE.
- University provides 14 weeks of semester in which it is really challenging to fit extra-curricular activities within available time.
- Teaching methodology and pace of delivery has to change adaptively depending upon the level and pace of understanding of students.
- To correlate theory and hands-on, few practical sessions needs some theory to be covered in the practical sessions.
- To meet the industrial needs and to give awareness of advanced technologies adopted in the corporate world is also a great challenge in every department.

To overcome the Challenges:

- Some of the holidays are converted into working days to make up the academics, if necessary.
- Extra lectures are scheduled after regular timetable and on weekends.
- For direct second year students extra lectures are conducted to cover the syllabus.
- Hands on sessions with PPTs during practical sessions to give live demos.
- Concerned theory related to the practical sessions is discussed during the respective practical sessions.
- To cope up with industrial practices, guest lectures from industry experts are conducted.
- VAPs are an integral part of departmental academic calendar.

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

The institute monitors and evaluates the quality of teaching-learning in the following ways:

- The institute takes online feedback in each semester from students pertaining to each faculty.
- The 11 parameters of feedback given by the students are as shown in **Figure 2.3.11:**

S. N.	Criteria	Problem? (Yes/ No)
1.	Less Explanation	
2.	Doubt not cleared	
3.	Wrong Pronunciation	
4.	Lack of Interaction	
5.	Lack of Communication	
6.	Poor Preparation	
7.	Poor English	
8.	Fast speaking	
9.	Fast Syllabus Coverage	
10.	Improper Board Writing	
11.	Low Voice	

Figure 2.3.11: Parameters of Students' feedback

- A student feedback report is generated for every faculty.
- If all students says “No” to all criteria then the faculty is having “100 % No problem”.
- Overall % Problem of the faculty is calculated as:

$$\text{Overall \% Problem} = \frac{(\text{Number of students says "Yes" in any of the criteria})}{(\text{Total number of students who have given the feedback})}$$

- Otherwise criteria wise student feedback is calculated as:

$$\% \text{ Prob. Criteria} = \frac{(\text{Number of students says "Yes" for specific criteria})}{(\text{Total number of students who have given the feedback})}$$

- The student's feedback is computerized, wherein the students are also allowed to give specific comments or constructive suggestions to the faculty.
- In any case, the name of the student or any other identity is kept confidential through the system.
- Principal and HOD analyze the feedback. Further, it is discussed with the concerned faculty for better performance in effective T-L-P.
- Corrective and preventive measures are carried out by the faculty to improve T-L-P based on student feedback and guidelines given by AMC.
- The institute takes care of academic monitoring through AMC.
- Teaching implementation as per the course file is monitored by the AMC.
- Regular meetings are conducted along with the committee members, HOD and the Principal to undertake necessary action for smooth conduction of timetable.
- CTs along with the help of subject teachers ensure that instruction delivery is carried out regularly and uniformly.
- Two class tests, one prelim, assignments, mock on-line tests, viva etc. are conducted at regular intervals; results are analyzed for proper corrective actions to improve quality of teaching-learning.

Criterion – II: Teaching - Learning and Evaluation

- Mock practical/oral examinations are conducted prior to university practical/oral examinations to boost the confidence of the students and to give additional inputs before they appear for university examinations.
- Evaluation of mid – semester papers and projects to monitor progress of students.
- Department monitors and compares their results with university results.

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.

The recruitment of faculty and staff is as per the AICTE/UGC/SPPU guidelines. The Institute appoints teachers based on student strength and workload calculation. The selection process is as follows:

- The roster is verified by the Assistant Commissioner, Reservation Cell, Pune and Mantralaya, Maharashtra State.
- After approval from the Reservation Cell and SPPU, the advertisements are published in leading newspapers.
- Few applications are also received from reservation cell of SPPU.
- Applications for recruitment are scrutinized as per the AICTE/UGC/SPPU norms.
- Technical and personal interviews of the candidates are carried out by the selection committee appointed by SPPU.
- Upon selection of qualified candidates, the appointment letters are issued to them.

Figure 2.4.1 (a) gives information about qualifications of regular faculty.

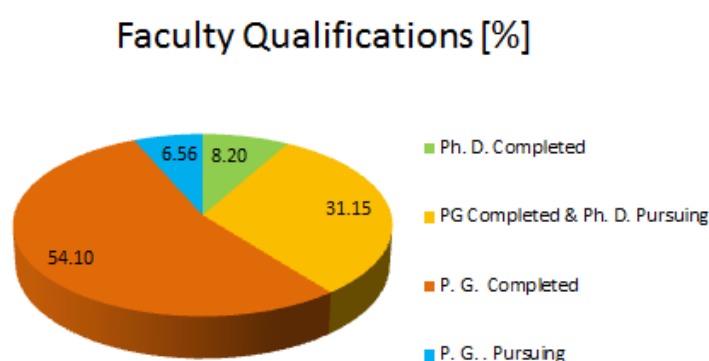


Figure 2.4.1 (a): Qualifications of Current Faculty

- List of selected candidates and their documents are submitted to the University for Further Process and approval.
- For appointments on temporary basis the applications are invited, demo lectures and walk-in interviews are carried out to select qualified and well-deserved candidate as a faculty. The appointment order of such faculty for an academic year is issued.

Table 2.4.1 shows current faculty position.

Table 2.4.1: Current Faculty Position

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
D.Sc./D.Litt	0	0	0	0	0	0	0
Ph.D.	2	0	3	2	1	2	10
M.Phil.	0	0	0	0	0	0	0
P. G.	1	0	0	0	64	39	104
P. G. Pursuing	0	0	0	0	4	4	8
Temporary Teachers							
Ph.D.	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0
P.G.	0	0	0	0	14	08	22
Part Time Teachers							
Ph.D.	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0
P.G.	0	0	0	0	0	0	0

Strategies adopted by the institute for retention of its human resource:

Institute has good retention of faculty and staff (average 91.83 % for last 4 years). The total faculty and left faculty for last four years are as shown in **Figure 2.4.1 (b)**.

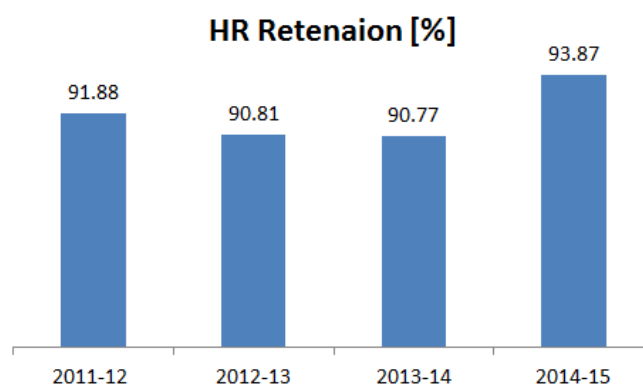


Figure 2.4.1 (b): HR Retention (2011-2015)

Retention of faculty and staff at SITS is due to:

- Ideal working environment in the campus with great respect and value to teachers and staff.
- Salary, DA, and other allowances paid as per the state government policies with immediate effect time to time.
- Cognizance of performance appraisal and qualification improvement of the employees by the respective HOD & Principal for annual increment and higher post.
- Faculty are encouraged to write and publish articles, books, as well as research papers based on research experimentation which is very well supported by the institute.
- Financial help is provided to faculty for participating in FDPs, workshops, seminars and conferences.
- FDPs are organized to enable the teachers to adapt to changing needs of society.

- Guest lectures by experts from various sectors are arranged to motivate faculty and staff.
- Encouragement and appreciation of participation of international conferences and training programmes.
- Allocation of theory and practical subjects as per their area of specialization and preference.
- Freedom and transparency in every department because of which ownership feeling in every faculty and staff.
- Flexibility in working load is provided for higher education.
- Financial support for higher education [Complete sponsorship for Ph.D. at Aalborg University, Denmark].
- The medical treatment for faculty and their family is provided at free of cost at SKN-MCGH, Narhe.
- Admissions to the eligible wards of employee are given to schools and institutes on priority basis.
- Leaves and vacation given as per government rules and regulations particularly maternity leave for lady faculty and staff.
- Staff welfare through group insurance of all faculty and staff, provident fund, gratuity, service book maintenance etc.
- Transparent policies and decisions of the management are always in favor of staff and followed rationally.
- Innovative ideas given by any faculty or staff are very well appreciated by the management.

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

- The institute has appointed qualified faculty to handle new and emerging subjects proposed in the curriculum of SPPU.
- Encouragement to faculty for doing research in new emerging areas and percolating the same among the students.
- Institute recruitment process is throughout the year and whenever institute gets qualified senior faculty, we conduct interviews and appoint him/her.
- The Institute also arranges FDP to refine the skills of faculty as per the need of the curriculum.
- Overall number of faculty with PhD and PG qualification involved in T-L-P has been improved in last four years as shown in **Figure 2.4.2 (a)**.

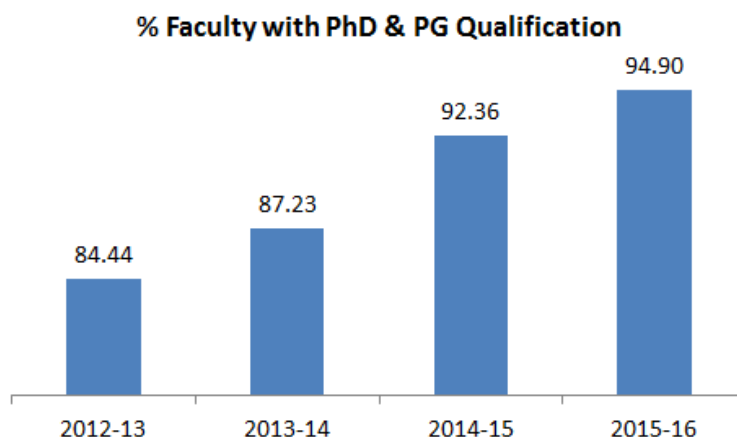
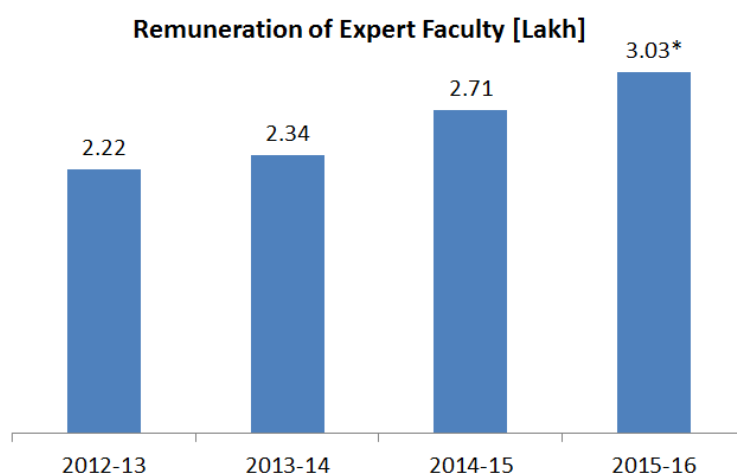


Figure 2.4.2 (a) Number of Faculty and their Qualification Improvement

- Institute has a policy towards inviting senior professors / industry experts as visiting faculty to teach new programmes and modern subjects whenever required. The remuneration expert lectures conducted in various departments in last four years as shown in **Figure 2.4.2 (b)**.



* Rs 3.03 lakh up to January 2016 (AY 2015-16)

Figure 2.4.2 (b) Remuneration Expert Lectures Conducted

- Because of efforts made by the faculty, the SEM-II and final results of all the students have been improved as compared to their respective results of SEM-I as shown in **Figure 2.4.2 (c)**.



Figure 2.4.2 (c): Semester wise Academic Results

Criterion – II: Teaching - Learning and Evaluation

- Final year results of all the departments are as shown in **Figure 2.4.2 (d)**. The average result of final year students is 98.2 %.

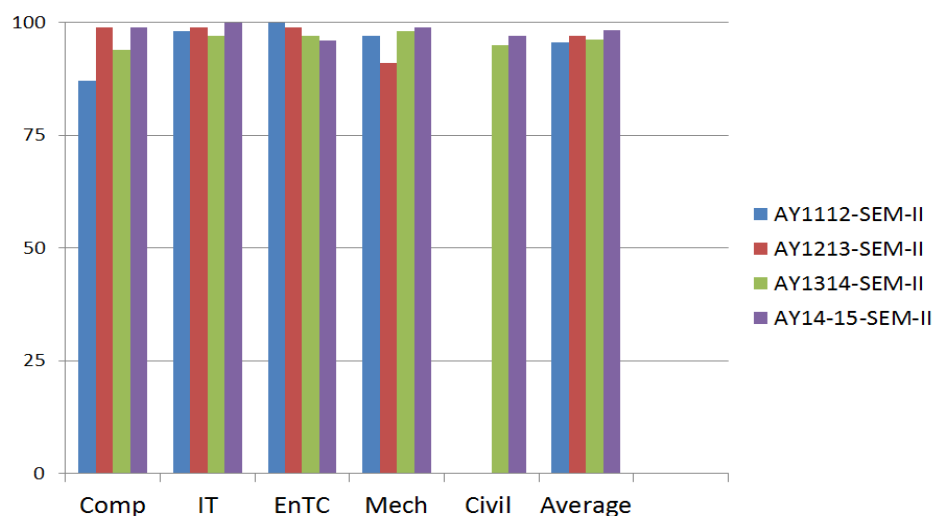


Figure 2.4.2 (d): The Average Result of Final Year Students

- The placement of AY 2015-16 has been improved by various efforts taken by every department. The percentage placement of students in demanding branches for AY 2015-16 through CPC is as shown in **Figure 2.4.2 (e)**.

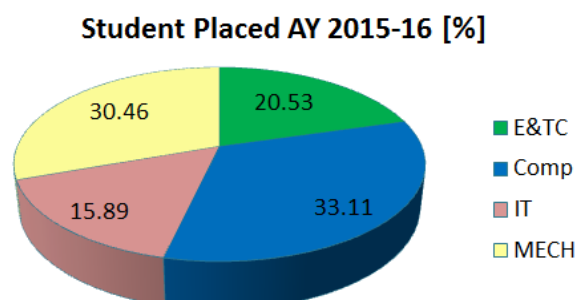


Figure 2.4.2 (e): Number of Students Placed through CPC

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

The institute has adopted the strategies based on enhancing the teacher quality to improve:

- Communication skill and teaching pedagogy of faculty
- Technical knowledge with respect to current needs of industry
- Research oriented innovative culture
- Practical skills and industrial exposure
- Managerial skills and make faculty as a leader
- Ability of faculty to understand the students of today's generation
- Understand today's corporate world and inputs to be given to students for their overall development
- The value ethics in order to make them good citizens in the society

a) Nomination to staff development programmes:

Summary of staff development programmes conducted during the last four years is as shown in **Table 2.4.3 (a)**.

Table 2.4.3 (a): Academic staff development Programmes

Academic staff development Programmes	No. of Faculties Nominated
Refresher Courses	112
HRD Programmes	4
Orientation Programmes	162
Staff training conducted by the University	22
Staff training conducted by other Institutions	125
Summer/winter schools, workshops, etc.	146

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

The management has a positive attitude towards the professional development of the faculty in acquiring knowledge of recent developments and engaging them in research activities. Summary of faculty workshops/seminars/FDPs organized during last four years at SITS is as shown in **Figure 2.3.4**.

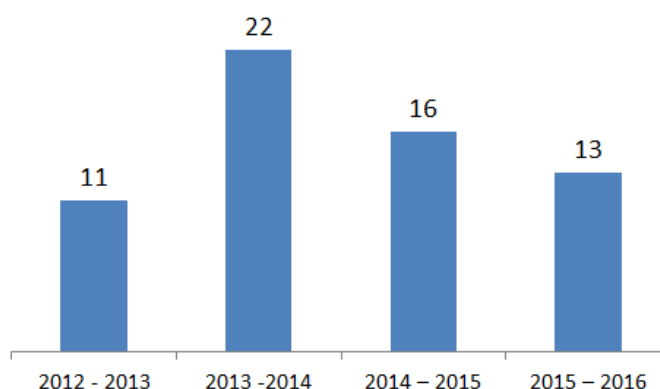


Figure 2.3.4: Summary of Faculty Workshops/Seminars/FDPs Organized

c) Faculty invited as resource person in W/S, Seminar/FDP, participated in W/S, Seminar/FDP, presented papers in conferences.

The faculty of SITS is also offering their expertise services as a resource person in W/S, Seminar, and FDP. They are participating in various W/S, Seminars, and FDPs as well as presenting their research work in conferences. The consolidated details of the same are as presented in **Table 2.3.4**.

Table 2.4.3: Academic staff development Programmes

Sr	Event description	Total number
01	Invited as resource person in W/S, Seminar/FDP	115
02	Participated in W/S, Seminar/FDP	146
03	Presented papers in conferences	95

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

The institute has following systems to recharge the teachers:

Provision of research grants:

- Institute supports the research activity by providing budget for various facilities like equipment, software, e-resources for research publications, library books etc.
- Faculty members are also applying for SPPU/BCUD research grants and the institute supports by providing them seed money in the initial stage of their research work.
- The departments are also striving to get financial supports from industries for developing innovative projects.
- Institute facilitates the students to get support from industry in terms of project materials and accessories.

Study leave and research support:

- The institute has policy to give study leave to faculty and send them on deputation for Ph. D. course work. **Table 2.4.4** shows number of faculty nominated for higher studies in various departments.

Table 2.4.4 Number of Faculty Nominated for Higher Studies

Department	Number of Faculty Nominated for Higher Studies			
	2015 - 2016	2014 – 2015	2013 -2014	2012 - 2013
COMP	9	9	4	5
IT	2	3	3	6
E&TC	1	2	3	4
MECH	11	8	6	3
CIVIL	5	4	4	3
MBA	3	5	6	6
FE	2	2	2	2

- SITS has tie-up with Alborg University, Denmark, where selected faculty members gets an opportunity to complete their Ph. D. with full sponsorship.
- The departments are also suitably adjusting teaching workload to facilitate faculty to complete their research work.
- The institute always encourages the faculty to attend FDP related with research and depute them on duty by paying registration fees.
- The institute encourages the research attitude to inculcate in the department by faculty as well as students. While doing so, STP-IV specially designed for research methodology inputs to students, wherein every student is supposed to write a research survey paper and submit it at the end of semester VI.

Academic Publications:

- The institute gives financial support for registration fees to the faculty to attend national/international conferences, conducted at various renowned institutions.
- The institute also supports industrial interactions and encourages the faculty to take live problems of society for their research and publish them in reputed journals having good impact factor.

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- The special programmes are arranged to discuss research methodology, technical report writing, and various research areas. During these discussions, faculty members can take inputs from renowned personalities from research organizations such as IIT, DRDO, ARAI, etc.

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

The institute always supports for the development of faculty and creates a research culture amongst them. The faculty always recognized by the SITS management who takes the efforts. Following faculty have received recognition at the state level for excellence in teaching during the last four years:

- Dr. Mrs. A. N. Dalvi has Guinness World Records, RECORD HOLDER for participation in the event, “The most People solving Rubik’s cube” in 2012.
- Mr. H. B. Mali received 8th Maharashtra State Inter University Research Convention - 2nd Runner Up In State level AVISHKAR in Jan 2014.
- Mr. N. M. Ranjan was recognized for the outstanding contribution rendered to spread Free and Open-Source Software (FOSS) in the State of Maharashtra in 2013-2014.

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 has introduced evaluation of teachers by the students and external peers. This is monitored by AMC and based on their observations; guidelines have been given to HOD to improve quality of T-L-P as shown in **Table 2.4.6**.

Table 2.4.6 AMC Guidelines to HOD for an Effective T-L-P

1	The teaching load (Theory & Practical) assigned to faculty members for the next semester at the end of current semester so that they will get sufficient time for the preparation of the subject.
2	The theory subject should be assigned to the faculty members based on - Competency in the subject - Students Feedback (If available) - As far as possible as per their choice
3	The theory subject and its practical both should be assigned to same faculty member so that there will be correlation between theory and practical.
4	There should be only one faulty member per subject per division. In any case, theory subject of the division should not be allotted to two or more faculty members
5	The senior faculty members whose student’s feedback is good should be assigned to first and second year classes
6	Once the theory subject is taught by the faculty member and if the student’s feedback is good, subject should not be changed for at least next three years

Criterion – II: Teaching - Learning and Evaluation

- During the semester, teaching performance of every faculty is evaluated by the students and AMC.
- In the month of June, respective faculty fills the self-appraisal forms. The HOD with their remarks on various performance parameters verifies forms. The AMC also gives specific remarks to individual faculty for the improvement of T-L-P.
- The institute has tradition to apprise the teachers on teacher's day every year. The appreciation certificates are given to the faculty members based on academic results and student's feedback (>90%), significant contribution in research, leadership quality in handling various responsibilities, improvement of qualification etc.
- The institute also evaluates all the departments in terms of academic performance, placement, achievements, student feedback and contribution of department in the development of institute to award as 'best department of academic year'.

2.5 Evaluation Process and Reforms

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

The Institute is accountable to the stakeholders - students, faculty, parents, alumni, and the society while giving awareness about evaluation processes of SPPU and institute. The evaluation processes are brought to the notice of the students and faculty through:

- During the induction program, schedule and structure of internal and SPPU's examination evaluation system are notified to the students. **Figure 2.5.1 (a)** shows example of FE SPPU total examination processes/structure and **Figure 2.5.1 (b)** shows example of FE SPPU end semester evaluation process.

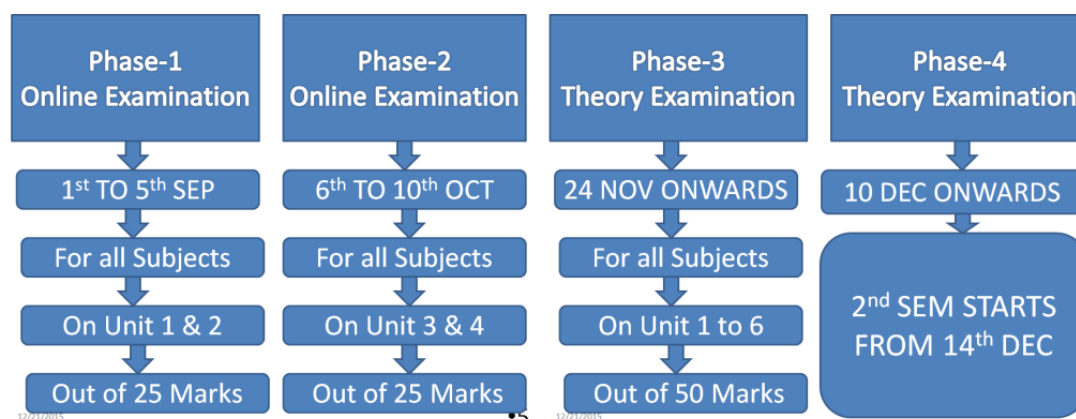


Figure 2.5.1 (a): FE SPPU Total Examination Processes/Structure

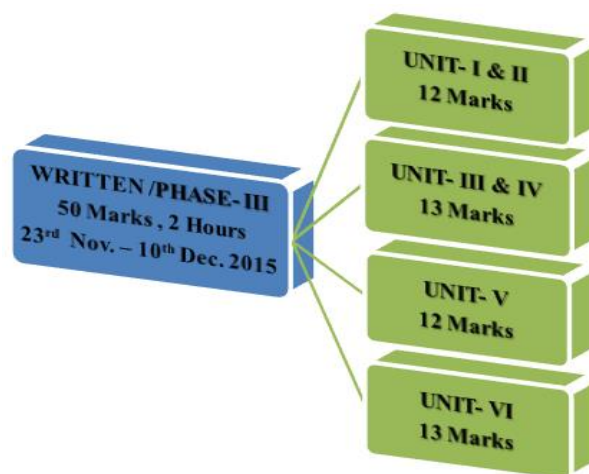


Figure 2.5.1 (b): FE SPPU End Semester Evaluation Processes

- At the commencement of the term, the criteria for evaluation of SPPU, Credit system, Grades, Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) are notified to the students.
- Induction programmes are conducted for First Year Engineering students and parents to understand academic calendar, examination, and evaluation system along with extra-curricular activities scheduled in the year.
- The academic calendar is prepared and displayed on notice board in context with the dates given by SPPU for start and end of the semester along with schedule of online/ in-semester, end-semester and practical examinations.
- Every department displays continuous evaluation process based on which term work marks are given to every student. The term work marks are assigned with proper weightages to overall attendance, unit tests conducted in the class, TG evaluation based on extra-curricular activities, practical performance, and timely submission of journals, assignments, and tutorials. The criterion is notified to the students well at the beginning of every semester. The details are as shown in **Figure 2.3.1**.
- For TE and BE students in-semester theory examination is of 30 marks based on first three units and end semester theory examination is of 70 marks based on all the units with 50 % weightage to last three units. These facts are well clarified by faculty to all TE and BE students at the beginning of the semester.
- Similarly the parameters based on which seminar and project term work are given to the students are also defined and well clarified by faculty to all TE and BE students at the beginning of the semester.

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

The institution implements all the evaluation reforms as prescribed by the SPPU. In addition, the institute has introduced measures on its own. Following are the major evaluation reforms introduced by the University-

- **Appointment of single point of contact-** As per SPPU directives, the institute has appointed a senior and experienced faculty member as College Examination Officer (CEO). The Examination Committee consists of the Principal as the Chairman and

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CEO as the Member Secretary along with administrative examination section, senior supervisor, and invigilators of the institute.

- **SPPU Examination Pattern** - SPPU has introduced an examination 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 of the university. The revised examination structure is as follows.

Table 2.5.2 SPPU Evaluation Pattern

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
MBA	On-line [20M]	Internal [30M]	50	End-semester	50

- **Computerization-** SPPU has introduced online examination for evaluation of first and second year engineering students. The institute conducts online examinations during every semester. The marks of term work, practical/oral examination and 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 guidelines of the university.
- **Credit system-** As per the SPPU guidelines credit system has been introduced for the UG and PG Programmes recently.
- **The reforms initiated by the Institute:** Conduction of mock online examinations, tutorials, prelim examination and mock practical/oral examinations. The performance of all such examinations is considered while giving the Term Work (TW) marks. Institute also conducts project competitions, AMCAT, ET, QALR, quiz and soft skill development activities for the students to prepare them for the placement.
- **Research Component:** It is decided by the institute to inculcate research culture among the students. Research Component is added to the STP IV in TE Semester II in the form of writing a survey paper. The seminar / mini-project activity of semester II as per university syllabus is 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 institute conducts all SPPU examination as per its schedule. To conduct online examination, the institute has well equipped infrastructure. The examination conduction is effectively monitored as per the guidelines given by university. The institute has taken following measures to ensure the effective implementation of the evaluation reforms introduced by the university:

- The institute has examination coordinators from each department for smooth conduction of the on-line and in-semester examinations.
- The examination committee meets periodically to discuss all the examination related matters.

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- The institute ensures an effective implementation of tutorials, TW, and on-line examinations by displaying their results immediately. The students can see their evaluation and discuss the same with concerned faculty.
- Continuous assessment of lab work, project, and seminars is carried out by the faculty and the marks are entered through university on-line portal. This is ensured by the examination section of the institute.
- Final year TW is jointly evaluated by internal and external examiners appointed by the university and the marks are entered through university on-line portal. This is ensured by the examination section of the institute.
- For smooth conduction of university theory examination, an internal squad of senior faculty members is appointed.
- CCTV cameras are used for monitoring the online examinations.

The Principal, CEO, HOD and examination coordinator of departments make sure that:

- Completion of term work
- Conduction of mock practical and theory examinations
- Submission of term work marks based on continuous evaluation scheme (*Refer Figure 2.3.1*).
- Assessment of in semester examination answer sheets
- Conduction of on-line, in-semester and end-semester examinations
- SPPU exam supervision duties and assessment of answer sheets at CAP centers

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

The performance and achievement of every student is closely monitored by the TG, CT, and HOD. The academic performance of a student is measured based on the periodical tests conducted by the department. Formative and summative assessment of the students is done by using following different methods developed in the institute.

Formative Evaluation Process:

The goal of formative evaluation of the students is to monitor their learning. Formative evaluation system shown in *Figure 2.3.1* is further added with various parameters. These parameters are as follows:

- 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 VAP
- Overall impression of TG

Summative Evaluation process:

The goal of summative evaluation is to evaluate students' performance at the end of the semester. Summative evaluation helps students to gain confidence and to achieve good results. The institute facilitates the university to conduct summative evaluation at the end of each semester by following ways:

- End semester written theory examination
- End semester Practical/Oral examination
- Seminar given by students (for TE and BE)
- End semester Project work demonstration and presentation

In addition to the university examinations the institute also evaluates the students using QALR, ET, and AMCAT as a part of summative evaluation.

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

The institute has made significant improvements in ensuring rigor and transparency in the internal assessment during last four years by adopting following strategies:

Transparency:

- Transparency in internal assessment system of the students.
- Discussing the test answers and marking scheme by the faculty with the students.
- Academic record of each student is maintained and due weightage is given in TW for attendance in theory/practical sessions, performance in tests/tutorials, timely submissions, and participation in extra-curricular activities.
- In-semester examination answer papers are masked before its evaluation as per the guidelines given by SPPU.
- Through on-line examination every student gets different questions with equal difficulty level which avoids any malfunctioning.
- Internal squads and CCTV also monitors all examinations.

Behavioral aspects:

- Overall behaviors of students are also responsible for term work assessment of students by TG, CT and HOD.
- The overall development of students gets reflected not only in academic performance and mark sheets, but also in developed personality and confidence amongst the students due to acquired knowledge and skills.

Independent learning:

- Independent learning of the student is tested during execution of mini – projects, final year projects, and completing their independent tasks of assignments, for which SPPU has given suitable weightage in the marking scheme of curriculum.
- TG also keeps an eye on independent involvement of the students in extra-curricular activities and recommends suitable marks to HOD for further consideration.

Communication skills:

- SPPU has given suitable weightage of marks in the curricula implementation by the student in the semester. Students are evaluated for communication skill during seminar and presentation of their projects as well as practical/oral examinations.

Teamwork and leadership:

- Every department is closely monitoring the students during their participation in various events such as TECHTONIC, ROBOCON, BAJA, SUPRA, final year projects, industrial visits, etc. and suitably gives weightage in TW marks.

2.5.6 What are the graduates attributes specified by the Institute/affiliating University? How does the Institute ensure attainment of these by students?

The following are the graduate attributes specified by SPPU and the institute:

- **Engineering Knowledge:** To apply fundamental concepts of mathematics, science, engineering to solve engineering application problems.
- **Problem Analysis:** To analyze a problem, to conduct experiment, interpret and analyze the results with logical reasoning.
- **Design / Development of Solutions:** To design and conduct experiments, model and analyze physical system, components, or process to meet desired needs.
- **Conduct Investigations of Complex Problems:** To conduct independent research for information required in engineering problem solving, identify, formulate, and solve engineering problems.
- **Modern Tool Usage:** To use modern engineering techniques, skills and computing tools necessary for engineering practice.
- **The Engineer and Society:** To predict the impact of engineering solutions in a global and societal context.
- **Environment & Sustainability:** To incorporate economic, environmental and safety considerations in design process.
- **Ethics:** To execute professional and ethical responsibility.
- **Individual and Team Work:** To work on practical assignments, projects to enhance interpersonal and leadership skills.
- **Communication:** To communicate effectively through engineering drawing, written reports and oral presentations.
- **Project Management and Finance:** To understand engineering and management principles and apply them in their own work, as a member/leader of a team to manage projects.
- **Life-long Learning:** To recognize the need for and an ability to engage in life-long learning.

Institute ensures attainment of above attributes in order to develop the overall personality of students and make them eligible for placement or entrepreneurship using:

- i. Performance in AMCAT
 - ii. Performance in QALR
 - iii. Qualifying in ET
 - iv. Communication skills in GDPI
 - v. Ability to work in a team
- The Institute ensures the fundamental knowledge of the students and their logical reasoning by conducting AMCAT and QALR in each semester from SE to BE semester I.
 - The institute also uses ET to scrutinize the registered students in CPC for specific industry placement.

- The mock GDPI are also conducted in every department to build confidence amongst the students and enhance their communication skills before they appear for placement drives arranged by CPC. The institute also organizes professional training programmes for placement activities.
- QALR and ET are also helps in preparing students for cracking aptitude tests conducted by different industries while short listing students for placement.

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

The evaluation mechanism and redressal of grievances with reference to evaluation are carried out at three levels as shown in **Figure 2.5.7**.

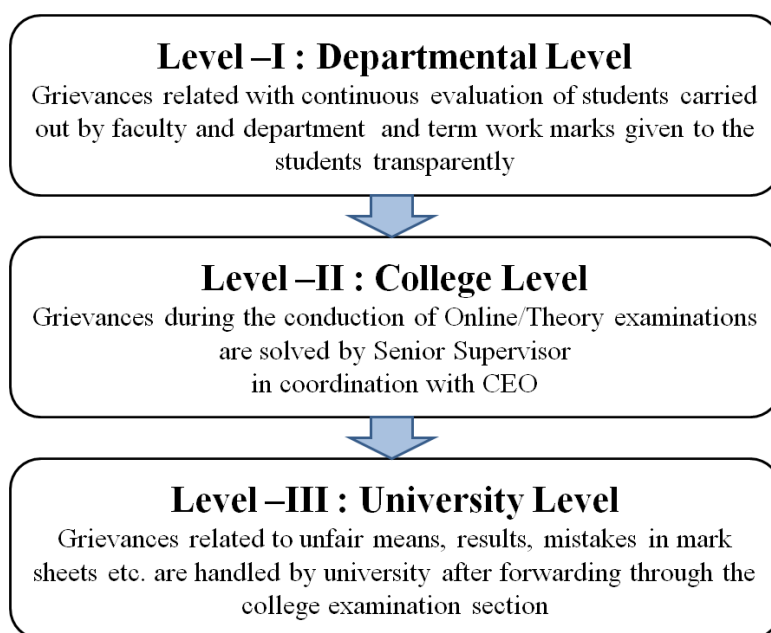


Figure 2.5.7: Grievances Handling with Reference to Evaluation

- **Level 1 - Departmental Level:** The continuous evaluation of students is carried out by faculty in terms of theory lectures, labs, assignments etc. The term work is allotted based on defined strategies and displayed on notice board. Query, if any, is discussed with faculty and HOD.
- **Level 2 – Institute Level:** The institute appoints a Senior Supervisor who controls all the online/ theory examinations, displays schedules, instructs to the students for smooth conduction of examinations of university. Grievances during the conduction of online/theory examinations of students are solved by Senior Supervisor in coordination with CEO appointed by the university. Grievances are discussed with the Principal and forwarded to SPPU, if necessary.
- **Level 3 – University Level:** Examination online form filling, exam seats allotments, results, photocopy, revaluations etc. are coordinated by office superintendent to SPPU. The result queries, printing mistakes of mark sheets, corrections if any are handled at university examination section after forwarding such queries through the institute examination section. Queries of students during online examinations are

communicated to the SPPU immediately and get clarified to satisfy the student who is appearing for online examinations. The same policy is also adopted for SPPU theory examination. The queries related with errors in mark sheets, evaluation, photocopy are totally handled by SPPU in which the role of institute is to take the follow – up with SPPU till the student satisfies.

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, the Institute has clearly stated the learning objectives in terms of Program Educational Objectives (PEOs) and learning outcomes in terms of Program Outcomes (POs) for each program which are achieved through Course Outcomes (COs) and Co-Curricular Activity Outcomes (CCAO) in individual departments as shown in **Figure 2.6.1**.

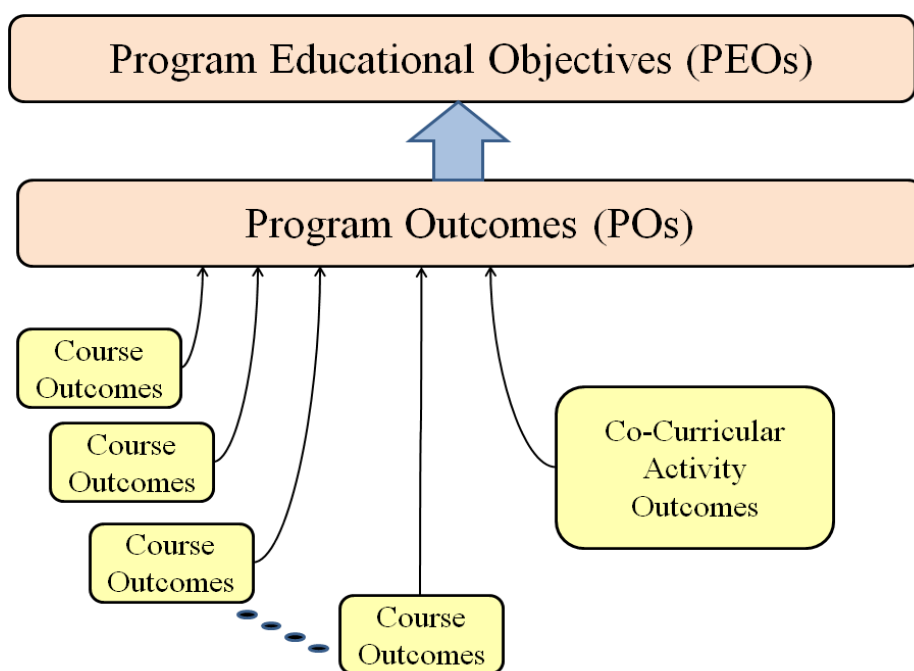


Figure 2.6.1: PEOs and POs through COs in every Department

The PEOs for preparing graduates who will:

- Successfully demonstrate technical competency by applying knowledge in industry, government, academia, research, entrepreneurial pursuit and consulting firms,
- Contribute to society as broadly educated, expressive, ethical and responsible citizens with proven expertise,
- Achieve peer-recognition; as an individual or in a team; through demonstration of good analytical, design and implementation skills, and
- Flourish to pursue life-long learning to fulfill their goals.

The POs and COs for preparing graduates having ability:

- To apply knowledge of mathematics, science and engineering in practice,
- To identify, critically analyze, formulate and solve engineering problems,
- To select appropriate engineering tools and techniques and use them with skill,
- To design a system and process to meet desired needs within realistic constraints such as health, safety, security and manufacturing ability,
- To devise and conduct experiments, interpret data and provide well knowledgeable conclusions,
- To understand the impact of engineering solutions within purview of laws, in a contemporary, global, economical, environmental, and societal context for sustainable development,
- To function professionally with ethical responsibility as an individual as well as in multidisciplinary teams with positive attitude,
- To communicate effectively,
- To appreciate the importance of goal setting and to recognize the need for life-long learning, and
- To produce well informed socially responsible global citizen with sharp critical thinking skills having sound awareness about engineering laws and human rights, ethics and values.

Awareness among faculty, staff, and students:

- The faculty, staff, and students are aware of PEOs, POs and COs as they are given along with their curriculum syllabus in every class.
- The outcomes are reviewed in the meetings of AMC at the beginning of every academic year.
- The faculty explains the outcomes expected from the students in the orientation classes / beginning lectures at every semester.
- The outcomes expected from the students for the programme are displayed at prominent places in the department.

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.

- To monitor the students' progress, the institute has a continuous internal evaluation system which consists of tutorials, prelim, mock practical, mock on-line, in-semester, and oral examinations. These tools are used to find out the progress of the students and as a feedback to improve academic performance.
- The institute regularly communicates the marks obtained in the internal examination to the students.
- After the declaration of university results, a result analysis report is prepared by every department. This report is compared with the reports of previous years to monitor the progress of department and take corrective actions whenever necessary.
- Actually, it is difficult to interact with FE students as they are novice for understanding engineering concepts. Our FE faculties are taking a lot of efforts in getting good results of FE students by means of taking parental care of all of them.
- Comparatively better results are possible for SE to BE students as they become more and more mature and start learning the subjects from engineering perspective.

UG and PG Result Analysis: All Clear Passing Percentage (%)

- The percentage of all clear passing result of FE is shown in **Figure 2.6.2 (a)**.

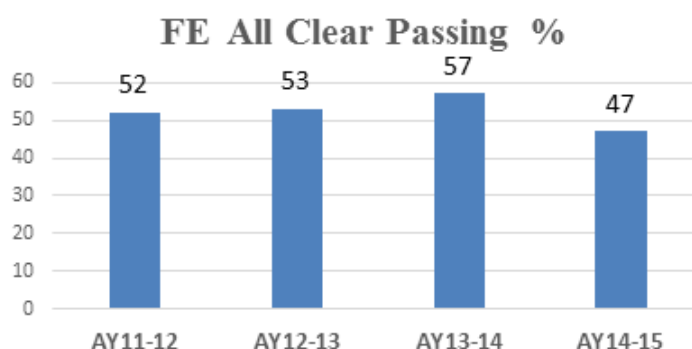


Figure 2.6.2 (a): FE Passing All Clear Percentage

Table 2.6.2(a): SE Result Analysis

Year	SE All Clear Passing Percentage			
Department	AY11-12	AY12-13	AY13-14	AY14-15
COMP	51	48	73	72
IT	45	48	83	84
E&TC	40	45	69	67
MECH	44	54	66	51
CIVIL	31	27	62	50

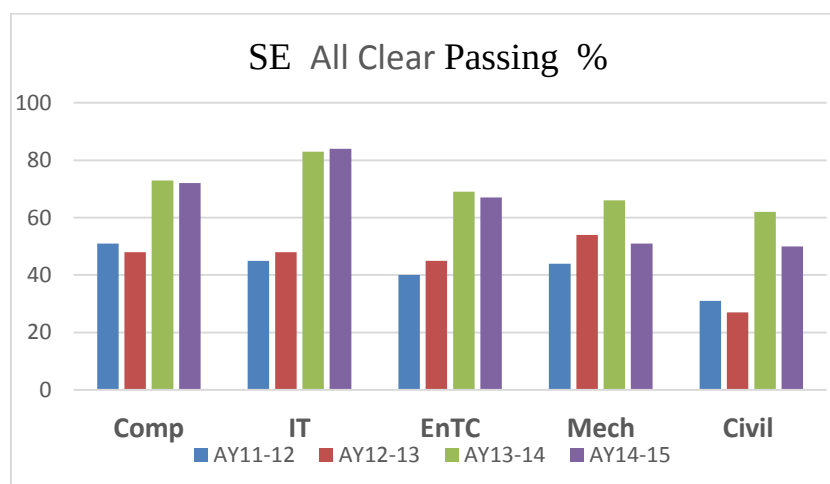


Figure 2.6.2 (b): SE Branch wise All Clear Passing Percentage

- All clear passing percentage results of SE, TE and BE are presented in **Table 2.6.2(a), (b) & (c)**, while their graphical representations are shown in **Figure 2.6.2 (b), (c) & (d)**, respectively.
- The Department of Computer Engineering and IT always give better results as compare to other departments. This is because of few numerical subjects for rest of the departments where the results are less.

Criterion – II: Teaching - Learning and Evaluation

- Because of continuous students' evaluation process and online examination at phase 1 and 2, students are studying their all courses right from the starting of a semester. Therefore, the results for 2013-14 and 2014-15 have been improved.
- Because of remedial classes and corrective actions taken by faculty in the department, Semester – II results are always better than Semester – I results.
- SE to BE results, increasing progressively because of consistent efforts by all the departments and the maturity of the students during their tenure of the course.

Table 2.6.2 (b): TE Result Analysis

	TE All Clear Passing Percentage			
Department	AY11-12	AY12-13	AY13-14	AY14-15
COMP	82	73	72	75
IT	83	67	73	79
E&TC	53	72	58	63
MECH	54	40	54	72
CIVIL	NA	70	49	52

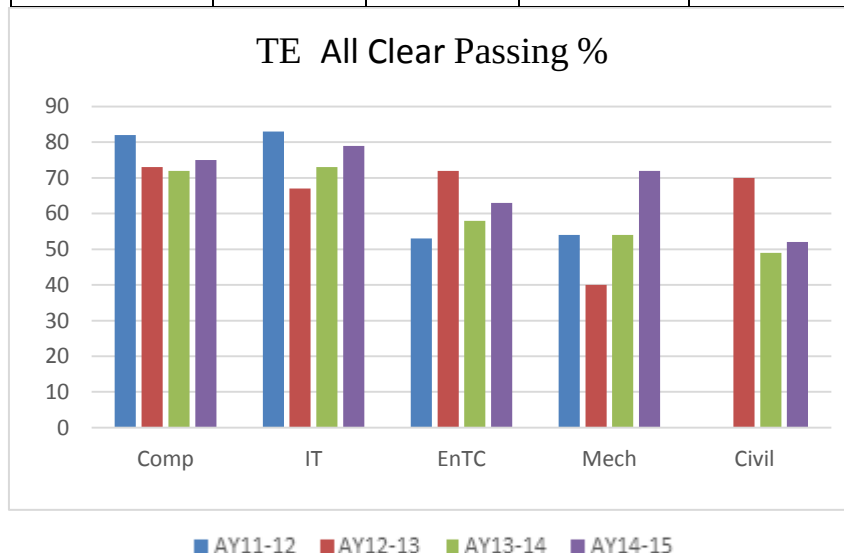


Figure 2.6.2 (c) Third Year Branch wise All Clear Passing Percentage

Table 2.6.2 (c): BE Result Analysis

	BE Passing Percentage			
Department	AY11-12	AY12-13	AY13-14	AY14-15
COMP	87	99	94	99
IT	98	99	97	100
E&TC	100	99	97	96
MECH	97	91	98	99
CIVIL	NA	NA	95	97

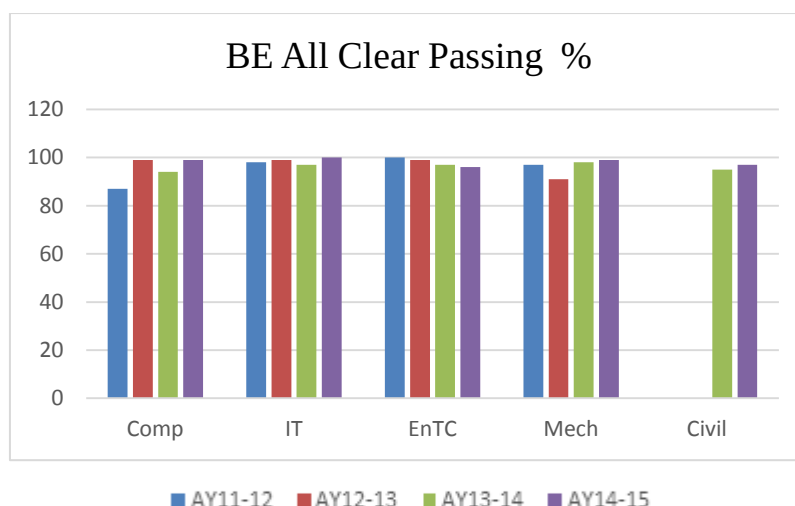


Figure 2.6.2 (d) Final Year Branch wise All Clear Passing Percentage

- Because of efforts made by the faculty, the SEM-II and final results of all the students have been improved as compare their respective results of SEM-I as shown in **Figure 2.4.2 (b)**.

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

The strategies structured by the institution to facilitate the achievement of the intended learning outcomes are as follows:

Teaching Strategies:

- Every department in the institute prepares an academic calendar which is in line with the academic calendar given by SPPU.
- The class time tables are prepared in such a way that the required number of periods are assigned for all the theory and practical subjects and also include the periods for soft skills, communication skills, and technical training.
- Information and communication technology is effectively used wherever necessary to impart teaching and delivering seminars.
- Special attention is focused on application part of the subject and extra content is delivered wherever necessary to meet the desired learning outcomes. Guest lectures are arranged to give more technical exposure.
- AMC takes care of quality teaching, student feedback, and gives guidelines for better performance and improvements in subject delivery of faculty.

Learning Strategies:

- Tutorials are conducted regularly in analytical/design/ numerical subjects.
- Assignments are made compulsory in all the theory subjects.
- Seminars are arranged for the students on advanced topics.
- Technical quiz/group discussions/paper presentations/poster competitions are arranged through departmental student's associations.
- NPTEL-learning materials and videos are made available in the library to enhance learning outcomes.
- Industrial and site visits are arranged to expose the students to practical pursuit.

- VAP, STP, Spoken tutorials of IIT Bombay.
- Students are giving their frank opinion through faculty feedback about the delivery of the subject matter.

Assessment Strategies:

- **Direct Assessment:**
 - ✓ Internal and external examinations in theory and practical sessions.
 - ✓ Online examinations.
 - ✓ Oral Examinations, seminars, tutorials, and assignments.
 - ✓ Term work, assessment of assignments.
- **Indirect Assessment:**
 - ✓ Alumni feedback
 - ✓ Programme feedback
 - ✓ Course end survey
 - ✓ Mid-semester feedbacks
 - ✓ Placement

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?

The measures/initiatives taken up by the institution to enhance the social and economic relevance with respect to quality jobs, entrepreneurship, innovation and research attitude amongst the students are as follows:

- The institute conducts STPs, GDPI, and AMCAT for enhancing the skill sets of students.
- The institute motivates and facilitates students to participate in various research projects, project competitions such as BAJA, AVISHKAR etc.
- The institute organizes research paper presentation competitions, TECHTONIC and National conferences in different areas.
- Students of UG and PG are encouraged to take sponsored projects.
- Students are encouraged to attend university level competitions like AVISHKAR and other National competitions such as ROBOCON, BAJA, SUPRA etc.
- The institute has PG Programmes to support the research activity.
- The institute has signed MoUs with esteemed companies.
- CPC conducts expert lectures, pre-placement talks, and guidance for higher studies.
- NSS conducts various social activities such as blood donation camp, celebrating festivals in orphan, awareness of cleanliness, health care and child education through special camps, river cleaning activity etc.
- STP IV has been designed to cultivate research attitude amongst the students. The objective of STP IV is to write technical survey paper at the end of 6th semester.

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

The institute collects and analyzes data with respect to learning outcomes by various methods. The analyzed data is used to take corrective action to overcome the barrier of learners. Data collection methods, analysis, and corrective actions for the betterment of learners are as follows:

Data Collection Methods and Analysis:

- Faculty feedback is taken every semester from students.
- Exit feedback is also taken from the outgoing students every year.
- The feedback from the alumni is taken during the alumni meet.
- Result analysis is carried out after every online/mid semester tests for all subjects.
- Mock practical/oral examinations are conducted to understand students' skill.
- QALR, ET and AMCAT results are also analyzed.
- Mock GDPI are taken to understand students' ability in communication skill.
- Students' leadership skills are observed while executing students' activities.

Corrective Actions:

- Feedbacks taken from the students are given to faculty for their self-improvement.
- Overall feedback given by outgoing students and alumni every year used to identify strong and weaker areas of the department.
- Special attention is given to lateral entry students.
- Remedial classes are conducted for subjects where percentage of failure is high.
- Faculty members are nominated for learning new techniques, teaching pedagogy.
- STP-I to STP –V are designed to special communication skill and soft skill inputs along with awareness of research methodology.
- VAP helps in bridging the gap between industry and current curricula.
- Extra-curricular activities are always helpful in overcoming barriers of out of box learning and gives freedom to all students to showcase their talent.

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

The institute uses various means to monitor and ensure the achievement of learning outcomes as shown in **Figure 2.6.6**.

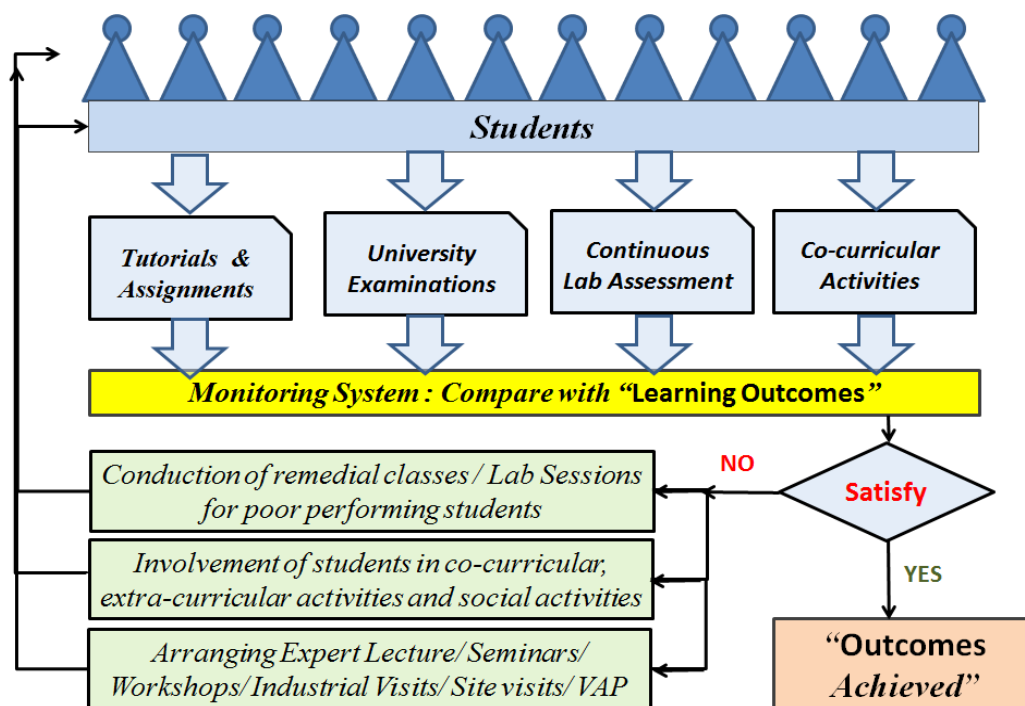


Figure 2.6.6: Monitoring & Ensuring Achievement of Learning Outcomes

Criterion – II: Teaching - Learning and Evaluation

The institution monitors and ensures the achievement of learning outcomes by:

- Regular tutorials and assignments
- Tests and university examinations
- Continuous assessment in both theory and lab for each subject
- Monitoring attendance of students
- Conducting remedial classes for poor performing students
- Involvement of students in co-curricular, extra-curricular activities and social activities
- Academic monitoring of teaching learning process
- Discussing the results during meetings held with the Principal and HODs
- History-Card provided to every student during 1st year which collects academic data of all semesters to analyze the learning outcomes

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

Yes, individual teacher uses assessment/evaluation as an indicator for evaluating student performance. The different evaluation methods are used as per the need of the course:

- Every teacher uses course objectives & outcomes for evaluation of student's performance throughout the semester by means of marks obtained by the student in unit tests, on-line examination, and performance shown in practical sessions.
- In addition to the objectives and outcomes of the course, emphasize is given on research attitude, innovation and overall behavior of the students. Online mock exam results help in knowing the performance and efforts can be taken by faculty to improve performance of student undertaken.
- Students participate in different academic activities viz. tutorial, mini-projects, solution of numerical problems, quiz, seminar, oral etc. These activities help the faculty to assess the learning objective in terms of proficiency of students in applying mathematical and engineering concepts while solving the problem.
- Effective communication skills are also tested during seminar, project demonstration, and presentation which eventually give an idea about achievement of course objectives & outcomes.
- Considering the performance of students, teachers can modify the T-L-P and add supporting academic activities for the overall development of students to achieve the programme outcomes.

Examples:

- I) The performance of students of first year engineering in the subject of Engineering Graphics has shown a remarkable improvement during last four years by mapping the learning of student feedbacks and evaluation. The institute and individual faculty implemented following strategies to achieve the course outcomes.
 - ✓ Experienced senior faculty is appointed for teaching this subject.
 - ✓ The teaching plan is developed by considering the feedback remarks from students and AMC, learning ability of students, difficulty level of various topics etc.
 - ✓ Innovative teaching methods are adopted by the faculty using PPTs, animated videos and demonstrating models of various objects during the sessions.

Criterion – II: Teaching - Learning and Evaluation

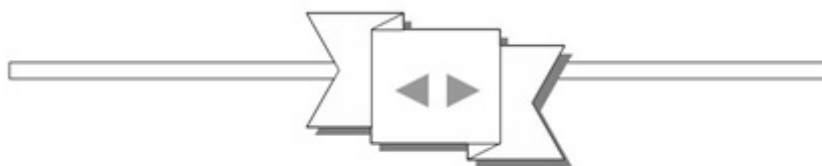
- ✓ Special counseling through guest lecturers for slow learners, extra sessions for hands on practice of the students to build confidence and increase speed of drawing are implemented to achieve the course outcomes of the subject.
- II) The performances of students during practical examinations of Computer programming were not satisfactory in AY 2012-13. Department of Computer engineering has taken a major step in conducting day to day practical sessions. They started using LCD projections while conducting practical sessions. Similar kind of training was also given to faculty as shown in photograph **Figure 2.6.7** during “Cloud Computing” workshop.

As the students are getting hands on training while teaching programming laboratory sessions, students are clarifying their doubts in real time environment and understand the concepts from practical point of view. The performance shown thereafter by the students during practical/ oral examinations was improved. Similar kind of exercise has shown another success story for Fundamentals of Programming Language (FPL-I and II) subjects for first year students.

There are many such examples in various departments. Considering the performance of students in terms of term work parameters during continuous evaluation process, faculty can modify the T-L-P for the overall development of students to achieve the satisfactory learning outcomes.
- III) Introduction of QALR test and ET for the final year students has shown significant improvement in number of students clearing the aptitude test during in-campus placement activity. Students are exposed to QALR test and ET multiple times before they actually appear for actual aptitude test of any industry. The questions bank has been prepared in line with aptitude test of many industries.
- IV) Significant improvement has also been shown by newly joined faculty because of K-point capsules created by senior faculty. This imprudent has been reflected in the students’ feedback of such faculty.



Figure 2.6.7: Five Days FDP on “CLOUD COMPUTING”





CRITERION III: RESEARCH, CONSULTANCY, AND EXTENSION

3.1 Promotion of Research

The process of promoting research culture among all faculty and the students is ensured by facilitating active participation in research promotional activities. The institute not only provides necessary infrastructural resources for the research activity but also encourages the faculty and students for their active participation to showcase their innovations through research.

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

The institute does not have recognition as a research center of SPPU. However, the institute is running two PG programs from last three years i.e. Master of Engineering (Mechanical - Design Engineering) and Master of Engineering (E&TC-VLSI & ES). Currently the institute has 11 Doctoral Faculty guiding to other centers. The institute has a plan to apply for the research center of SPPU. The institute faculty members are recognized Ph. D. guides of the university. The institute has interaction with few research organizations such as DRDO, ARAI and CWPRS while doing their PG research projects. Therefore, even if the institute does not have the recognized center of the affiliating university, we try to cultivate the research culture among faculty and students.

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

Yes, the institute has a Research Committee (RC) to monitor and address the issues of research. The Principal acts as a chairman of this committee. The other members of this committee are as follows:

- Academic Research Coordinator (ARC)
- All the HODs
- Faculty from each department acts as departmental research coordinator
- Librarian

The RC meets once in a month and takes initiatives in monitoring and addressing the research activity in each department. The discussions related with various activities of the department and proposals are converted into recommendations by the committee. These recommendations are then followed in all the departments. Librarian is also part of the research committee to facilitate the faculty while providing the necessary resources.

ARC plays an important role while coordinating the research activities by all the departments with the university. RC is responsible for coordinating the research activities by all the departments. The committee always makes sure about the promotion of research activity in each department and decides policies to be followed in individual department. The members of RC are as shown in **Table 3.1.2**.

Table 3.1.2: The Research Committee Structure in SITS.

1	Dr. Suresh N. Mali	Principal	Chairman
2	Dr. Mrs. Alpana P. Adsul	Assistant Professor (IT)	ARC
3	Dr. Mangesh R. Phate	Associate Professor (MECH)	Member
4	Dr. Sachin D. Khandekar	Associate Professor & HOD (CIVIL)	Member
5	Dr. Asita N. Dalavi	Associate Professor (CIVIL)	Member
6	Mr. Uday C. Aagshe	Assistant Professor & HOD (MECH)	Member
7	Dr. Kiran R. Jagtap	Associate Professor (MECH)	Member
8	Mrs. Geeta S. Navale	Assistant Professor & HOD (COMP)	Member
9	Mr. Prashant S. Dhotre	Assistant Professor (COMP)	Member
10	Mr. Tanaji D. Khadtare	Professor (IT)	Member
11	Mr. Dhananjay E. Upasani	Assistant Prof & HOD (E&TC)	Member
12	Mr. Hemant B. Patil	Assistant Prof & HOD MBA	Member
13	Mr. Soojey R. Deshpande	Assistant Professor & HOD (FE)	Member
14	Mr. Pradip D. Darade	Assistant Professor & HOD (FE)	Member
15	Dr. Bhimashankar S. Waghe	Professor (Mathematics)	Member
16	Dr. Sandip V. Kamat	Assistant Professor (Physics)	Member
17	Dr. Rinki Moon	Assistant Professor (Chemistry)	Member
18	Mrs. Komal V. Thube	Librarian	Member

Objectives of RC:

- To inculcate research culture in all departments
- Enhance interactions between researchers having same domain area
- Promote and increase research publications
- Undertake industrial and social problems for research
- Awareness towards Intellectual Property Rights (IPR)
- Work for development of SITS as a R&D center

Some of the important recommendations given by RC are as follows:

- Encourage the faculty members to pursue Masters and Ph.D.
- Appreciation of faculty and students for publications and their research findings.
- Financial support for participation at national / international conference.
- Subscription of online journals to avail recent world-wide research.
- Encourage students to participate in research related activities.
- Inculcate research culture in the institute by arranging motivational lectures.
- Emphasize towards awareness of research, patent, copy rights, research tools etc.

- Motivate faculty for the BCUD research proposals.
- Encourage students for participation in project competition.
- Undertake projects with specialized themes and social needs.
- Strengthen association with research organizations such as DRDO, ARAI, and CWPRS.
- Motivate faculty for consultancy, sponsored projects, and industry interaction.
- Promote interdisciplinary projects.

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

The measures taken by the institution to facilitate progress and implementation of research projects are as follows:

- **Autonomy to the principal investigator:** The Principal Investigator (PI) is given full autonomy to select the area and research problem. PI motivates the students to involve in the research projects. Institute deputed the PI to visit various research organizations to avail the special research facilities.
- **Timely availability or release of resources:** The funds are released as and when required and timely made available for any resources for the research work carried out by the faculty. The institute has signed MoU with the abroad university-Aalborg University Denmark to facilitate the faculty to carry out their research work.
- **Adequate infrastructure and human resources:** The institute has well equipped labs, infrastructure, and facilities to carry out research projects. The faculties are allowed to go to any research organization for research interactions, experimentations, or collection of data needed for their research. The necessary funding is available from institute budget as well as BCUD research grants.
- **Time-off, reduced teaching load, special leave etc. to teachers:** This is provided on case to case basis on request submitted by a faculty. Faculty and students are encouraged to use the laboratory and library facilities even after the working hours. Teaching load of faculty suitably adjusted for perusal of their research work. Special study leaves are also given to complete the research work within time.
- **Support in terms of technology and information needs:** The institute has IT infrastructure with modern configurations. Wi-Fi and adequate internet bandwidth facility supported by subscription of various reputed journals are in place. Various training programs on research methodology are also arranged to encourage and motivate the institute faculty and students. Institute allows faculty and students to avail support from research organizations while using advanced technology and equipment.
- **Facilitate timely auditing and submission of utilization certificate to the funding authorities:** Faculty and students are utilizing the institute research budget and grants to complete their projects within time. The account department of the institute and SPPU extend their help for timely auditing of research projects and submission of utilization certificate to the funding authorities. Students are also getting financial and equipment support from industry which they are utilizing for their innovative projects while participating at national competitions.
- **Any other:** Institute deputed the faculty for Ph.D. Programs. SITS has MoU with Aalborg University Denmark wherein the institute gives full sponsorship to faculty to complete their research work. Faculty members are pursuing Ph.D. at different universities under deputation with special leaves.

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

The institution fosters scientific temper and research culture in the students who shows keen interest in doing some innovative projects. Students work on mini-projects and ideas in their domain of interest while participating in various competitions. The final year projects of UG and PG students are implemented as per the guidelines of SPPU. Every year, project competitions/technical paper presentations are held at SITS as well as other renowned institutes. The institute encourages and facilitates the students to participate in these competitions. Every department motivates the students to take industrial live projects where the students can take help from industry experts.

In view of developing the research culture, students are exposed to literature survey, gap analysis, problem identification, and the methodology finalization during third year in STP IV. The institute facilitates and gives support to the students for presenting and publishing their papers based on their research findings in conferences and journals. Industrial visits, seminars, workshops, and guest lectures are also organized to bridge the gap between academia and industry. TECHTONIC, annual technical event of the institute is a platform for the students to showcase their innovative ideas through various competitions like coding, model making, ROBO wars, CAD design, website development, circuit design.

Our students are also motivated to participate in various technical intercollegiate national and international level competitions. Institute provides funding for participation in SUPRA, BAJA, GO-KART, and ROBOCON competitions. Students are encouraged to go for internships, and institute grants special leaves to students. Every department of the institute organizes various activities to create awareness amongst the students to interact with distinguished domain experts through student chapters and associations.

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 faculty is involved in active research in the following ways:

- Guides the UG students for seminars, projects, and technical papers.
- Recognized Ph.D. and PG guides to supervise research work of the students.
- Associated with the industry projects.
- Participation and presentations of research papers in conferences and journals.
- Applies and receives BCUD project grants.

Following are the domain wise active research area of faculty in the Institute:

Department of Computer Engineering: Information Security, Cloud Computing, Network Security, Data Mining.

Following *collaborative projects* have been undertaken by Computer Engineering:

- Enhancing M-Banking Security
- Detection of Drowsiness of Driver and Alert System based on Eyes Discovery
- Vision based Autonomous Vehicle Driving Control System
- Location and Identity Privacy in Internet on Things (IoT)
- An Availability Strategy for Multiprocessor Database Machines

Criterion – III: Research, Consultancy and Extension

- Critical National Infrastructure Protection Using Location Based Services (Geo-Encryption)

Following *Individual projects* have been undertaken by Computer Engineering:

- Privacy Enhancement of Association Rules by Adaptive Reversible Information Hiding
- Text Classification using Connectionist Approach
- Managing and Visualization of Personal Information Privacy Based on Life Management Platform
- Elliptical Curve Cryptography
- Software Defined Network Security

Department of Electronics & Telecommunication: VLSI Embedded System, Communication Engineering, and Signal Processing.

Following *collaborative projects* have been undertaken by E&TC:

- Automated P-wave diagnostic using wavelets
- Early Stage Detection of Micro-calcification in Mammograms using Wavelet/Curvelet Transform

Following individual projects have been undertaken by E&TC:

- Development of a system for monitoring and automated diagnosis of ECG signal
- Vision based system for Drivers Drowsiness detection with security issues.
- Smart vehicle monitoring system for license plates recognition using multi resolution and fuzzy neural approach.
- Modeling of active solid state devices for futuristic applications.
- Analysis of SMM in chronic obstructive pulmonary disease.

Department of Information Technology: Cloud Computing, Internet of Things, Big Data Analytics and Machine Learning.

Following *collaborative projects* have been undertaken by Information Technology:

- Smart Home system for Senior Citizen using Wireless Sensor Network
- Relevance Feedback mechanism incorporating semantic features for improving Multimedia Information Retrieval systems

Department of Civil Engineering: Environmental Engineering, Structural Engineering, Water Resource Engineering, Geotechnical Engineering, Infrastructural Development, Urban Design, and Construction Management.

Following *collaborative project* has been undertaken by Department of Civil Engineering:

- Bio-fuel as Bio-briquette in Corporation with municipal solid waste

Following *Individual projects* have been undertaken by Department of Civil Engineering:

- Short term and long term time series flow forecasting using WAVELET-ANN hybrid model
- Rainfall prediction using hybrid WAVELET- ANN model
- Seismic soil liquefaction
- Thermal stress analysis of laminated composite plates using first order shear deformation theory
- Parametric studies of tall buildings under lateral loads
- Characterization of Fracture using Fractals

Department of Mechanical Engineering: Noise and Vibration, Fracture Mechanics, Composites, Finite Element Analysis (FEA), Non-conventional Energy, Computational fluid dynamics, Micro machining, Laser welding and Computer Integrated Manufacturing (CIM).

Following *collaborative projects* have been undertaken by Mechanical Engineering:

- Numerical and Experimental Analysis of Light motor Vehicle Connecting Rod
- Performance Analysis of Vertical Axis Wind Turbine As A Source of Power Generation
- Design, Manufacturing and Validation of Gear Shifter Durability Test Rig
- Modeling, Simulation and Preoperational Integral Derivative (PID) Controller Design of Wishbone type Active Suspension System
- Estimation of Vehicle Parameters using Kalman Filter
- Interaction of A₀ Lamb Mode with Disband Damage in a Double Strap Joint
- Finite Element Analysis of Self Pierce Riveting Process
- Damage Detection in Composite Frame Structure Using Frequency Response Measurements
- ROBOCON, SAE-BAJA, SAE-SUPRA, GO-KART
- Effect of Tube Spacing on Displacement of Loosely Supported Tube in a Gigit Tube Bundle Supported to Single Phase Flow

Following *Individual projects* have been undertaken by Department of Mechanical Engineering:

- Design and Development of Solar Schaffer Reflector to generate Electricity
- Uncertainty Quantification of Elastically Supported Functionally Graded Material(FGM) Plate In Thermal Environment
- Experimental investigation of Heat Transfer Characteristic of Packed Bed with spherical partial arrangement
- High Power Diode Laser Beam Welding Process for Automotive Body Engineering
- Optimization of Working Fluid in Cryogenic Heat Pipe

Department of Engineering Science: Synthesis of polymer thin films for optical wave guide, Structural Synthesis and Antimicrobial studies of novel coordination polymers, geometrical mathematics.

Following *Individual projects* have been undertaken by Department of Engineering Science:

- Smart Vehicle Monitoring System for License Plate Recognition using Multi-resolution and Fuzzy Neural approach
- Optimal Vibration Control of Smart Structural Element
- Integral Formulas in Riemannian Geometry and their Applications
- The Effect of Film Thickness on the Structural Properties of Vacuum Evaporated Polypyrrole Thin Films
- Synthetic, Structural & Antimicrobial Studies of Some Novel Coordination Polymers
- Voltage Stability Analysis of Wind Connected Power System
- Experimentation and Analysis of Micro-Grid

Department of MBA: Consumer Behavior, Social Media Marketing, Green Marketing, HRIS & ERP, e-Governance, Behavioral Finance, Supply Chain Management

Following *collaborative projects* have been undertaken by Department of MBA:

- Cloud computing and mobility with competitive study of various mobile applications optimal vibration control of smart structural element.

Criterion – III: Research, Consultancy and Extension

- BTL activities in water purifier industry and their impact on brand and sales.
- Six sigma PBIT computing mechanism.
- Value optimization by implementing balanced scorecard.
- Study effectiveness of E-HRM practices in the Jammu & Kashmir Bank Ltd.
- Analytical study of retailer's view about Kingfisher packaged drinking water in Pune.
- Promotional strategies of max secure antivirus and product development of max secure total security application.

Following *Individual projects* have been undertaken by Department of MBA:

- An analytic study of factors influencing to develop consumer purchase decision model for DTH services in Pune city.
- Study of human resource management with enterprise resource planning perspective for selected industries.
- Design and development of a conceptual model of E-government in urban local bodies, with special reference to Municipal Corporation of the city of Jalgaon.
- A study of social media marketing and the changing paradigms of media mix (with special reference to Pune city).
- Investment management of women employed in IT sector with reference to Hinjewadi, Maharashtra Industrial Development Corporation, Pune.
- Study of logistics practices with special reference to small & medium scale enterprises in Pimpri-Chinchwad industrial area.

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

Every department is conducting workshops/ training programmes/ sensitization programmes to develop research culture among the faculty and students. **Figure 3.1.6** shows department wise conferences, seminars and FDPs conducted in the institute.

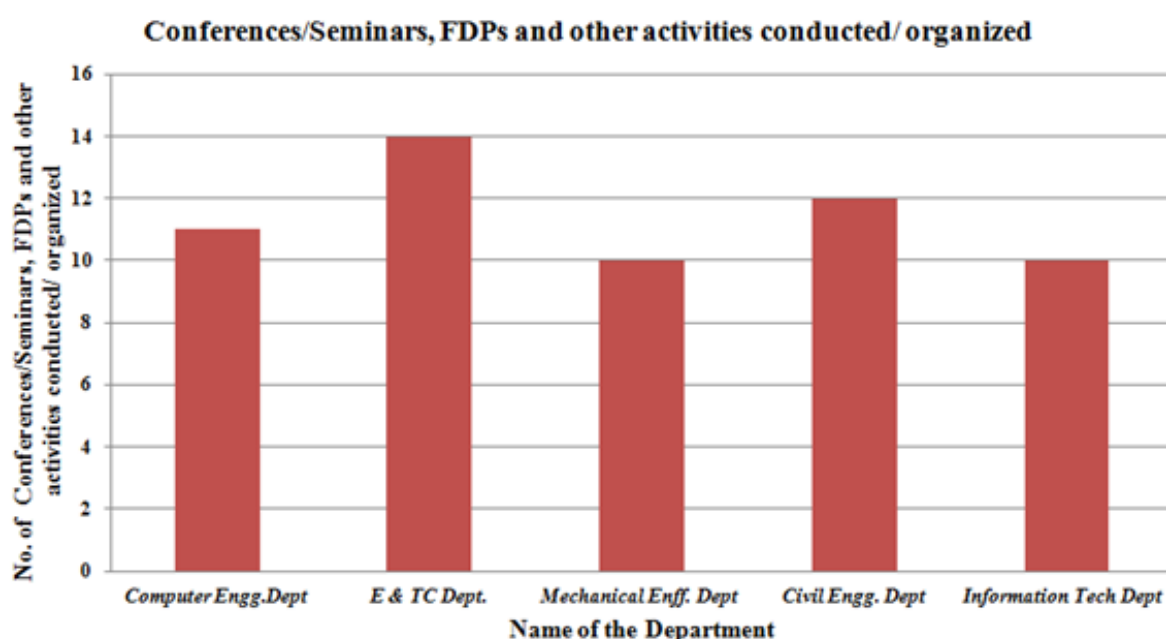


Figure 3.1.6: Conferences/Seminars, FDPs and other Activities in Various Departments

Department wise list of important topics covered under this initiative are as follows:

Department of Computer Engineering:

- Academia & Engineering Research
- AVISHKAR-2013: Technical Research Paper Presentation
- Mathematical Modeling: Necessity of Good active Research
- Latex: A Editing Tool for Technical Writing
- Zotero: A research tool
- Cloud Computing and Application
- How to write research paper? Guidance and Discussion

Department of Electronics & Telecommunication:

- Wavelets and Application
- LabVIEW: Utilization for research Activity and application
- Opportunities for Higher Technical Education in India & Abroad
- Global Position System (GPS) and use
- Interactive Workshop of all the Principal of SPPU on Management Capacity Building
- Android : Awareness to Mobile Operating System (OS)
- Celebration National Science Day and Awareness of Research Oriented Approach
- Corporate Culture and Etiquettes
- Robotics: Use of multidisciplinary approach to build Robot
- Skill Development in Industrial Automation

Department of Mechanical Engineering:

- Workshop on “Finite Element Methods”
- Workshop on “Research Methodology and Technical Writing”

Department of Civil Engineering:

- Training programme on total Station Survey
- Training Programme on “Green Educational Premises and Carbon Footprint”

Department of Information Technology:

- Machine Learning Algorithms, Data Mining Tools and Big Data Analysis

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

There are three to four main research areas in every department of the institute. The faculty in these areas are doing their own research and also guiding the students. Based on these research areas faculty members are giving various projects to the UG and PG students. They are also guiding seminar activity in their respective departments and inculcating the research culture among the students. This year as a part of STP – IV third year students are supposed to prepare survey paper in their respective domain and give seminar at the end of the semester. Prioritized research areas and the expertise available in individual departments are as shown in **Table 3.1.7**.

Table 3.1.7: The Details of Prioritized Research in the Institute

Dept.	Area of Research	Available expert faculty
COMP	Information Hiding	Mrs. G. S. Navale
	Text Mining	Mr. N.M. Ranjan
	Big Data, Privacy, Security	Mr. P.S. Dhotre
	Network Security	Mr. V.P. Rao
	Software Defined N/W, Wireless Sensor N/W	Mrs. Y. S. Hande
E&TC	Digital Signal Processing	Mr. D. E. Upasani
	VLSI Design and ES	Mr. V. P. Niwane
	Digital Image Processing	Mr. H. B.Mali
	Information Security and communication	Dr. S. N. Mali
	Image Processing & Character Recognition	Mr. S. R. Deshpande
MECH	Composite Structures	Dr. K. R. Jagtap
	Micromachining	Mr. R. V. Patil
	Refrigeration & Air- Conditioning	Mr. U. C. Agashe
	Manufacturing Process	Dr. M. R. Phate
	Heat Transfer	Mr. P. P. Patunkar
CIVIL	Hydraulics and Water Resource	Dr. S. D. Khandekar
	Geotechnical	Dr. A. N. Dalvi
	Civil-Structure	Mr. A. K. Kanase
	Structural Engineering	Mr. I. M. Jain
IT	Machine Learning	Prof. T. D. Khadtare
	Wireless sensor network	Dr. A. P. Adsul
	Internet of Things	Mr. J. B. Karande
	Big Data Analytics	Mr. S. R. Gote
MBA	Brand Management	Mr. H. B. Patil
	HRIS & ERP	Dr. M. M. Jagtap

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 has taken lot of initiatives in terms of organizing seminars, workshops, conferences, and training programmes in various departments. The academicians and professionals are invited for participating in these activities. In every semester, each department organize expert lectures on the topics beyond the syllabus. The eminent Professors and scientists from different universities are invited to interact with the faculty and students. **Figure 3.1.8** shows experts visited in the institute in last three years. This chart shows the contribution of each department in this activity.

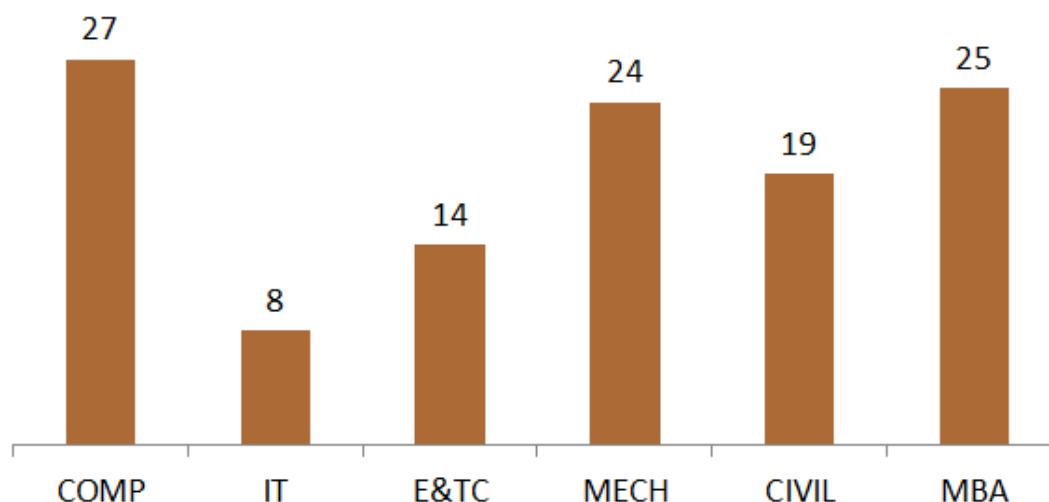


Figure 3.1.8: Number of Eminent Professors and Scientists visited to the Institute

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 facility of availing sabbatical leave for research activities is available in the institute. Most of the faculties have utilised these leaves for their research related activities. The details are as mentioned below:

- SITS has given full sponsorship to Mr. Prashant Dhotre, Department of Computer Engineering to do his research work at *Aalborg University, Denmark*. The entire expenses including registration fees, accommodation and travel expenses are given to him. He is utilizing sabbatical leave for his research activities since 2014.
- Faculties have utilized their leaves by adjusting work load in their respective departments for doing research work.
- Institute gives special leaves for the faculty for perusal of research projects, attending workshops, guest lectures, and Ph.D. work. It also grants special leaves for completion of PG work. Long period leaves are also provided for faculty doing research. **Figure 3.1.9** shows the department wise record of percentage leaves used by the faculty for research activities.

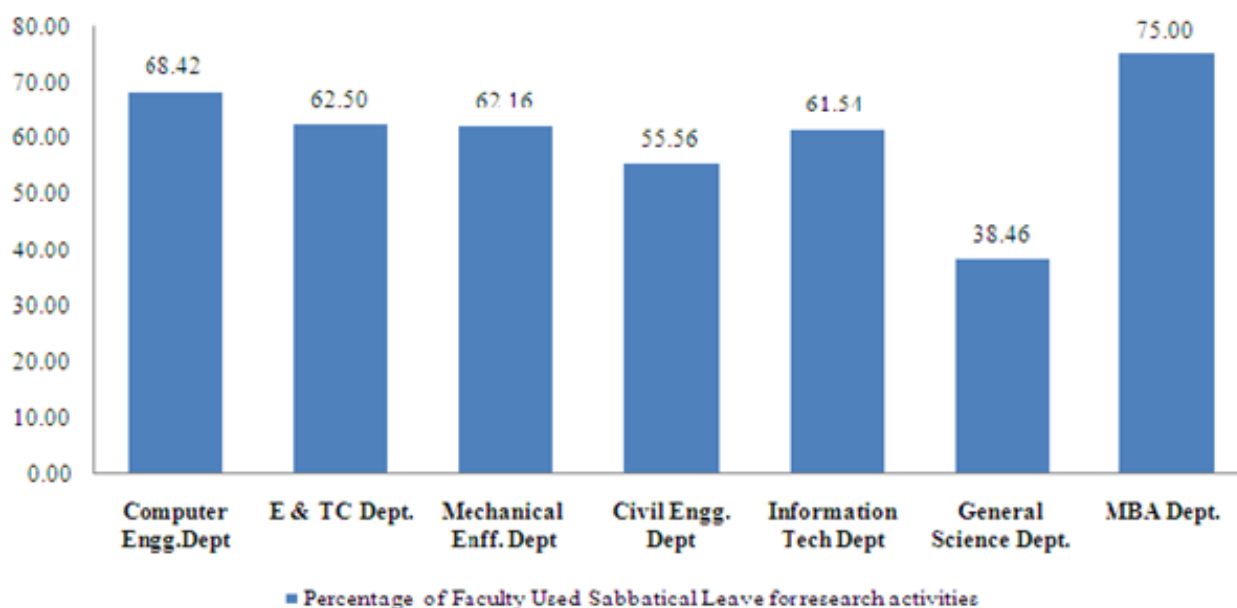


Figure 3.1.9: Percentage of Faculty used their Leaves for Research Activities

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 details of the initiatives taken up by the institution in creating awareness of relative findings of research to students and community are as follows:

- National and State level seminars are organized by inviting eminent personalities in the specified disciplines. In addition to this, hands on training, workshops, and exhibitions are conducted to demonstrate research findings. Institute motivates to publish research findings in reputed journals. **Figure 3.1.10** shows publications in last three years.

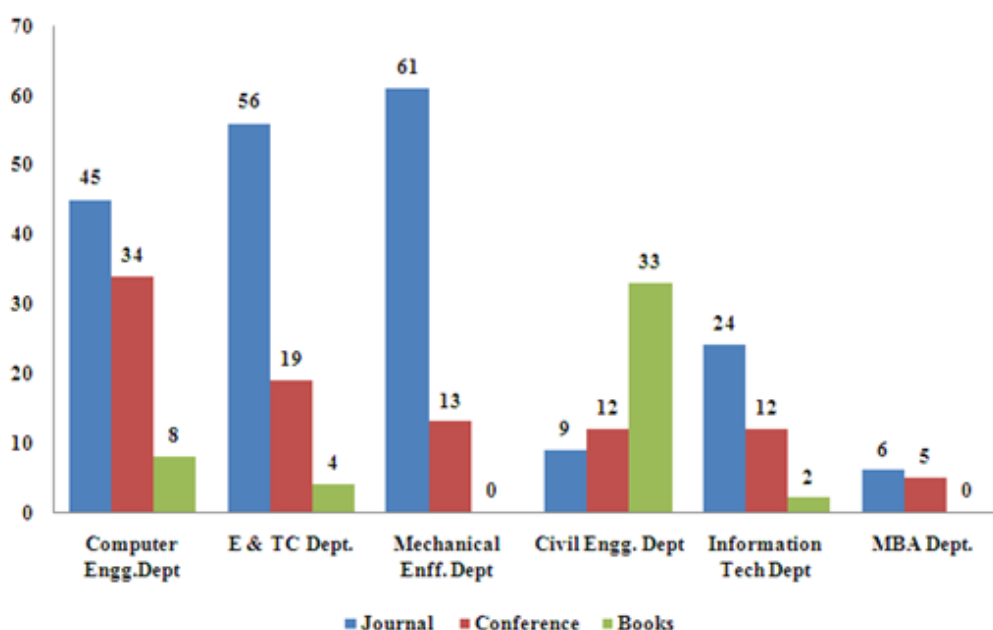


Figure 3.1.10: Publications in Last Three Years

Criterion – III: Research, Consultancy and Extension

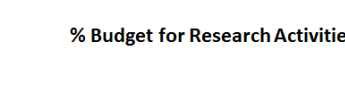
- Students are motivated to participate in various technical programs and competitions inside and outside the institute like SUPRA, BAJA, GO-KART, ROBOCON etc.
- The Principal, in the Student Council Meeting (SCM), appreciates students who have published papers in Conferences/Journals with certificate of excellence. This helps in creating awareness about the research activities in the student community as well as motivating other students.

3.2 Resource Mobilization for Research

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

The institutional total recurring and non-recurring budget along with the budget allocated for research in last four years is as shown in **Table 3.2.1 (a)**.

Table 3.2.1(a): Budget Allocated for Research in Last Four Years

Table 3.2.1(a). Budget Allocated for Research in Last Four Years															
	Year wise Budget [Rs. Lakh]				% Budget for Research Activities <table><thead><tr><th>Year</th><th>% Budget for Research Activities</th></tr></thead><tbody><tr><td>2011-12</td><td>2.52</td></tr><tr><td>2012-13</td><td>2.17</td></tr><tr><td>2013-14</td><td>4.90</td></tr><tr><td>2014-15</td><td>5.82</td></tr></tbody></table>	Year	% Budget for Research Activities	2011-12	2.52	2012-13	2.17	2013-14	4.90	2014-15	5.82
Year	% Budget for Research Activities														
2011-12	2.52														
2012-13	2.17														
2013-14	4.90														
2014-15	5.82														
Expenditure Head	2011-12	2012-13	2013-14	2014-15											
Nonrecurring (NR)	245.83	262.01	237.96	142.53											
Recurring(R)	684.83	1004.01	1219.93	1280.81											
TOTAL (NR + R)	930.65	1266.01	1457.88	1423.34											
Research Budget	23.43	27.41	71.40	82.78											
Percentage Research Budget	2.52	2.17	4.90	5.82											

Budget for various heads of expenditure of research activity at institute level and its utilization in last four years is shown **Table 3.2.1 (b)**. As post-graduation programs in department of MECH and E&TC have started from AY 2012-13, the budget allocation and its utilization are increased in last two years.

Table 3.2.1(b): Heads of Expenditure of Research Activity (Rs.)

Description	Proposed R & D Budget 2011-12	R & D Budget Utilized 2011-12	Proposed R & D Budget 2012-13	R & D Budget Utilized 2012-13	Proposed R & D Budget 2013-14	R & D Budget Utilized 2013-14	Proposed R & D Budget 2014-15	R & D Budget Utilized 2014-15
Equipment & Tools	0	0	0	0	2071203	2071203	2418347	2418347
Library Books	0	0	0	0	65337	65337	82969	82969
Periodicals & Journals	800000	563047	1555000	1641834	2035400	14694	1618971	367734
Seminars & Exhibition	75000	63507	125000	4724	142000	47885	316000	7457
Student Welfare Expenditure	89300	21251	189900	29231	414600	93916	120200	73745
Staff Welfare Expenditure	65000	20450	125500	18900	171500	67199	219000	242188
Consumables Expenditure	240825	0	0	375893	742856	418492	514262	249910

Criterion – III: Research, Consultancy and Extension

Software Expenditure	894400	1642588	329500	1164427	235140	48388	1368200	29189
Training & Placement	10000	0	20000	0	121250	117019	236584	18168
Research & Development	0	0	0	0	252000	221500	221500	275008
Internet Charges	168250	145352	145352	324729	434270	668949	452740	917245
FDP/Conf. Reg. Fees	0	0	10900	10900	54552	54552	43155	43155
Salary During Deputation	0	0	239831	239831	200759	200759	419830	419830
PhD Sponsorship	0	0	0	0	199326	199326	246055	246055
TOTAL	2342775	2456195	2740983	3810469	7140193	4289219	8277813	5391000

The financial allocation & actual utilization of research budget is as shown in **Figure 3.2.1**.

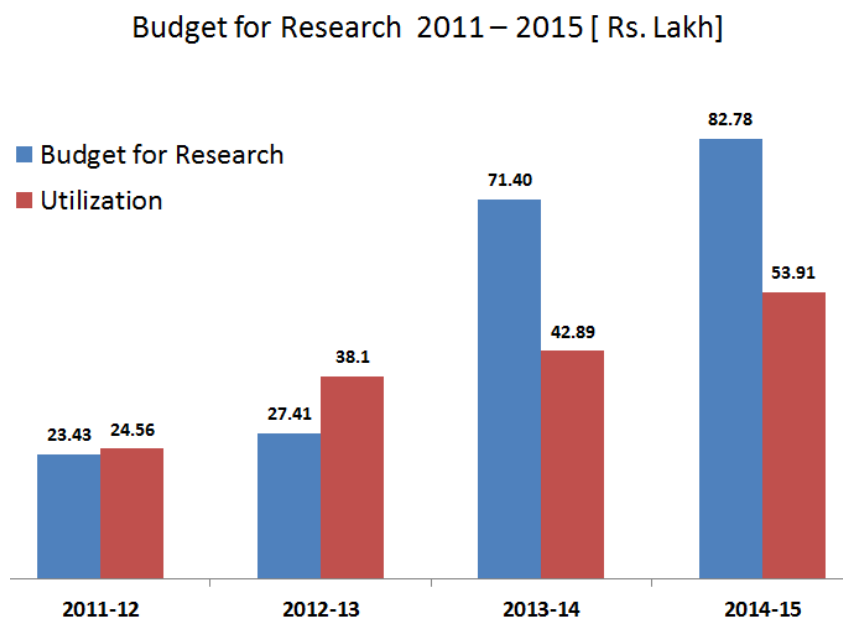


Figure 3.2.1: Financial Allocation & Actual Utilization of Research Budget

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

Yes, the institute has made provision for seed money to the faculty for research. The seed money from the budget is utilized for:

- Purchasing research related equipment,
- Organising/participating FDP, seminars, conferences

In addition, faculty research projects are supported under BCUD research fund scheme. The seed money disbursed for research and the percentage of the faculty who availed this facility in the last four years is as shown in **Figure 3.2.2**.

Criterion – III: Research, Consultancy and Extension

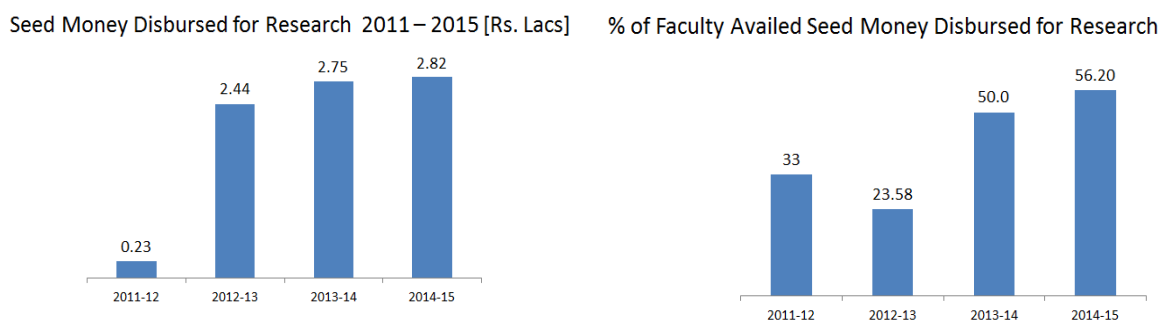


Figure 3.2.2 Seed Money Disbursed for Research and its Utilization

Table 3.2.2 shows research seed money disbursed by the institute and BCUD and its utilization by faculty in last four years.

Table 3.2.2: Research Seed Money and its Utilization

Year	Number of Faculty			
	2011-12	2012-13	2013-14	2014-15
Number of BCUD Grants Received	0	7	16	16
PhD Sponsorship Given by SITS	12	10	11	19
Registration fees given for FDP/Seminar/Conference Participation	21	12	38	42
Number of Faculty Aailed Seed Money Disbursed for Research	33	29	65	77
Total Faculty available	100	123	130	137
Faculty Aailed Seed Money Disbursed for Research [%]	33.00	23.58	50.00	56.20
Seed Money Disbursed for Research [Rs.]	23,350	2,43,650	2,74,887	2,82,055

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

The financial provisions available to support student research projects are as follows:

- The budget for supporting students research activity is allocated under students welfare head (**Refer Table 3.2.1(b)**)
- Institute provides funding for participation in SUPRA, BAJA, GO-KART, and ROBOCON competitions
- Guest lectures, seminars, workshops, industrial/site visits, STP-IV are organized to promote research activity among the students
- The institute facilitates and gives support to the students for presenting and publishing their papers based on their research findings in conferences and journals
- The institute organizes TECHTONIC, annual technical event that provides a platform for the students to showcase their innovative ideas
- Students are encouraged to go for internships, and institute grants special leaves to students

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

The departments of the institute interact in undertaking inter-disciplinary research in following ways:

- The students of different disciplines undertake interdisciplinary projects with prior permission of respective HODs. One faculty for a group of 3 to 4 students from respective department take follow-up and review of project progress.
- Guides from both the departments interact with each other while designing the system and checks the feasibility of solution in their respective domain area.
- Presently, a number of UG students are involved in inter-disciplinary projects. The details are as shown in **Table 3.2.4**

Table 3.2.4: Inter-disciplinary projects in the Institute

Projects	Departments
SAE-SUPRA GO-KART Design Challenge SAE-BAJA ROBOCON	COMP, IT, E&TC, MECH
Detection of Drowsiness of Driver and Alert System based on Eyes Discovery	COMP, E&TC
Inline Water quality meters	CIVIL, E&TC
E-Survey Software	CIVIL, COMP
EPANET Software	CIVIL, COMP

- **SAE-SUPRA** is an event that challenges young minds to compete as teams in designing a formula category vehicle consisting of various sub systems, meeting engineering specifications, timelines and above all meeting safety standards is a challenge and then a premium race track under gazing eyes of experienced technical experts.
- **GO-KART Design Challenge** is a contest formulated to enhance the approach of students practicing Engineering courses. This event is fundamentally all about designing and fabricating a Go Kart at very low expenditure. We expect the teams to manufacture Go Karts yielding optimum performance.
- **BAJA** is an event for the undergraduate engineering students, organized globally by the Society of Automotive Engineers, USA. The BAJA SAE tasks the students to design, fabricate, and validate a single seater four - wheeled off road vehicle to take part in series of events spread over a course of 3 days that test the vehicle.
- **ROBOCON** is an Asia-Pacific Robot Contest (ABU ROBOCON) founded in 2002 by Asia-Pacific Broadcasting Union. In the competition Robots compete to complete a task within a set period of time. The contest aims to create friendship among young people with similar interests who will lead their countries in the 21st century, as well as help advance engineering and broadcasting technologies in the region.
- Industry person also takes part in project interactions where practical problems are given to the students.

- The institute has a RC that comprises of subject experts from various departments. Every department of the college has its own final year project coordinator. Faculty members from each department interact with the committee in undertaking inter-disciplinary research work.

Challenges faced in organizing interdisciplinary research are as follows:

- Division of interdisciplinary project work in modules to fit their work as per university rules.
- Understanding of fundamental concepts across the discipline and application of these concepts to get the solution of the problem by interdisciplinary students.
- Change the mindset of the students and faculty and motivate them to handle interdisciplinary work and initiate their out-of-box thinking.
- Interdisciplinary departmental support and understanding of faculty guiding the students on one to one basis.
- Coordination of faculty, students and labs and defining scope of each area.

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

To ensure optimal use of various equipment and research facilities available in the institute following policies are adopted:

- RC is formed at institute level
- Guidelines are provided by the RC to students and staff for carrying out the research work
- Students and staff are provided the research facilities available in the laboratories
- Special permission is given to students to work in laboratories and library beyond institute hours.
- Institute/Department has prepared the documents detailing name of equipment, its specifications, possible use and venue etc. which is circulated to staff and students to plan their research activities.
- The time tables of labs are also notified to all. If required additional slots are provided.
- Reference books, journals, and proceedings of national and international conferences are kept in library.
- Equipment and computing facilities related with the research domain are made available
- Institute maintain log book and entry registers to keep the records of facility usages.
- Faculty takes initiative to interact with research organization or industry to get practical exposure to the students while completing their research activities.
- Financial provisions through BCUD grants, institutional budget are made available to all students and faculty.
- Industry helps the students to complete their research activities.
- Expert lectures are also arranged to understand the real life problems of the society. These issues are discussed in all the departments to get the solution with optimum use of equipment and facilities of the institute.

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

Yes, the institution received grants from SPPU and industry. **Table 3.2.6 (a)** shows grants received from SPPU for the year 2013-15.

Table 3.2.6 (a): Grants Received from SPPU for the Year 2013-15

SR.	Year	Title of the Research Project/Workshop/Conference	Amount [Rs.]
1	2013-15	Detection of Drowsiness of Driver and Alert System based on Eyes Discovery	63000
2	2013-15	Vision based Autonomous Vehicle Driving Control System	50000
3	2013-15	Automated P-wave Analysis using Wavelets	120000
4	2013-15	Early Stage Detection of Micro-calcifications in Mammograms using Wavelet/Curvelet Transform	210000
		TOTAL	4,43,000

- These grants are basically used to facilitate faculty and students for their research projects, workshops, conferences and to make them aware of research.
- Departments are spending these grants to complete their projects, procuring reference books and availing them with transportation facility while collecting the data required for the research.
- Students are also getting sponsorship/grants from industry in terms of equipment, engine components, accessories, and grants for conduction of innovative competitions during technical fest TECHTONIC. The grants received from SPPU/industry for the year 2014-16 are as shown in **Table 3.2.6 (b)** and **Figure 3.2.6** shows sponsorship grants from industry.

Table 3.2.6 (b): Grants /Finances Received from SPPU /Industry for the Year 2014-16

SR.	Year	Title of the Research Project/Workshop/Conference	Amount [Rs.]
1	2014-15	“Design and Fabrication of Compact Sewage Treatment Plant for Educational Building” - Diligence Envirotech Pvt. Ltd., Ghokale Nagar Road, Pune	113000
2	2014-15	“Design and Construction of Modular Bio-energy Plant” - Disha Waste Management,	25000
3	2014-16	Location and Identity Privacy in IoT	65000
4	2014-16	Critical National Infrastructure Protection Using Location Based Services (Geo-Encryption)	40000
5	2014-16	An Availability Strategy for Multiprocessor Database Machines	50000
6	2014-16	Relevance Feedback mechanism incorporating semantic features for improving Multimedia Information Retrieval systems	80000

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7	2014-16	Smart Home system for Senior Citizen using Wireless Sensor Network.	100000
8	2015-16	Research Instrumentation: Talks and Tool (2 Days Workshop)	65000
9	2015-16	Mechatronics-Multidisciplinary National Conference	200000
		TOTAL OF 2014-16	7,38,000

Sponsorship Grants from Industry 2011 – 2015 [Rs. Lakh]

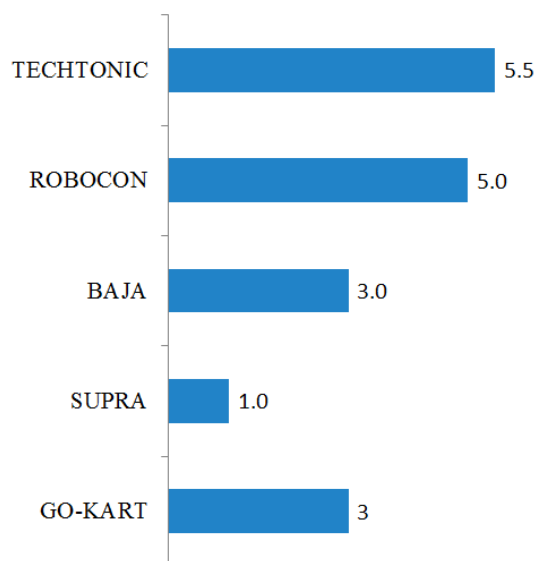


Figure: 3.2.6: Grants from Industry for Innovative Projects

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 details of various support provided to the faculty in securing research funds from different funding agencies are as follows:

- The faculty members are motivated to apply for research grants from various funding agencies, organizations and industry.
- Information regarding dates for application, eligibility criteria etc. is communicated to all departments by the Principal through the RC.
- Faculty is granted OD and registration fees to present their proposals before funding agencies.
- The accounts department of the institute gives necessary guidelines and support to PI to complete BCUD formalities to get instalments of the sanctioned funding.
- Institute also provides seed money to start the research projects.
- The grants received by various departments from SPPU and industry are as shown in **Table 3.2.7**.

Table 3.2.7: Details of Ongoing and Completed Projects and Grants Received

SN	Dept.	Title of Project	Approved Grant by SPPU [Lac]	% Completion
1	COMP	Vision based Autonomous Vehicle Driving Control System	0.50	80
2	E&TC	Early stage detection of micro calcifications in mammograms by using wavelet	2.10	50
3	E&TC	Detection of Drowsiness of Driver and Alert System based on Eyes Discovery	0.63	100
4	E&TC	Automated ECG diagnostic P-wave analysis using Wavelets"	1.20	80
5	COMP	Critical National Infrastructure Protection Using location Base Service(Geo-Encryption)	0.40	20
6	COMP	An availability strategy for Multiprocessor Database Machines	0.50	40
7	COMP	Location and Identity Privacy In Internet of Things (IoT)	0.65	15
8	IT	Relevance feedback mechanism incorporates semantic features for improving multimedia information retrieval system	0.80	20
9	IT	Smart home system using wireless sensor network for senior citizen	1.00	20
10	COMP	Research Instrumentation: Talks and Tool	0.65	25
11	SYSTEM	Network attached Storage and Networking Switches	1.00	15
12	MECH and E&TC	Mechatronics -Multidisciplinary National Conference	2.00	15
13	CIVIL	"Design and Fabrication of Compact Sewage Treatment Plant for Educational Building" - Diligence Envirotech Pvt. Ltd., Ghokale Nagar Road, Pune	1.13	100
14	CIVIL	"Design and Construction of Modular Bio-energy Plant" - Disha Waste Management,	0.25	100

3.3 Research Facilities

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

Research facilities available to the students and research scholars within the campus are as shown in **Figure 3.3.1**.

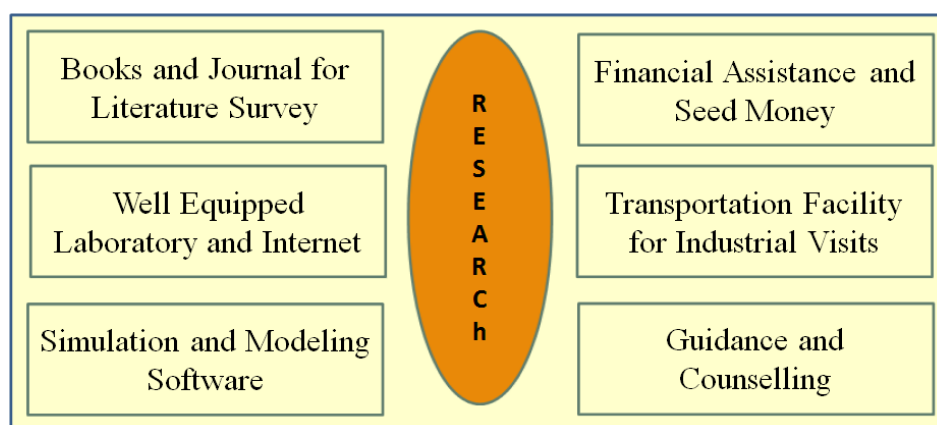


Figure 3.3.1: Research facilities within the Campus

- Latest edition of reference books, manuals, periodicals, encyclopaedias, national/international journals, e-books and handbooks are available in library.
- The institute has undertaken and initiated many activities to procure equipment and refurbishment works in various departments.
- Faculty are encouraged to submit research proposals to funding agencies and project specific equipment are procured in various departments.
- Refurbishment works are carried out to provide required space and environment for the conduct of research activities.
- A separate provision in budget is made for research activities of faculty and students to provide them seed money.
- Industrial sponsorships are also diverted to do innovative projects of the students to participate in national/international competitions like BAJA, SUPRA, ROBOTICS etc.
- Laboratory and computer facilities are provided 24x7 for students and faculty with necessary internet facility, simulation, and modelling software.
- Wi-Fi facility is available in institute campus.
- The researchers are facilitated with access to reputed institutes like IIT, DRDO, and ARAI etc.

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

The institutional strategies for planning, upgrading, and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research are as follows:

Strategies for planning for creating research infrastructural facilities:

- Every department is planning for the research infrastructural facilities required before the beginning of financial year. While planning, every department tries to share the infrastructural facilities from the other institutes of STES. The latest infrastructural facilities that are needed to do experimentation are as far as possible made available in the institute itself.
- Once the department gets financial approval they use to follow normal procedure of procurement of infrastructural facilities required to meet their need.

- Departments are also planning to conduct various workshops to motivate and guide the faculty in the new and emerging areas of research from various research organizations and industry.
- Strategy of creating state-of-the-art computing facility with latest simulation and modeling software along with necessary hardware is helping the faculty and students to think about innovative solutions for their research problems.
- Strategy is to enrich institutional library with a large range of books and various national/ international journals. Online IEEE and other journals are also accessible to the researchers.

Strategies for upgrading of research infrastructural facilities:

- Every year, each department is also upgrading their existing research infrastructural facilities. While upgrading, the department makes sure about the latest technologies and makes them available in the department.
- The latest computing infrastructural facilities with necessary bandwidth of internet access is made available to all the departments. The bandwidth is also adaptively adjusted and upgraded in any of the department as per the requirement.
- Memory requirements of computer systems are upgraded and special function servers are also provided to meet the individual departmental need.
- All software and their upgraded versions and their annual licensing are upgraded on yearly basis.
- Strategy of creating upgradation with new available technologies is motivating all faculty and students to go far novel solutions with latest technologies.

Strategies for other research facilities:

- Students along with the allocated guides are motivated for selecting live industrial projects where projects laboratory from all departments are made available.
- The institute is continuously motivated to improve its infrastructural requirements in order to facilitate research in new and emerging areas encouraging faculty and students to attend research programmes, workshops, seminars and conferences conducted in the institute and other organizations.
- The institute bears the registration fee; conveyance and sanctions duty leave for the same to encourage faculty members to attend research workshop, seminars, and conferences.
- To plan and carry our research, the institute form research groups involving faculties and students

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 institution received special grants and finances from the BCUD, SPPU, industry, and Samaj Kalyan for research books, equipment, and other facilities.

- BCUD, SPPU and Samaj Kalyan grants received for research reference books during last four years is of Rs. 4.25 lakhs.
- Books procured through departmental BCUD grants are kept in the library in the reference section.

Criterion – III: Research, Consultancy and Extension

- There are few industries who supplies engine and spare parts to the students of Mechanical Engineering to do their innovative experimentation while preparing vehicle and participating in national level competitions such as BAJA and SUPRA.
- Department of E&TC has MoU with Eduvance who has provided virtual lab for cost effective skill set development program by providing the remote learning infrastructure Lab with Internet connection. Students and faculty can use this facility for their research experimentations.
- Students and faculty gets sponsorship from various industries for their research experimentations.
- BCUD provides funds for internet usages, specific hardware/ software for research
- Grants received from industry for research to procure research tools are of Rs. 5.37lakhs. The details are as shown in **Table 3.3.3**.

Table 3.3.3: Grants Received from Industry for Research Tool

SN	Dept.	Industry/ SPPU	Research Facilities	Amount [Rs. Lakh]
1	CIVIL	Diligence Envirotech Pvt. Ltd., Pune	Compact Sewage Treatment Plant	1.13
2	CIVIL	Prachi Services	EPANET Software	0.12
3	CIVIL	Gallop Constructions, Pune	E-Survey Software	0.15
4	LIB	BCUD, SPPU	Fast Photo Copier Machine	1.25
5	LIB	BCUD, SPPU	Reference Books	0.60
6	CIVIL	Diligence Earthcare PVT.	Inline Water Quality Meters	0.31
7	CIVIL	Disha Waste Management, Pune	Modular Bio-energy Plant	0.10
8	SYST EMS	BCUD, SPPU	Network Attached Storage & Manageable Switch	1.35
9	COMP	SPPU	Public Address System	0.56
10	IT	SPPU	Research Instruments	0.40
TOTAL				5.97

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

The research facilities made available to the students and research scholars outside the campus are as follows:

- Industrial visits and seminars at industry.
- Participation in various project competitions and exhibitions.
- Projects from research organizations such as DRDO, CWPRS, ARAI etc.
- MoUs with industries to work on projects in specific domain.
- Participation in paper presentation, workshops, and training sessions in other renowned organization such as IITs, NITs etc.

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

The library information resources and other infrastructural facilities available in the institute specifically for researchers are as follows:

- The details of library information resources available are as shown in **Table 3.3.5**.

Table 3.3.5: Research Journal Available in the Library

Title	Library Collection
Indest AICTE Consortium	IEL Online Single User
Indest AICTE Consortium	IEL Online Single User
Indest AICTE Consortium	IEL Online Single User
IEEE All Society Periodical Package (ASPP)	145 Journals
Wiley	1500 Journals + 10000 Books
ASCE E-Journals Package	33 Journals
ASME E-Journals Package	25 Journals
McGraw Hill's Access Engineering	Renowned Engineering Handbooks
BCRC Business & Company Resource Center	2482 Full Text Titles
RMIT-28990/ / J-Gate Engg-66180	RMIT=100 Journals and 30Books
ASTM	1700 E-Books and Over 13000 Articles
IEEE	145 Journals 193 Magazines/ Transactions
Science Direct (through Elsevier)	275 Journals

- The institute has e-books, Digital Library, e-learning material like NPTEL course content etc. along with internet facility 45 Mbps.
- Library has total 2,313 titles and 13,311 books as on today. Every year we are also adding new titles and books as per the need of students and faculty.
- Educational CDs &Text Books are available in the institute library.

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

The collaborative research facilities available at the institute are as follows:

- The students and faculty are coming together to complete common research projects. **Table 3.3.6** shows collaborative research facilities developed in the institute.

Table 3.3.6: Collaborative Research Facilities

Dept.	Research Facility
E&TC	Remote learning center, 'Eduvance', to provide skill set development training and facilitate connections with industry
MECH	Mechatronics Lab with sensors and actuators, FFT analyzer to perform multidisciplinary research activity and develop projects like innovative electro-mechanical vehicles, robots etc. for competitions like BAJA, ROBOCON

COMP	Computer Network with latest version of computers, necessary software, and dedicated lease line to perform research experiments on various data bases. The campus is also equipped with Wi-Fi facility.
CIVIL	Heavy equipment like 100 Ton Universal Testing Machine (UTM), transportation laboratory, and environmental lab are available to perform collaborative research and also helpful for sewage and drinking water testing reports to the society in and around.
LIB	Central Library has total 2,391 titles and 13,311 books as on today. Necessary e-journals, periodicals, data sheets are available for the researchers for their literature review and research experimental source material.
I-I-I	Every department has established an I-I-I Cell to do collaborative research work with industry. Department of Mechanical Engineering and Electronics and Telecommunication Engineering have PG programs and tie up with research organizations like DRDO, ARAI, CWPRS to take live research problems and help.
Other University Tie-up	SITS has Tie-up with AALBORG UNIVERSITY, Denmark. The entire expenses including registration fees, accommodation and travel expenses are given to eligible faculty. Faculty can utilize their sabbatical leave for their research activities.

- The institute gives platform for every department in collaboration with other department, industry or any other research organization to organize seminars, conference and workshops beneficial for inter disciplinary research.
- The databases from other organizations are made available for collaborative research activities.
- All the laboratory facilities available in every department can be shared by any faculty or students for their innovative research projects and activities.

3.3 Research Publications and Awards

3.3.1 Highlight the major research achievements of the staff and students.

The major research achievements of the faculty and students are as follows:

- **Patents obtained and filed (process and product):** Few faculty members have applied for patent & copyright for their research work. The details are as shown in **Table 3.4.1 (a)**:

Table 3.4.1 (a): Patents and Copyright Filed

SN	Name of the Faculty (Patent / Copyright), Year	Description of the Research Work Applied for (Patent /Copyright)
1	Mr. H. B. Mali (National Patent No.-112/Mum/2015) 2015	Drowsy driver alert system. Detection of drowsy of driver and alarming system based on eyeball image processing as an embedded system.

2	Dr. S. N. Mali (National Patent NO.-331/MUM/2015) 2015	System for piracy detection and method for embedding generated watermark in video stream as well as audio stream for increasing the security of embedded watermark.
3	Dr. S. N. Mali (National Copyright No.-L-61421/2015)	Novel features of seeds for discriminating paddy seed varieties. Detection of critical angle of various rice seeds in order to discriminate them in to different classes with greater accuracy.
4	Mr. P. H. Chaudhari (National Patent NO.-169/MUM/2015)	Design and manufacturing of SPM for OD turning of connecting rod. This special purpose machine is used for the turning of outer diameter of connecting rod.
5	Dr. S. N. Mali (National Copyright No-53849/2014-CO/L) 2014	Optimization of robustness and imperceptibility using DWT-SVD based multistage image watermarking with multi-objective evolutionary algorithm
6	Dr. S. N. Mali (National Copyright No.-L-59515/2014) 2014	Seed quality testing based on parity, vigor, and health testing using computer vision technology. The research was appreciated by agriculture researchers.
7	Dr. S. N. Mali (National Copyright NO.-54067/2014- CO/L) 2014	Protection of multimedia documents using digital video watermarking techniques. Algorithm to embed generated watermark in the frames after scene change detection.
8	Dr. S. N. Mali (National Patent NO.-3562/MUM/2014A)	System for seed testing. Seed quality testing based on parity, vigor, and health testing using computer vision technology.
9	Dr. M. R. Phate (National Patent NO.- 2879/MUM/2014)	A hybrid powered mixed garbage disposal and converter unit. This system is used for converting and utilizing the garbage for the benefit of society.
10	Mr. S. R. Deshpande (National Copyright No.- : L-60248/2014)	Vehicle license plate detection. System developed for sensing the number plate of vehicle using image.
11	Mr. S. R. Deshpande (National Copyright No.- : L-60310/2014)	Vehicle license plate character detection. System developed for sensing the characters of number plate of vehicle using image processing and neural network algorithm.

- **Original research contributing to product improvement:** Research work of faculty along with the students contributed to the product improvement are as shown in **Table 3.4.1 (b)**:

Table 3.4.1 (b): Research Contributing to Product Improvement

SN	Name of the faculty Year	Description of the Research Work contributing to product improvement (Name of Industry)
1	Mr. U. C. Agashe 2015	Automated collection and packing of sugarcane from a farm to dispatch the same directly to the sugar factory.

		This project not only reduces manpower but also reduces the cost and wastage.
2	Mr. G. S. Anaokar 2014	Design and construction of modular bio-energy plant – (Disha Waste Management, Pune)
3	Mr. U. C. Agashe 2014	Design and manufacturing of Special Purpose Machine (SPM) for dashboard of a car. This project is helpful in automation of fabrication of dashboard of a car to avoid the mechanical failures during its use in a car.
4	Mr. G. S. Anaokar 2014	Design and fabrication of compact sewage treatment plant for educational building–(Diligence Envirotech Pvt. Ltd., Ghokale Nagar Road, Pune)

- **Research studies or surveys benefiting the community or improving the services:** Research of faculty along with the students contributed to benefit the community or improving the services are as shown in **Table 3.4.1(c)**:

Table 3.4.1 (c): Research Benefiting the Community or Improving the Services

SN	Research study	Benefiting the Society for improving the services
1	Design and fabrication of compact sewage treatment plant for educational building–(Diligence Envirotech Pvt. Ltd., Ghokale Nagar Road, Pune)	Low cost compact sewage treatment unit was appreciated and sponsored by a well-known industry. The product is in development stage by the industry.
2	Seed quality testing based on parity, vigor and health testing using computer vision technology.	Manual process of seed calcification for rice was accurately automated using image processing. The research was appreciated by agriculture researchers.
3	Drowsy driver alert system. detection of drowsy of driver and alarming system based on eyeball image processing as an embedded system	The work was appreciated and won prize in AVISHKAR: Inter university research project competition as it is very beneficial for the car driver to avoid accidents.
4	Protection of multimedia documents using digital video watermarking techniques. Algorithm to embed generated watermark in the frames after scene change detection.	The work was carried out considering the massive piracy of the video films which is a threat for the Bollywood as well as educational film manufacturers.
5	Vehicle license plate character detection. System developed for sensing the characters of number plate of vehicle using image processing and neural network algorithm.	Video surveillance system for security and cashless toll collection mechanism on road can use this system for improving the services. (Proposal for patent filing)

- **Research inputs contributing to new initiatives and social development:** Research of faculty along with the students contributed to new initiatives and social development are as shown in **Table 3.4.1 (d)**:

Table 3.4.1 (d): Research contributing to new initiatives and social development

SN	Research Project	Contributing to New Initiatives And Social Development
1	Design and fabrication of compact sewage treatment plant for educational building	This project has given a new dimension to fit sewage treatment plant in minimum space. Considering the water crises now days, sewage treatment is the most essential process required in the area of water filtration and its reuse.
2	Design and development of solar Scheffler reflector for generating electricity.	Solar Scheffler reflector for generating electricity.

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 is partner in publication of research journal:

International Journal of Electronics Communication and Computer Engineering (IJECCCE):

- There are 72 eminent professors all over the world who are on editorial board of this international journal. Also there are 49 eminent professors from SPPU.
- Publication policy was to publish the good referred technical papers presented and selected from the international conference, “TECHNOVISION” conducted in Department of Electronics and Telecommunication from 5th and 6th April 2014.

The other publication policies were as follows:

- It was mandatory for authors to send their papers to both the above mentioned email addresses submit2ijecce@yahoo.in and submit@ijecce.org.
- Email final paper (.doc, .pdf) updated according to reviewer’s comment, along with the signed copyright transfer form at response@ijecce.org, submit2ijecce@yahoo.in.
- The final paper requires paper id in the subject field during paper submission in above mail addresses.
- It was mandatory for authors to present their paper in front of jury members as per the schedule of the conference.
- The publication of IJECCCE is listed in international database (<http://www.ijecce.org/>).

Recently the interdisciplinary conference of Department of Mechanical Engineering and Department of Electronics and Telecommunication Engineering has a tie-up with **International Journal on Engineering, Technology, Management, and Applied Sciences (IJETMAS)** similar to IJECCCE.

3.4.3 Give the details of publications by the faculty and students

At institute level, there are total 359 publications of faculty and students in last four years consisting of 207 in international/national journals and 102 international/national conferences and 50 books. **Table 3.4.3** gives the details of publications by the faculty and students.

Table 3.4.3: Details of Publications by Faculty and Students

Department	Publications		
	Conference	Books	Journals
COMP	34	08	45
IT	12	04	24
E&TC	21	04	56
MECH	13	01	61
CIVIL	12	33	09
FE	05	00	06
MBA	05	00	22
TOTAL	102	50	223

- Publication per Faculty: 2.34
- Number of papers published by faculty and students in journals (national / international): 207
- Number of publications listed in International Database (e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): 207
- Chapter in Books: 01
- Books edited: 50

A percentage wise publication of faculty and students is as shown in **Figure 3.4.3 (a)**.

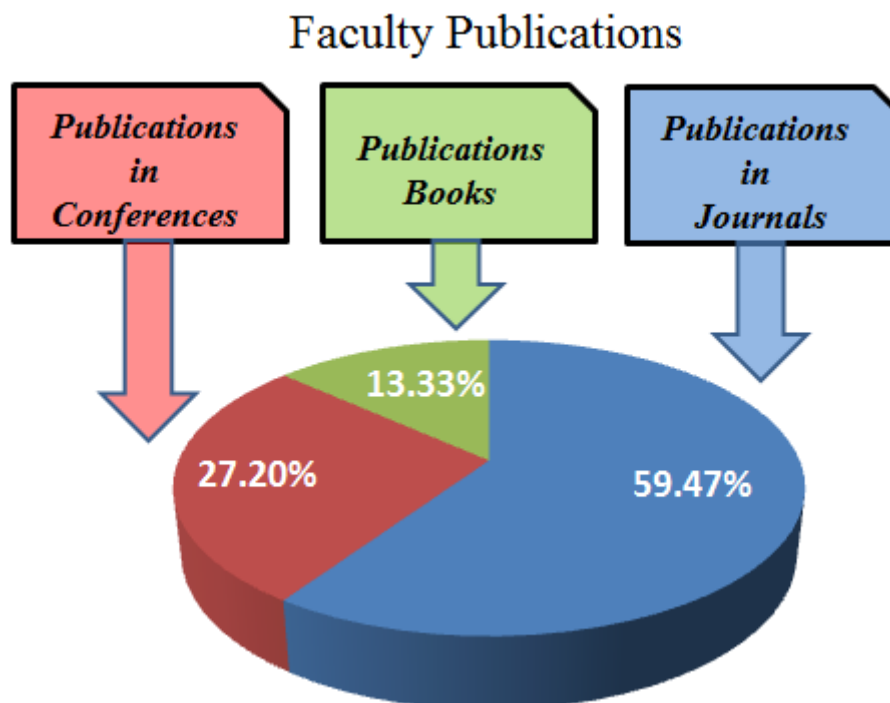


Figure 3.4.3 (a): Publication of Faculty and Students

Criterion – III: Research, Consultancy and Extension

Department wise number of faculty and student publications is as shown in **Figure 3.4.3 (b)**.

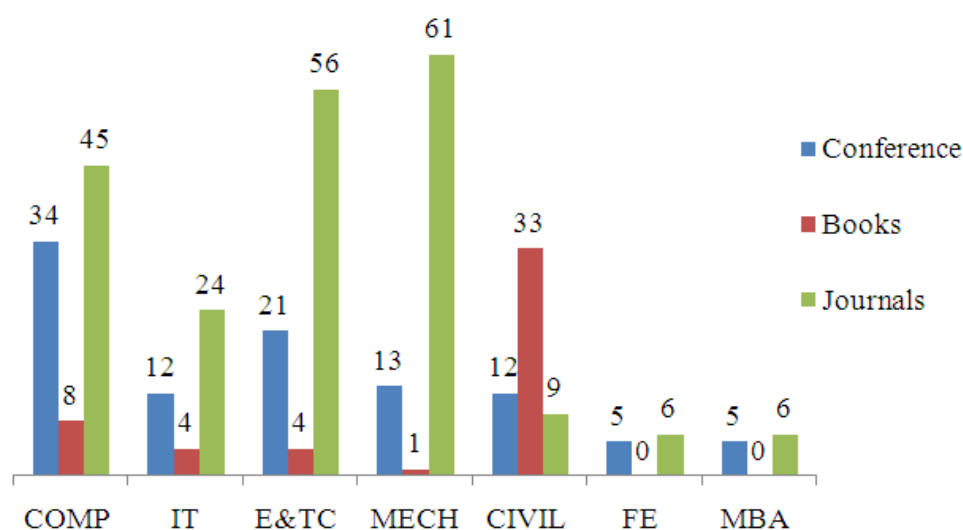


Figure 3.4.3 (b): Faculty Publication in Journals, Conferences, and Books

3.4.4 Provide details of recognition received by the faculty

Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally is as shown in **Table 3.4.4**.

Table 3.4.4: Details of Recognition Received by the Faculty

SN	Name of faculty	Recognition
1	Mr. N. M. Ranjan	Deep Appreciation for the outstanding contribution rendered to spread FOSS in state of Maharashtra in 2013-2014
2	Mrs. G. S. Navale	Cognizant Certified Professional certification received from Cognizant.
3	Mrs. G. S. Navale	Selected as Coach of FARONICS CORE PROGRAMMING COMPETITION (FCPC) International Project Competition of Computer Engineering Students.
4	Mr. P.S. Dhotre	Reviewer for First International Conference on Recent Trends in Engineering & Technology 2012
5	Mr. P.S. Dhotre	Reviewer for 18 th International Symposium on Wireless Personal Multimedia Communications (WPMC) 2015.
6	Mr. D. E. Upasani	Lifetime Researcher, IISc (IJCA) certification 2009
7	Mr. S A. Darade	Reviewer for Global conference On Wireless Computing and Networking (GCWCN) 2014.
8	Mr. H. B. Mali	AVISHKAR fellowship winners at the ‘state level project competition-2013 –“Vision based system for driver drowsiness detection with security issues”
9	Mr. S. B. Shrote	Lifetime Researcher, IISc (IJCA) certification 2009

3.5 Consultancy

3.5.1 Give details of the systems and strategies for establishing Institute-Industry Interface?

SITS promotes industry interaction with the help of I-I-I cell formulated in every department. The logo of I-I-I is as shown in **Figure 3.5.1**.

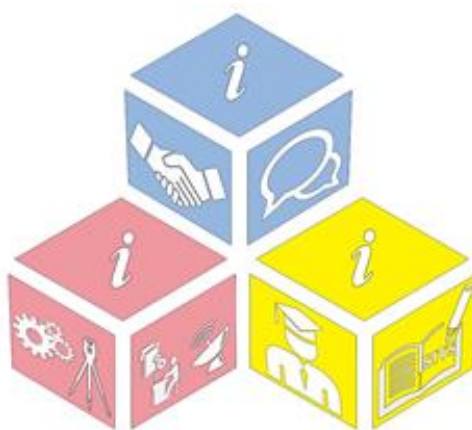


Figure 3.5.1: Industry Institute Interaction Cell (I-I-I) Logo

The objectives and Strategies of I-I-I cell are as follows:

Objectives:

- Bridge the technical gaps between industry and the institute
- Get effective knowledge and skills of live projects from industries
- Offer research, development, consultancy and testing services to solve industrial problems
- Invite experts from the industries to interact with departments
- Sign MoU with industry for the betterment of faculty and students

Strategies:

- Arrange various workshops/ FDP/ STPs in collaboration with the industry
- Arrange the industrial training and industry visits
- Avail internship for the students in industry
- Facilitate live projects and guidance from industry
- Awareness of new technologies with hands on training

Every department has formulated I-I-I cell with industrial experts, internal faculty members, and alumni. Various industries involved in I-I-I are as shown in **Table 3.5.1**.

Table 3.5.1: Industry Institute Interaction Cell (I-I-I)

Computer Engineering
Sears IT and Management Services India Pvt. Ltd, Pune
Accenture Services Pvt Ltd., Pune
Sudo Saints Infotech Pvt. Ltd., Pune,
Information Technology

Inversedime Solutions, Pune,
Tech Mahindra, Pune
Accenture Services Pvt. Ltd. Pune,
eQ Technologic Incorporation, Pune,
Electronics and Telecommunication Engineering
Analogic Automation
Infosys, Pune
Tata Consultancy Services, Pune
Tata Technologies Ltd., Pune
Mechanical Engineering
Om Exports, Pune
Team Spring Engineering Solutions, Pune
Kone Cranes, Pune
Vimal Industries, Narhe Industrial Estate, Narhe
Research Tech Consultancy Services, Pune
Deepak Fertilizers And Petrochemicals Corp. Ltd.
Jahnavi Filters Pvt. Ltd. Pune
Civil Engineering
Associates Builders, Pune
Kishor Jain & Associates
Pune Municipal Corporation
Altron Consultants, Pune

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

The institute has a policy to promote consultancy. The knowledge and expertise of faculty along with equipment resources are available to share with the industry. The available expertise advocated and publicized their domain area by means of expert lectures and discussions with other organizations and industry. The policies to promote consultancy work in every department are as follows:

- Use income generated through the consultancy for the development of students, faculty, staff, departments, and the institute.
- Encourage students, faculty, and staffs to attend various research development programs and use their expertise for the consultancy work.
- Give special certificates and recognitions to faculty who interacts with industry and utilize their talent while consulting for specific project.
- Use available expertise for organizing workshops, seminar etc. as per their area of interest inside and outside the institute.
- Share knowledge of faculty for the consultancy and development of student and staff.

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

The institute always encourages the faculty to utilize their expertise and available facilities for consultancy services.

- The consultancy work carried out by any faculty gets appraised by the institute.
- Staff gets credit in their annual self-appraisal.

Criterion – III: Research, Consultancy and Extension

- Publication of consultancy work or other research work in the form of annual reports, letters, institute magazine and news bulletins.
- Attractive share of income generated through consultancy as per the institute policy.
- Seed money is also made available for research work required for consultancy services.

Following facilities are available to the faculty for consultancy work:

- Well-furnished infrastructure with dedicated instrument
- High configured IT infrastructure with 45 Mbps dedicated internet connectivity
- 24x7 WiFi facility with internet
- 24x 7 UPS/Generator backup
- Transportation

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

The broad areas and major consultancy services provided by the institution are as follows:

- Conduction of FDP in various areas like Cloud Computing, Applied Algorithms, High Performance Computing, Multicore Architecture and Programming, Operating System and Administration, CUDA & Open MP, Smart Systems Programming, Android & Arduino etc.
- Environmental Engineering: Testing of sewage and drinking water.
- Design and implementation of pilot project for compact sewage treatment plant for educational buildings.
- Use of UV- spectrophotometer for waste water analysis.
- Utilization of computer, internet and other infrastructure and administration for conduction of various online/offline examinations in government and non-government sectors with the help of IIT and industries like MKCL, TCS etc.

The Internal Revenue Generated (IRG) during the last four years is as shown in **Figure 3.5.4**.

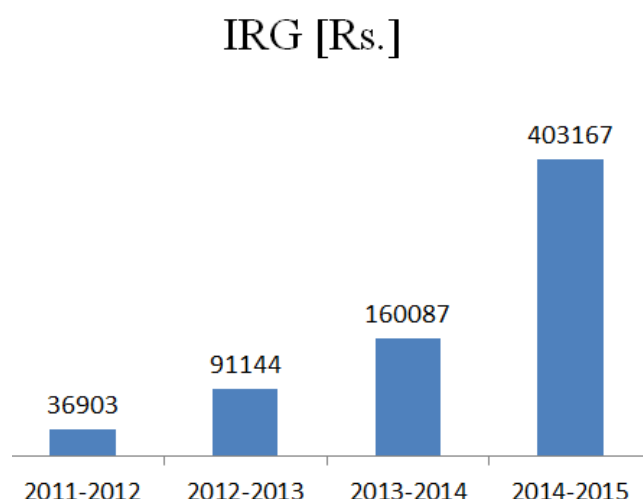


Figure 3.5.4: Internal Revenue Generated (IRG) During Last Four Years

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

The policies of the institution in sharing the income generated through consultancy, utilization of infrastructure and its use for institutional development are as follows:

- The income generated through consultancy is shared/distributed in the ratio (60:40) to (Staff involved: Institute) or it is utilized for the departmental development.
- The remuneration to the staff and faculty is given as per the agreement between the institute and industry.
- The necessary hardware and software can be purchased for the department from IRG with prior permission of the management.
- It is compulsory to carry out official auditing at the end of every financial year and report is to be submitted to the account section of the institute for every entity of IRG.
- Proper record has to be maintained in the department and account section of the institute for every entity of IRG.
- It is compulsory to submit consolidated report of all the entities of IRG to the institute office at the end of every academic year.
- It is compulsory to maintain a dead stock register of procurement of any hardware or software purchased through IRG.

3.6 Extension Activities and Institutional Social Responsibility (ISR)

The vision of the institute is to produce not only good engineers but good human beings also. Therefore, we are taking efforts to add values of good citizenship in our students by the teachers and student peer groups. SITS has active NSS with large number of student members. They participate in various NSS activities with a lot of passion. SITS believes that ISR is one of the mainstay that support our academic and the research work. Our aim is to find the solutions to the socially related problems such as the shortage of electricity, cleanliness, human errors, requirement of blood to the hospital, help to poor and needy people, garbage disposal, need of potable water, green technology etc.

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

The institution promotes various activities like blood donation camps, tree plantation, and awareness on road safety, cleanliness, rural development, non-schooling children education, orphan visits etc. to contribute for the development of the society. Students are organizing various ISR activities through NSS and various departmental associations. The major activities of ISR are as follows:

- Blood donation camp in associations with SKN-GHMC-NSS activity
- Monthly News Letter of the institute - The College Times
- I-VOTE: Awareness among the voters of Pune Constituency- NSS activity
- Mazhi Aai Mazhya Mahavidyalayat- SPPU sponsored activity for girl students
- Nirbhay Kanya Abhiyan- SPPU sponsored activity for girl students
- Disaster Management- student council activity
- Personality development workshop by Dr. Mohan Agashe- student council activity
- “RAZHAKAR” Film Promotion by Mr. Siddarth Jadhav- student council activity

- NSS camp for rural development- NSS activity
- First screening of the film “The Hope,” A lesson to engineering students- student council activity

Number of students participated in various social activities are as shown in **Figure 3.6.1**.

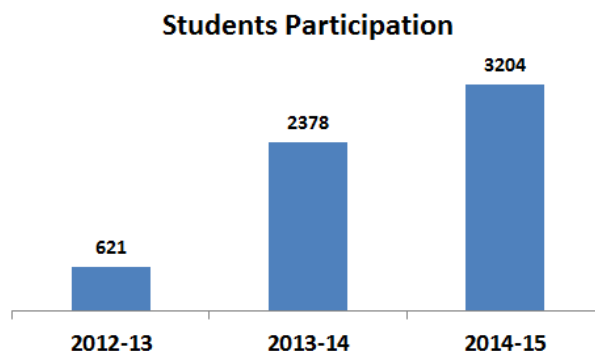


Figure 3.6.1: Number of Students Participated in Various Social Activities

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

Extension activities for social cause are carried out through NSS and departmental students associations. Faculty co-ordinators are instrumental in giving their guidance and support while conducting such activities. While handling the responsibilities during various social movements' students gets an opportunity to play citizenship role.

- Activities of NSS are well structured. Faculty co-ordinator and student co-ordinators take initiative to schedule and carry out the activities. Once they get inspired, the detailed plan of execution is prepared and activities are conducted with full energy and zeal. During the process, students not only get platform to highlight their leadership qualities but also get awareness about their social responsibilities.
- All activities are carried out under the guidance of the faculty co-ordinator who takes necessary permissions and financial support from the institute. The detailed report of such activities along with photographs is prepared and submitted to the Principal. The social work of dedicated students is appreciated in the student council meets and they are honoured with appreciation certificates.
- The social work exhibited by the student is also acknowledged in terms of weightage given to them in their continuously evaluated TW marks. The special certificate given to the student acts as a value addition for the student during their placement.

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

The institute solicits stakeholder perception on the overall performance and quality of the institution through:

- Students are giving their online faculty feedbacks during the semester. The analysis of these feedbacks gives opportunity to faculty to understand their own performance and also helps in understanding the weaker sections to improve upon.

- Suggestion box kept in every department is another channel for the student to communicate their constructive suggestions with respect to performance and quality of the departmental activities.
- Parents meetings are conducted in every department on regular basis. Parents are also forwarding their feedback transparently to HODs and TGs. Cognizance and corrective actions based on these feedbacks are helpful in overcoming the drawbacks and increase the performance and quality of the department.
- Many a times, parent meet Principal and faculty to give informal feedback on overall performance and quality of the institute.
- Regular SMS updates regarding performance of the ward are sent to parents. The parents can also get in touch with TG for improvements in academic performance of their ward.
- Interaction of alumni with current students gives an idea about dos and don'ts to increase the employability of the students as per the need of corporate world. Frank and transparent interaction of alumni with faculty also talks about performance and quality shown by the department and various avenues that are open for the improvement.
- Formal employer's feedback taken by CPC also helps in understanding the quality of students to fit for the jobs. These feedbacks are normally forwarded to HODs through Principal for better performance.

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

At the beginning of every year, various extension and outreach programmes are chalked out along with the necessary budget. Programmes such as STP, VAP and NSS activities are an integral part of academic calendar to foster the students to understand key performance areas for the improvement of their skill sets.

- The details of extension and outreach programmes conducted in last four years have been elaborated in **Section 1.2.3** and **Section 1.2.5**. The budgetary provisions for such activities during last four years are shown in **Table 3.2.1 (b)** against student welfare expenditure. SPPU also supports financially for such activities.
- Impact of extension and outreach programmes conducted in last four years is quite visible in academic performances of the students (**Refer Figure 2.4.2 (c)**) and increased number of placed students and their employability for quality jobs (**Refer Figure 2.4.2 (d)**).
- For value added inputs and outreach programmes to be conducted to bridge the gap between academic and industrial requirements, every department gets the approval of necessary budget from the Principal and conducts the activities time to time. List of such activities conducted by departments is given in the respective departmental profiles.

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

The institute has a tradition and culture of social awareness percolated through alumni gives natural motivation to the current students and faculty to participate in various social activities.

Motivation from faculty coordinators to the students and leadership shown by the enthusiastic students gives boost for various innovative ideas. These ideas are then converted into extension activities through NSS and students associations. TCT and college magazine also gives wide publicity and encouragement to the entire student community that ultimately resulted into massive participation and satisfaction of conduction of social work.

Various social activities conducted by the students for the benefit of our own students and society are evidences of wholehearted participation of our students and faculty in various extension activities. List of such activities and student participations are as shown in **Section 3.6.1**.

3.6.6 Give details on 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?

Institute in association with SPPU conducts various survey and extension work for under-privileged and vulnerable sections of society through NSS.

- Survey of nearby villages with respect to cleanliness carried out in AY 2013-14 and a village “Kirkatwadi” was selected for NSS camp. Various activities such as adult education, health awareness, and garbage disposal were carried out as per the guidelines of Student Welfare Department of SPPU.
- Visits to old-age homes and orphanage were organized to understand their facilities and provide them necessary help within our purview as academic engineering institute.
- Survey of non-schooling children has been carried out in the vicinity of the institute and details are submitted to SPPU.
- Social activities like “Police Mitra” and “Rural Development” are also carried out in AY 2015-16.
- Students are undertaking some projects of social relevance and planning to conduct extension work for under-privileged and vulnerable sections of society.

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.

Faculty and students realize the importance of good communication skills and knowledge of subject. They interact with each other because of extension activities organized by the institution. When our students visit villages, schools, hospitals, industries, old age home etc. then they learn to interact with people from all lifestyles. The basic objectives and the expected outcomes are as mention below:

Objectives:

- To develop the leadership qualities in the students.
- To prepare the students for social disasters.
- To use the technical knowledge to solve the real life problems.
- To realize the social responsibility for being citizen of country.
- To make the students capable of identifying the serious social issues and its solution.

Expected Outcomes in terms of values and skills:

- Working in team and with different team members.
- Management skills
- Leaderships qualities
- Social awareness
- Personality development

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

- Institute organizes blood donation camp with SKN-GHMC.
- Students from nearby engineering colleges come to visit our institute and see the proceedings during our inter-institute technical competitions.
- People from various NGOs come to address our students, who in turn volunteer for their activities.
- Regular NSS camp creating awareness on social issues, primary and basic health awareness needs to be organized in nearby villages. Faculty coordinators and students ensure the involvement of villagers and their leaders while planning and execution these activities.
- Computer learning programs for the school students are also conducted to make them computer literate.

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

There are many constructive relationships forged by the institute with various organizations for conducting different activities for the benefit of faculty and students. To mention few relationships forged with these organizations for working on various outreach and extension activities are listed in **Table 3.6.9**.

Table 3.6.9: Various Outreach and Extension Activities in Collaboration

Name of the Industry	Outreach/Extension Activity
Zensar Technologies Ltd.	Training-technical and soft skills enhancement
Billion Hands Technology Pvt Ltd.	Skill enhancement program for students
Global ICT Standardization Forum for India (GISFI)	R&D and PhD programs for students and faculties
KPIT Cummins Infosystems Ltd.	Student project training and research
Techknomatic Solutions	Skill enhancement program for students
Eaglet Gateways To Software Networking& Education Solution Pvt Ltd. Pune	Student training & development
EDUVANCE Tech. Pvt. Ltd	Conducting online training program in ES
Passionate Robotics , Pune	Skill development in LINUX programming
Computational Research Lab	Training on Applied Algorithms
CDAC, Pune & Eaglet, Pune	Training on High Performance Computing
Skilab, Pune	Training on Multi-core Architecture Programming
Aujas Networks , Pune	Training on Operating System and Administration

TCS , Pune	Training on Multi-core Programming
SITS & Walchand College of Engineering, Sangli	Training on CUDA & Open MP
Mobigen Technologies, Pune	Training on Smart Systems Programming
Wegilant Net Solutions Pvt. Ltd.	Training on Hack-Tricks
Octopus Incorporation, Pune	Training on Android & Arduino

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

The details of awards received by the institution for extension activities are as follows:

- Students won 1st prize in national level project competition which was developed to help the visually challenged people.
- Students won 3rd prize in national level project competition which was helpful for physically challenged people.
- One of the team stood in top 30 teams in smart city competition - Digital Hackathon 2015 and won “Viewer’s Choice Award”.
- Students won 1st prize in Faronics international level project competition for supermarket database.

3.7 Collaborations

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

The institute collaborates and interacts with various research laboratories, institutes, and industry for research activities by:

- Emphasizing the students to visit various industries and research organizations to inculcate research culture amongst them.
- Signing MoU with Aalborg University, Denmark to facilitate the faculty to carry out their research work.
- Interacting with research organizations such as DRDO, ARAI and CWPRS while doing their PG research projects. Few students from Department of Mechanical Engineering have completed their PG project in association with these organizations.
- A team of ARAI also visits us on behalf of BAJA to certify vehicle prepared by students for BAJA competition.
- Diligence Envirotech Pvt. Ltd., Pune is in collaboration with Department of Civil Engineering while doing sponsored project “Compact Sewage Treatment Plant”.
- Some of the projects are sponsored by industry in which students are getting opportunity to work on live problems.
- The organizations like CWPRS are sharing their data for analytical research in department of Mechanical Engineering and Civil Engineering.
- Faculty members from department of Mechanical Engineering and Civil Engineering are doing research in SVNIT, Surat. They invite faculty from SVNIT, Surat to interact with our faculty.

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

The institute has signed various MoUs and collaborative agreement with university/ industries/corporate organizations. The objectives of these collaborative agreements are as follows:

- Provide sponsored projects on live problems.
- Assist teaching programmes by delivering expert sessions on latest technologies.
- Make available sophisticated and costly equipment to the institute for research.
- Provide financial assistance for the development of center of excellence at institute.
- Assist in the development of curricula and syllabi.
- Participate in teaching programmes, workshops and training programmes organized by the institute to adopt modern / latest technology in industry.
- Provide facilities for hands-on training to students.

The details of MoUs signed and their contribution in the development of institute are as shown in **Table 3.7.2**.

Table 3.7.2: The Detail of MoUs Signed by Institute.

SN	Name of Company	Contribution to the development of the institution	Year of MoU	Period of MoU
1	Multiversity Pvt. Ltd.	Training and guidance for the project planning and implementation	2016	1 Year
2	Associates Builders, Pune 30.	Site Planning and Management training to T. E. (Civil) students.	2015	1 Year
3	Kishor Jain and Associates, Pune 1.	Structural Design Aspects on Field for T.E. (Civil) students	2015	1 year
4	Diligence Earthcare Pvt. Ltd	Water and wastewater characterization for T.E. Civil Air quality monitoring for B.E. Civil	2015	1 year
5	Eaglet Pvt. Ltd Pune	Student Technical training	2015	1 Year
6	Zensar Technologies Ltd.	Student training-technical & soft skills enhancement	2014	3 years
7	Techknomatic Solutions Ltd.	Skill enhancement program for students	2014	1 Year
8	EDUVANCE Vanmat Tech. Pvt. Ltd	Conducting online training program in ES	2014	3 years
9	Ramakrishna Construction Consultants, Pune 30.	Site Handling & Training to the T.E. (Civil) Students.	2014	1 Year
10	Harvard Business School Publishing (HPSP)	Procurement and Delivering of HBSP Course material.	2013	3 Years
11	Billion Hands Technology Pvt. Ltd.	Skill enhancement program for students	2012	1 year
12	Global ICT Standardization Forum for India (GISFI)	R&D and PhD Programmes for Students and faculties	2010	8 Years

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

The various industry-institute-community interaction related activities have been conducted every year which help of staff and students to upgrade the academic facilities. The different MoUs with the industry and foreign universities have been signed by the institute.

Name of companies and their contribution in supporting the faculty are as follows:

- Sears IT Holding Pvt. Ltd. : FDP on Cloud Computing
- Computational Research Lab Ltd: FDP on Applied Algorithms
- CDAC, Pune & Eaglet: FDP on High Performance Computing
- SKILAB, Pune: FDP on Multi-core Architecture and Programming
- Aujas Networks, Pune: FDP on Operating System and Administration
- TCS , Pune: FDP on Multi-core Programming
- SITS &Walchand College of Engineering, Sangli: FDP on CUDA & Open MP
- Mobigen Technologies, Pune: FDP on Smart Systems Programming
- Wegilant Net Solutions Pvt. Ltd.: Course on Hack-Tricks
- Octopus Inc. Pune: Workshop on Android & Arduino
- EDUVANCE (Vanmat Tech. Pvt. Ltd.): Conducting online training program in embedded systems
- Passionate Robotics, Pune: Work shop on skill development in LINUX programming.

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

In the four years, we organized seminars, workshops, and conferences and invited eminent personalities who have interacted with our faculty and students in enriching their knowledge.

- Dr. U. N. Gaitonde, Professor, Department of Mechanical Engineering, IIT, Mumbai to guide faculty in Research Methodology and scientific reasoning.
- Dr. Aditya Abhyankar, Professor, DOT, SPPU to guide our faculty in mathematical Modelling of research solutions.
- Dr. Achhelal, Professor, NIT, Surat to guide our faculty and PG students in Finite element analysis.
- Dr. U. V. Kulkarni, Professor, department of Computer Engineering, Shri Guru Gobind Singhji Institute of Engineering and Technology, Nanded to guide our faculty in research.
- Dr. P. J. Kulkarni, Deputy Director, WCE, Sangli, to guide our faculty in Big data analysis during FDP.
- Dr. A.E Wagh, Deputy Director, DTE Mumbai as a chief guest of Technovision – 2014, international conference on E &TC, Electrical and Computer Engineering.
- Dr. Mohan Agashe, well known film actor and psychologist to guide the students on “Studying Engineering with stable psychological mindset”.
- Mr. Prasanna shulka, Executive Vice President – Projects & Technology, Deepak Fertilizers & Petrochemicals, for carrier guidance to our students in TECHTONIC.
- Dr. H. K. Abhyankar, Vice-President, VIT, as keynote speaker in management capacity building FDP.

Criterion – III: Research, Consultancy and Extension

- Dr. Vasudev Gade, vice-chancellor, SPPU as a chief guest for management capacity building FDP.
- Dr. V. B. Gaikwad, Director, BCUD, SPPU as a guest speaker for workshop on leadership and quality enhancement FDP.
- Dr. M. S. Sutaone, Professor, Department of E&TC, COEP as session chair for international conference.

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

Few examples of collaborations of industry which actually resulted into activities with specific objectives are highlighted in **Table 3.7.5**.

Table 3.7.5: Institutions Collaborations with Industries

SN	Name of the Industry	Objectives of the Collaboration
1.	Infosys, Pune	To get knowledge about enterprises transform and thrive in a changing world through strategic consulting, operational leadership, and the co-creation of breakthrough solutions, including those in mobility, sustainability, big data, and cloud computing.
2.	Giant Metrewave Radio Telescope Narayangaon	To know about how NCRA has set up a unique facility for radio astronomical research using meter wave lengths range of the radio spectrum, known as the Giant Meterwave Radio Telescope (GMRT), one of the most challenging experimental programs. In basic sciences by Indian scientists and engineers.
3.	Pepper Square, Bangalore	To understand the working style of the company and qualities required to make a career in an IT company.
4.	NRSC (ISRO), Dept. of Space, Balanagar, Hyderabad	To explore product information of satellite data products, geophysical products.
5.	Persistent private limited, Pune	To get the introduction of domain areas of PSPL. To provide details about the company and Projects/Placements they offer.
6.	Mazik Tech Solutions, Hyderabad	To know working of company hand-in-hand with Microsoft to code, build, test, and deploy Microsoft Dynamics ERP and developing industry-specific mobile and cloud-ready apps.
7.	ThinkNext Pvt. Ltd. Chandigarh	To get knowledge of Company which deals in Smart Campus ERP Solutions (University/Colleges), Android Apps development, iPhone Apps development, Website designing and development
8.	WMS Gaming Solutions Pvt. Ltd., Pune	To get introduction to Casino Gaming in industry, technologies used in gaming, development tools and testing.
9.	DYNALOG (India) Ltd., Vikhroli, Mumbai	To get introduction and working of various Electrical and Electronic products.
10.	Analogic Automation	To provide knowledge about high quality integrated

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	pvt.Ltd.,Pune	automation technology. Plant study such as beverages, dairies, breweries, distilleries and biotechnology.
11.	String Software Technologies Pvt. Ltd., Amritsar	To get explored to the software engineering practices and project management methods and strategies.
12.	Fabcoders at Goa	To get idea regarding web development projects using PHP.
13.	My City Technology Ltd., Lavasa, Pune	To get knowledge about developing the technology infrastructure, services and solutions for Lavasa Hill City using latest technology and trends. The core ICT infrastructure such as Optic Fiber network, Structured cabling, and passive infrastructure being built at Lavasa.
14.	Persistent Systems Hinjewadi, Pune	To provide details about the company and Projects/Placements they offer
15.	Eaglet Solutions Private Limited	To provide exposure of software engineering process, current technology and services used by industries.
16.	L&T, Mysore	Industrial visit helps to combine theoretical knowledge with industrial knowledge
17.	L&T, Mumbai	Helps to combine theoretical knowledge with industrial knowledge
18.	“High Power Transmitter” (DD) at Sinhgad Fort	With an aim to go beyond academics, industrial visit provides student a practical perspective on the world of work.
19.	“Videocon” at Aurangabad	To understand manufacturing of CRT & Digital Television Receivers
20.	Genesis Poweronics Company , Hyderabad	Industrial visits provide an excellent opportunity to interact with industries and know more about industrial environment.
21.	Visit To HPT at Sinhgad Fort	To understand TV Transmission – Reception concept practically
22.	Visit to BSNL, Pune	Industrial visit helps to combine theoretical knowledge with industrial knowledge
23.	Visit to HPG Systems Chandigarh	Helps to combine theoretical knowledge with industrial knowledge
24.	Indian Telephone Industry, Bangalore	To provide students an insight regarding internal working of companies
25.	Kerala Electrical & Allied Engg. Co. Ltd.	With an aim to go beyond academics, industrial visit provides student a practical perspective on the world of work.

26.	Elin Electronics, Goa	Industrial visits provide an excellent opportunity to interact with industries and know more about industrial environment.
27.	HPG Systems, Chandigarh	With an aim to go beyond academics, industrial visit provides student a practical perspective on the world of work.
28.	Indian Telephone Industry, Bangalore	Industrial visit helps to combine theoretical knowledge with industrial knowledge.

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.

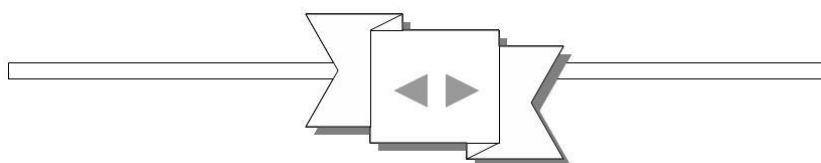
The institute has taken efforts in planning, establishing, and implementing the initiatives of the linkages/ collaborations by signing MoUs with different industry as listed in **Table 3.7.2**. The objectives of these industry-academia linkages/ collaborations are:

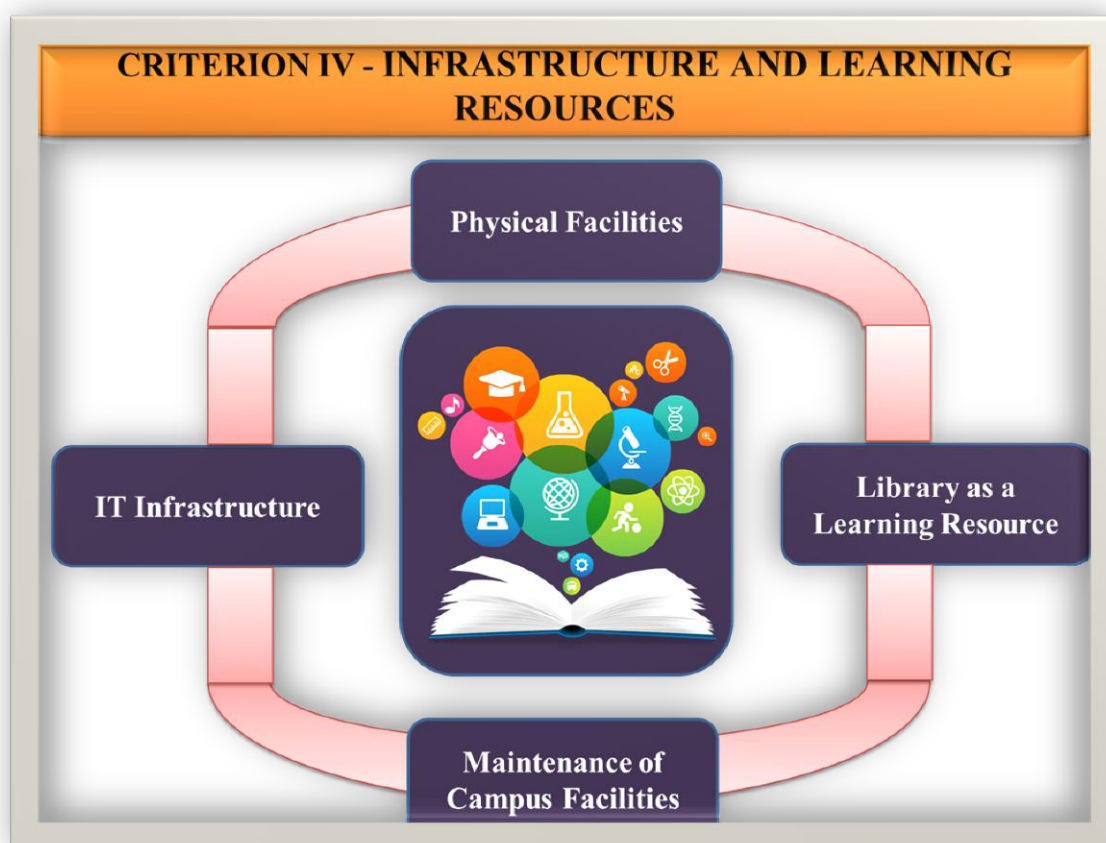
The Institute can:

- Encourage, enhance, and create avenues and environment for greater involvement of faculty and staff with industry.
- Arrange workshops and training programmes for industries and share infrastructure of the institute.
- Provide representation from industries on Board of Studies, Academic Councils, and GB.
- Provide material characterization, testing and certification facilities.
- Facilitate collaborative interdisciplinary projects and research.

The Industry can:

- Extend help and give constructive suggestions while designing the curricula.
- Assist faculty while developing skills with specific technology to the students.
- Allow to use available sophisticated and costly equipment to the faculty and students.
- Provide financial support/equipment/material/guidance for innovative projects of students.
- Give live projects to the students and guide them in professional way.
- Participate in teaching programmes, workshops and training programmes organized by the institute to adopt modern / latest technology in industry.
- Provide facilities for hands-on training to students.





CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

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

The policies of the institution for creation and enhancement of infrastructure that facilitate effective T-L-P are as follows:

- To make T-L-P and R&D culture in the institute, the management always strives for enhancing the infrastructural facilities. The policy of the institute is to keep transparency in the infrastructural development process as per the need of departments.
- The institute has definite process of planning and development of infrastructure in various departments as per the need of university syllabus and enhances the state-of-the-art practical setups to cope up with the technological needs of faculty and students.
- The annual requirements of non-recurring and maintenance expenditure are prepared by the department.
- The departmental budget is discussed with the Principal and finalized to put into the institutional budget to be recommended to LMC.
- After discussing with members of LMC the requirement of infrastructural facilities and necessary budget is forwarded to GB for approval.
- Institute can utilize the approved budget using proper procedure (comparative statements and analysis of vendors) and approval of the management.
- Principal can take decision of purchases within the approved budget with prior approval of the management.
- Any additional requirement for emergency expenditure required for enhancement of infrastructure and equipment can be discussed by HOD with the Principal and requested to the management for approval.

4.1.2 Detail of the facilities available for

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

The institute has necessary infrastructure to facilitate the curricular and co-curricular activities of the students. All the departments are equipped with state-of-the-art infrastructure to transfer the knowledge and skill to the students. Departments are having adequate class rooms, seminar halls, tutorial rooms, laboratories, and sufficient space for hosting all curricular and co-curricular activities.

Separate hostels for boys and girls with mess facility, water treatment plant, and cafeteria are available in the campus. This gives an opportunity for the students from outside Pune to stay in academic environment conducive for effective learning and also participate in co-curricular activities. Library along with reading hall facility and internet access through WiFi

Criterion – IV: Infrastructure and Learning Resources

gives easy access to ample sources of study material. Facilities like stationary store, photocopy center, laundry, vehicle parking, solar water heater system, food court gives a feeling like a home away from home to the students which enables them to participate in co-curricular activities easily. The campus has single point entry and it is well secured due to 24×7 electronic surveillance CCTV. The details of institute infrastructure facilities are as shown in **Table 4.1.2**.

Table 4.1.2: Infrastructure Facilities

Facilities	Details	Required Number as per AICTE	Available numbers	Required Area in Sq. Mts.	Available Area in Sq. Mts.
Academic Activities	Classroom	43	45	2673	2772
	Laboratory	54	60	3564	4265
	Drawing Hall	01	01	132	135
	Seminar Hall	02	03	330	660
	Tutorial Hall	04	04	429	429
	Workshops	01	01	200	410
	Computer Centre	01	01	150	150
	Library	01	01	400	500
	Total	107	116	7878	9321
Administrative area	Principal office	01	01	30	30
	Board room	01	01	20	20
	Office	01	01	300	300
	Dept. office	09	09	180	200
	HOD cabin	09	09	90	90
	Faculty room	Adequate	Adequate	880	1134
	Central store	01	01	30	30
	Maintenance	01	01	10	10
	Security	01	01	10	10
	Pantry of staff	01	01	10	10
	House keeping	01	01	10	10
	Exam control	01	01	30	33
	Placement office	01	01	30	30
	Total	07	07	1630	1907
Amenities area	Boys common room	01	01	100	100
	Girls common room	01	01	100	100
	Boys hostel	01	01	Adequate	3605
	Girls hostel	01	01	Adequate	2590
	Cafeteria	01	01	150	300
	Stationary store room	01	01	10	10
	First Aid/ Sickroom	01	01	30	33
	Ladies & Gents toilets	Adequate	Adequate	0	0
	Principal Quarter	01	01	150	156
	Guest house	01	01	30	105
	Sports/Gym	01	01	0	0
	Auditorium	01	01	300	400
	Total	11	11	870	1204
Circulation area				2594	2869

Criterion – IV: Infrastructure and Learning Resources

- **Laboratories/Workshops:** The institute has 60 state-of-the-art laboratories in various departments. All the equipment and machineries in the laboratories is well advance to carry out practical sessions, projects, and research work. The institute has updated modernized workshop for conducting practical sessions.
- **Seminar Hall:** The institute has an auditorium in the campus for conducting various curricular, co-curricular, and extra co-curricular activities. Seminar halls are well equipped with LCD projectors, and a public addressing system.

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

The institute encourages and provides facilities for students to participate in various extra - curricular activities in order to build team spirit and leadership qualities. Institute has appointed a team of faculty members to look after these activities.

- **Sports:** The institute has a common playground for playing various sports. Every year institute organizes Sinhgad Sports Karandak activity wherein more than 3000 students get involved. A Gymnasium facility for boys and girls is provided in the institute campus. Students are encouraged to play different sports like football, cricket, volleyball, basketball, kabaddi, kho-kho, swimming, table tennis, and lawn tennis etc.
- **NSS:** As per the guidelines of the SPPU, the institute has formed a NSS unit of students and staff. The NSS unit in the institute provides various socially relevant services such as:
 - ✓ Providing guidance to students studying in the rural areas.
 - ✓ Creating awareness about the natural disasters Tsunami, earthquakes etc.
 - ✓ Participation in Gram Swachchata Abhiyan and Blood Donation Camps.
 - ✓ Creating awareness of social responsibilities among students.
 - ✓ Provide a platform to showcase their talents through extra-curricular activities.
- **Cultural Activities:** In the institute separate committee has been formed for cultural activities. Institute organizes a grand cultural event: Sinhgad Karandak – “NEON”. This provides a platform to showcase the extra-curricular talents and organization skills of the students. It comprises events in the form of competitions, workshops and stage performances such as, Mr & Miss, Singing, Dance, Street play, Treasure Hunt, Art Gallery, Fashion Show to name a few. Also, to broaden the horizons of the students, they are encouraged to participate in several inter-collegiate events such as Gadakari Karandak, Purushottam Karandak, Vinodottam Karandak and the Gokhale Cup. Under the banner of TCT, students are encouraged to share their ideas, through a wall magazines and debate competitions on social and cultural issues.
- **Yoga:** Yoga and meditation sessions are conducted for the students and staff in the premises through NSS.
- **Medical Facility:** The campus has a medical center with residential doctor from SKN-GHMC. A free medical service is provided to the staff and students.

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).

Criterion – IV: Infrastructure and Learning Resources

Infrastructural development has been carried out and updated as per the guidelines given by AICTE and approved by the management. Considering the natural growth of various programmes and additional student intake the management has developed the necessary infrastructure. The investments by the institute in the last four years for enhancing various infrastructure facilities are shown in the **Table 4.1.3**.

Table 4.1.3: Infrastructure investment for last four years by SITS (In Lakhs)

Items	2011 – 2012		2012 – 2013		2013 – 2014		2014 – 2015	
	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses
Building	-	43.03	-	-	-	-	-	-
Furniture	74.83	58.04	77.18	94.47	16.49	22.11	4.00	9.80
Equipment	62.50	88.61	74.30	32.20	36.00	30.90	10.00	10.73
Computers & other Hardware	18.10	21.81	43.70	41.69	24.00	42.30	5.00	12.99
Total	155.43	211.49	195.18	168.36	76.49	95.31	19	33.52

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

The institute ensures the availability of infrastructure facilities for students with physical disabilities in following ways:

- The ramp is provided for the physically disabled students.
- Wheel chairs are made available in the institute in case of an emergency from SKN-GHMC close to SITS Campus.
- In case of students who are physically disabled efforts are made to hold their classes and examinations in classrooms at ground floor.

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

The institute has made provision of residence for the students (boys and girls hostel) and staff. The campus has various supporting residential facilities as described below:

- **Hostel facilities:** The separate hostels for boys and girls are available in the campus. The hostel accommodation is offered to the students on a first come first serve basis. A separate mess facility is available for boys and girls in the campus. All these hostels are facilitated with generated backup for uninterrupted electricity supply. The hostel details are shown in the **Table 4.1.5**.

Table 4.1.5: Hostel details (For boys and girls)

SN	Description	Boys Hostel	Girls Hostel	
		Rajgad Hostel	Savitri Hostel	Krishna Hostel
1	Area of the hostel	5639 SqM	4027 SqM	3238 SqM
2	Number of floors	04	04	04
3	Number of rooms	112	80	60
4	Area of each room	32.96 SqM	32.96 SqM	32.96 SqM
5	Capacity of hostel	448	320	240
6	Number of students accommodated	443	317	236

- **E-campus facility:** The institute has provided 40 computer terminals with internet facility, in the digital library which is available for the residential students. WiFi connectivity is available in the campus. The wired internet connectivity is also provided in the staff quarters.
- **Library facility:** For the hostel student's library reading room is made available till 02.00 am (late night).
- **Security:** The institute premises have single point entry and 24-hour security is provided. The CCTV has been installed at strategic locations for security reasons.
- **Medical facility:** The campus has a medical center with residential doctor from SKN-GHMC. A free medical service is provided to the staff and students. 24x7 vehicle facility is made available in case of emergency. Restroom is available in each hostel at ground floor.
- **Potable water:** Triple filtration water plant with UV/RO supplies potable water to the entire campus.
- **Recreational facilities:** Television sets for entertainment are available in the hostel. Gymnasium facility is provided for Boys and Girls. Cafeteria, Bakers points, Juice center, coffee corner are available in the campus.
- **Other facilities:** To fulfill the daily needs of students' stationary shop, photocopy, and printing center, laundry are available in the campus. To maintain the cleanliness and hygienic environment in the campus adequate number of housekeeping staff are available.

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

A free medical check-up at SKN-GHMC is arranged for students taking admission in the institute. Each department has first-aid box for minor injuries. In case of an emergency the patient is referred to the SKN-GHMC. The Group Insurance Scheme for the faculty, staff and medical insurance facility for the students has been implemented.

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.

- **IQAC Cell:** A separate space is available for IQAC activities. The necessary infrastructure and assistance is provided to the IQAC coordinator in the institute to ensure continuous development of the institute. (Room No: 1011 with area 69 SqM).
- **Women's Grievance Cell:** This cell is responsible for resolving any issues and problems faced by the women staff and girl students. (Room No: 1104 with area 69 SqM).
- **CPC:** CPC consists of a faculty member from each department and the institute placement coordinator. Various placement activities like pre-placement trainings, mock group discussion and personal interview sessions, soft skills training etc. are carried out to enhance the employability of the students. CPC at SITS, (Room No: 1001 with area 33 SqM).
- **Health Center:** The campus has a medical center with residential doctor from SKN-GHMC. A free medical service is being provided to the staff and students. 24 x7

vehicle facility is available as an emergency service. Restroom is available in each hostel at ground floor.

- **Counseling and Career Guidance:** Each department takes care of the counseling and career guidance to the students. TGs are appointed for a group of 15 to 20 students. These TGs take care of academic as well as overall performance of the students. Faculty cabins can be used for personal counseling of the students. Career guidance and motivational talks are arranged in the seminar hall of the departments.
- **Recreational facilities:** A gymnasium facility is available for boys and girls in the institute campus. Essentials for playing carom, badminton, cricket, football, basketball, chess board, table tennis, lawn tennis are made available by the institute. Television sets for entertainment are available in the hostel. Cafeteria, Bakers points, Juice center, coffee corner are available in the campus. (Room No: 3001 with area 240 SqM).
- **Cafeteria:** The cafeteria facility is available for students and staff members between 7 am to 9.30 pm at various locations within the campus. The campus is also having bakery shop, juice center, and coffee shop.
- **Mess:** The campus is having separate mess facility for boys and girls with necessary infrastructure.
- **Potable water:** Triple filtration water plant with UV/RO supplies potable water to the entire campus.
- **Solar water heating system:** Solar panels are installed on the roof top of every hostel building to provide hot water.
- **Power backup:** Separate space is available with 125 KVA DG set to supply uninterrupted power to the campus.
- **Estate office:** Separate space is available as a estate office for administrative and supporting staff to take care of various campus activities like cleaning, maintaining, and security services.

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, students/user friendly?

Yes, institute has formed a library committee as shown in **Table 4.2.1**. Members of the library advisory committee are chosen judiciously to represent all the streams. The committee is actively involved in library schemes that are intended to make the library user friendly. This committee meets at least 2 to 3 times in a semester for updating library facilities, new suggestions, reviews of new arrivals etc.

Table 4.2.1: SITS Library Committee

SN	Name	Designation
1	Dr. S. N. Mali	Chairman
2	Dr. Mrs. A. N. Dalvi	Library In-Charge
3	Ms. K. V. Thube	Librarian
4	Mrs. V. R. Phadnis	Librarian
5	Mr. P. P. Patunkar	Member (MECH)
6	Mr. A. T. Shingan	Member (CIVIL)

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7	Mr. Punna Rao	Member (COMP)
8	Mrs. S. N. Firame	Member (IT)
9	Ms. S. D. Shukla	Member (E&TC)
10	Mrs. A. R. Adate	Member (FE)
11	Mr. H. B. Patil	Member (MBA)
12	Miss. S. L. Mundhpan	Student Representative

The significant initiatives have been taken by the library committee to render the library, students/user friendly in the following ways:

- Book bank facility is provided for needy students. Books for book bank are selected by concerned faculty with the co-ordination of library committee.
- Special book bank scheme funded by SWO, Pune is available for students availing SC/ST scholarship.
- The library has been enriched with recent reference books purchased through research grant received from SPPU.
- Newspaper and journals stand in the library to provide an access to research, news and other information to the students/readers.
- SPPU's previous examination question papers and prescribed syllabi for all streams, in soft and hard form are made available to the students as a ready reference.
- Online journals of ScienceDirect, IEEE (ASPP) and PROQUEST are made available to faculty & students.
- NPTEL video lectures are made available to faculty & students.
- The library staff keeps the faculty and students updated regarding its latest acquisition of books, print journals issues received in the library.
- Procurement of research papers required by students and faculty is made available through subscribed resources.
- The books for general reading like novels, magazines, spiritual books, autobiographies etc. are also available.

4.2.2 Provide details of the following:

- **Total area of the library (in Sq. Mts.)** : 500 SqM
- **Total seating capacity** : 140 +
- **Working hours** : 08.00 am to 02.00 am (late night)

Sr.	Details	Comments (if any)
01	Individual reading carrels	Study table for group of 04 students is available in library reading room
02	Lounge area for browsing and relaxed reading	Yes (adequate)
03	IT zone for accessing e-resources	Yes (40 dedicated computers)

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

Figure 4.2.2 shows layout of the library, reading hall, area for browsing and relaxed reading, IT zone for accessing e-resources:

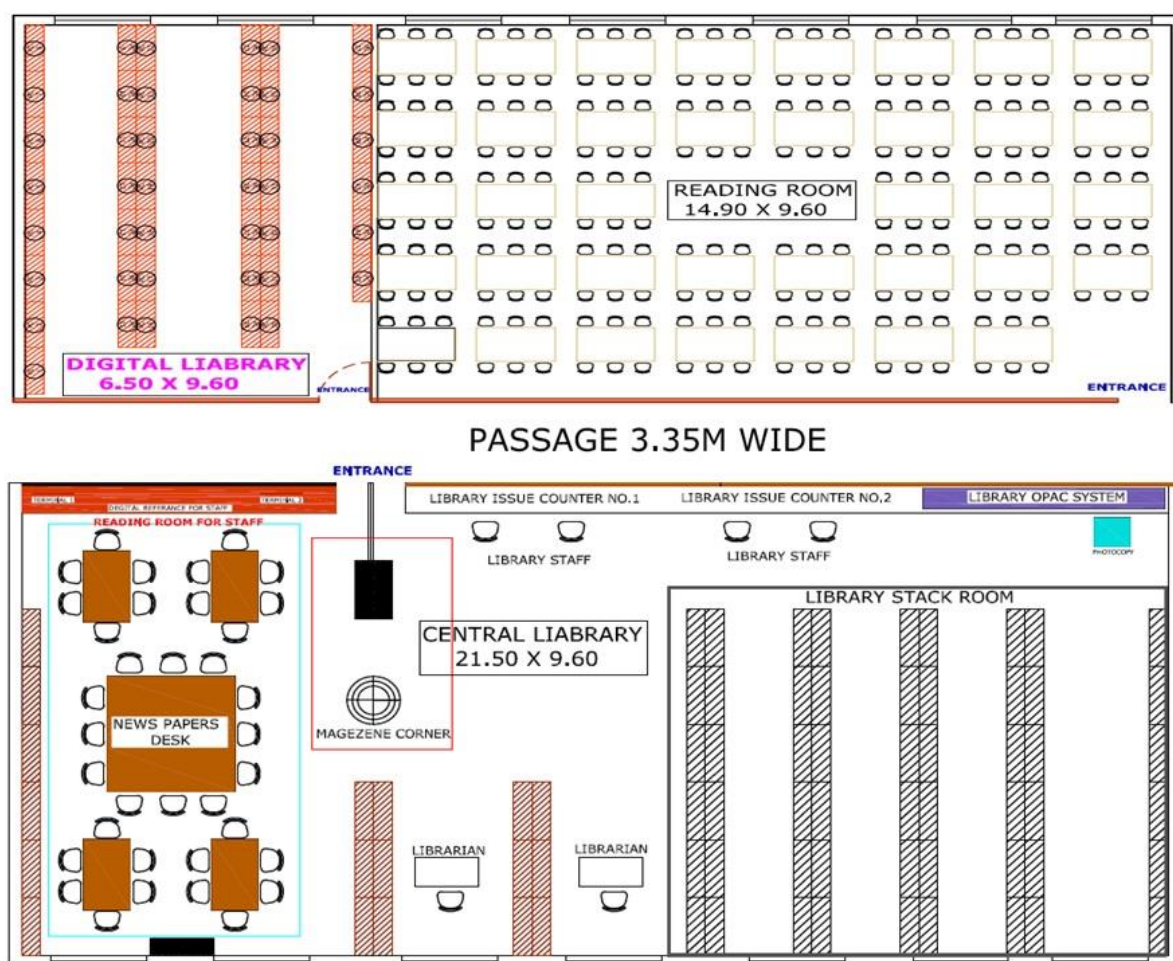


Figure 4.2.2: Library Layout

- Reading hall facility gets extended using nearby classrooms during preparation leave, holidays, and examination period to provide sufficient space for all needy students.
- Separate section with newspapers, magazines, periodicals, novels etc. is also available for faculty.
- Separate computer facility is available to see the availability of books and new arrivals near issue counter.
- Reprographic facility is available in the library.

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

- **Library purchase policy:** Suggestions are taken from, concern faculty, library students with reference to the university syllabus and library committee finalize the library purchase of books by considering AICTE norms. Every year the purchase is carried out according to academic growth.
- **Amount spent:** The details of amount spent on procuring new books, journals and e-resources during the last four years are shown in **Table 4.2.3**.

Table 4.2.3: Amount Spent on Procuring Library Resources (In Rs.)

Library Holdings	2011 – 2012		2012 – 2013		2013 – 2014		2014 – 2015	
	Nos	Total Cost	Nos	Total Cost	Nos	Total Cost	Nos	Total Cost
Text books	1593	5,57,033	189	67,619	75	32,269	233	99,707
Reference books	224	1,82,323	24	41,921	81	81,451	37	28,541
Journals/Periodicals	57	1,36,128	10	10,292	10	10,224	11	10,842
e-resources	4,22,750		14,24,788		16,18,971		9,66,370	

- **Library Utilization:** Institutional library is enriched with ample collection of reference books and e-resources. A separate reading hall and digital library is available for students and faculty. The library is facilitated with AUTOLIB software and barcode system for smooth accession of books. Every student has four library cards for issuing 4 books. Overnight card gives facility to utilize one library book for one night. Faculty members can avail the library facility and access maximum 10 books.

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

- **OPAC:** A digitalize search engine is established in library for ease of searching the books. System facilitates the search on the basis of title, author, keywords, publisher etc. This helps to ensure the availability of the book in library.
- **Electronic Resource Management package for e-journals:** The centralized e-journals access is available in library.
- **Library information on website:** Summary of library information is available on institute website.
- **Library automation:** The library is facilitated with AUTOLIB software and barcode system for smooth accession of books.
- **Total number of computers for public access** : 40
- **Total numbers of printers / Copier for public access** : 2
- **Internet band width/ speed Institutional Repository** : 25 Mbps
- **Participation in Resource sharing networks /consortia:** Open access to students after producing the valid I-card in any of the library of sister institute and SPPU is available.

4.2.5 Provide details on the following items:

Average number of Walk-ins	120
Average Number of Books Issued/Returned	55
Ratio of Library books to Students Enrolled	4:1
Average number of Books added during last three years	639
Number of information literacy trainings Organized	3
Details of —Weeding Out books and other material	4 Books withdrawal

4.2.6 Give details of specialized services provided by the library:

Services	Comments (if any)
Reference	Yes – Number of reference books: 1445
Reprography	Yes- 02 photocopier machines in library
ILL (Inter Library Loan) Service	ILL service is used within STES group
Information deployment and notification	Yes – Through necessary display boards
Download facility	Yes – Digital library with internet
Printing	Yes – 02 printers are available in library
Reading List/Bibliography compilation	Provided to students through central library
User Orientation and awareness	Yes – For newly admitted students
Assistance in searching Databases	Yes – OPAC

4.2.7 Enumerate on the support provided by the library staff to the students and faculty of the Institute

The support provided by the library staff to the students and faculty is as follows:

- Provide ILL support
- Support in e-resources searching
- Property corner (reader's belongings)
- Old exam. SPPU question papers
- General reading book exhibition
- Overnight issues of reference books
- Carrel issue (Extra book is issued)
- Help readers to any trace book
- Peaceful academic environment
- Book bank facility for EBC students

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

The institute has a library on ground floor and we provide wheel chairs, for the use of visually/physically challenged students in the library. A preference and support is given while using the library resources.

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

Yes. The library has a suggestion box through which the feedback is collected from students and faculties in the form of suggestions and recommendations. The library committee analyses the same and take the cognizance. Such feedback is used for advancement of the library to make it more users friendly.

Requisition form is available in the library to demand for any specific new book to be procured by the library with the recommendation of HOD and approval of the Principal. Every department has a faculty library coordinator who represents the department and gives consolidated requirement of library books to library committee. The annual budget consists of proposed library expenditure based on consolidated requirement of faculty and students of all the departments.

Library committee takes care of suggestions given by students through applications regarding number of days of issue of books during study leave, extended reading hall timings, drinking water facility during night hours, and conducive environment for the reading hall. The library staff is taking keen interest in acquiring such feedbacks and constructive suggestions to improve facilities and services provided to faculty and students.

4.3 IT Infrastructure

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

The institute has provided the necessary computing facilities with computer-to-student ratio of 4:1 for UG students and 2:1 for PG students. The details of other supporting hardware facilities are shown in **Table 4.3.1**.

Table 4.3.1: List of Hardware Available

Sr. No.	Description	Quantity
1	Server	5
2	Desktop Computers	649
4	Printers	72
5	Plotter	1
6	LCD Projector	46
7	Scanners	5
9	OHP	3
10	Pull down screen	6
11	PA System	5
12	UPS	15
13	Fax machine	1

List of software available in various departments is as follows:

✓ Lab VIEW	✓ MULTISIM
✓ MATLAB	✓ CAD-FEKO
✓ Xilinx ISE	✓ Proteus
✓ Microwind	✓ Mastercam X5 – X9
✓ AUTOCAD 2012 (AICTE-ARC)	✓ Tally ERP 9
✓ Microsoft Volume Licensing	✓ Fedora - 10 to 20
✓ WTPSOFT	✓ EPTSOFT
✓ SEWERSOFT	✓ ADTREATSOFT
✓ IBM Rational Software Architect & Suite Enterprise	
✓ ORACLE Std Edition Paper License -11G	
✓ IBM Rational Software Architect & Suite Enterprise	
✓ ORACLE Standard Edition Paper License -11G	
✓ CNC Lathe Trainer (Model SS - PT - 100)	
✓ Ansys version 13.0 Academic Teaching	
✓ Automation Studio version 5.7 - complete package	
✓ Catia Product: Catia V6 PLM Discover Pack UDK	

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

- Internet facility of the institute consists of 45 Mbps lease line from TCL (Tata Communication Ltd.) with 1:1 ratio and available 24 x 7.
- The internet connectivity has been extended to all the departments including Library.
- The total numbers of computers connected to the internet are 654.
- The institute has digital library for internet access and Wi-Fi facility in the campus.

The details of internet facility provided by the institute are shown in **Table 4.3.2** below.

Table 4.3.2: Details of Internet facility at SITS

Number of Servers for the Campus	5
Number of PCs in the institute	649
Name of the Internet provider	Tata Teleservices Maharashtra Ltd. (TTML)
Available bandwidth	45 Mbps Primary and 2 Mbps Backup
Access speed	65kbps
Availability of internet in an exclusive lab:	Yes
Availability in most computing labs:	Yes
Availability in departments and other units	Yes
Availability in faculty rooms	Yes
Institute own e-mail facility to faculty /students	Yes (mail.sinhgad.edu)
Security/privacy to e-mail/internet users	Hardware Firewall is installed

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

The various plans and strategies of the institute for deploying and upgrading the IT infrastructure and associated facilities are as follows:

- The institute upgrades the computer systems of the different laboratories as per the requirements of the university syllabus and advancement in the technology.
- All the classrooms of the institute are equipped with LCD projectors.
- The institute provides Wi-Fi facility for staff and students.
- Depending on the strength and advancement in the technology institute always strive for better IT infrastructure and associated facilities such as internet facility, printers, scanner, reprographic machines, and required number of software.
- LCD projection facility is also available in few computer laboratories for on-line demonstrations of teaching and learning for computer languages.

4.3.4 Provide details on the provision made in the annual budget for procurement, upgradation, deployment, and maintenance of computers and their accessories in the institution (Year wise for last four years).

The institute has made provision in the annual budget for procurement, upgradation, development, and maintenance of computers and their accessories in the institution. The details of year wise budget for last four years are shown in **Table 4.3.4**.

Table 4.3.4: Budget for Computer Maintenance (Rs. in Lakh)

Items	2011 – 2012		2012 – 2013		2013 – 2014		2014 – 2015	
	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses
Component & Lab. Material	62.50	88.61	74.30	32.20	36.00	30.90	10.00	10.73
Computer Hardware and Software	18.10	21.81	43.70	41.69	24.00	42.30	5.00	12.99
Repairs, Maintenance on computers & others	1.53	2.28	7.13	5.98	3.20	3.76	4.28	6.32

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

The institution facilitates extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by the faculty, staff and students in the following ways:

- The institute provides NPTEL video lectures material.
- edX courses - certified courses conducted online by foreign universities.
- K-Point – presentation modules based on university syllabus are provided to the students.
- Multiple choice question banks are provided to the students for getting command over various online examinations.
- Faculty members make use of PPTs/videos/audio/spoken tutorials for effective session delivery.
- Class rooms are well equipped with LCD projectors. All staff rooms have facility of computing with internet connections.
- Students can avail the facilities of photocopying, printing and CD writing in the institute premises.
- LCD projectors are also available in computer laboratories for on-line demonstrations.
- N-computing facility is also available.

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

The institute is focusing on student's development in all the dimensions with the help of advanced technologies and on-line resources.

Curricular Activities:

- Use of PPTs/videos/audio/webinars/spoken tutorials for effective learning.
- K-Point server provides off line audio-video learning facility for all the lectures.

Criterion – IV: Infrastructure and Learning Resources

- NPTEL video lectures are available for students.
- Learning resources including lesson plans, course notes, question papers, question banks are made available to all the students.
- TG notifies attendance and academic performance of the student to the parents through SMS.
- Mock on-line tests are conducted to prepare the students for SPPU examinations.
- Course material prepared by the faculty during TTT is made available to the students.
- Examination portals like GATE tutor and ICE are made available for self-learning.
- Online certification courses like edX conducted by foreign universities are used for self-learning.

Co-Curricular Activities:

- STP I to V, an extensive program designed and implemented to enhance the employability skills like soft skills, communication skills, fundamental concepts and technologies beyond curriculum.
- AMCAT, the benchmarking test widely recognized by major MNCs like Accenture, Cognizant, Sun Guard, and Oracle is conducted twice in a semester for second year to final year students to augment their employability.
- A grand annual National Level Students' Symposium TECHTONIC is a great bonanza for students to exhibit and compete on the national platform in technical events like projects, paper presentations, seminars, fun zone etc.

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?

The institute avails of the national knowledge network connectivity directly through the facility provided by NPTEL video network connectivity and spoken tutorials.

4.4 Maintenance of Campus Facilities

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

The institution ensures optimal allocation and utilization of the available financial resources for maintenance of campus facilities. A review of the requirements of infrastructure is done before the commencement of each academic year. The detail budget for last four years is listed in **Table 4.4.1**.

Table 4.4.1: Budget for Maintenance of Campus Facilities (Rs. in Lakh)

Items	2011 – 2012		2012 – 2013		2013 – 2014		2014 – 2015	
	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses
Building	-	43.03	-	-	-	-	-	-
Furniture	74.83	58.04	77.18	94.47	16.49	22.11	4.00	9.80
Equipment	62.50	88.61	74.30	32.20	36.00	30.90	10.00	10.73
Computers and other Hardware	18.10	21.81	43.70	41.69	24.00	42.30	5.00	12.99
Vehicles	-	-	-	-	-	-	-	-
Total	155.43	211.49	195.18	168.36	76.49	95.31	19	33.52

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

Institute has established various committees for maintenance and upkeep of the infrastructure, facilities and equipment. The committee monitors and evaluates the requirements for maintenance of infrastructure and facilities.

Duties and responsibilities of the committee:

- Proper upkeep and maintenance of the infrastructural facilities
- Maintenance of the surroundings
- Carrying out minor repairs of furniture, electrical and sanitary fittings
- Maintenance of the internal roads, water tanks and other services in the campus
- Pest control in hostel and mess.

Equipment and Computer Maintenance:

- All the standalone and dedicated computers, network systems connecting these computers are taken care of by the respective departments, system administrator, and technical assistant.
- Management of fittings and fixtures: All the electrical and electronic equipment fitted in different positions in the institute is looked after by the team of electrical maintenance staff consisting of electricians and engineers.

Caretaking & Housekeeping supervisor of the Institute:

The institute has a house keeping supervisor who looks after the maintenance of minor repairs (sanitation, carpentry) required on a day to day basis. The adequate number of housekeeping staff is recruited.

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

All the laboratories equipment are maintained and calibrated through standard laboratories. The servicing and calibration is done twice in academic year.

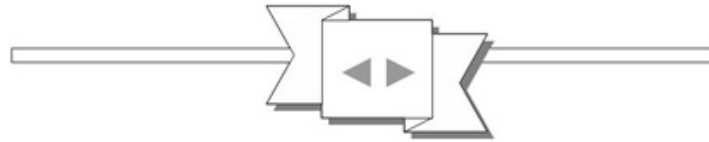
4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?

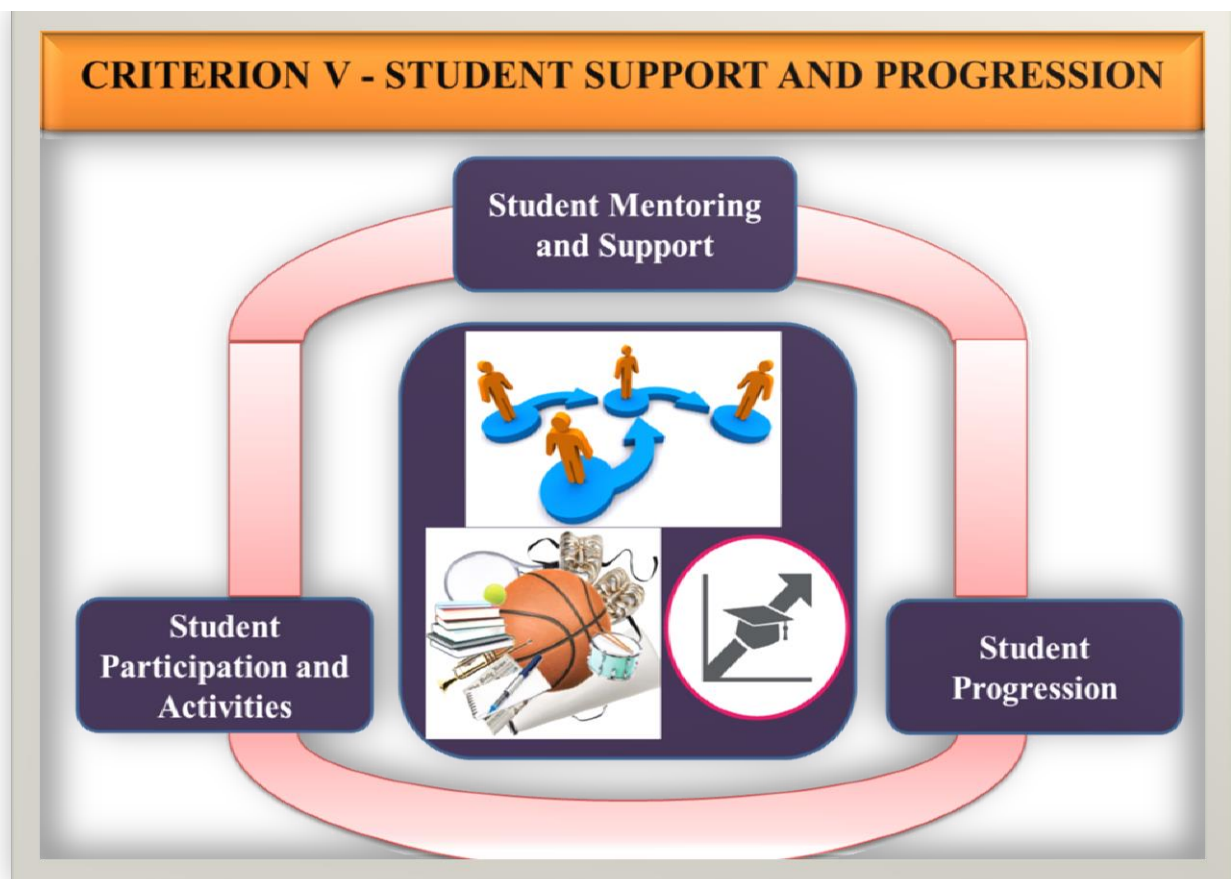
- To avoid the damages of sensitive equipment due to voltage fluctuations MCB, MCCB, RCCB are provided wherever necessary.
- For uninterrupted water supply adequate number of elevated water storage tanks with water holding capacity of 1 MLD are available.
- Fire extinguishers are provided at multiple locations.
- Firefighting equipment training is provided
- Electricity: - 3-Phase line with HT 11 KV electricity is supplied by Maharashtra State Electricity Distribution Co. Ltd.
- Power Backup: - Power back up from Kirloskar Generator 125 KVA, and Greaves Generator 125 KVA (50 Hz LT). Server room is provided with 15 KVA UPS backup.
- Telecom: - Tata Docomo one line (Telephone No- 66831700) is available with EPABX system (300 intercom lines.)

Criterion – IV: Infrastructure and Learning Resources

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

- The entire premise is covered with dust free concrete flooring.
- A proper care is taken to get ample sunlight and ventilation in work areas.





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 annually. The copy of the prospectus is given along with the application form to every candidate who gets seat allotment through CAP or applies for the admission through institutional quota. Prospectus is also available online on institute website.

Information provided in the prospectus:

- Brief history of STES along with Vision and Mission of the SITS.
- Intake capacity of UG and PG Programmes.
- Institutional highlights in terms of research activities and achievements.
- Information regarding infrastructure, laboratory facilities, library, IT infrastructure, internet facility, result analysis of every department.
- Information regarding CPC, placement history, and list of recruiters.
- Admission procedure to take admission through CAP.
- Hostels, mess and other amenities and facilities available in the campus.
- Anti-raging drive, rules, and regulations. Contact information of anti-raging cell and women’s grievance cell.
- Various co-curricular and extra-curricular activities conducted in the institution.
- Rules and regulations of the institute.
- The fee structure and guidelines for scholarship.
- Organizational structure of the institute and list of GB members.

Commitment and accountability:

- After admission, two days induction program for the students and their parents is conducted to showcase the institute as per the information prospectus.
- All the information regarding the institute along with academic calendar to be executed for the first year, syllabus structure and examination scheme are elaborated.
- Introduction of faculty, anti-raging drive, rules, & regulations, contact information of anti-raging cell, women’s grievance cell, alumni activities, STPs, co-curricular and extra-curricular activities conducted are explained to all the parents & students.
- Campus visits, departmental visits, and presentations are also given to highlight the infrastructure, laboratory facilities, library, IT infrastructure, internet facility of every department.

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 information of various scholarships/free-ships given to the students during the last four

years is as follows:

- Facility of scholarships/freeships is not available at the institute level.
- However, scholarships/freeships are given by state GoM on the basis of parental annual income and based on reservation policies of the government and GATE scholarships.
- Few NGOs offer scholarships/freeships to the students. All such Scholarships/freeships schemes are implemented as per the rules and regulations of state GoM and AICTE.
- The information regarding the scholarships is notified to the students through the HOD/CT. Applications from the deserving students are given to SWD through their on-line portal.
- The registrar and the student section of the institute ensure that all deserving students' files their applications to SWD or NGOs and Scholarships/freeships amounts are disbursed in time to the students.

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

Various financial assistance schemes available to the students from GoM and Central government are as follows:

- Scholarships/freeships given by state GoM on the basis of parental annual income and reservation policies.
- GATE scholarships provided by AICTE to PG engineering students.
- TFW scheme of GoM.
- Central Government J&K quota admission scheme.
- Earn and learn scheme of SPPU.
- Book bank scheme of SWD.

Percentage of students received financial assistance in last four year is as shown in **Table 5.1.3**.

Table 5.1.3: Summary Percentage of Students Received Financial Assistance

Year	UG			PG		
	Total students	Financially Assisted Students	% of Financially Assisted Students	Total students	Financially Assisted Students	% of Financially Assisted Students
2011-12	1320	673	50.98	120	61	50.83
2012-13	1680	958	57.02	120	59	49.17
2013-14	2040	1137	55.74	120	47	39.17
2014-15	2280	1375	60.31	120	46	38.33

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

i) Students from SC/ST, OBC and economically weaker sections: The students who belong to SC/ST, OBC and the economic weaker sections are identified during the process of admission. These students are provided every possible help to get the Government scholarships.

- Earn and Learn Scheme: This scheme being implemented by the institute in association with the SPPU that enables the socially and economically weaker students to earn money by working in various departments and library.
- Book bank scheme is provided to SC/ST students by SWD.
- Institute helps economically weaker students for getting financial assistance from different agencies.
- Scholarship is also available under EBC scheme.

ii) Students with physical disabilities: The institute is providing the following facilities to the differently-abled students.

- Preference is given for hostel accommodation.
- Lecture and Examination halls are provided at the ground floor.
- Extra time is given for examination of theory paper and labs.
- Administrative support to avail concessional travel to attend conferences, seminars, industrial visits etc. from state and central government agencies.
- Ramp is provided.

iii) Overseas students: Institute does not have admission quota for overseas students.

iv) Students to participate in various competitions/National and International: The students of SITS are encouraged to participate in various competitions at national / international level.

- Students are participating in extra-curricular and co-curricular activities such as technical fests, cultural events, and sports events etc. Necessary support and services are provided by the institute like financial assistance, Wi-Fi facility, and library facility. Faculty members are deputed to assist and guide the students.
- Students are also participating in competitions like AVISHKAR, national level research conferences.
- Students are provided with necessary guidance for the competitions / conferences by the faculty in every department.
- Financial support and sponsorship facility is given to all the teams of students to participate in various activities like BAJA, ROBOCON, SUPRA, TECHTONIC etc.
- Cultural activities like Purushhottam Karandak, Firodiya Karandak, Sakal Karandak, Sinhgad Karandak etc. are well supported by the institute with financial assistance.
- Information about various competitions is displayed on notice board as well as the information desks of students of other institutes are allowed for campaigning their activities.

v) Medical assistance to students: health center, health insurance etc.: The necessary medical assistance and required facilities are made available to the students by the institute.

- All types of necessary medical help and 24 x 7 assistance to the students at SKN-GMC
- First aid boxes are available at central workshop and in laboratories of each department.

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- The students are covered under accident insurance policy.
- Institute vehicle is available for emergency medical service.
- The medical stores are located near the institute.
- Medical check –up and blood donation camps are arranged in the institute.

vi) Organizing coaching classes for competitive exams:

- The institution is supporting the students by arranging special training programs, STP, soft skill training programs for students on a regular basis, by the internal and external experts.
- Language laboratory facility is available. CPC helps in organizing activities on GDPI, personality development, soft skill development, etc.
- Guest Lectures / Seminars / Workshops of eminent professional institutes are organized for GATE, GRE, CAT, TOEFL etc. for guidance, & preparation.
- Study material related to GATE and other competitive examinations is available in the institute library.
- Details of students appeared / appearing during last four years for professional examinations are shown in **Table 5.1.4(a)**.

Table 5.1.4 (a): Students Appeared / Appearing for Professional Examinations

SN	Name of the Exam	Students Enrolled / Appeared			
		2012-13	2013-14	2014-15	2015-16
1	GATE	09	32	47	155
2	GRE	23	39	18	16
3	TOEFL	12	16	8	6

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

- The institute conducts STP for improving communication skills, soft skills and technical skills, by professionals & internal faculties. The number of students enrolled for various modules of STP during last four years is shown in **Table 5.1.4 (b)**.

Table 5.1.4 (b): Number of Students Enrolled for STP

SN	Title of STP	No. of Hours	No. of students enrolled			
			2012	2013	2014	2015
1	STP1 (General)	100	NA	787	760	768
2	STP2 (Soft Skills)	90	NA	694	779	772
3	STP3 (Technical)	90	NA	NA	799	799
4	STP4 (GD PI)	90	NA	NA	775	782
5	STP5 (VAP)	210	NA	NA	NA	804

- The STES has Cambridge Learning center which starts improving soft skills and English language of students.
- Students and faculty members are encouraged to use NPTEL learning resources.
- Departments are taking special interest for students to appear for edX certification as well as certification through IIT spoken tutorials.
- Students are supposed to appear for four times AMCAT test to understand their SWOT and their technical ability to appear for placement for enhancing their employability.

viii) Support for Slow learners

- Unique TG scheme is available in each department wherein the Guardian Teacher acts as Friend – Philosopher – Guide to each student identifying slow learners.
- Weekly TG meetings are organized to understand the personal growth and performance of students.
- Provisions are made in weekly time table for conducting additional / remedial lectures for slow learners, poor performers.
- Improvement tests are conducted for those who need to improve performance in internal assessment tests.
- Question bank & set of question papers of previous university examinations are provided along with model answers.
- Slow learners/students who are at risk of failure and dropout are identified based on their performance in the first half of the semester. These students are provided counseling for academic performance enhancement.
- The mock practical examinations are also conducted for such students to improve their performance in practical skills.

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

- Students are encouraged and guided to participate in events organized by the institute and other institutions by giving them specific instructions and notifications.
- AVISHKAR, TECHTONIC, ROBOCON, BAJA, SUPRA etc. - national level competitions are financially supported and encouraged for interdisciplinary learning.
- National level technical symposium TECHTONIC is organized every year in which students from other institution participate at a very large scale.
- Students are encouraged to take internship / sponsored projects with various renowned industries / firms, other reputed institutes and organizations.
- Industrial visits and expert talks of professionals from industry are arranged for practical exposure in every semester.
- Workshops and seminars are organized frequently on recent developments in technology. I-I cell is actively organizing such activities for students
- The students are motivated to participate and present research papers in various national and international conferences/ journals and workshops.
- Students having excellent academics are assisted and supported by Student Overseas Cell (SOC) of STES.

x) Publication of Student Magazine

- There is a unique activity run by the students at the institute level - the monthly newsletter “The College Time (TCT).” TCT is by the students for the students which give common platform to publish their curricular, extra-curricular, & Technical talents.
- The student’s articles are also showcased on the departmental notice boards.
- The institute publishes an annual magazine “JUVENILIA” where the students are encouraged to become a part of the magazine by publishing their articles, poems, technical content, jokes, experiences, art etc. The magazine provides a platform for the students to showcase their creative talents. The institute magazine has won the

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SPPU level best magazine prize in the AY 2012-13. The committee members of institute magazine JUVENILIA are as shown in **Table 5.1.4 (c)**.

Table 5.1.4 (c): Committee Members of Institute Magazine

Name of the faculty	Department
Co-ordinator:	
Mr. S.R. Deshpande,	HOD FE
Members from each department:	
Mr. M.V. Patil	CIVIL
Mr. G. S. Waghmare	MECH
Ms A. B. Kalamkar	COMP
Ms. Swati Firame	IT
Ms. Shambhavi Shukla	E&TC

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

- Institute is about to establish Entrepreneurship Development Cell (EDC)
- Entrepreneurship awareness, idea generations and evaluation programmes are planned under this cell.
- Currently, guest lectures are conducted to promote entrepreneurial skill sets amongst the students.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co- curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc.

- Special dietary requirements, sports uniform and materials
- Any other

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

- All the students must know the advantages of participation of students in extracurricular and co- curricular activities.
- Every teacher must involve in promoting these extra activities with their innovative ideas and effective implementation.
- Institute will give financial support to conduct various activities within the campus and for the students of other institutes.
- Every department will support participation of students in extracurricular and co- curricular activities and consider while giving term work marks to the students.
- Awareness lecture on importance & role of Extra Curricular activities in their Career building.
- The term work mark distribution and marks are assigned for participation of students in extracurricular and co- curricular activities are displayed on the notice board.
- Identification of talent among students through TG Scheme.

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- Encouragement to the students to participate in events organized at zonal level, State level, and national level as well as in lead Institute activities.
- Every department will consider such participation of students as part of their regular calendar activities and submit an activity report to the head of the institute.
- Various bodies are functioning to promote the participation of students such as ETSA, CESA, MESA, IETE, Students Council and NSS etc. which help the students to improve their skills and work for the community.

Additional academic support, flexibility in examinations:

The following provisions are made:

- Participating students gets benefit in terms of Term Work (10% marks) as per the policy guideline set at the institute level.
- Flexibility in conduction of internal tests/ examinations for participants.
- Academic guidance & extra practical facility is extended to the students participating in extra and co- curricular activities.
- Allowance like TA-DA, Registration fees, additional expenses are provided.
- Special dietary requirements, sports uniform and materials.
- Institute provides Sports Kit and Sports Material to students who participate in International, State or National, Lead Institute, Zonal, Inter-zonal, All India, etc.
- Institute vehicle is available for students 24 x 7.
- Sports advisor gets TA – DA for SPPU level sports activity.
- Institute supports students financially for Purushottam & Firodiya Karandak activities.
- No registration fees for participation in Sinhgad Karandak activities.

5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT /GRE / TOFEL / GMAT / Central /State services, Defense, Civil Services, etc.

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

- Orientation & guidance lectures are organized every year. Students who are interested and willing to appear in various competitive examinations are helped by the teachers by the way of study material and counseling for preparation.
- AMAC examinations based on STP are conducted for the students to do their SWOT analysis and understand need based training which is covered in VAP.
- Students are allowed to have access to library and to refer books related to entrance tests.

The details of number of students appeared and qualified in various competitive examinations in recent years are shown in **Table 5.1.7**.

Table 5.1.7: Number of students appeared & qualified various competitive exams

SN	Year	Exam	Appeared	Qualified
1.	2012-13	CAT	00	00
		GATE/GRE/TOEFL	52	37
		GMAT	00	00
		Central / State Services	00	00
2.	2013-14	CAT	01	01
		GATE/GRE/TOEFL	60	43
		GMAT	00	00
		Central / State Services	00	00
3.	2014-15	CAT	00	00
		GATE/GRE/TOEFL	58	35
		GMAT	00	00
		Central / State Services	00	00
4.	2015-16	CAT	00	00
		GATE/GRE/TOEFL	169	NA
		GMAT	00	00
		Central / State Services	00	00

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

The institute provides regular counseling to the students to address issues relating to their academic shortfalls and obstacles. The institute has a TG scheme where a group of students are placed under the guidance of Guardian Teacher. The teacher renders guidance in studies, career planning and also address personal and psycho social issues.

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

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

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

Psycho-social counseling: Institute has understood that students having psychosocial disorders frequently have difficulty in coping up with social situations as this reflects in effective communication with others. The problems related to social factors affecting student's mental health e.g. peer pressure, parental support cultural and religious background, socioeconomic status, and interpersonal relationships etc. are addressed through their

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Guardian Teachers. Many times the senior faculties members of Institute also get involved to control problems relating to above factors, special committees are also set up in this matter to help strengthen student's personality and psychological makeup.

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

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

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

Yes, the Institute has a structured mechanism for career guidance and placement for its students. Under the guidance of the Principal, CPC officer in coordination with departmental CPC coordinators carry out structured activities related to both career guidance and placement of the students:

- Awareness of importance of communication and soft skill in corporate world through STP: This activity begins at first year to all the students.
- Preparation of history file (looked after by TG) of the students from FE to BE consisting of academic records, activity participation certificates, information of training programs, publications etc.
- Help in preparing Curriculum Vitae (CV) of each student.
- Arranging for training activities (STPs) to enhance aptitude and soft skills.
- Arranging group discussions and mock interviews.
- Arranging expert / guest lecturers of industry personnel for career guidance.
- Conduction of VAP to give awareness of latest technologies.
- Awareness of competitive examinations of civil services.
- Arranging industrial training and industrial visits to understand corporate world.
- Career guidance for higher studies through International Overseas Cell.
- Arranging campus placement of different industries.
- Placement activity through institute web portal.

The following services are provided in the career guidance and placement:

Information of job opportunities:

- The students are informed regarding the vacancies offered by government and other agencies.
- The notice of the advertisements is put up on the notice board at CPC as well as at every department.
- The students are informed regarding all necessary information and important dates for such vacancies.

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- Campus placement plan consisting of sequence of industries going to visit to the campus are transparently communicated to all the students through email and notice board.
- Official registration is carried out through GEMS for interested and eligible students from all the departments for placement of specific industry.
- Employability and QALR tests are conducted to give practice of aptitude test examinations conducted by various industries for short listing the eligible students.
- Pre-placement talks are conducted to all the students to give information about industry.

Discussion of exam module and preparation of the exam:

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

Soft skills training areas:

- STP-I to STP-IV are conducted from the first year to train the students from placement point of view.
- Soft skill training areas include, positive attitude development, Goal setting, leadership, decision making, team building, communication skills, mock Interviews, vocational training, etc.

Follow up:

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

GDPI guidance:

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

CPC:

- The unique feature of the SITS for placement of students is CPC activity. The CPC invites many reputed companies for campus recruitment.
- Transparent and well-structured mechanism of CPC gives equal opportunity of placement to all the eligible students through their set rules and regulations.
- CPC also teaches all the students about job ethics and work culture in corporate life style and the role of students in a company when they will join as a employee.

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- CPC also give preferential opportunity to the companies in campus placement considering their package, domain area (core or IT), research or marketing etc.
- The students of the Institute are sent to off campus interviews in other organizations.

The SITS placement record: The placement of SITS students occurred through CPC for last four years is shown in **Figure 5.1.9** below.

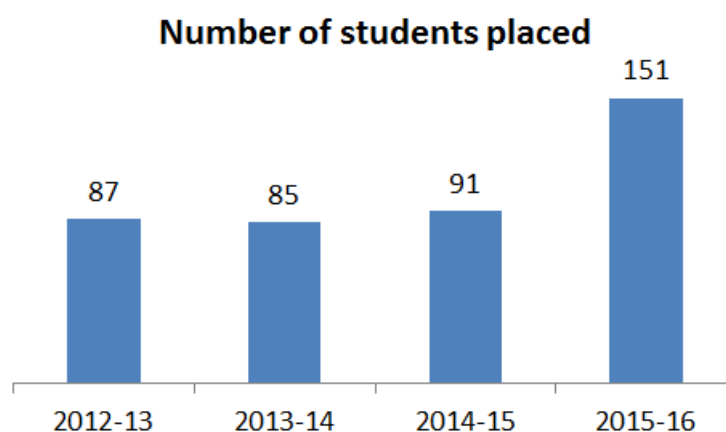


Figure 5.1.9: Placement of SITS Students

The employers visited for campus placement drive through CPC at SITS is noted in **Table 5.1.9**.

Table 5.1.9: List of industries as Employers visited for Campus Placement

SN	Company	SN	Company	SN	Company
1	Tagrem	51	Ecomek	101	Kalyani Forge
2	3D PLM	52	e-Litmus	102	Kirloskar Group
3	Aarush Systems	53	Emerson	103	Krixi Solutions
4	Accelya Kale	54	Enkei Wheel	104	Kumkang Kind
5	Accenture	55	Entercoms	105	L&T ECC
6	ACI	56	EQ Technology	106	L&T IES
7	Advik	57	ESS	107	L&T infotec
8	Afour Technologies	58	Essar Steel	108	Lafarge
9	AKS	59	Etech	109	Laxmi Civil Engg
10	Alfa Laval	60	Everest	110	Lear Corporation
11	Alkayl Amines	61	EXFO	111	Llyods
12	Allerin	62	FACE	102	M&M
13	Amar Builders	63	Ferromatic Milecron	103	Magus Infotech
14	Amara Raja Batteries	64	Fine Handling	104	Maharashtra Natural Gas Ltd

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15	Ambuja Cement	65	First Cry	105	Mahindra 2 Wheelers
16	AMDOCS	66	First Insight	106	Mahindra First Choice
17	American Axle Mfg	67	Fiserv	107	Mahindra Vehicles
18	Amura Tech	68	Focus Soft Net	108	Marksryor
19	Armaco	69	GKN	109	Metric Stream
20	Arxxus Technologies	70	GKN Drive Line	120	Microsoft
21	Atlas copco	71	Globus Soft	121	Minda Breveries
22	Atos Origin	72	Godrej Infotech	122	Mindtree
23	ATS Infonet	73	Graphite India	123	Mithi Software
24	Avaya	74	Greaves Cotton	124	Monnet Ispat
25	Barclays	75	Harbinger	125	Mphasis
26	Bell Engg	76	HCL	126	Musigma
27	Bentley Systems	77	Helium Consultant	127	Neeyamo
28	Bharati Airtel	78	Hexaware	128	Neilsoft
29	Bitwise	79	Hi Tech Auto	129	New Gen
30	Bosch Chassis	80	Hitachi	130	Nihilent
31	Burchhardt Compression	81	HP	131	Nitor
32	Capgemini	82	HSBC	132	NTT Data
33	Carborandum	83	Huwaie	133	nVidia
34	Cavita Via	84	iauro	134	Opulent
35	CMC	85	IBM	135	Oracle (OFSS)
36	Codewalla	86	Icertis	136	Patni
37	Cognizant	87	ICICI Securities	137	Perkin Elmer
38	Crest Pre Media	88	iGate	138	Pitney Bowes
39	Cuelogic	89	iNautix	139	Polycab
40	Cummins	90	India Bulls	140	Praxify
41	Cybage	91	Informatica	141	Precast Infrastructure
42	Daimler Chrysler(Mercedes Benz)	92	Infostrech	142	Primus Technologies
43	Dana India Technical Center	93	Infosys	143	Proser Industries

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44	Deepak Nitrate	94	Infosys BPO	144	PSPL-topper
45	Demag Cranes	95	Innoventive	145	Pubmatic
46	Deore Consultancy	96	iStepup	146	Qed Technology
47	Diaspark	97	ITC Infotech	147	Quick Heal
48	Dimetrix	98	John Deere	148	Quinnox
49	DSM India	99	Jonhson Control	149	Rohan Builders
50	Eaton	100	Joshi Jampala Engg	150	RSB

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

Yes, the institution has a student grievance redressal cell. The mechanism of this cell consists of three subcommittees:

Grievance redressal committee: It consists of 10 members from various departments. The formal procedures for the settlement of the grievances are as follows:

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

Disciplinary Committee:

- Role of this committee is to examine all indiscipline activities (if any) of students and staff within the campus.
- Disciplinary actions are recommended depending on the degree of indiscipline act and rules of the institute.
- The report is submitted to the Principal for necessary action and in major cases, Principal reports to the management for taking necessary action.

Women grievance redressal committee:

- This committee is formed to examine the ladies harassment related cases and resolved along with the Principal.
- For extreme cases members examine & scrutinize all type of complaint letters and grievances representations of aggrieved students, staffs, faculties & others and take up these matters with the Chairperson for redressal.
- No major grievances have been reported to the any of the redressal cells.

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

Institute has a woman grievance redressal committee in view of combat violence against women employees and students. This committee is supposed to take necessary steps if the incidents pertaining to sexual harassment require the intervention of the law. This committee is headed by a senior lady faculty. Till date no such case of sexual harassment has been reported in the Institute. Continuous vigilance of Institute authority and strict punishment provisions prevent sexual harassment of students.

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 institution has a core anti-ragging committee and an anti-ragging squad, including heads of the Departments, senior faculty members of from each department.

- Strict monitoring in the institute to protect first year students from ragging and anti-ragging awareness in all the departments makes the campus ragging free.
- Every student is also giving an affidavit at the time of admission declaring that they shall never participate in ragging. If any student is found guilty in any kind of physical or mental ragging, the committee takes strict action against him or her.
- No instance of ragging has been reported/detected during last four years. The campus is ragging free.

Anti-Ragging Committee: The institute has formed anti-ragging committee as per the rules and regulations given by AICTE/DTE/UGC/SPPU. The objectives of committee are:

- Creating ragging free atmosphere in and outside of the campus.
- Senior students are expected to maintain self-imposed discipline and restriction while interacting with first year students.
- Creating cordial relations among students for fulfilling organizational mission and objectives and not involved in any ragging within the campus.
- Creating awareness among students regarding how the self -confidence of the individual influences the national interest.
- Anti-ragging squads comprising of faculty members, non-teaching staffs and senior students have been formed to make surprise visits to very sensitive location within the campus like hostel, mess and Institute canteen.
- Cell numbers of anti-ragging squad members are made available to all the students.
- Committee takes the final decision and has an authority to give punishment to the guilty students as per the rules and regulations stated by the government.
- No ragging incidence has occurred so far in the campus.

5.1.13 Numerate the welfare schemes made available to students by the institution.

The welfare schemes made available to students by the institution are as follows:

- **Marking Scheme for extracurricular activities of the students in academics:** Participating students in extracurricular activities gets benefit in terms of Term Work marks. 10% mark as per the policy guideline set at the Institute level are given by TG. In addition to marks flexibility is also given in conduction of internal examinations for the students participating in extracurricular activities. Academic guidance & extra practical facility is extended to the students participating in extra activities.

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- **Earn and learn scheme:** Institute has appointed a Students welfare officer to monitor various activities of earn and learn scheme. Under the SPPU earn and learn scheme, Institute provides financial aid to economically weaker students.
- **Book bank scheme:** Book bank scheme is provided to SC/ST students by SWD. In this scheme the books that are needed for the semester are given to the students for the entire semester.
- **Student group insurance scheme:** The students are covered under accident insurance policy given by United India Insurance Company Ltd and reimburse maximum up to Rs.25, 000 claims against hospitalization due to an accident.
- **Overseas Educational Support Scheme:** Institute gives support in preparing students for PG/PhD program in universities, abroad through SOC and e-transcripts.

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, institute is having its alumni association registered under society registration act 1860 & numbered as *MAHA-1928/2012/Pune/*, dated 03/10/2012. In addition, alumni cell activities are operational at major cities of the country namely Mumbai, Pune, Bangalore, Delhi and Hyderabad. The association conducts meets at Institute level and at department level every year.

Activities & major contributions of alumni are:

- Placement activities,
- Invited as resource persons on areas of their expertise,
- Participation in organizing events
- Sponsorships for conferences / student competitions
- Invited as judge for national contests/conferences organized at the Institute.
- Industrial training & visits to their industries.

Governing body of alumni consists of seven members consisting of the President, the Honorary Secretary, and Honorary Treasurer. The Secretary shall keep the records of processing of the association and Treasurer of the association shall prepare a statement of accounts, income expenditure account and balance sheets.

5.2 Student Progression

5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlights the trends observed.

The Institute first batch came to final year in 2011-12. The record of students going from UG to PG, PG to PhD, placement of UG and PG students through CPC and other than campus selection have been compiled from 2011-12 to 2014-15. The **Table 5.2.1** shows the percentage of compiled data of students progressing to higher education or employment while **Figure 5.2.1** highlights the trends observed for student progression.

Table 5.2.1: % of Students Progressing to Higher Education or Employment

Students Progression	Year (Values in %)				
	2011-12	2012-13	2013-14	2014-15	2015-16
UG to PG	22.23	44.52	77.65	25.65	
PG to PhD	00.00	00.00	12.46	8.32	
Employed through Campus Selection UG					
E&TC	26.67	59.09	88.24	63.89	75.61
Computer	65.3	87.18	87.88	77.78	76.92
IT	26.25	78.95	66.67	82.76	68.57
Mechanical	53.84	50.00	31.25	48.39	73.21
Civil	NA	0	20.00	50.00	33.33
Employed through Campus Selection PG	0.00	00.00	16.6	16.6	NA
Other than Campus Selection/Recruitment	78.22	82.18	86.28	62.93	NA

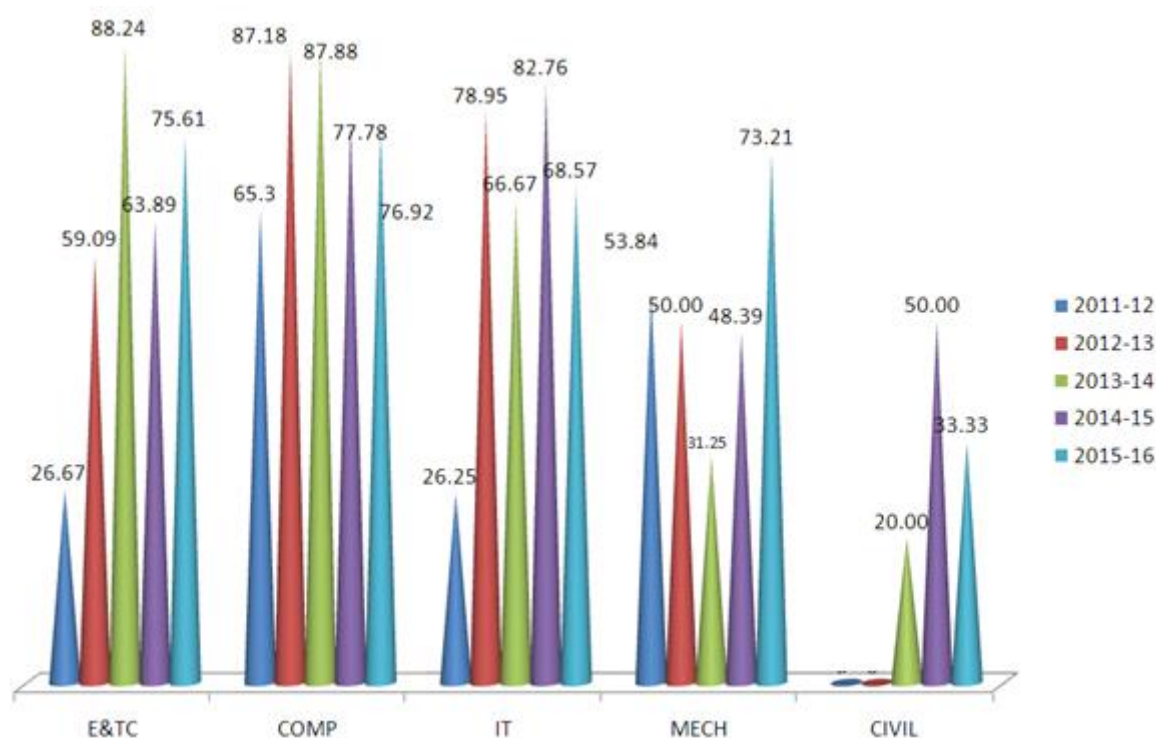


Figure 5.2.1: Highlights the trends observed for student progression

- The percentage of students going for post graduate studies has been increased from 2011-12 to 2013-14. This may be because of recessions in the IT and automobile industries.
- Significant students are going for PhD in last two years.
- Branch wise percentage of students placed in the industry through CPC shows that there is a need of employees in computer, IT and telecommunication sector.
- Employability of PG students in Telecommunication sector has been increased.

Criterion – V: Student Support and Progression

5.2.2 Provide details of the Programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)?Furnish Programme-wise details in comparison with that of the previous performance of the same institution and that of the Institutes of the affiliating university within the city/district.

The programme wise pass percentage and completion rate for the last four years in comparison with that of the previous performance of the SITS and that of the Institutes affiliating to SPPU in Pune city: Institute-I, Institute-II, and Institute-III are shown in **Table 5.2.2**below.

Table 5.2.2: Comparison of Pass Percentage with Institute-I, II and III

Branch	Year	No. of Students Appeared	No. of Students Passed	% of Passing	Institute-I	Institute-II	Institute-III
E&TC UG	2011- 12	60	60	100	95.7	97.8	100
	2012-13	70	69	98.57	93.4	92.3	97.23
	2013-14	109	106	97.24	94.5	93.5	98.57
	2014-15	142	138	97.18	92.5	94.5	96.5
E&TC PG	2013-14	23	20	86.95	72.65	70.52	79.86
	2014-15	22	16	72.72	70.68	71.85	75.62
MECH UG	2011- 12	60	58	96.66	87	82	96
	2012-13	78	76	97.67	77	79	98
	2013-14	84	82	97.56	85	82	97
	2014-15	84	83	99.22	83	81	99
MECH PG	2013-14	24	12	50%	58	60	62
	2014-15	24	10	41.67%	48	55	54
COMP	2011- 12	60	53	87.5	82	81	91
	2012-13	79	78	93	79	77	92
	2013-14	77	72	94	74	75	95
	2014-15	76	71	99	95	98	93
IT	2011- 12	60	59	98	83	81	91
	2012-13	80	79	98.75	79	76	89.33
	2013-14	77	75	97.40	78	73	90.00
	2014-15	71	71	100	72	73	96.67
CIVIL	2013-14	58	55	94.83	53	100	95.56
	2014-15	77	75	97.40	74	97	97.37

Criterion – V: Student Support and Progression

The comparison of percentage of passing per year for Institute is shown in **Figure 5.2.2 (a)**

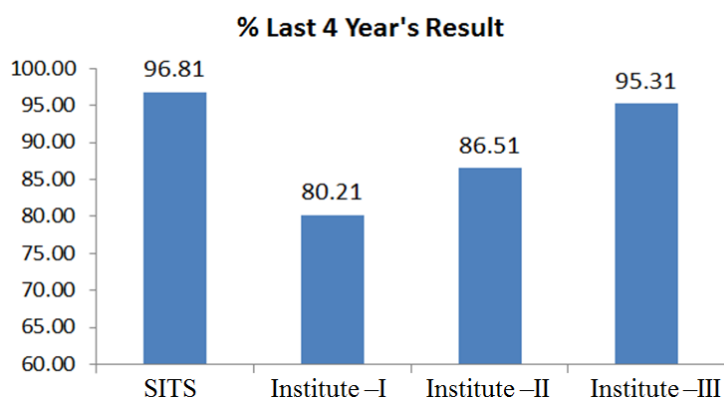


Figure 5.2.2 (a): Comparison of percentage of passing per year

The comparison of percentage of passing per branch per year for institute is shown in **Figure 5.2.2 (b)**.

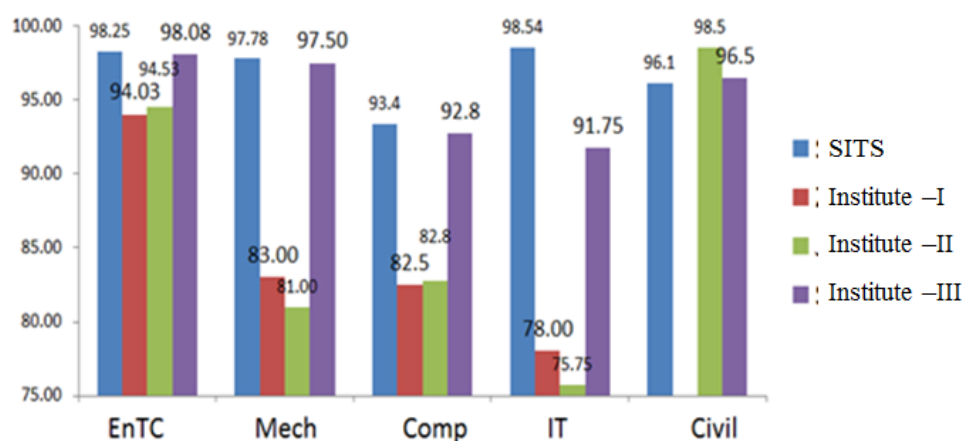


Figure 5.2.2 (b): Comparison of percentage of passing per branch per year

The comparison shows that SITS result of percentage of passing is higher in overall as well as per branch for all the courses as compare to other nearby institutes. This shows that the students of SITS are progressing in their academics as well along with other curricular, extracurricular activities.

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

The personality and skill development programmes are conducted under STP to develop students' technical & soft-skill abilities. The VAP are also conducted for grooming student's technical skills. The institute motivates the students for higher study and research by providing special support and extra care for preparation of NET, GATE, CAT, GRE etc. or for any other competitive examinations. Special lectures on aptitude, soft skill and technical skill are arranged by the institute for the students to groom them in industry standard.

As a result of good motivation, many of our students are working with ACCENTURE, COGNIZANT, Infosys, and IBM and in different MNCs in abroad. The Institute has a well-organized CPC, which has organized & conducted many campus interviews for the students and many reputed organizations like TCS, ITC InfoTech, Cap Gemini, Wipro, L&T

Criterion – V: Student Support and Progression

InfoTech, and IBM have recruited a large number of students from our Institute. A good numbers of students are working in the government sector also.

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

The cases are identified by TG, CT and HOD. Parents are informed about the performance of their wards by sending academic progress letters monthly. They are also invited with their ward to discuss the reasons and best possible solutions. Parents meet are conducted in every semester. Special supports are given for those students who are academically weaker by conducting remedial classes. Also they can practice and assess themselves with mock tests. Failed students may attend the classes for the particular subjects.

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 cultural and extra-curricular activities, games and sports activities are integral part of education. The Institute provides sufficient time and facilities for these activities. The annual cultural and sports activities are conducted as the part of SINHGAD KARANDAK. The list few of these activities conducted by student's council are shown in **Table 5.3.1 (a)**.

Table 5.3.1 a): Extra-curricular Activities by Student Council

SN.	Name of the Activity	No. of students participated		
		2012-2013	2013 -2014	2014-2015
1	TECHTONIC	50	80	100
2	Blood Donation Camp	-	350	770
3	The College Times	30	50	100
4	I-VOTE	-	370	-
5	Mazhi Aai Mazhya Mahavidyalayat	-	200	-
6	The National Science Day	-	70	70
7	Nirbhay Kanya Abhiyan	-	370	150
8	Sinhgad Karandak – Sports	30	40	50
9	Sinhgad Karandak – Cultural	20	30	40
10	Sinhgad Karandak – Technical	40	80	100
11	Disaster Management	-	120	150
12	Personality Development: Dr. Mohan Agashe	-	150	-
13	The Campus Film Society	-	-	100

The Institute also conducts yearly national level symposium TECHTONIC where large number of students participate in it. Apart from this, student's council is formed at the institute level where all types of extra-curricular activities are conducted every year.

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.

Criterion – V: Student Support and Progression

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 are listed in **Table 5.3.2**.

Table 5.3.2: Major Student Achievements in Sports & Cultural Activities

Sr. No.	Year	Event Name	Event Type	Level	Achievement / Prize
1	2012-13	Duet Singing Sinhgad Karandak	Cultural	State	2 nd Prize
2	2012-13	Miss Sinhgad - Sinhgad Karandak	Cultural	State	1 st Prize
3	2012-13	Street Play - Sinhgad Karandak	Cultural	State	1 st Prize
4	2012-13	Table Tennis: Sinhgad Sports Karandak	Sports	State	1 st Prize
5	2012-13	Swimming - Sinhgad Sports Karandak	Sports	State	2 nd Prize
6	2012-13	Purushottam Krandak	Cultural	State	Best Actor
7	2013-14	Duet Singing Sinhgad Karandak	Cultural	State	2 nd Prize
8	2013-14	Swimming - Sinhgad Sports Karandak	Sports	State	1 st Prize
9	2013-14	Athletics - Sinhgad Sports Karandak	Sports	State	1 st Prize
10	2014-15	Solo Singing Sinhgad Karandak	Cultural	State	2 nd Prize
11	2014-15	Volleyball - Sinhgad Sports Karandak	Sports	State	2 nd Prize
12	2014-15	Swimming - Sinhgad Sports Karandak	Sports	State	2 nd Prize
13	2014-15	Athletics - Sinhgad Sports Karandak	Sports	State	2 nd Prize
14	2014-15	Long Jump Inter college	Sports	Zonal	2 nd Prize
15	2014-15	Swimming Inter college	Sports	Zonal	1 st Prize
16	2014-15	Street Play –Bartiyam Karandak	Cultural	State	1 st Prize
17	2014-15	Street Play –Communis Karandak	Cultural	State	2 nd Prize
18	2015-16	Chess - Sinhgad Sports Karandak	Cultural	State	1 st Prize
19	2015-16	Long Jump Inter college	Sports	Zonal	2 nd Prize

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?

The Institute has made provision to seek and use data & feedback from SIT graduates and employers, to improve the performance and quality in following way:

Student Feedback: The institute takes feedback from its alumni students during alumni meet. The suggestions given by alumni are taken into consideration while designing academic activities.

Employer Feedback: CPC collects the feedback from industry. The suggestions given by graduates, alumni and employers are taken into consideration to improve the quality in T-L-P and to improve placement process. It is also used for improvement of the class delivery and grooming up of students as per industry requirements. Some of them are listed below:

- Understanding of core subject & their application
- Adaptability to new technologies and flexibility towards current nature of work
- Leadership qualities & team spirit
- Ability to interact & work with diverse groups
- Punctuality, overall discipline, loyalty, meeting deadlines and commitment to work

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 “**JUVENELIA**”. The magazine is a common platform to showcase students’ creativity. Students submit their material like Articles (Research, Literary), Stories, Poetry, Paintings, and Photography etc. Editorial board selects the material to publish. Every year, Institute participates in SPPU magazine competition and bagged 3rd best magazine award in 2012-13.

Students Publications: The students of SITS run a very unique activity called “**The College Times**” monthly news-letter published. The news-letter is published under the registered Alumni Association of the Institute “**SAAS**”. The news-letter consists of:

- Technical / Non-Technical news from the world
- Monthly activities conducted by the departments of the Institute
- Sports/cultural/Technical/Co-curricular/Extra-curricular activities conducted by the departments in every month
- The Technical/ Non-Technical articles of the students’/faculty members
- Students’ articles/poems, Articles on current affairs
- Information of Alumni student on rotation basis

Apart from this, a notice board is dedicated to students at the central level & at the department level to display their creative work, articles, poems, technical articles, sketches, etc. Under this unique club of TCT, famous Marathi actors like Padmashree Dr. Mohan Agashe & Siddarth Jadhav has visited to our campus.

The Institute is also running “**The Campus Film Society**” under the Film Institute of India. The society was inaugurated by Mr. Kishore Nandgaonkar, on 06th October 2015. The aim of establishing the society is to make Sanskar on students through movies. Two distinct National/International level English /Marathi / Hindi / Regional movies are shown to the students every month.

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

Yes, as per the UGC act 1994 (40/2/B) Students Council is established in year 2012. It is formulated every year. The student’s council consists of one faculty member from each department, Class Representatives (CRs/LRs) from all departments. All these members are selected / elected by the guidelines given by SPPU.

The objectives of forming student council are to:

- Organize institute level / department level events
- Improve academics, co-curricular, cultural and extra-curricular activities
- Motivate the students for teamwork.
- Acquire leadership qualities
- Learn event managements
- Interact with Institute management to resolve difficulties

Criterion – V: Student Support and Progression

Activities of Students Council are to:

- Organizational or university level technical symposium like TECHTONIC
- Motivate students to participate in technical and soft skill events
- Organize yearly society level activity SINHGAD KARANDAK
- Celebrate of Independence Day, Republic Day, Teacher Day & Engineers Day.
- Organize blood donation camp, tree plantation, voter's awareness programs etc.
- To organize University level activities

Funding: There is no funding from any Government body. Institute bears all the expenses of the activities organized under students' council.

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

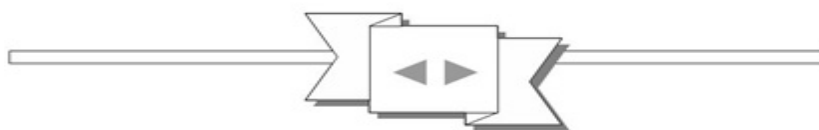
The students representatives serve in almost all academic and administrative bodies of the Institute such as departmental board of studies, departmental associations and various clubs, student's council, Anti Ragging Cell, etc. The various institutional and departmental associations/bodies formed at SITS are as follows:

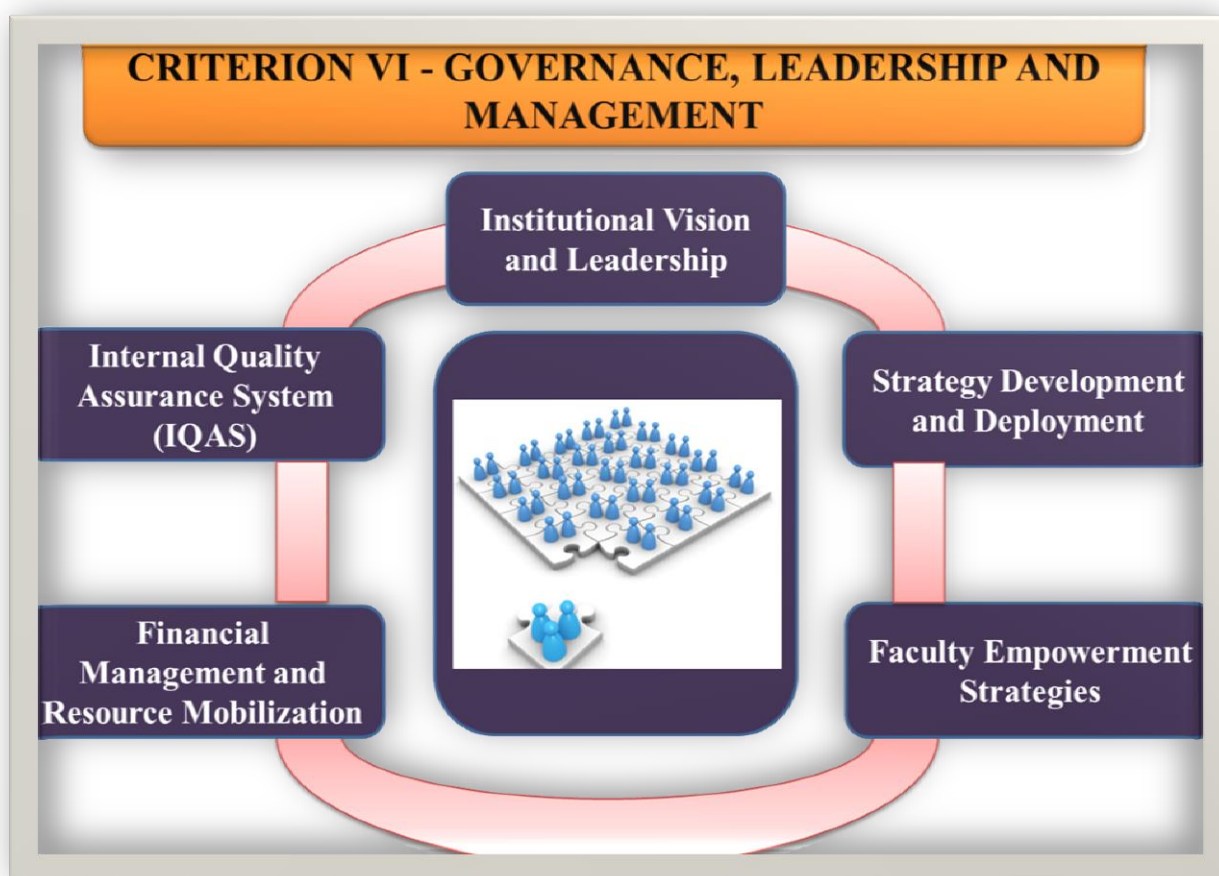
- Students Council: Consist of UR, GS, LR, ALR and CRs
- ETSA: Electronics & Telecommunication Engineering Students Association
- MESA : Mechanical Engineering Students Association
- CESA: Computer Engineering Students Association
- ACE: Association of Civil Engineering
- Cultural committee, Sports Committee and Campus Film Society
- NSS Committee as per SPPU
- BAJA, GOCART team and Robo club
- Magazine Committee and The News Letter Committee (TCT)
- Anti-ragging Committee and Anti-ragging squad

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

The institute networks and collaborates with the registered alumni and former faculty of the Institution in following way:

- Interaction with alumni through **E-mail ID:** alumni.sits@sinhgad.edu.
- Alumni meet
- Yearly technical symposium “TECHTONIC” and “SINHGAD KARANDAK”
- Seminar/Conference/Workshops
- Get together of alumni on every 15th August & 26th January
- Script poojan, participation in Firodiya & Purushottam Karandak
- Interaction with former faculty member is done through invitation for seminar and workshop, external examiners etc.





CRITERION VI: GOVERNANCE, LEADERSHIP, AND MANAGEMENT

6.1 Institutional Vision and Leadership

6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

Vision

उत्तमपुरुषान् उत्तमाभियंतृन् निर्मातुं कटीबद्धाः वयम् ।

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

Mission

Holistic development of students and teachers is what we believe in and work for. We strive to achieve this by imbibing a unique value system, transparent work culture, excellent academic and physical environment conducive to learning, creativity, & technology transfer. Our mandate is to generate, preserve, and share knowledge for developing a vibrant Society.

The **successful engineering students** in future will need strong analytical skills, practical ingenuity, creativity, good communication skills, business and management knowledge, leadership, high ethical standards, professionalism, dynamism, agility, resilience, flexibility, and the pursuit of lifelong learning. **Holistic student development** encompasses not only learning academic knowledge and skills, such as problem-solving and analysis, but also other aspects of students as people who are growing and maturing emotionally and morally.

Therefore, the management of the SITS has decided to have substantial efforts in engineering education to **create not only good engineers but good human beings, also**. While doing so, we as a responsible stakeholders of the institute are trying to **imbibe unique value system, transparent work culture, excellent academic and physical environment** conducive to learn, create and transfer technical knowledge on one hand and inculcate ethical standards and professionalism by means of soft skill inputs on the other hand.

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

The top management of SITS plays important role to provide excellent infrastructure facilities and healthy teaching and learning environment to the students and faculty in order

to implement the quality policy and plans. Principal, HODs and faculty take care while implementing the policies and plans to the satisfaction of all the stakeholders. They are proactively encouraging and motivating faculty and staff for overall development of the institute.

Principal provides academic leadership and try to percolate the qualities of leadership among HODs and faculty. The HODs and faculty members are actively involved in decision-making process through various committees. The Principal holds meeting with HODs every week. All the decisions and policies to improve academic activities are reviewed and discussed during the meetings before implementation. Therefore, HODs acts as representatives of the faculty who are involved in the institutional decision-making.

In case, the faculty or staff wishes to express their views on any other matter, it is also possible to do so through the faculty representatives in LMC. In order to implement the quality policy and plans effectively, the management has following practices which shows the commitment, leadership role, and involvement of each one of us:

- Financial support to each department for facilitating the academic.
- Recruitment of qualified and experienced faculty.
- Prior planning for execution of T-L-P.
- Effective mechanism for monitoring the academic activities.
- Motivation, guidance, and appreciation to faculty, staff, and students.
- Periodic meetings for interactions with teaching and non-teaching staff.
- Development programmes for faculty and staff to update them with technologies.
- Support for departmental seminars, project work and guest lectures.
- MoUs with various industries for promoting I-I-I.
- Financial and moral support for qualification improvement of faculties and staff.

6.1.3 What is the involvement of the leadership in ensuring?

i) Policy Statements and Action Plans for Fulfillment of the Stated Mission:

- The SITS vision has been finalized by the Management.
- Mission and objectives of the institute have been chalked out.
- The Principal and HODs are the leaders while preparing the plan.
- Plan consists of activities that are needed for fulfillment of stated mission and objectives.
- Faculty leadership is responsible to achieve expected outcome as per the plan.
- Effective design of STP and its delivery generates leadership qualities among students.
- As a part of action plan, we do analysis of learning outcomes and remedial actions.
- Every faculty as a leader always strives for enhancing the quality outcome.
- I-I-I leads in updating the changing needs of new technologies.

ii) Formulation of Action Plans for All Operations and Incorporation of the same into the Institutional Strategic Plan:

- HODs in consultation with Principal formulate the action plan for T-L-P.
- The plan is strategically same as an institutional plan for all departments.
- HODs have flexibility to modify their strategies as per their domain within the policy.
- Faculty and staff members are led by the HODs to execute the action plan.

Criterion – VI: Governance, Leadership and Management

- Support of students plays important role in following instructions for their betterment.
- Principal leads from the front to monitor academic activities of the plan.
- Administrative strategies and systems developed are helping in controlling the execution.
- HODs play important role in framing out the AC as per the institutional strategic plan.
- LMC and GB make sure that every department gets sufficient funds to execute the plan.
- Management also insists to utilize the allocated funds as an institutional strategy.

iii) Interaction with Stakeholders:

There are many channels for the interaction between the stakeholders for their involvement as a leader while leading the current students as shown in **Figure. 6.1.3**

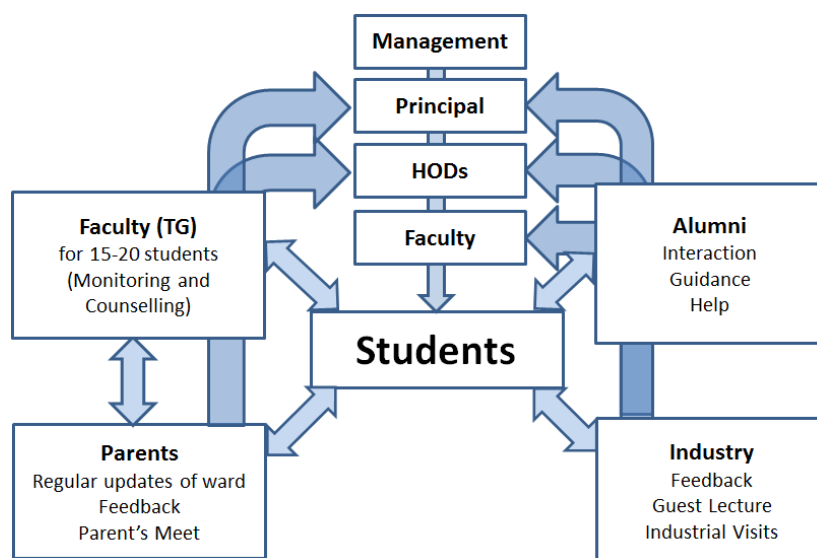


Figure 6.1.3: Interaction with Stakeholders

Stakeholders are involved as leaders through:

- TG's interaction with their assigned students for counseling and guidance.
- TG's communication with the respective parents about the progress of their wards.
- Interaction of parents with Principal, HODs or faculty for counseling and feedback.
- Alumni interaction with current students for counseling and guidance.
- Industry interaction with students for career guidance.
- Guest lectures of domain specific industry person for technological awareness.
- Industrial visits to expose students for the corporate world.
- Suggestions of alumni & employers to bridge the gap between curricula and industry.

Following different meetings are conducted in the institute for interaction

• GB Meet	• Employer's Feedback
• LMC Meet	• Placement Coordinator meets
• Principal's meets at STES	• Library Committee meets
• Principal HOD meeting	• Industry Institute Interaction meet
• Departmental Meeting	• Common faculty meet
• TG Meeting	• Hostel Committee meets

Criterion – VI: Governance, Leadership and Management

- Student Council Meet
- Alumni meet
- Parents meet
- Mess committee meet
- And many more...
- as and when required

iv) Proper Support for Policy and Planning through Need Analysis, Research Inputs, and Consultations with the Stakeholders:

- Principal takes review of academic results of all the departments. HODs in consultation with Principal decide strategy and plan for remedial actions to get quality results. These plans preferably consist of remedial classes, mock examinations, mock orals, assignments, counseling etc.
- As an institutional policy the TW marks are given to the students based on various parameters such as attendance, presentation, unit test marks, mock examination marks, participation in co-curricular and extra-curricular activities etc.
- Management always gives encouragement for the research activity and I-I-I. HODs and faculty also decides the strategy and plan for research oriented projects from faculty as well as students.
- University also supports research activity by giving proper funding to some of the selected research projects.
- Interaction with employers gives important areas in which the students are supposed to improve their personality and knowledge to increase the employability.
- Parent Teacher interactions are responsible for creating conducive environment for the students to give their best performances.

v) Reinforcing the Culture of Excellence:

- The institute believes in “Striving for Excellence” in academics as well as co-curricular extra-curricular activities. Therefore, Principal, HODs and faculty as a leader motivates the students and develop a competitive culture in every department.
- Attractive prizes, certificates and appreciation letters are responsible for mobilizing the student activities to get the excellence.
- Organization of various orientation programmes, seminars, and workshops cultivates the learning habits among the faculties to enhance their domain knowledge.
- To develop research culture among the undergraduate students institute has a plan. To mould the faculty while executing this plan management has given full moral and financial support.
- While developing culture for the excellence, involvement and ownership of every stakeholder have been taken into consideration.
- Continuous assessment, analysis, and constructive suggestions at regular intervals are useful to ensure the reinforcing culture of excellence.

vi) Champion Organizational Change:

- Maximum employability, number of students going for higher education and creating potential entrepreneurs are the focused objectives to become champion amongst the academic institutions nearby.
- Principal, HODs and faculty members as a leader keep their eyes open to understand the current needs of industry and global market while deciding the appropriate plan of action.
- Management also gives support while upgrading the infrastructural facilities and resources with the help of which faculty and students can get best of the best to achieve the excellence.

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

The procedures adopted by the institution to monitor and evaluate policies and plans of the institute for effective implementation and improvement from time to time are as follows:

- Designing of effective AC well in advance considering all the activities useful for quality outcome. The execution of AC is continuously monitored by HODs and Principal.
- Conduction of mock examination and evaluation to understand effective T-L-P while transforming the subject matter amongst the students.
- Remedial action plan for the defaulter students while bringing them into the main stream.
- Student's attendance monitoring and involvement of parents gives an opportunity to the students to execute corrective actions within time.
- Student feedback is an essential component for the self-improvement of every faculty. The identity of student is maintained confidential during the procedure of student feedback. This feedback gives strengths and weaknesses of faculty transparently. Principal and HODs also takes the cognizance of the student feedback and executes necessary actions required, if any.
- STP, VAP, QALR, AMCAT, and counseling of CPC are the routine procedures while developing the overall personality of the students.
- The feedbacks from outgoing students are true and unbiased with restive faculty and department where all the constructive suggestions are taken positively by the department. The department and institute adaptively make changes based on such a feedback.
- Formal and informal employer feedback always helps CPC while implementing placement procedures. The requirements of industry and quantum of students to be placed always needs changes in placement procedures time to time.
- The institute has appropriate formatted documentation procedure for result analysis and placement analysis to assess the attainment of program outcomes. This documentation helps the faculty in understanding the difficulty level, student performance and remedial actions that are required for better performance.

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

Once the policy is decided by the SITS management, a full freedom (academic, administrative and financial) is given to the Principal, HODs, and faculty. The details of responsibilities, duties, and expected outcomes from the individual are as follows:

- Principal is empowered to appoint appropriate person as the HOD who has leadership qualities and good listening ability to understand the students and faculty, their situations and expected outcome.
- HOD is empowered to allocate specific subjects to appropriate faculty to give justice and get maximum quality results. In addition to the academic workload, the HOD also assigns few administrative duties to the individual faculty based on the ability and the leadership qualities of the individuals.
- Every faculty member has freedom of deciding the suitable teaching methodology by understanding the time frame and evaluation mechanism of SPPU.

- Under the leadership of Principal, coordinators of various committees along with the HODs are getting delegated powers and responsibilities to handle specific task assigned to them.
- Based on the feedback and periodic result analysis, the remedial actions to fulfill the expected outcome are specifically given to all the faculty members either by oral discussion or through official orders, if necessary, by the Principal through the HODs.
- All faculty members exploit their knowledge and ability to percolate the knowledge with the help of academic freedom given by the HODs with clear understanding of their responsibilities and expected outcomes.

6.1.6 How does the Institute groom leadership at various levels?

The institute grooms the leadership at various levels as follows:

At student level:

- Encouragement to conduct various activities by the students for the students.
- Assigning freedom and responsibilities to develop their plan of execution of various activities.
- Enhancement of personality development, and soft skill to build their confidence while executing specific task.
- Motivation and encouragement for new innovative ideas with strong moral support from faculty.

At faculty level:

- Opportunities to lead specific committee while conducting various activities at department and institute level.
- Freedom is given to express their thoughts, new ideas, and novel approaches.
- Inspiring them to lead the students' community during the classes, practical and industrial tours to guide the students while acquiring the knowledge.
- Encouragement to lead the faculty while organizing various university level seminars and workshops.

At HOD level:

- Decentralization of various tasks to develop leadership at departmental level.
- Assigning few institutional responsibilities well supported by the Principal and the management.
- Creating healthy competition amongst the departments and encourage them to achieve superior academic performance.
- Encouragement to visit various reputed organizations to understand their best performance practices and implementation policies.
- Encouragement to follow administrative practices to avoid confusions and hurdles in the path of the success.

At Principal level:

- Freedom is given while executing academics.
- Financial freedom and moral support for the betterment of quality outcome.
- Appreciation of execution of best practices.
- Experiencing healthy competition among the institutes and encouragement to head of the institute to achieve superior academic performance.
- Assigning STES level tasks to lead and organize specific activity.

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?

The management of the institute has two main committees GB and LMC. The role of GB is to decide vision and objectives of the institute based on which directions to LMC and head of the institute are given. The GB approves the budget recommended by LMC. Once the budget gets approved by GB, the Principal and HODs have authority and operational autonomy to utilize the same. There are two GB meetings per year to take academic review and progress of the institute and also suggests improvements if necessary.

HODs play an important role in advising the Principal while preparing the budget required for infrastructural development and human resource to complete the goals and vision of the institute. All HODs are also helping the Principal during the academic year and handle all academic and administrative responsibilities. Every HOD takes the ownership of the department and gives parental care to faculty and students. They also handle student affairs and any other matter and resolve the issues to make conducive environment for execution of good T-L-P in the department.

Involvement of faculty in various activities and the interest shown by them while executing specific task gives an idea to the HOD to understand the strength of the faculty. HOD is empowered to promote specific faculty to handle dedicated events in best possible way. This process is not only grooming the leadership of HODs but also useful to create a followers while executing various activities efficiently. Similar approach is also followed by the Principal to promote and encourage HODs, faculty and staff while executing specific activities for the development of the institution.

Faculty members of every department follow all the instructions given by the HOD. They are not only handling the responsibilities of completion of academics but also help HOD in various administrative duties such as TG, CT, and coordinator of specific committee. Many dedicated faculties are also getting opportunity to perform their duties at institute level.

6.1.8 Does the Institute promote a culture of participative management? If “yes” indicate the levels of participative management.

Yes, the institute promotes culture of participative management.

- Principal is the member of both GB & LMC and act as a representative of institute while deciding management policies. One teaching faculty member and one supporting staff are members of LMC. They are actively participating in discussions of management.
- Principal has an authority and power while implementing the decisions in various departments. All the HODs along with the Principal takes unanimous decisions while executing the academic and administrative work based on vision and objectives lay down by the management.
- Individual department also conducts meeting every week to percolate the decisions made by HODs along with Principal. Constructive suggestions and faculty feedback are consistently discussed during the conversations to develop culture of participative management.
- In most of the committees the involvement of faculty and their participation makes the academic and administrative system transparent.

- While executing extra-curricular activities the innovative ideas of the students are promoted to decide plan and strategies.
- The suggestions given by the management and Principal are communicated to faculty and staff on regular basis in order to implement various strategies for the benefit of students and faculty.
- Formal and informal feedbacks of students are also useful to modify systems to give positive outcomes.
- Therefore, the institute executes participative management where students, staff, HODs, Principal, LMC and GB experiences the culture of transparency at their respective levels.

6.2 Strategy Development and Deployment

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed, and reviewed?

Yes, the institute has a formally stated quality policy. The quality policy of the institute is committed to:

- Provide excellent infrastructure facilities.
- Employ qualified and experienced faculty.
- Encourage the faculty for improvement in qualifications.
- Promote industry interaction.
- Create environment for research and development activities.
- Encourage industry sponsored projects for the students.
- Strive for quality academic performance of students.
- Enhance employability, students going for higher studies & entrepreneurs.

Development of quality policy is based on stated vision and mission of the institute. Quality policy states the objectives of the institution for the benefits of the students and society at large. The emphasis has been given for the development of infrastructure facilities, appointment of qualified and experienced faculty and academic excellence.

Quality policy has been driven by the industrial expectations from engineering graduates, rapid change in technology and global industrial scenario. Entrepreneurship development is another sector and an opportunity for the institute based on which the quality policy has to be adaptively changed.

Quality policy has been deployed with clear understanding of vision and mission of the institute and required outcome in terms of academic quality performance, placement, and acceptability of the students by the industry or any other national/ international university for their higher studies. STP, VAP, QALR, ET, and AMCAT have been effectively implemented while deploying the quality policies.

Review of quality policy is essentially depends on the industrial requirements given to the institute in terms of their constructive suggestions. It also depends on the kind of student intake where we have to adaptively modify our plan of action. The quality measures are also to be reviewed and modified, if necessary, to achieve the expected outcome.

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. Various aspects considered for the institutional perspective plan are as follows:

- Become center of excellence in the field of technical education.
- Enhance student's placements in renowned industries.
- Cultivate interdisciplinary approach.
- Develop ourselves as a research and development center in association with industry.
- Achieve academic autonomy for flexibility in deciding own curriculum & evaluation.
- Develop international repute and foreign university collaborations for credit transfer.

6.2.3 Describe the internal organizational structure and decision making processes.

Organizational Structure: The internal organizational structure of the institute is as shown in *Figure 6.2.3*.

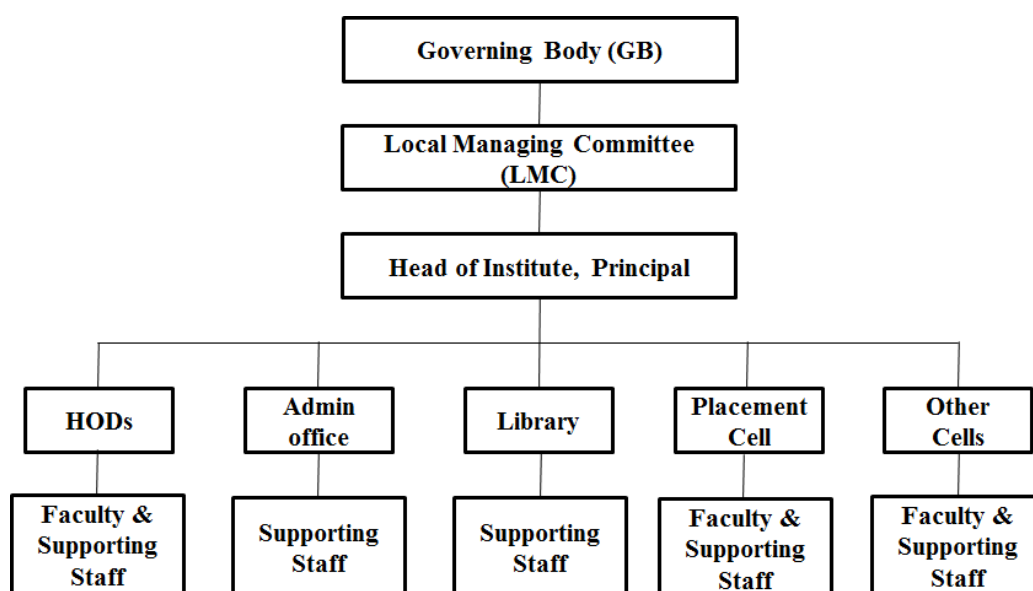


Figure 6.2.3: Internal Organizational Structure of Institute

As per the guidelines of GB and LMC, Principal acts as a leader to percolate policy down the line and decide strategies for the overall development of the institute. Delegation of authority and provision of operational autonomy to the departments / units of the institution and work towards decentralized governance system by proper decision making process has been explained in *Section 6.1.7*.

6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following.

i) Teaching & Learning: The institute ensures effectiveness of the T-L-P using:

- Well planned effective academic calendar,
- Modern audio visual aids and e-resources,
- Continuous evaluation of students,
- Implementation of STP, VAP, QALR, ET, and AMCAT,

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- Remedial sessions for slow learners,
- Expert lectures by industry persons

ii) Research & Development: The institute ensures research in faculty and students by:

- Developing infrastructural facilities,
- Promoting and encouraging faculty for research and publication,
- Promoting qualification improvement program through research,
- Encouraging students to undertake industry projects,
- Encouraging students to present technical papers,
- Signing MoUs with industry / foreign universities,
- Encouraging faculties to apply for research grants

iii) Community Engagement: Institute believes to support the community through:

- Blood donation camp,
- NSS activities to create social awareness among students,
- Encouraging students and faculties to understand current social problems such as traffic, cleanliness, water problem, energy resources etc.,
- Organizing self-defense awareness program for girl students

iv) Human resource management: The institute has optimized their human resources by:

- Recruiting qualified and experienced faculty as per the guidelines of SPPU,
- Facilitating and deputing faculty for higher studies,
- Promoting industry interaction among faculty and staff,
- Updating knowledge of faculty through FDP, visiting/guest faculty,
- Training to non-teaching staff.

v) Industry interaction: I-I-I cell of the institute is making students industry ready through:

- Expert lectures, industrial visits/site visits of specific domain, MoUs etc.,
- Industry implant training with hands-on,
- Interaction of faculty and industry expert,
- Constructive suggestions while designing the curricula,
- Developing skills with specific technology to the students,
- Allowing the use of sophisticated equipments to the faculty and students,
- Providing financial support/equipment/material/guidance for innovative projects,
- Participate in teaching programmes, workshops and training programmes organized by the institute to adopt modern / latest technology in industry,

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?

There are various sources available to take feedback from different stakeholders to review the activities of the institute as shown in **Figure 6.2.5**. The Principal consolidates all such feedback information and ensures that the same is available for the top management and the stakeholders to review the academic activities. After review by the management, the suggestions are taken as an input to rectify or modify the systems to satisfy for better performance of the institution. The Principal and HODs percolate the corrective actions in all the departments as per the policy decisions. The system of getting feedback from all the

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stakeholders, its review and corrective actions for the betterment of the institute and to get best of the best performance is continuous process.

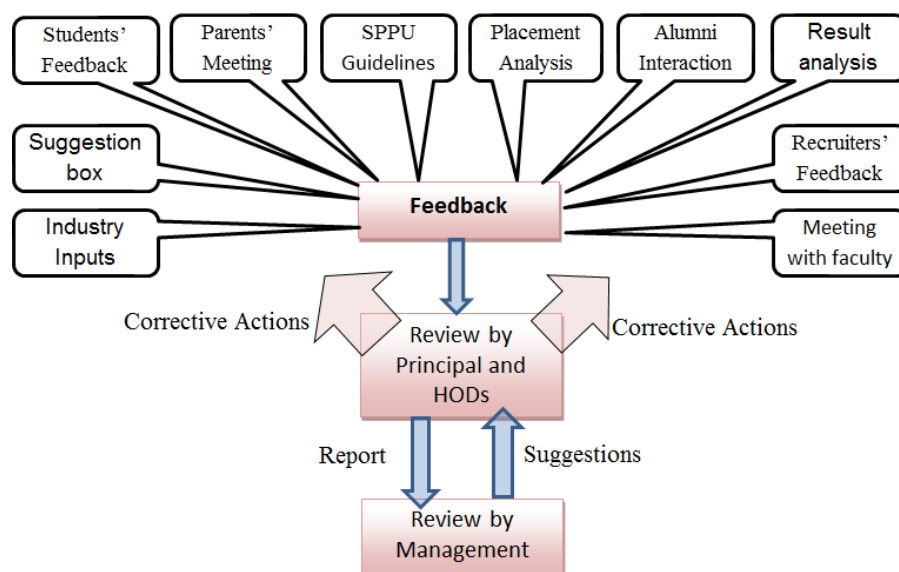


Figure 6.2.5: Sources of Feedback to Management and Stakeholders

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

The management encourages and supports involvement of the faculty and staff in improving the effectiveness and efficiency of the institutional processes by:

- Providing academic and administrative freedom to Principal and HODs,
- Creating transparent work culture and person independent systems,
- Giving regular increments and promotions based on their performance/qualifications,
- Providing equipments and resource materials as per requirements,
- Making provision of funds for participating in national / international conferences,
- Sponsoring faculties to pursue Ph.D. in reputed universities,
- Adjusting workload of faculty and staff while they pursue higher education,
- Facilitating FDP, TTT programmes to faculty and training to staff,
- Creating awareness of research through lectures from eminent personalities,
- Appreciating faculty for showing good students' academic performance,
- Awarding department by constituting “Best Department” for best implementation strategies of the department every year,
- Extending help to every individual to solve their problems.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

The major resolutions made by GB during the 14th meeting in the office of the Honorable Secretary of STES, on Wednesday, 15/04/2015 and their status of implementation is as shown in **Table 6.2.7**.

Table 6.2.7: Resolutions Made by GB and its Status of Implementations

Resolution	Status
Result Analysis: The need of improvement of the performances of students in various subjects was suggested by the GB. They also suggested giving emphasis on quality of result.	Improvement of the performances of students in various subjects conveyed to HODs and respective faculties to take corrective actions.
Placement of students: The members suggested making efforts in enhancing the ability of students in communication skill, fundamental knowledge, understanding of new technologies, innovative interdisciplinary approach.	STPs and VAPs have been effectively conducted by every department and efforts have been made to encourage the student to participate in various technical activities.
Academic Calendar: GB suggested preparing detailed AC including industrial visits and Parent's meet.	Every department has prepared detailed AC including industrial visits and Parent's meet.
Library: More number of books should be issued to the students for better utilization of library.	Library Committee has decided to give more books on borrow cards of the students.
Technical Activities: Appreciation of efforts taken by the students and faculty in conducting various technical activities in the campus. Suggested innovative activities in 'TECHTONIC,' for AY 2015-16.	The faculty and students have planned and executed 'TECHTONIC,' for AY 2015-16. Every department has taken efforts in conducting innovative competitions.
FDP: GB suggested encouraging various programs arranged by SPPU to be attended by the faculty at various other institutes in future, and give emphasis on research approach of faculty and publications in International journals.	Every department has prepared a plan for various FDP to meet the needs of new syllabus. HODs emphasized on research approach of faculty and publications in International journals.
Tools & Equipment: GB suggested and approved the necessary budget of tools & equipment for UG and PG the AY 2015-16.	Concerned departments have procured necessary tools & equipment for UG and PG the AY 2015-16.

6.2.8 Does the affiliating University make a provision for according the status of autonomy to an affiliated institution? If yes, what are the efforts made by the institution in obtaining autonomy?

Yes, the affiliating university has a provision for according autonomy for an affiliated institution. Currently the institute is in 8th academic year (establishment in 2008). Every year institute has continuation of affiliation to SPPU. The institute will be eligible for permanent affiliation after completing of 10 years and then eligible for applying for 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 ensures that grievances / complaints are promptly attended to and resolved effectively through following mechanism to analyze the nature of grievances for promoting better stakeholder relationship:

- Anti-ragging Committee,
- Women's Grievance Cell,
- Oral and written complaints to the TGs, HODs and Principal,
- Students' feedback of faculty,
- Suggestions through suggestion box,
- Feedback of interaction with faculty and weekly HODs meeting with Principal,
- Weekly faculty meeting with HOD.

6.2.10 During the last four years, had there been any instances of court cases filed by and against the Institute? Provide details on the issues and decisions of the courts on these?

No, no court cases filed by and against the institute.

6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If yes, what was the outcome and response of the institution to such an effort?

Yes, institution has a mechanism for analyzing student feedback on institutional performance. The outcome and response of the institution to such an effort is implemented as:

- Appreciation letters are given to motivate faculty showing good academic performance on the occasion of ‘Teacher’s day’. This has increased the number of faculty getting such appreciations in last two years.
- Feedback from students with respect to STPs and VAPs has helped us in improving the effective delivery of soft skills and awareness about new technologies to the students. The improved performance of the students has been reflected in increased student placement in reputed industries.
- Analysis of various performance parameter indicators based on which students gives feedback for the faculty, provides an opportunity to identify weaker areas in T-L-P and improve upon them for the better performance.

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 efforts made by the institute to enhance the professional development of faculty and staff are as follows:

Efforts on Faculty Development:

- FDPs are conducted to upgrade their knowledge,
- Financial support to attend seminars, workshops, FDPs at national/international levels,
- Need based hands-on training programmes are arranged,
- Awareness of innovative T-L-P through TTT, TAP and K-point capsules,
- Encouraging faculty to become members of professional bodies,
- Platform for industry interaction through I-I-I,
- NPTEL video lectures,
- Faculties are permitted to improve their qualification,
- MoU with foreign university to pursue Ph.D.

Efforts on Staff Development:

- Need based training programmes are arranged,
- Encouragement for higher studies by suitable adjusting their duties,
- Involvement in organizing professional courses and examinations,
- Promoting as teaching faculty after acquiring necessary qualification,

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- Promoting at key position to interact with stakeholders professionally,
- Realization of ownership and freedom given in their day to day activities,
- Opportunities to visit professional organizations.

6.3.2 What are the strategies adopted by Institute for faculty Empowerment through training, retraining and motivating the employees for the role they perform?

Institute is always striving to motivate and empower the faculty in T-L-P by:

- Mentor mentee scheme for development of faculty,
- Permitting to attend training programs at different institutions,
- Assigning special duties and independent responsibilities to the faculties,
- Conducting TTT programmes to get overall idea of the subjects assigned to them,
- Retraining to adapt new technologies through experts,
- Arranging management capacity building workshops such as TAP,
- Encouraging and facilitating to acquire higher qualifications,
- Promoting at key position to act as leader,
- Giving freedom in their day to day activities,
- Providing opportunities and platform to showcase their strengths and talent.

6.3.3 Provide details of performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal?

Table 6.3.3 shows the parameters of performance appraisal system of faculty to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal. Comments and suggestions of AMC to faculty and staff are useful for improving their performance.

Table 6.3.3: Parameters of Performance Appraisal System of the Faculty

PART A – To be filled by Individual Faculty	PART B – To be filled by HOD
• Qualification acquired during reporting period • FDP/ Continuing Education Programs/ Industrial Training etc. attended • Participation in Seminar/ Workshop / Conference • Seminar / Workshops / Conferences / Courses conducted as Coordinator • Consultancy Work / or Externally Funded Research Projects • Research Publications • Books Published • Membership of Professional Bodies • Industrial Liaison • Patents Obtained • Result Performance of Subject • Weakness in Teaching through Students Feedback	• Quality of Job • General Intelligence • Integrity and Character • Reliability / Dependability • Punctuality • Fitness to continue in the present situation • Relation with Colleagues / Students and their Parents • Brief about Punishments / Rewards • Control over class and discipline • Students Feedback • Proficiency in subject of Specialization • Initiative to do work • Organizing ability • Involvement in conducting and arranging communication skills / personality development / VAPs • Efforts taken to overcome weakness in

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• Guest Lectures given to outsiders as an Expert • Participation in ▪ Departmental Activities ▪ Institutional Activities ▪ Co-curricular Activities ▪ Community service and promotion of Entrepreneurship and job creation • Constraints/ Problems if any faced	• Teaching • Leave Without Pay Availed during period of Assessment • Overall Assessment • Recommendations, if any
PART C (To be filled by Principal)	PART D
Remarks of Principal	Final Review by the Accepting Authority

6.3.4 What is outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

The outcome of the review of the performance appraisal reports of faculty and staff are as follows:

- Annual increments and promotions,
- Appreciation letters based on the performance,
- Monitoring of improvement in faculty performance,
- Official memos/warning letters for the unsatisfactory performance.

Communication of appraisal reports to the stakeholders is as follows:

- Performance appraisal forms of faculty and staff with comments of AMC are given to the management,
- A copy of PART-A of performance appraisal is given to faculty and staff with remark by AMC,
- Official memos are given with details of parameters in which the faculty /staff is lagging with expected improvements,

6.3.5 What are the welfare schemes available for teaching and nonteaching staff? What Percentage of staff has avail benefit of such scheme in the last four years?

The welfare schemes available and percentage of staff has avail benefit is as shown in **Table 6.3.5:**

Table 6.3.5: Welfare Schemes Available & Percentage of Staff Availing benefit

Welfare Schemes	Percentage of Staff
Financial support and/or special leaves	60.52
GIS with accidental insurance	100.00
Employability Provident Fund (EPF)	71.35
EMBF and gratuity	100.00
Free medical treatment in SKN-GHMC	100.00
Quarters to Hostel Supporting Staff	42.00
Registration fees to attend FDPs, workshops etc.	60.52
Uniforms for security staff every year	100.00
Extended maternity leaves	100.00

6.3.6 What are the measures taken by the Institute for attracting and retaining eminent faculty?

The institute has been taking efforts to attract and retain, qualified and experienced faculty in the institute in following ways:

- The pay scale, DA, HRA are given as per GR of GoM,
- Promotions are given for well deserving faculty and staff,
- Sponsorship is given for higher education with paid leave,
- Financial assistance is provided to attend FDPs, workshops, seminars,
- Healthy and transparent culture across every department,
- Appreciation of good performance of faculty and staff,
- Freedom of thoughts and ideas with higher authorities,
- Value given to the teacher as a nation building person.

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 effective and efficient monitoring of use of available financial resources of institute is mechanized in following way:

- The annual requirements of non-recurring and recurring expenditure are prepared by the HODs with the help of senior faculty and laboratory in-charges. The details are given to Principal in prescribed format for each financial year.
- The departmental budget is discussed with the Principal and gets finalized to put into the institutional budget to be recommended by LMC and approved by GB.
- Comprehensive institute budget proposal is prepared and presented by the Principal to LMC for recommendation and approval from GB.
- Principal and HODs can utilize the budgeted amount through proper procedure (comparative statements & analysis of vendors) with specific approval of President/Vice-President.
- Principal can take decision of emergency purchase within the approved budget.
- Regular procedure of quotations, comparative, analysis, delivery, payment after commissioning is carried out for effective and efficient use of available budget.
- Any additional requirement for emergency expenditure can be discussed by HODs with the Principal and requested to President /Vice-President for approval.
- Principal and HODs conducts periodic reviews with account section of institute to make sure that the funds are utilized effectively.
- Review by LMC and GB half yearly.

6.4.2 What is the institutional mechanism for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

The institute has mechanisms for internal and external audit. Internal audit is carried out periodically. External audit is carried out once in a year. External Auditor verifies all receipts & expenses bills, payments of the Financial Year (FY). The last external audit of FY 2014-15 was carried on 23rd Jun 2015. There were no major objections in balance sheet assessment.

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Few minor objections of external audit and compliance made by the institute are as shown in **Table 6.4.2**

Table 6.4.2: Objections of External Audit and Compliance

Particulars of objection in brief	Compliance by the Institute
Recovery of excess payment of Salary: Mrs. Moon Rs. 10,658/-	The excess payment of Rs. 10,658/- has been fully recovered from the salary of Dr. Rinki Pankaj Moon
Excess payment of salary to Mr. Bhilare of Rs. 21,226/-	We have communicated to Mr. Bhilare Prashant regarding the recovery of Rs. 21,226/-
Excess payment of Salary to Mr. Bhokase to Rs. 18841/-	We have communicated to Mr. Virendra Bhokase regarding the recovery of Rs. 18,841/-
Excess payment of Salary to Ms. Tejal Patil of Rs. 34,948/-	The excess payment of Rs. 34,948/- has been fully recovered from the salary of Tejal Patil
Excess payment of Salary to Ms. Khatri I of Rs. 1,032/-	The excess payment of Rs. 1,032/- has been fully recovered from the salary of Ms. Khatri
Excess payment of Salary to Mrs. Borkar of Rs. 12,300/-	The excess payment of Rs. 12,300/- has been fully recovered from the salary of Mrs. Borkar
Recovery of Notice Pay amounting to Rs. 1,37,358/-	We have sent a official letter to the concern six faculties and also sent e – mail
Excess Payment of Rs. 1991/-	The said payment was recovered from the said party and credited the amount in the books of accounts during the course of audit.
Fees receivable from student Rs. 1,27,04,434/-and from the Social Welfare Department Rs. 7,48,80,361/-	We are in constant touch with Social Welfare through STES Office regarding the receivable fees of the student. The necessary claims have already been submitted to the concerned authority. Out of Rs. 1,27,04,434/- receivable from student, we have already recovered Rs. 57,43,955/- from student.
Omissions in respect of maintenance of accounts.	We have verified all the invoices and no such case have been found. Specific examples of invoices have also been verified and found correct. We will follow the same procedure even for invoices of consumables.

6.4.3 What is the major source 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 sources of institutional receipts are from tuition and development fees of students. Copies of the audited statement for previous 4 years are available. Deficit, if any, is taken care by institute management through corpus funds.

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

The institute has received grants from BCUD – SPPU and industry as an additional funding for research activities. Details of these grants are given in **Table 3.2.6 (a) & Table 3.2.6 (b)** of **Criterion III**.

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?

Yes, IQAC has been proposed from next academic year. Currently the T-L-P is monitored and governed by the AMC which will become integral part of proposed IQAC. The primary aim of the proposed IQAC is to develop a system for conscious, consistent, and catalytic action to improve the academic and administrative performance of the institution. The various functions of IQAC and mechanisms to maximize the quality outcomes of institute are explained in *Figure 2.3.2*.

b. How many decisions of the IQAC have been approved by the management/authorities for implementation and how many of them were actually implemented?

Not applicable.

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

Not applicable.

d. How do students and alumni contribute to the effective functioning of the IQAC?

IQAC will work in close loop system with faculty, staff, students, alumni, and management for developing a unique work culture in the institute. *Figure 2.3.2* gives an overall idea for effective functioning of the IQAC. Students and alumni can contribute through their constructive suggestions as follows:

Students

- Teaching Quality
- Teaching Learning Process
- Laboratory Equipment
- Infrastructure
- Activities to be carried out

Alumni

- Employability
- Course contents
- Industry requirement
- Infrastructure required for higher studies

e. How does the IQAC communicate and engage staff from different constituents of the institution?

IQAC members consist of representatives from all the departments of institute and they are involved directly or indirectly in effective function of IQAC.

6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If “yes”, give details on its operationalization.

Yes, the institution has an integrated framework for quality assurance of academic and administrative activities. This integration is achieved through AMC. The members of AMC

follow the defined strategies and conduct the meetings on regular basis to achieve stated goals of the institute.

6.5.3 Does the institution provide training to its staff or effective implementation of the Quality assurance procedures? If “yes”, give details enumerating its impact.

Yes, the institution provides training to its faculty and staff for effective implementation of the quality assurance procedures. The AMC analyses faculty & staff and suggests remedial actions of trainings for ensuring timely, efficient, and progressive performances in academics, administration, and development of the institute.

6.5.4 Does the institution undertake Academic Audit for other external review of the academic provisions? If “yes”, how are the outcomes used to improve the institutional activities?

Yes, the institution undertakes an academic audit for other external review of the academic provisions. The HODs conduct review of various academic activities during the weekly departmental meetings and guides the faculty, staff members accordingly. The submission of self-appraisal reports and annual activity reports are mandatory for each and every faculty, staff member. This makes them to get involved continuously in self-development and in totality the improvement of institutional activities.

6.5.5 How is the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

The requirements of internal quality assurance mechanisms are currently defined by AMC in association with the standard guidelines given by AICTE/UGC/DTE/SPPU. The analysis and suggestions by AMC based on defined guidelines are benefiting the institutional progress in quality education and research. It ensures transparency in faculty, staff, and management with respect to objectives towards attainment of mission and vision of the institute.

IQAC will create a mechanism to integrate various academic activities, enhance supportive administrative tasks, and effectively communicate to achieve quick actions and get impact on quality objectives of the institute.

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?

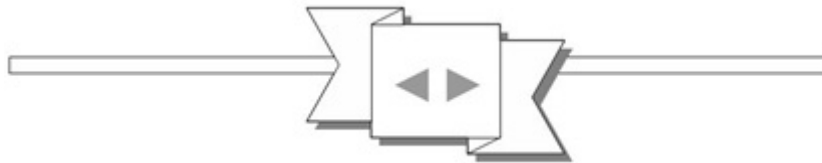
Currently, AMC is monitoring all the academics, student feedback, and overall teaching learning process to achieve maximum academic performance of the students. Guidance of advisors in terms of teaching load distribution, new faculty recruitments, and procurement of new equipment & library books is always helping the individual department to improve their performance. Faculty and staff appraisals are also looked after by AMC, where it not only monitors the performance of individual faculty but also guide them to achieve their own objectives.

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

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information regarding Governance Leadership and Management which the Institute would like to include.

Institute communicates its quality assurance policies, mechanisms and outcomes to the stakeholders through institutes Vision and Mission statements. These statements are displayed on institute website, display boards etc. The objectives of technical education and institute's methodologies to achieve it are conveyed to the students, parents through induction programmes, various events etc.





CRITERION VII: INNOVATIONS AND BEST PRACTICES

7.1 Environmental Consciousness

7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

A green audit of the institute building was carried out in the year 2014-15 by Environmental Engineering Cluster of Civil Engineering department. The audit has been carried out on the basis of overall environmental management, procurement policy, energy management, materials management, water, and wastewater management etc. The status and short-falls in existing light energy of the institute were identified. An audit of natural light and illumination, as per Indian standard norms, for good visibility also carried out.

Other factors contributing to lighting were studied and suitable remedial measures were suggested and implemented. Some of the factors and their remedial are as follows:

- All tube lights are kept clean
- Awareness through displays “Please Switch Off Lights & Fans While Not in Use – Energy Saved is Energy Generated ”
- Fans and tube lights near windows curtailed
- Less efficient water pumping units were replaced by energy efficient units with Bureau of Energy Efficiency standards
- Solar system are installed in hostels
- Paperless governance for day to day working through GEMS

7.1.2 What are the initiatives taken by the Institute to make the campus eco-friendly?

i) Energy Conservation: Effective monitoring and control of energy consumption using separate power control panels is carried out in building number 2&3 of the institute. The UPS batteries are maintained in good condition which reduces energy for charging of batteries. Waste water in the campus is recycled and used for gardening. The various awareness programmes conducted at the institute for energy conservation are as follows:

- **World water day:** World water day is celebrated every year on 22nd March. The awareness about water conservation is created by conducting various programs such as essay writing, water pollution, water literacy etc. Informative guest lecturers are also conducted by inviting experts.
- **Ozone day:** 16th September is celebrated as an ozone day as per the declaration of United Nations General Assembly for preservation of the ozone layer. The institute conducts awareness programs in accordance with the objectives and goals of ozone day, which involves pledge by students to become a responsible citizen.
- **Earth hour day:** Earth hour is a worldwide grass root movement uniting people to protect the planet. It is celebrated on every 29th March between 8:30 PM-9:30 PM. The institute encourages students to celebrate the earth hour by “one hour shutdown of light” in their hostel rooms.

ii) Efforts carbon neutrality: PUC camp for staff and students vehicles is arranged in campus. This helps to control the carbonic exhaustion of vehicles to maintaining eco-friendly atmosphere.

iii) Plantations: The medicinal plants such as Nag - Keshar, Rakta Chandan, Saptarangi, Beheda, Brahmi, Neem, and Tulsi etc are planted in the premises. These medicinal plants include the plants which are on the verge of extinction. Every building is also surrounded by plants to keep cool and healthy atmosphere. These plants are specially chosen to control dust. The trees absorb sound and so the noise level in the campus and building is within the permissible limit. Also the students of NSS have made the plantations during the camps in nearby villages and made the awareness amongst the people.

iv) Hazardous waste management: One of the nearby prime water source, Jamnhulwadi lake, gets polluted by hazardous waste during Ganesh festival by immersing Ganesh idol and discharging floral garbage in it. Our student organizes a street play on “Visarjan Ghat” as awareness program on ecofriendly Ganesh Visarjan. Students also promote motivational programme on Ganesh Idol adoption.

v) e-waste management: The different types of e-waste generated in the institute like damaged batteries , cells, CDs, Hard Disk Drives, Monitors, Keyboards, Cables, Cartridges, etc. are collected together and handed over to an external e-waste recycling agency.

7.2 Innovative Practices

7.2.1. Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

For the excellence of academics and administration, institute has implemented various innovative practices such as:

- **Uniform Filing System:** All the departments are following uniform file system for documentation. It helps to specify and retrieve the desired information effectively. There are six groups in all consisting of fifty five files.
- **Effective TG Scheme:** All the departments are following a TG scheme, where the students get academic and personal guidance from the concerned TG. The TG acts as a friend, philosopher, and guide and takes parental care of each student.
- **Appreciations of staff and department for their achievements:** The institute acknowledges the efforts taken by the faculty for academic excellence. On the occasion of teacher’s day, the institute appreciates these efforts based on academic criteria decided at institute level. Also, the best department is appreciated based on criteria. This activity encourages and inspires faculty to progress further in their endeavors.

- **K-points server and learning capsules:** K-point is a central accessible resource made available for faculties and students. Faculty maintains audio recorded clips useful for the offline learning for the benefit of students. It contains summarized concepts and techniques that give birds-eye-view of the subjects. As the institute campus is enriched with Wi-Fi connectivity, students have direct access as and when needed to key concepts of the subjects.
- **Motivation to students for certification from other universities:** Online courses are offered by various other universities worldwide. We are motivating our students to register for online courses such as edX. Each learning sequence of edX is composed of short video lecture with interactive exercises, where students can immediately practice the concepts from the videos.

7.3 Best Practices

7.3.1 Elaborates on any two best practices in the given format, which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the college.

Best Practices I - STP to enhance employability skill

Goal: Worldwide, the advancement in technology has not only revolutionized the scope of engineering education, but also redefined the expectations from engineering graduates. At SITS, a need was identified to start an innovative practice “**Student Training Program**” that would help the students to build a personality equipped with exquisite technical and soft skills. With this in mind, a state- of-the-art STP is being implemented from the year 2013-14. The aim of the program is to enhance the quality of the students by empowering them with skills those are globally at par.

The objectives of the STP are to:

- Enhance the employability opportunity.
- Prepare students for entrepreneurship and
- Prepare students for higher education in India and abroad.

The Context:

- **Integration in to the curriculum:** Training incorporated into the curriculum to help students for preparation and self - evaluation in technical and soft skills.
- **Lecture recordings:** As a part of STP, subject wise, all lectures are recorded by expert faculty on K-point server. This is a LAN based resource to help the students to learn and revisit the concepts discussed in class earlier.
- **Expert faculty:** A good blend of class room and hands on training provided by expert faculty.
- **AMCAT assessment:** Training need and outcome assessed using AMCAT, a test preferred by many well-known industries globally.

The Practice: The duration of STP is 120 hours that spread over 5 semesters. It is to be undertaken by the student from the start of the second year of engineering. The details of the program are explained in **Section 1.2.5, Criterion I**.

Evidence of success: Implementation of STP has shown remarkable effect on placement activity. Also, students are able to crack professional examinations conducted by industries, government agencies, civil services etc. This unique activity is appreciated by industries and alumni.

Problems Encountered and Resources Required: The VAP is required to be conducted in parallel with regular academics. Therefore, extra sessions from industry experts are normally arranged on weekends. Convincing the students to attend such sessions is really a challenging task. Industry experts and corporate trainers charge heavily to the students for professional training. Extra budgetary provisions to conduct such training become essential or students pay on their own otherwise. As students are already paying heavy tuition fees to the institute, they are reluctant to participate for such training.

However, it is necessary to give VAP inputs to the students to cope up with industrial requirements and make them ready for placement. Introduction of STP and VAP have solved majority of these problems with minimum expenditure and removed unnecessary financial burden on the students. This has also motivated the students to attend sessions even on weekends and holidays.

The institutional resources required to conduct STP and VAP are as follows:

- Budgetary requirement for TTT
- Classroom with LCD and multimedia facility
- Software for ET and QALR
- Internet facility to conduct AMCAT
- IT infrastructure for hands on training
- Library with necessary e-resources, journals, and books.

Best Practices II - Paperless governance with GEMS

Goal: The institute implemented paperless governance through MIS software system – **Governing Educational Management System (GEMS)**. With the help of this system, all the academic processes of institute are automated.

The context: Every faculty and staff is allotted an individual login ID through GEMS. The processes like AC, faculty leave management, faculty appraisal, student feedback and placement activities are operational and followed by every faculty and the staff members of institute.

The practice:

- **Academic calendar:** Every faculty uploads their time table, teaching plan of the subject, schedules of examinations, attendance etc. for every semester.
- **Leave management:** Faculty can apply for all the types of leaves with necessary alternative arrangements. These leaves are approved by HOD, Registrar, and Principal.

Criterion – VII: Innovations and Best Practices

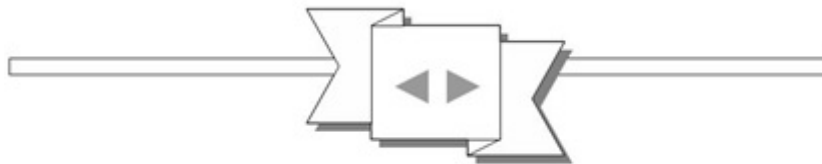
- **Faculty appraisal and student feedbacks:** The teaching feedback of every faculty from students is conducted online per semester. Also, the academic performance of faculty is evaluated through the GEMS annually.
- **Placement activities:** All the students are registered on GEMS and they fill their academic data online. The placement officer makes the announcements of placement activities and furnishes the required student's data to the companies online.

Evidence of success: The lesson plan of the respective subject is available based on which the lectures are planned. Accordingly the attendance has been monitored. The reports of placement activity are generated as per the requirements of company.

Problem encountered and resources required: GEMS systems run on a variety of computer hardware and network configurations, typically using a database as an information repository. Installation of the system with necessary application and data integration is difficult on various configurations of PCs. Conversion of previous manual system in to equivalent software system is not only difficult but also exhibits strong oppose from various cadres of employees. Therefore, extensive training is necessary for employees with strong convincing ability.

The institutional resources required for implementation of GEMS are as follows:

- Budgetary requirement for training of employees
- High internet bandwidth
- GEMS software
- PCs with latest configuration



E- EVALUATIVE REPORT OF THE DEPARTMENTS



DEPARTMENT OF COMPUTER ENGINEERING

1. **Name of the Department** : Computer Engineering
2. **Year of Establishment** : 2008-09
3. **Names of Programmes/ Courses Offered (UG, PG, etc.)**

Name of program	Year of Establishment
First Shift in UG of Computer Engineering (Intake of 60)	2008
Second Shift in UG of Computer Engineering (Intake of 60)	2012-13

4. **Names of Interdisciplinary courses and the departments/units involved:**

SN	Class	Interdisciplinary Courses	Departments involved
1.	SE	Microprocessor Architecture	E&TC
2.	SE	Microprocessor & Interfacing Techniques	E&TC
3.	SE	Engineering Mathematics	Engineering Science
4.	TE	Financial Management & Information Systems	MBA, Civil Engineering
5.	TE	Digital Signal Processing	E&TC

6. **Annual/ semester/choice based credit system (Programme wise):**

UG: FE semester credit system and SE, TE, BE semester system

Final year students can select any elective subjects depending on his /her own interest from the list of offered electives by the SPPU.

7. **Participation of the department in the courses offered by other departments:**

SN	Class	Courses	Dept. involved
1	FE	Fundamentals of Programming Languages - I	FE
2	FE	Fundamentals of Programming Languages - II	FE

8. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

Sr. No.	Certificate Course	Participating institution/industry
1.	Spoken Tutorial on Latex	IIT Bombay
2.	Spoken Tutorial on PHP & MYSQL	IIT Bombay
3.	Spoken Tutorial on Java	IIT Bombay

4.	Spoken Tutorial on Linux	IIT Bombay
5.	Spoken Tutorial on C& C++	IIT Bombay
6.	Spoken Tutorial on Scilab	IIT Bombay
7.	Introduction to Linux	edX
8.	Introduction to Game Design	edX
9.	ASP .NET & C#	ATS, Learning Solutions
10.	Oracle	SEED Infotech, Pune
11.	Hadoop	Mass Technologies
12.	Advanced Java	Mass Technologies
13.	Workshop on Android & Arduino Interfacing	Octopus Inc, Pune
14.	Big Data & Hadoop	Techknomatic Solutions Pvt. Ltd.
15.	Android	Billion Hands Technology, Pune
16.	Hack-Tricks	Wegilant Net Solutions Pvt. Ltd. In association with IIT, Bombay
17.	Ethical Hacking	Wegilant Net Solutions Pvt. Ltd. In association with IIT, Bombay
18.	Adobe Flex	Genesis Solutions Pvt. Ltd, Pune
19.	Mobiprenuer	Computer Society of India, Pune
20.	Workshop on Latex	Tex User Group, Pune
21.	Robotique2k13	Corores, Pune

9. Details of courses/programmes discontinued (if any) with reasons: Nil

10. Number of teaching posts:

Teaching posts	Sanctioned	Filled
Professors	2	0
Associate Professors	5	0
Asst. Professors	17	20

11. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./ M.Phil. Etc.)

S. N.	Name of Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the last 4 Years
1.	Mrs. G. S. Navale	ME (PhD in Progress)	Assistant Professor	Computer Engineering	17	NA
2.	Mr. N. M. Ranjan	M Tech (PhD in Progress)	Assistant Professor	Computer Science Engineering	15	NA

3.	Mrs. A. R. Kamble	M Tech	Assistant Professor	Computer Engineering	8.5	NA
4.	Mr. P.S. Dhotre	ME (PhD in Progress)	Assistant Professor	Information Technology	11	NA
5.	Mrs. P. U. Thakare	M Tech	Assistant Professor	Information Technology	8	NA
6.	Mr. S. A. Darade	ME(PhD in Progress)	Assistant Professor	Computer Engineering	9	NA
7.	Mr. V. P. Rao	M. Tech (PhD in Progress)	Assistant Professor	Computer Science Engineering	6	NA
8.	Ms. P. N. Vengurlekar	ME	Assistant Professor	Computer Networks	5.6	NA
9.	Mr. S. M. Chitalkar	ME in Progress	Assistant Professor	Computer Engineering	5.6	NA
10.	Ms. Y. S. Hande	ME (PhD in Progress)	Assistant Professor	Information Technology	4.5	NA
11.	Mrs. S. P. Bunjkar	ME	Assistant Professor	Computer Networks	7.5	NA
12.	Mrs. R. S. Vairagade	ME	Assistant Professor	Computer Engineering	5.6	NA
13.	Mrs. B. D. Shendkar	ME	Assistant Professor	Information Technology	7.5	NA
14.	Mr. S. G. Pawar	ME	Assistant Professor	Computer Science Engineering	7.5	NA
15.	Mr. V. A. Patil	M. Tech	Assistant Professor	Computer Engineering	6.5	NA
16.	Mrs. S.B. Toney	ME	Assistant Professor	Computer Engineering	8	NA
17.	Mrs. P.P. Wale	ME	Assistant Professor	E&TC	1	NA
18.	Mrs. N.A. Peter	ME	Assistant Professor	Computer Engineering	0.3	NA
19.	Ms. A. B. Kalamkar	ME	Assistant Professor	Computer Engineering	0.2	NA
20.	Mr. V. P. Niwane	ME Ph.D. (Pursuing)	Asst. Prof.	VLSI Design	6.7	NA

12. List of senior visiting faculty: Nil

13. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: Nil

14. Student – Teacher Ratio (program wise):

Sr. No.	Programme	Specialization	Teacher - Student Ratio			
			2015-2016	2014-2015	2013-2014	2012-2013
1	UG	Computer	18:1	15:1	15:1	12:1

15. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Academic support staff	Sanctioned	Filled
Number of academic support staff (technical)	--	03
Number of administrative staff	--	0

16. Qualifications of teaching faculty with D. Sc/ D.Litt / Ph.D/ M Phil/PG.

Sr. No.	Qualification	No. of Teaching Faculty
1	Ph.D. Completed	Nil
2	Ph.D. Registered	06
3	M.E. / M. Tech Completed	20
4	M Phil / M Sc	NA

17. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: NIL**18. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:**

Sr. No.	Name of the Research Project	Name of Principal Investigator/ Coordinator	Funding Agency	Amount as seed money Rs.	Duration of the project
1	Enhancing M-Banking Security	Mrs. G. S. Navale	University of Pune	1,00,000/-	2 Yrs
2	Detection of Drowsiness of Driver and Alert System based on Eyes Discovery	Mr. N M Ranjan	University of Pune	63,000/-	2 Yrs
3	Vision Based Autonomous Vehicle Driving Control System	Mr. M B Salunke	University of Pune	50,000/-	2 Yrs

4	Location and Identity Privacy in IoT	Mr. P.S. Dhotre	University of Pune	65,000/-	2 Yrs
5	An Availability Strategy for Multiprocessor Database Machines	Mrs. P. U. Thakare	University of Pune	40,000/-	2 Yrs
6	Critical National Infrastructure Protection Using Location Based Services (Geo-Encryption)	Mr. S.A. Darade	University of Pune	50,000/-	2 Yrs

19. Research Centre /facility recognized by the University: NIL

20. Publications:

Sr. No	Name of the faculty	No. of Papers published in peer reviewed journals Faculty/ students	No. of Publications listed in International DB	Chapters In Book	Books Edited	Books with ISBN in international DB	Citation Index	Impact Factor	h – Index Average
1	Dr. S. N. Mali	5	5	Nil	Nil	Nil	Nil	2.08	Nil
2	Mrs. G. S. Navale	5	5	Nil	Nil	Nil	5	1.265	1
3	Mr. N. M. Ranjan	7	7	Nil	Nil	978-81-8492-875-4 & 978-81-8492-127-4 & 978-81-8407-683-7	Nil	1.574	Nil
4	Mrs. A. R. Kamble	2	2	Nil	Nil	Nil	Nil	1.482	Nil
5	Mr. P. S. Dhotre	6	6	Nil	Nil	1	Nil	1.75	Nil
6	Mrs. P. U. Thakare	3	3	Nil	Nil	Nil	Nil	1.69	Nil
7	Mr. S. A. Darade	5	5	Nil	Nil	978-93-5077-610-0 & 978-93-	Nil	Nil	Nil

						5224-120-0 &978-93- 5224-177-4			
8	Mr. V. P. Rao	2	2	Nil	Nil	Nil	Nil	Nil	Nil
9	Ms. P. N. Vengurlekar	1	1	Nil	Nil	Nil	Nil	0.7 16	Nil
10	Mr. S. M. Chitalkar	1	1	Nil	Nil	Nil	Nil	3.7 8	Nil
11	Mrs. R. S. Vairagade	2	2	Nil	Nil	Nil	Nil	1.2 74	Nil
12	Ms. Y. S. Hande	3	3	Nil	Nil	Nil	Nil	1.5 24	Nil
13	Mrs. S. P. Bunjkar	1	1	Nil	Nil	Nil	Nil	0.7 58	Nil
14	Mrs. B. D. Shendkar	2	2	Nil	Nil	Nil	Nil	1.6 35	Nil
15	Mr. V. A. Patil	1	1	Nil	Nil	Nil	Nil	1.5 44	Nil
16	Mr. S. G. Pawar	5	5	Nil	Nil	Nil	Nil	2.7	Nil

21. Areas of consultancy and income generated

Sr. No.	Areas of consultancy	Name of Industry/organization	Income generated Rs.
1.	FDP on Cloud Computing	Sears IT Holding Pvt. Ltd. Pune	26266
2.	FDP on Applied Algorithms	Computational Research Lab Ltd, Pune	3963
3.	FDP on High Performance Computing	CDAC, Pune & Eaglet, Pune	1674
4.	FDP on Multi-core Architecture and Programming	SITS, Pune	4200
5.	FDP on Operating System and Administration	Aujas Networks , Pune	49446
6.	FDP on Multi-core Programming	TCS , Pune	17941
7.	FDP on CUDA & Open MP	SITS& Walchand College of Engineering, Sangli	42692
8.	FDP on Smart Systems Programming	Mobigen Technologies, Pune	22000
9.	Workshop on Hack-Tricks	Wegilant Net Solutions Pvt. Ltd.	2644
10.	Workshop on Android & Arduino	Octopus Inc.	33439

22. Faculty as members in**a) National committees, b) International Committees, c) Editorial Boards**

Sr. No.	Name of Faculty	Members
1.	Mrs. G.S. Navale	ISTE Life Member LM37877
2.	Mrs. G.S. Navale	Computer Society of India – N1071956
3.	Mr. N.M. Ranjan	ISTE Life Member LM65678
4.	Mr. N.M. Ranjan	Computer Society of India – 00175491
5.	Mrs .P.U. Thakare	ISTE Life Member LM66299
6.	Mr. S.A. Darade	ISTE Life Member LM 57595
7.	Mr. S.G. Pawar	ISTE Life Member LM 88582
8.	Ms. Y.S. Hande	ISTE Life Member LM 77674
9.	Mr. S.A. Darade	Reviewer for Global conference On Wireless Computing and Networking (GCWCN) 2014.
10.	Mr. P.S. Dhotre	Reviewer for the International Conference on Communication Systems and Network Technologies (CSNT-2016)
11.	Mr. P.S. Dhotre	Reviewer for 18 th International Symposium on Wireless Personal Multimedia Communications (WPMC) 2015.
12.	Mr. P.S. Dhotre	Reviewer for First International Conference on Recent Trends in Engineering & Technology 2012

23. Student projects**a) Percentage of students who have done in-house projects including inter departmental/ programme:**

SN	Year	No. of In house Projects	% of in house projects
1	2012-2013	13	61
2	2013-2014	11	50
3	2014-2015	14	66

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies

SN	Year	No. of Projects in Collaboration	% of projects done in Collaboration
1	2012-2013	8	39
2	2013-2014	11	50
3	2014-2015	7	34

24. Awards/ Recognitions received by faculty and students:**a) Faculty**

Sr. No.	Name of Faculty	Year of Achievement	Achievement/ Recognition
1.	All Faculties	2014-15	Best Department in SITS, Pune

2.	Mrs. G. S. Navale	2012-13	Coach for International Project Competition
3.	Mrs. G. S. Navale	2012-13	Third Prize in Magazine Competition in University of Pune
4.	Mrs. G. S. Navale	2008-09	Cognizant Certified Professional
5.	Mrs. N. M. Ranjan	2013-14	Deep Appreciation for the outstanding contribution rendered to spread FOSS in state of Maharashtra in 2013-2014
6.	Mr. S.A. Darade	2014-15	Reviewer of the papers in “2014-1 st IEEE Global Conference “ on “Wireless Computing & Networking”(GCWCN-2014) at SIT, Lonavala
7.	Mrs. G. S. Navale	2014-15	Result Performance in SPPU Exam
8.	Mrs. G. S. Navale	2014-15	Judge for National Level Project Competition Convene 2015 at SKNCOE, Pune
9.	Mr. S.A. Darade	2014-15	Judge for paper presentation event in “Kurukshetra-2015” at COE, Phalatan, Satara
10.	Mr. P.S. Dhotre	2014-15	BCUD Research Grant
11.	Mrs. P.U. Thakare	2014-15	BCUD Research Grant
12.	Mr. S.A. Darade	2014-15	BCUD Research Grant
13.	Mr. N. M. Ranjan	2014-15	Appreciation Letter for Ph.D. Admission
14.	Mr. N. M. Ranjan	2014-15	Result Performance in SPPU Exam
15.	Mr. N. M. Ranjan	2014-15	Result Performance in SPPU Exam
16.	Mrs. A.R. Kamble	2014-15	Result Performance in SPPU Exam
17.	Mr. P.S. Dhotre	2014-15	Result Performance in SPPU Exam
18.	Mrs. P.U. Thakare	2014-15	Result Performance in SPPU Exam
19.	Mrs. P.U. Thakare	2014-15	Appreciation Letter for Coordinator of Student Training Program
20.	Mr. S.A. Darade	2014-15	Result Performance in SPPU Exam
21.	Mrs. S.P. Bunjkar	2014-15	Result Performance in SPPU Exam

22.	Mr. S.M. Chitalkar	2014-15	Result Performance in SPPU Exam
23.	Ms. P.N. Vengurlekar	2014-15	Result Performance in SPPU Exam
24.	Ms. P.N. Vengurlekar	2014-15	Appreciation Letter for Placement Coordinator
25.	Ms. Y.S. Hande	2014-15	Result Performance in SPPU Exam
26.	Ms. R. S. Vairagade	2014-15	Result Performance in SPPU Exam
27.	Mrs. S.G. Pawar	2014-15	Result Performance in SPPU Exam
28.	Mr. V.P. Rao	2014-15	Result Performance in SPPU Exam
29.	Ms. V. A. Patil	2014-15	Result Performance in SPPU Exam
30.	Mr. N.M. Ranjan	2013-14	BCUD Research Grant
31.	Mrs. G. S. Navale	2014-15	Result Performance in SPPU Exam
32.	Mrs. G. S. Navale	2013-14	Judge for National Level Project Competition Convene 2014 at SKNCOE, Pune
33.	Mr. M.B. Salunke	2013-14	BCUD Research Proposal Grant
34.	Mr. P.S. Dhotre	2013-14	Contribution in Developing Career of Students
35.	Mr. N. M. Ranjan	2013-14	Contribution in Developing Career of Students
36.	Mr. S.M. Chitalkar	2013-14	Result Performance in SPPU Exam
37.	Mr. V. P. Rao	2013-14	Result Performance in SPPU Exam
38.	Ms. Y.S. Hande	2013-14	Appreciation Letter for conducting Soft Skills sessions
39.	Mrs. R. S. Vairagade	2013-14	Appreciation Letter for conducting Soft Skills sessions
40.	Mrs. G.S. Navale	2014-15	Result Performance in SPPU Exam

41.	Mrs. G.S. Navale	2012-13	Judge for National Level Project Competition Convene 2013 at SKNCOE, Pune
42.	Mr. N.M .Ranjan	2012-13	Result Performance in SPPU Exam
43.	Mr. N.M. Ranjan	2012-13	Result Performance in SPPU Exam
44.	Mr. N.M. Ranjan	2012-13	Result Performance in SPPU Exam
45.	Mr. P.S. Dhotre	2012-13	Result Performance in SPPU Exam
46.	Mr. P.S. Dhotre	2012-13	Result Performance in SPPU Exam
47.	Mr. S.A. Darade	2012-13	Result Performance in SPPU Exam
48.	Mr. P.S. Dhotre	2012-13	Result Performance in SPPU Exam
49.	Mrs. P.U. Thakare	2012-13	Result Performance in SPPU Exam

b) Students Prizes

Sr. No.	Year	Activity	National/State/University level No. of Prizes won
1	2014-15	National Level Project Competition	Impetus and Concepts'15 National Level Technical Symposium - First Rank
2	2014-15	National Level Project Competition	Pariyojana Pratiyogita 2015- Second Rank
3	2014-15	National Level Project Competition	Pariyojana Pratiyogita 2015 – First Rank
4	2014-15	5 th National Level Project Competition	CONVENE –2K15 – First Rank
5	2013-14	National Level Technical Symposium	IMPETUS and Concepts-14 – First Rank
6	2013-14	National Level Project Competition	CONVENE-2k14 – First Rank
7	2013-14	National Level Technical Symposium	IMPETUS and Concepts-14 – Third Rank
8	2013-14	National Level Project Competition	CONVENE2K14 – First Rank
9	2012-13	National Level Techno-Management Event	CYNOSURE 2K13 Line Follower – Second Rank

10	2012-13	National Level Techno – Cultural Fest	PERCEPTION -2013 Tattva – Second Rank
11	2012-13	National Level Technical, Cultural and Sport Mega Event	ALACARITY Line Tracer – First Rank
12	2012-13	National Level Technical, Cultural and Sport Mega Event	ALACARITY Line Tracer – Second Rank
13	2012-13	National Level Technical, Cultural and Sport Mega Event	ALACARITY Line Tracer – Third Rank
14	2011-12	International Programming Competition	Faronics Corporation, Canada – First Rank
15	2011-12	State Level Debate Competition	Web Technology & E-commerce – First Rank
16	2011-12	National Level Technical Symposium Poster Competition	Techlligent'12 - First Prize
17	2011-12	National Level Project Competition	CONVENE 2K12 – First Rank
18	2011-12	National Level Techno – Management Event	CCYNOSURE – First Rank

c) Students Appreciations

Sr. No.	Year	Name of The Students	Appreciation
1	2014-15	Hanamsagar Ameya Atul	Best Outgoing Student 2015
2	2013-14	Goyal Abhishek Kumar	1 st Rank In S.E.
		Kumari Shristee	2 nd Rank In S.E.
		Gambhir Sparsh Sanjay	3 rd Rank In S.E.
		Ghadage Shital Bharat	1 st Rank In T.E.
		Bhuskute Abhishek Hemant	2 nd Rank In T.E.
		Bugade Shravanti Balaji	1 st Rank In B.E.
		Akshay Pasalkar	2 nd Rank In B.E.
		Salonee Rege	Best Outgoing Student 2014
		Deokar Vaishnavi Prakash	Attendance Above 90%
		Dalal Deepali Vijay	Attendance Above 90%
		Ghadage Shital Bharat	Attendance Above 90%
		Girnar Mayur Madhukar	Attendance Above 90%
		Hanamsagar Ameya Atul	Attendance Above 90%
		Kharche Rajesh Ninu	Attendance Above 90%
		Mali Sneha Vishnu	Attendance Above 90%
		Patil Aarti Prataprao	Attendance Above 90%
		Patil Sumit Vitthal	Attendance Above 90%

		Pawar Gayatri Babaso	Attendance Above 90%
2	2013-14	Soni Pratik Jitendra	Attendance Above 90%
		Doshi Shrinik	Attendance Above 90%
		Khaladkar Manish Vitthal	Attendance Above 90%
		Galande Sagar Sanjay	Attendance Above 90%
		Kumari Shristee	Attendance Above 90%
		Pathan Karishma Altaf	Attendance Above 90%
		Samgir Shraddha Mandhar	Attendance Above 90%
		Hanamsagar Ameya	GRE Score 307/340
		Varun Kulkarni	GRE Score 304/340
		Hanamsagar Ameya Atul	AMCAT Score
		Abhishek Bhuskute	AMCAT Score, Gate: 43
3	2012-13	Ambika Dilip Shindey	1 st Rank In B.E.
		Kaur Brajender Ravindra Singh	2 nd Rank In B.E.
		Ankita Nandlal Parate	3 rd Rank In B.E.
		Girish Shankar	1 st Rank In T.E.
		Shefali Sunil Gupta	2 nd Rank In T.E.
		Pooja Rajendra Munot	3 rd Rank In T.E.
		Prashant Pandurang Bhosale	1 st Rank In S.E.
		Akshay Mansing Yewale	2 nd Rank In S.E.
		Vaishnavi Prakash Deokar	3 rd Rank In S.E.
		Sankalp Abhale	Special Achievement Award 2013
		Sagar Jaypatre	Best Outgoing Student 2013
		Arti Singh	Best Outgoing Student 2013
		Event Coordinators & Committee Members of Techk13	Techno Evolution 2k13
4	2011-12	Kaur Brajender Ravindra Singh	1 st Rank In T.E.
		Ambika Dilip Shindey	2 nd Rank In T.E.
		Ankita Nandlal Parate	3 rd Rank In T.E.
		Girish Shankar	1 st Rank In S.E.
		Arti Singh	2 nd Rank In S.E.
		Jaypatre Sagar Balaso	3 rd Rank In S.E.
		Kaur Brajender Ravindra Singh	5 th Rank In University of Pune For T.E.
		Kaur Brajender Ravindra Singh	Best Outgoing Student 2012
		Event Co-Ordinators & Committee Members Techk12	Techno Evolution 2k12

24. List of eminent academicians and scientists/ visitors to the department:

Sr. No.	Name of Visitor	Organization	Purpose of visit
1.	Mr. Bimal Parmar	Vice President of Faronics Corporation, Canada	Prize Distribution Ceremony of worldwide Faronics Core Programming Competition (FCPC)
2.	Mr. Siddharth Sood	Director, ALOHA Technology, Pune	Prize Distribution Ceremony of worldwide Faronics Core Programming Competition (FCPC)
3.	Dr. Vijay Gokhale	Technical Director, Sun Beam Institute of Information Technology, Pune	Expert Lecture
4.	Mr. Sharad Pustake	Director, Science & Technology Park, SPPU, Pune	Expert Lecture
5.	Mr. Tony Issac	NVIDIA Graphics, Pvt. Ltd. Pune	Expert Lecture
6.	Mr. Sarang Toney	Cognizant, Pune	Expert Lecture
7.	Mr. Dhananjay Patankar	Cybage Pune	Expert Lecture
8.	Mr. Ashish Kumar	Infosys Ltd.	Expert Lecture
9.	Mr. Sameer Maiyankar	Persistent System Ltd.	Expert Lecture
10.	Mr. Pramod Gavali	IBM, Pune	Expert Lecture
11.	Mr. Nitin Ajankar	KPIT, Pune	Expert Lecture
12.	Mr. Rahul Madke	TCS, Pune	Expert Lecture
13.	Mr. Ram Raut	Project Manager, BMC Software ,Pune	Expert Lecture
14.	Mr. Ritesh Malliya	SEARS IT Holding Pvt. Ltd.	Faculty Development Programme & Expert Lecture
15.	Mr. Ameer Tamboli	SEARS IT Holding Pvt. Ltd.	Faculty Development Programme
16.	Dr. D. B. Kulkarni	Walchand College of Engineering, Sangali	Faculty Development Programme
17.	Dr. Sarang Joshi	PICT, Pune	Faculty Development Programme
18.	Dr. S. C. Shirwaikar	Cusrow Wadia, Pune	Faculty Development Programme
19.	Mr. Prkalp Somwanshi	Computational Research Laboratory, Ltd. Pune	Faculty Development Programme
20.	Mr. Nachiket Sahastrabuddha	Computational Research Laboratory, Ltd. Pune	Faculty Development Programme

21.	Mr. Shrirang Karandikar	Computational Research Laboratory, Ltd. Pune	Faculty Development Programme
22.	Mr. Deepak Mane	TCS, Pune	Faculty Development Programme
23.	Mr. Suhas Desai	AUJAS Network, Pune	Faculty Development Programme
24.	Mr. Dinesh Shendkar	Mobigen Technology, Pune	Faculty Development Programme
25.	Mr. Ganesh Pallbundhe	PSPL, Pune	Evaluation of BE Project
26.	Ms. Deepti Ingole	CIETO Software, Pune	Evaluation of BE Project
27.	Mr. Nitin Bhukare	BARCLAYS, Pune	Evaluation of BE Project
28.	Mr. UdayRaj Bal	Tech Mahindra	Evaluation of BE Project
29.	Mr. Nitin Potdar	TCS, Pune	Evaluation of BE Project
30.	Mr. A. M. Mahalle	Oracle Financial Services	Evaluation of BE Project
31.	Mr. P. Jawanjal	Reliance Industry Ltd, Mumbai	Evaluation of BE Project
32.	Mr. Gaurav Joshi	Persistent, Pune	Evaluation of BE Project
33.	Mr. Anirudhha Kale	IBM, Pune	Evaluation of BE Project

25. Seminars/ Conferences/Workshops organized and the source of funding:

a) Conferences

Sr. No.	Conferences organized	Date	National/ International	Source of funding
1	Technovision 2014	5 th & 6 th Apr 2014	International	Self-Sponsored

b) Workshops

Sr. No.	Workshops organized	Date	Source of funding
1	Android & Arduino Interfacing	09 -11/01/2015	Self-Sponsored
2	Hack-Tricks	28 -29/12/2012	Self-Sponsored
3	Ethical Hacking	14 -15/01/2012	Self-Sponsored
4	Adobe Flex	22/01/2012	Self-Sponsored
5	Mobiprenuer	02 - 03/09/2013	Computer Society of India
6	Latex	18 – 19/02/2012	Self-Sponsored
7	Robotique2k13	4th , 9th ,10th Aug 2013	Self-Sponsored
8	Resume Writing	12/7/2013	Self-Sponsored
9	Group Discussion	20/7/2013	Self-Sponsored
10	Personal Interviews	29/07/2013	Self-Sponsored

c) Seminars

Sr. No.	Seminar Organized	Date	National / International	Source of funding
1.	Basics of Programming Language	05/09/2015	National	Self-Sponsored
2.	Impact of SDLC on practical Assignments	04/07/2015	National	Self-Sponsored
3.	BE project domains and Big data Project Opportunities	04/07/2015	National	Self-Sponsored
4.	Industrial Application of Database and Data Warehouse	05/09/2015	National	Self-Sponsored
5.	Software Testing Myths and Facts	12/09/2015	National	Self-Sponsored
6.	Microsoft IT Academy .Net Program and Cloud Computing	16/07/2014	National	Self-Sponsored
7.	Making a Right carrer choice	12/07/2014	National	Self-Sponsored
8.	Open Your Gate	30/08/2014	National	Self-Sponsored
9.	Cloud Computing & Hadoop	03/01/2015	National	Self-Sponsored
10.	Current trends in Big Data Analytics, Data Analysis and Visual Analytics	06/02/2015	National	Self-Sponsored
11.	Current trends in Big Data Analytics, Data Analysis and Visual Analytics	13/02/2015	National	Self-Sponsored
12.	Expectations of IT industries and Project Domains Discussion	13/7/2013	National	Self-Sponsored
13.	Introduction to Robotics	8/7/2013	National	Self-Sponsored
14.	Android Mobile Development Application	18/7/2013	National	Self-Sponsored
15.	Latest trends in cloud computing	20/7/2013	National	Self-Sponsored
16.	Performance and Reliability testing on big data & cloud computing	17/8/2013	National	Self-Sponsored
17.	Higher Studies Need & Guidelines	24/8/2013	National	Self-Sponsored
18.	Linux for Fresher's	24/8/2013	National	Self-Sponsored
19.	Introduction to Robo war & Project Domain	23/8/2013	National	Self-Sponsored
20.	Core java	31/8/2013	National	Self-Sponsored
21.	Human & Life	04/07/2012	National	Self-Sponsored
22.	Project Awareness & Cloud Computing	14/07/2012	National	Self-Sponsored

23.	Getting started with Android	11/08/2012	National	Self-Sponsored
24.	Driving the Positive Change, with power of our unity	17/12/2012	National	Self-Sponsored
25.	Introduction to Microsoft Certified Courses	11/01/2013	National	Self-Sponsored
26.	Basics of Cloud Computing & Advanced Concepts	25/02/13	National	Self-Sponsored
27.	Android	25/02/13	National	Self-Sponsored

d) Faculty Development Programme

Sr. No.	Expert Lectures organized	Date	National/ International	Source of funding
1	Oracle & Advanced .NET	15-01-2011 to 19-01-2011	National (SPPU)	Self-Sponsored
2	Cloud Computing	16-11-2011 to 20-11-2011	National (SPPU)	Self-Sponsored
3	High Performance Computing	11-10-2012 to 15-10-2012	National (SPPU)	Self-Sponsored
4	Applied Algorithms	09-05-2012 to 13-05-2012	National (SPPU)	Self-Sponsored
5	Multi-core Architecture and Programming	28-06-2013 to 30-06-2013	National (SPPU)	Self-Sponsored
6	Operating System & Administration	05-07-2013 to 07-07-2013	National (SPPU)	Self-Sponsored
7	Multi-core Programming	09-01-2014 to 12-01-2014	National (SPPU)	Self-Sponsored
8	CUDA and OpenMP Programming	17/12/2014 to 21/12/2014	National (SPPU)	Self-Sponsored
9	Smart System Programming	24/07/2015 to 26/07/2015	National (SPPU)	Self-Sponsored

26. Student profile Programme /course wise:

Name of the Course/ Programme	Academic Year (Graduation)	Applications Received	Selected	Enrolled		Pass %
				*M	*F	
Computer Engineering / UG	2014-15	As per the admission process of DTE, Mumbai, Govt. of Maharashtra	151	116	35	99
Computer Engineering / UG	2013-14		151	120	31	94
Computer Engineering / UG	2012-13		151	104	47	93
Computer Engineering / UG	2011-12		78	57	21	93

*M=Male *F=Female ** SEDA also considered

27. Diversity of Students

Name of the Course/ Programme	Academic Year	% of students from the same state	% of students from the other states	% of students from abroad
Computer Engineering / UG	2015-16	82.25	17.74	NIL
Computer Engineering / UG	2014-15	85.48	14.51	NIL
Computer Engineering / UG	2013-14	76.61	23.38	NIL
Computer Engineering / UG	2012-13	69.84	30.15	NIL

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Exam	No. of Students			
	2012-13	2013-14	2014-15	2015-16
GATE	03	01	02	NA
Defense	NIL	NIL	NIL	01
CAT	NIL	NIL	NIL	NA
SLET	NIL	NIL	NIL	NA
MBA- CET	NIL	01	NIL	NA
GRE	08	06	03	NA
TOEFL	08	06	03	NA

29. Student progression

Student progression	Against % enrolled			
	2012-13	2013-14	2014-15	2015-16
UG to PG	35.55	20.83	12.5	NA
PG to M. Phil.	NIL	NIL	NIL	NIL
PG to Ph.D.	NIL	NIL	NIL	NIL
Ph.D.to Post-Doctoral	NIL	NIL	NIL	NIL
Employed				
• Campus selection	87.18	87.88	77.78	76.92
• Other than campus recruitment	6.12	7.32	10.63	NA
Entrepreneurship/Self-employment	NIL	NIL	NIL	NIL
Government Sector	NIL	NIL	NIL	NIL

30. Details of Infrastructural facilities

a) Library

Particulars	Titles	Volumes
Books		
U.G.	352	2045
P.G.	NA	NA
On line journal		

ASME On line	NA	NA
Science Direct	418	418
Printed journal		
Printed journal U.G.	11	11
Printed journal P.G.	NA	NA

b) Internet facilities for Staff & Students:

Internet line 4 Mbps dedicated for computer laboratory

c) Class rooms with ICT facility:

Room No.	Usage	Shared/ Exclusive	Cap acity	Room Equipped With
1401	Teaching Learning	Exclusive	80	PC, LCD, Internet, PA System
1407	Teaching Learning	Exclusive	80	PC, LCD, Internet, PA System
1415	Teaching Learning	Exclusive	80	PC, LCD, Internet, PA System
1417	Teaching Learning	Exclusive	80	PC, LCD, Internet, PA System

d) Laboratories:

Sr. No.	Name of Laboratory	Exclusive Use / Shared	Utilization %	Laboratory Manuals
1.	Computer Network Lab	Exclusive Use	82.35	Y
2.	Project Lab	Exclusive Use	82.35	Y
3.	Computer Lab III	Exclusive Use	82.35	Y
4.	Hardware Lab	Exclusive Use	82.35	Y
5.	Software Lab - I	Exclusive Use	83.33	Y
6.	Software Lab - II	Exclusive Use	88.88	Y
7.	Programming Lab	Exclusive Use	88.88	Y
8.	System Software Lab	Exclusive Use	88.23	Y

31. Number of students receiving financial assistance from Institute, University, government or other agencies

Sr. No.	Type of Assistant	Agency Providing Financial Assistance	Academic Year			
			2011 -12	2012- 13	2013 -14	2014 -15
1	GOI PM Scholarship	Social Welfare Dept. & Tribal Development dept	36	43	64	77
2	GOI PM Free ship		32	44	41	56
3	EBC Concession	Jt. Director of Tech. Edu.	31	37	52	47
4	Minority Scholarship	Dept. of Minority Welfare	0	2	1	1
5	Central Sector Scholarship	Jt. Director of Higher Edu.	0	0	0	0

6	STC/PTC	Zilha Parishad	2	1	0	0
7	J & K Special Scholarship	AICTE	0	0	0	0
8	Pvt. Scholarship	Trust, NGO, Companies	3	4	2	2

32. Details on student enrichment Programmes (special lectures / workshops / seminar) with external experts

Sr. No.	Title	Resource Person Details	Category	Date		No. of Participants
				From	To	
1.	Placement Rounds of Product Based Companies	Mr. Abhishek Bhuskute, Mr. Amar Sakpal, eQ Technology, Pune	Expert Lecture	20/08/2015	20/08/2015	80
2.	Placement Guidelines	Mr. Sankalp Abhale, 3DPLM, Pune	Expert Lecture	20/08/2015	20/08/2015	56
3.	Java Technology	Mr. Pawan Lahoti, Cognizant Software Solution Pvt. Ltd, Pune	Expert Lecture	08/08/2015	08/08/2015	98
4.	World of Visual Computing & Good Programming Practices	Mr. Toney Issac, NVIDIA Graphics, Pvt. Ltd. Pune	Expert Lecture	29/08/2015	29/08/2015	64
5.	Basics of Programming Language	Dr. Vijay Gokhale, Eaglet Pvt. Ltd. Pune	Seminar	05/09/2015	05/09/2015	235
6.	Impact of SDLC on Practical Assignments	Mr. Rahul Madke, Technomatic Solution Pvt. Ltd, Pune	Seminar	04/07/2015	04/07/2015	96
7.	BE Project Domains and Big data Project Opportunities	Mr. Rahul Madke, Technomatic Solution Pvt. Ltd, Pune	Seminar	04/07/2015	04/07/2015	92
8.	Industrial Application of Database & Data Warehouse	Mr. Sarang Toney, Cognizant, Pune	Seminar	05/09/2015	05/09/2015	137
9.	Software Testing Myths and Facts	Mr. Atul Desai, QA Lead, Aloha Technology Pvt. Ltd. Pune	Seminar	12/09/2015	12/09/2015	58
10.	Mock Personal Interview	Ms. Fatima Tinwala, Mass Technologies, Pvt. Ltd., Pune	Expert Lecture	09/09/2015	09/09/2015	80
11.	Python Technology	Mr. Abhishek Chavhan, Alumni Student	Expert Lecture	22/08/2015	22/08/2015	35
12.	Pipelined and Non-Pipelined Architecture	Prof. M. B. Salunke, PCCOER, Pune	Expert Lecture	08/08/2015	08/08/2015	103

13.	Core Java	Mr. Poonam Aswani, Techcorp, Pune	Expert Lecture	26/07/2014	26/07/2014	111
14.	Microsoft IT Academy .Net Program and Cloud Computing	Mr. Manish Singh and Mr. Kshitij Aren, ATS, Infotech Pune	Seminar	16/07/2014	16/07/2014	130
15.	Making a Right career choice	Mr. Susshruth Apshankar and Ms. Sangita Apshankar, Founder of career Kundali	Seminar	12/07/2014	12/07/2014	60
16.	Open your Gate	Mr. Devendra Marathe, Gate Forum, Pune	Seminar	30/08/2014	30/08/2014	79
17.	TTL and CMOS	Mr. Prakash A, Senior Research scholar, IIT Bombay	Expert Lecture	05/09/2014	05/09/2014	114
18.	Advanced Tools and Technology of Operating System	Mr. Nitin Ajankar, KPIT, Pune	Expert Lecture	06/09/2014	06/09/2014	113
19.	Cloud Computing & Hadoop	Mr. Piyush Rajput, Zonal Head MS IIHT, Pune	Seminar	03/01/2015	03/01/2015	123
20.	Core i7 Microprocessor	Mr. Prasad Sase, Infinity Solutions	Expert Lecture	06/01/2015	06/01/2015	69
21.	Current trends in Big Data Analytics, Data Analysis and Visual Analytics	Mr. Rahul Madke, Techknomatic Solutions, Pune	Seminar	06/02/2015	06/02/2015	46
22.	Career opportunities in Parallel and Concurrent programming	Mr. Rahul Dagade, MMCOE, Pune	Expert Lecture	09/03/2015	09/03/2015	55
23.	Current trends in Big Data Analytics, Data Analysis and Visual Analytics	Mr. Prasad Shinde, Techknomatic Solutions, Pune	Seminar	13/02/2015	13/02/2015	130
24.	CUDA Programming	Mr. Kaustubh Hiwarekar, SCOE, Pune	Expert Lecture	03/03/2015	03/03/2015	136
25.	Distributed Resource Management	Mrs. Shilpa Pimpalkar, AISSMS, Pune	Expert Lecture	24/03/2015	24/03/2015	35
26.	Expectations of IT industries and Project Domains Discussion	Mr. Dhananjay Patankar, Cybage Pune	Seminar	13/07/2013	13/07/2013	75
27.	Introduction to Robotics	Mr. Deepak Dalai, CORORES Pune	Seminar	8/07/2013	08/07/2013	51

28.	DELD (Logic Families)	Mr. Ashish Kumar, Infosys Ltd.	Expert Lecture	19/07/2013	19/07/2013	62
	Android Mobile Development Application	Mr. Akshay Kelkar, SPARK, PUNE	Seminar	18/7/2013	18/7/2013	45
29.	Latest trends in cloud computing	Mr. Ritesh Malaiya, Sears IT India Pvt. Ltd	Seminar	20/07/2013	20/07/2013	58
30.	Hands on Session of Network Simulation Tool	Mr. Dhananjay Patankar, Cybage Pune	Expert Lecture	10/08/2013	10/08/2013	14
31.	Personal Interview	Mrs. Kavita Joshi, NESGI, Pune	Expert Lecture	22/08/2013	22/08/2013	52
32.	Python & Pearl Scripting	Mr. Yogeshwar Shukla, Eaglet Gateway to Software networking and Education Solution Pvt. Ltd	Expert Lecture	13/08/2013	13/08/2013	83
33.	Performance and Reliability testing on big data & cloud computing	Mr. Sameer Maiyankar , Persistent System Ltd.	Seminar	17/08/2013	17/08/2013	147
34.	Mock Personal Interview	Fatima Tinwala, Gynateerth, Pune	Expert Lecture	05/08/2013	05/08/2013	39
35.	Higher Studies Need & Guidelines	Mr. Devendra Marathe, Gateforum	Seminar	24/08/2013	24/08/2013	58
36.	Database Design and Implementation	Mr. Pramod Gavali, IBM, Pune	Expert Lecture	14/08/2013	14/08/2013	89
37.	Linux for Freshers	Mr. Rahul Acharya, Technocorp, Pune	Seminar	24/08/2013	24/08/2013	99
38.	What Industry Expects from Freshers?	Mr. Nilay Haryal, Accenture, Pune	Expert Lecture	27/08/2013	27/08/2013	67
39.	Introduction to Robo war & Project Domain	Mr. Deepak Dalai, Corores Pune	Seminar	23/08/2013	23/08/2013	87
40.	Data Communication	Prof. Anil Kamma, Research Scholar Communication Engg. IIT Bombay	Expert Lecture	31/08/2013	31/08/2013	82
41.	Core Java	Mr. Rahul Kande, Technocorp, Pune	Seminar	31/08/2013	31/08/2013	81
42.	Pipelined Architecture	Mr. Prasad Sase, Free Lancer Trainer	Expert Lecture	05/08/2013	05/08/2013	57
43.	Information Hiding	Dr. S.N. Mali, Principal SITS Narhe	Expert Lecture	20/08/2013	20/08/2013	64
44.	Network Queuing Model	Prof. Shushant Ghote, Dept of IT, SITS	Expert Lecture	08/08/2013	08/08/2013	15
45.	VHDL	Prof. R.D. Kamble, ICOE&M	Expert Lecture	31/08/2013	31/08/2013	72

46.	Routing Principles	Mr. Tanmay Shete, QLogic, Pune	Expert Lecture	08/03 /2014	08/03 /2014	39
47.	Web Development	Mr. Sankalp Abhale, Cognizant , Pune	Expert Lecture	15/02 /2014	15/02 /2014	47
48.	Human & Life	Mr. Sudhir Sinha, Inspiring Souls.	Seminar	04/07 /2012	04/07 /2012	63
49.	Project Awareness & Cloud Computing	Mr. Ritesh Malaiya, Sears IT Pvt. Ltd.	Seminar	14/07 /2012	14/07 /2012	62
50.	Getting started with Android	Mr. Jaydeep Wagh, InTouchID, Pune.	Seminar	11/08 /2012	11/08 /2012	73
51.	Digital Signal Processing	Prof. S. M. Sangve, Zeal DCOER, Pune.	Expert Lecture	13/08 /2012	13/08 /2012	44
52.	Image Processing	Prof. Kirti Wanjale, VIIT, Kondhwa	Expert Lecture	13/04 /2012	13/04 /2012	77
53.	Pattern Recognition	Prof. J. R. Prasad, VIIT, Kondhwa.	Expert Lecture	15/09 /2012	15/09 /2012	50
54.	Software Architecture	Prof. A. N. Mucharikar, Cummins COE, Pune	Expert Lecture	16/04 /2012	16/04 /2012	71
55.	Soft Skills	Mr. Rahul Madke, TCS, Pune.	Expert Lecture	15/09 /2012	15/09 /2012	71
56.	Cloud Computing	Prof. Tejal Chauhan, PVPIT Bavdhan.	Expert Lecture	17/09 /2012	17/09 /2012	39
57.	High Performance Networks	Prof. S. J. Thavare, VIIT Kondhwa.	Expert Lecture	22/09 /2012	22/09 /2012	36
58.	VLSI Design	Prof. D. E. Upasani, SITS, Narhe.	Expert Lecture	25/09 /2012	25/09 /2012	40
59.	Hack-Tricks	Mr. Vinod Tiwari & Mr. Ashutosh Sharma, Wegilant Net Solutions Pvt. Ltd. Mumbai.	Workshop	28 & 29/12 /2012	28 & 29/12 /2012	41
60.	Driving the positive Change, with Power of our Unity	Mr. Rajendra Sidhaye, Save Pune Traffic Movement, Pune.	Seminar	17/12 /2012	17/12 /2012	105

33. Teaching methods adopted to improve student learning

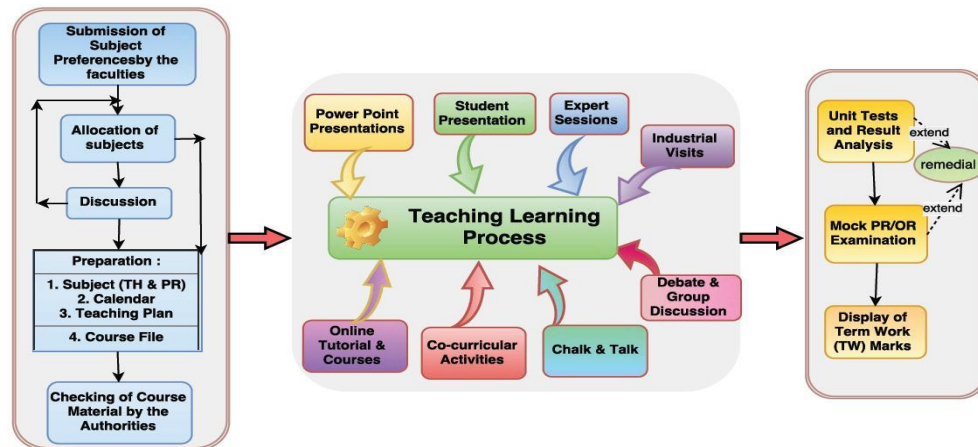


Fig 33.1 Teaching Learning Process

The Teaching Learning process at Department of Computer Engineering, SITS works as follows:-

1. The subject preferences for the incoming semester are submitted by each faculty in ongoing semester.
2. The subjects are allocated based on **preferences** by the HOD.
3. Before finalization of the subject allocation an **open discussion** takes place with all the faculties and the subject allocation is **revised** based on the suggestions/requirement.
4. Once the subject allocation is complete, the faculties **start studying/preparing** the subject and course files during vacation.
5. The **Academic Calendar** is finalized before onset of the next semester. Each faculty prepares a teaching plan for the subject (Topic-wise lectures required for each unit).
6. The authorities (HOD, Principal) check the **course files** before the teaching begins.
7. The semester begins with a **syllabus discussion** of each subject by respective faculties. The learning objectives and outcomes of each subject are discussed with the students.
8. During the semester various **methodologies** are adopted for a better learning experience of students. *Presentations, Chalk & talk, Debates & GDs, Role-Plays, and Online Tutorials* are conducted to **enhance understanding** process of students. Whereas *Expert sessions, Co-curricular activities and Industrial Visits* are arranged to acquaint the students with **the IT industry**.
9. During the semester **Unit tests** and **mock practical/oral** exams are conducted for assessment of the students.
10. The **shortcomings** of the students are explained to them via **remedial sessions**.
11. **Prelim examination** and **mock Practical/Oral examinations** are conducted at end of the semester.
12. **Remedial actions** are taken for failed students in form of re-attempts for these exams, practice sessions, counseling, re-submission etc.
13. The **Term-work** finalization is done based of the performance of the student throughout the semester in *curricular, co-curricular, extra-curricular* activities. *Regularity* of students is also rewarded in terms of marks.
14. The T-L-P works in **cyclic manner** for every semester from step 1 to 13 as shown in Fig 33.1.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Sr. No.	Activity	Venue of Event	Date of Activity	No. of Students
01	Tree Plantation Event	Ramkrishna-Math, Pune	03/08/2013	55
02	Art of Living	Department of Computer Engineering, SITS	20/07/2013	52
03	Teachers Day	Department of Computer Engineering, SITS	05/09/2015	50
04	Tree Plantation	Near PARI Company, Pune	24/09/2015	15
05	Fort Cleaning	Lohgad Fort, Pune	03/08/2013	48
06	Youth Leadership Quality Development	Department of Computer Engineering, SITS	27/7/2013 & 12/08/2013	55
07	National Fun Quiz on Science & ICT	DES Secondary School, Pune	18/02/2011	104
08	National Fun Quiz on Science & ICT	Abhinav Vidyalaya Primary School, Pune	21/02/2011	477
09	National Fun Quiz on Science & ICT	Abhinav Education Society's English Medium School & Jr. College, Pune	17/02/2011	647
10	National Fun Quiz on Science & ICT	CKEY's High School & Jr. College of Science, Pune	18/02/2011	104
11	National Fun Quiz on Science & ICT	Modern High School, Pune	17/02/2011	336
12	National Fun Quiz on Science & ICT	Priyadarshani English Medium School, Pune	18/02/2011	245
13	National Fun Quiz on Science & ICT	Sant Tukaram English School, Pune	21/02/2011	87
14	National Fun Quiz on Science & ICT	Modern Boy's School, Pune	21/02/2011	421
15	National Fun Quiz on Science & ICT	Crescent High School, Pune	21/02/2011	819
16	National Fun Quiz on Science & ICT	Vishwakarma English Medium Secondary School, Pune	21/02/2011	224
17	National Fun Quiz on Science & ICT	Vishwakarma Vidyalaya, Pune	18/02/2011	142

18	National Fun Quiz on Science & ICT	Saishobha Educaion Society's English Medium School, Pune	17/02/2011	146
19	National Fun Quiz on Science & ICT	Mahavir English Medium School & Jr. College, Pune	17/02/2011	342
20	National Fun Quiz on Science & ICT	Guru Nanak Public School, Pune	18/02/2011	52
21	National Fun Quiz on Science & ICT	Dynanganga English Medium School, Pune	22/02/2011	16
22	National Fun Quiz on Science & ICT	Bharati Vidyapeeth's English Medium School, Pune	21/02/2011	356
23	National Fun Quiz on Science & ICT	PES Modern Girls High School, Pune	18/02/2011	420
24	Computer Literacy - MS Office Awareness	Department of Computer Engineering, SITS	06/10/2015	20
25	Computer Literacy-Internet Awareness	Department of Computer Engineering, SITS	08/10/2015	18

Apart from the above activities our students are also involved in conduction of various activities such as Blood Donation, Nirbhay Kanya Abhiyan-Self Defense for Girls, 3 days camp-Swachhata Abhiyan, Beti Bacho Beti Padhao in Kirkitwadi, Yoga Camp, Police Mitra, Eco friendly Ganapati Visarjan etc. under NSS at institute level.

Our students got an opportunity to work on real problems faced by the Govt. agencies through Digital Pune Hackathon-2015, the main objective of this initiative was to seek help from talent engineering students to build digital solutions which can help Govt. agencies to solve their problems enabling them to function efficiently and deliver better services to citizens.

35. SWOC analysis of the department and future plans:

Strengths:

- State-of-the-art laboratories and infrastructure
- Faculty and staff retention
- Effective team work culture
- Industrial exposure to faculty and students
- Disciplined and conducive learning environment
- Value addition through online tutorials and certifications
- Consistent need based FDPs

Weaknesses:

- Number of faculty with Ph.D. Qualification
- Low strike rate in placement
- Publications in reputed journal
- Lack of R&D and consultancy work

Opportunities:

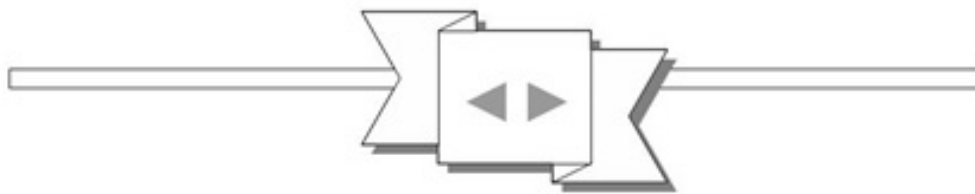
- Center of domain excellence
- Interdisciplinary projects
- Development of e-resources
- Collaborative research work with industries
- Faculty qualification up-gradation
- Improving number of students placement in renowned industries
- Strengthen alumni interaction

Challenges:

- Cope-up with corporate expectations within given time constraint
- Sustainability in global competition
- Dynamic variations in curriculum to adapt new technologies

Future Plans

- Time bound up-gradation of faculty qualification
- Skill based VAPs with the support of industrial experts
- Formation of faculty and student research groups
- Alumni interactions on regular basis
- To set up center of excellence in specific domain
- To promote R&D and consultancy work



DEPARTMENT OF INFORMATION TECHNOLOGY

1. **Name of the Department** : Information Technology

2. **Year of Establishment** : 2008-09

3. **Names of Programmes/ Courses offered (UG, PG, etc.)**

Name of programme	Year of Establishment
Information Technology	2008-09

4. **Names of Interdisciplinary courses and the departments/units involved:**

S. N.	Class	Interdisciplinary Courses	Departments involved
1	SE	Engineering Mathematics III	Engineering Science

5. **Annual/ semester/choice based credit system (Programme wise):**

UG: FE semester credit system and SE, TE, BE semester pattern

PG: NA

6. **Participation of the department in the courses offered by other departments:**

S. N.	Class	Courses	Departments involved
1	FE SEM-I	Fundamentals of Programming Language-I	Engineering Science
2	FE SEM-II	Fundamentals of Programming Language-II	Engineering Science

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.:**

SN	Certificate Course Name	Participating institution / industry
1	CS50x Introduction to Computer Science	Harvard University
2	CS-189-1x Foundation of Computer Graphics	UC Berkeley
3	Spoken tutorial on PHP - MySQL	IIT Bombay
4	Spoken tutorial on LATEX	IIT Bombay

8. Details of courses/Programmes discontinued (if any) with reasons: NIL

9. Number of teaching posts:

Teaching posts	Sanctioned	Filled
Professors	1	01
Associate Professors	2	0
Asst. Professors	9	09

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./ M.Phil. etc.),

S. N.	Name of Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the
1	Prof. T. D. Khadtare	ME	Professor	Machine Learning	27 Yrs.	NIL
2	Mrs. V. S. Rajput	ME	Asst. Prof.	Data Mining	12 Yrs.	NIL
3	Mr. S. R. Gote	ME	Asst. Prof.	Machine Learning	13 Yrs.	NIL
4	Mr. J. B. Karande	ME	Asst. Prof.	Computer Networks	10 Yrs.	NIL
5	Mrs. S. V. Chinchmalatpure	ME	Asst. Prof.	Soft Computing	9 Yrs.	NIL
6	Dr. A. P. Adsul	Ph. D.	Asst. Prof.	WSN	9 Yrs.	NIL
7	Mrs. S. S. Telsang	M. Tech.	Asst. Prof.	Artificial Intelligence	9 Yrs.	NIL
8	Mrs. S. N. Firame	M. Tech.	Asst. Prof.	Software Testing	8 Yrs.	NIL
9	Mr. S. G. Kamble	ME	Asst. Prof.	Network Security	6 Yrs.	NIL
10	Ms. S. A. J. Patel	ME	Asst. Prof.	Text Mining	6Yrs.	NIL

11. List of senior visiting faculty: NIL

12. Percentage of lectures delivered and practical's handled (programme wise) by temporary faculty: NIL

13. Student - Teacher Ratio (program wise):

S. N.	Programme	Specialization	Teacher - Student Ratio			
			2015-2016	2014-2015	2013-2014	2012-2013
1	UG	Information Tech	18:1	15:1	15:1	15:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Academic support staff	Sanctioned	Filled
Number of academic support staff (technical)	..	2

15. Qualifications of teaching faculty with D. Sc/ D.Litt/ Ph.D/ M Phil/PG.

S. N.	Qualification	No. of Teaching Faculty
1	Ph.D. Completed	1
2	Ph.D. Registered	NIL
3	M.E. / M.Tech Completed	09
4	M Phil / M Sc	NA

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:

S. N.	Name of the Research Project	Name of Principal Investigator/ Coordinator	Funding Agency	Amount as seed money (Rs.)	Duration of the project
1	Relevance Feedback mechanism incorporating semantic features for improving Multimedia Information Retrieval systems	Mrs. P. R. Thakare Prof. T. D. Khadtare	SPPU, BCUD	80,000	2 Years (2014-16)
2	Smart Home system for Senior Citizen using Wireless Sensor Network.	Dr. A. P. Adsul Mrs. V. S. Rajput	SPPU, BCUD	1,00,000	2 Years (2014-16)

18. Research Centre /facility recognized by the University: NIL

19. Publications:

S. N.	Name of the faculty	No. of Papers published in peer reviewed journals Faculty/students	No. of Publications listed in International DB	Chapters In Book	Books Edited	Books with ISBN in international DB	Citation Index	Impact Factor	h - Index Average
1	Dr. S. N. Mali	04	01	-	-	-	-	-	-
2	Prof. T. D. Khadtare	05	-	-	-	-	-	-	-
3	Dr. A. P. Adsul	13	01	-	-	-	-	3.61	-
4	Mrs. V. S. Rajput	02	-	-	-	-	-	0.91	-

5	Mr. S. R. Gote	02	-	-	-	978-93-5224-145-3	-	0.32	-
6	Mr. J. B. Karande	00	-	-	-		-	-	-
7	Mrs. P. R. Thakare	03	-	-	-	978-93-5254-006-1 & 978-93-5077-505-9	-	-	-
8	Mrs. S. V. Chinchmalatpure	01	-	-	-	-	-	2.24	-
9	Mrs. S. S. Telsang	01	-	-	-	-	-	2.24	-
10	Mrs. S. N. Firme	02	-	-	-	-	-	5.61	-
11	Mr. S. G. Kamble	02	-	-	-	-	-	0.32	-
12	Ms. S. A. Patel	02	-	-	-	978-93-5077-505-9	-	-	-
13	Mr. R. C. Salunkhe	02	-	-	-	-	-	1.21	-
14	Mrs. P.V. Sadafal	02	-	-	-	-	-	1.21	-

20. Areas of consultancy and income generated: NIL

21. Faculty as members in

a) National committees, b) International Committees, c) Editorial Boards : NIL

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/programme:

S. N.	Year	No. of In-house Projects	% of In-house Projects
1	2014-15	20	90%
2	2013-14	20	90%
3	2012-13	17	89%

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies:

S. N.	Year	No. of Projects in Collaboration	% of Projects done in Collaboration
1	2014-15	2	10%
2	2013-14	2	10%
3	2012-13	2	11%

23. Awards/ Recognitions received by faculty and students:

a) Faculty:

SN	Name of Faculty	Year of Achievements	Achievement/ Recognition
1	Mr. T. D. Khadtare	2014-15	BCUD Research Grant

2.	Dr. A. P. Adsul	2014-15	BCUD Research Grant
3.	Mrs. V. S. Rajput	2014-15	BCUD Research Grant
4	Mrs. P. R. Thakare	2014-15	BCUD Research Grant
5.	Mr. T. D. Khadtare	2014-15	Reviewer of the papers in International conference on “Circuit System Communication and Information Technology Application (CSCITA- 2014)”
6.	Dr. A. P. Adsul	2014-15	Reviewer of the papers in International Journal
7.	Mr. J. B. Karande	2014-15	Reviewer of the papers in International Journal
8.	Dr. A. P. Adsul	2013-14	Reviewer of the papers in International Journal

b) Students Prizes

SN	Year	Activity	National/State/University level No. of Prizes won
1	2012-13	Cultural: (Ms. Sinhgad & Street play)	02
2	2012-13	Technical: M-pules (Live C. S)	02
3	2013-14	Cultural: Dance Competition Winner-SMJV hostel, Pune.	01
4	2013-14	TECHTONIC 13Language Investigator	01
5	2013-14	University Ranker	University Level : 02
6	2014-15	Technical- TECHTONIC 14	04

c) Students Appreciations

S.N.	Year	Name of the student	Appreciations	Remark
1	2014-15	Jinawala Taher	1st Rank In S. E.	
		Anusha	2 nd Rank In S. E.	
		Ketan Mangale	3 rd Rank In S. E.	
		Dengale Rutuja	1st Rank In T. E.	
		Girme Devika	2 nd Rank In T. E.	
		Omkar Parkhe	3 rd Rank In T. E.	
		Juhi Potdukhe	1st Rank In B. E.	
		Baikar Dhanashri	2 nd Rank In B. E.	
		Pokalwar Mansi	3 rd Rank In B. E.	
2	2013-14	Mayur Mhaske	1st Rank In S. E.	
		Sanju Singh	2 nd Rank In S. E.	
		Dengle Rutuja	3 rd Rank In S. E.	

		Juhi Potdukhe	1st Rank In T. E.	
		Naikavde Arundhati Dinesh	2 nd Rank In T. E.	
		Shaikh Shaharuk Sadik	3 rd Rank In T. E.	
		Yaminee Rote	1st Rank In B. E.	1 st University Ranker
		Aditi Agrawal	2 nd Rank In B. E.	6 th University Ranker
		Joshi Nakul	3 rd Rank In B. E.	
3	2012-13	Naikavde Arundhati	1st Rank In S. E.	
		Pokalwar Manasi	2 nd Rank In S. E.	
		Aherkar Neha	3 rd Rank In S. E.	
		Aditi Agrawal	1st Rank In T. E.	
		Yamini Rote	2 nd Rank In T. E.	
		Mayuri Choudhari	3 rd Rank In T. E.	
		Yenpure Abhishek Dilip	1st Rank In B. E.	10 th University Ranker
		Halai Tasleembanu Razak	2 nd Rank In B. E.	
		Shinkar Priyanka Sanjeev	3 rd Rank In B. E.	
4	2011-12	Nikumbh Prasad	1st Rank In S. E.	
		Thorat Khanderao	2 nd Rank In S. E.	
		Agrarwal Aaditi	3 rd Rank In S. E.	
		Yenpure Abhishek	1st Rank In T. E.	
		Nimbalkar Pallavi	2 nd Rank In T. E.	
		Shirure Kiran	3 rd Rank In T. E.	
		Disha Dingra	1st Rank In B. E.	3rd University Ranker
		Kulkarni Sayali	2 nd Rank In B. E.	6th University Ranker
		Bagul Yashashree	3 rd Rank In B. E.	

24. List of eminent academicians and scientists/ visitors to the department:

SN	Name of Visitor	Organization	Purpose of visit
1	Dr. S. S. Kadam	CDAC , Pune	For delivering expert lecture on “ Machine learning algorithm for Big-data analysis”
2	Dr. P. J. Kulkarni	WCE, Sangali	For delivering expert lecture on “ Machine Learning Algorithm”

3	Dr. Manasi Patwardhan	VIT, Pune	For delivering expert lecture on “Mathematical Modeling of data mining algorithm”
4	Dr. Vahida Attar	COEP, Pune	For delivering expert lecture on “Advances in data mining”
5	Dr. Sudha Purohit	Garware College, Pune	For delivering expert lecture on “Principle components analysis with R and clustered analysis with R”
6	Dr. David Hangal	SPPU, Pune	For delivering expert lecture on “Statistical methods using R for Big-data analysis”
7	Mr. Mata Prasad Agarwal	Persistent Ltd, Pune	For delivering expert lecture on “Working with Big-data and Hadoop”
8	Dr. G. V. Garje	PVGCOE, Pune	For delivering expert lecture on “TE-IT Syllabus Structure”
9	Dr. V. V. Acharya	SP College, Pune	For delivering expert lecture on “LaTeX
10	Dr. M. L. Dhore	VIT, Pune	For delivering expert lecture on “Computer Networks Technology”
11	Dr. Nilesh Uke	SCOE, Pune	For delivering expert lecture on “Programming Paradigms”.
12	Dr. Rajesh Prasad	VIIT, Pune	For delivering expert lecture on “Software Engineering”.
13	Mr. Mohan Patil	Accenture, Pune	For delivering expert lecture on “MVC Architecture”
14	Dr. Vivek Deshpande	MITCOE, Pune	For delivering expert lecture on “Research opportunities of Big data analysis in WSN”

25. Seminars/ Conferences/Workshops organized and the source of funding:

a) Conferences:

SN	Conferences organized	Date	National/ International	Source of funding
1	Technovision 2014	5 th & 6 th Apr 2014	International	Self-Sponsored

b) Workshops

SN	Workshops organized	Date	Source of funding
1	Web Designing	19/01/2015 to 20/01/2015	Self-Sponsored
2	Core JAVA	28/06/2014 to 30/06/2014	Self-Sponsored
3	Programming Skills In C & C++	30/06/2014 to 04/07/2014	Self-Sponsored
4	Programming Skills In C & C++	17/06/2013 to 22/06/2013	Self-Sponsored
5	Database Management System with Oracle	17/06/2013 to 22/06/2013	Self-Sponsored

6	MVC Architecture	22/02/2013 to 23/02/2013	Self-Sponsored
7	Object Oriented Programming Language	17/02/2013 to 18/02/2013	Self-Sponsored
8	Software Testing Techniques	27/09/2012 to 27/09/2012	Self-Sponsored

C) Seminars

SN	Seminar Organized	Date	National / International	Source of funding
1	OpenGL Programming	16/3/2015	National	Self-Sponsored
2	Personality Development	5/3/2015	National	Self-Sponsored
3	Making The Right Career Choice	12/07/2014	National	Self-Sponsored
4	Advances in Programming Paradigms	1/3/2014	National	Self-Sponsored
5	UML Diagrams	14/9/2013	National	Self-Sponsored
6	A Novice's Guide to Final Year Project	06/09/2013	National	Self-Sponsored
7	Android Mobile Operating System	24/8/2013	National	Self-Sponsored
8	Ethical Hacking and Cyber Forensic	2/8/2013	National	Self-Sponsored
9	Study & Work Opportunities Abroad	31/7/2013	National	Self-Sponsored
10	Digital Electronics & Trends in Integrated Circuit Technology	23/7/2013	National	Self-Sponsored
11	GRE & GMAT	13/7/2013	National	Self-Sponsored
12	Memory Organization	13/7/2013	National	Self-Sponsored
13	Memory Organization	12/7/2013	National	Self-Sponsored
14	Advanced Programming in AWK	8/7/2013	National	Self-Sponsored
15	Support Vector Machine in Artificial Neural Network and Expert System	16/3/2013	National	Self-Sponsored
16	Expert System in Artificial Neural Network	13/3/2013	National	Self-Sponsored
17	Regularization Theory in Artificial Neural Network	26/2/2013	National	Self-Sponsored
18	Computer Networks Technology	12/9/2012	National	Self-Sponsored

d) Faculty Development Programme

SN	Workshops organized	Date	Source of funding
1	FDP on DS	12 /07/13	In association with SPPU, PUNE
2	FDP on FDS	13 /07/13	In association with SPPU, PUNE
3	FDP on Revision of TE syllabus	7/3/ 2014	In association with SPPU, PUNE

4	FDP on Machine Learning Algorithm, Data mining tools and Big data Analysis	28/1/2015 to 1/2/2015	In association with BCUD , SPPU, Pune

26. Student Profile Programme /Course wise:

Name of the Course/ Programme	Academic Year (Graduation)	Applications received	Selected	Enrolled		Pass percentage
				*M	*F	
IT	2014-15	Admission Process done by DTE, Mumbai, Govt. of Maharashtra	71	42	29	100
IT	2013-14		88	46	42	97.4
IT	2012-13		84	58	26	98.75

*M=Male *F=Female ** SEDA also considered

27. Diversity of Students

Name of the Course/ Programme	Academic Year	% of students from the same state	% of students from the other states	% of students from abroad
IT	2015-16	88.5	11.49	--
IT	2014-15	86.9	13.09	--
IT	2013-14	84.26	15.73	--
IT	2012-13	90.12	9.87	--

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Exam	No. of Students			
	2012-13	2013-14	2014-15	2015-16
GATE	1	0	3	NIL
Defense	NIL	NIL	NIL	NIL
CAT	NIL	1	NIL	NIL
SLET	NIL	NIL	NIL	NIL
MBA- CET	NIL	NIL	NIL	NIL
GRE	7	10	1	NIL
TOEFL	3	5	1	NIL

29. Student progression

Student progression	Against % enrolled			
	2012-13	2013-14	2014-15	2015-16
UG to PG	7.5 (6/80)	12.98 (10/77)	2.85 (2/70)	NA
PG to M. Phil.	NIL	NIL	NIL	NA
PG to Ph.D.	NIL	NIL	NIL	NA
Ph.D.to Post-Doctoral	NIL	NIL	NIL	NA
Employed				
• Campus selection	78.95	66.67	82.76	68.57
• Other than campus recruitment				

Entrepreneurship/Self-employment	NIL	NIL	NIL	NA
Government Sector	NIL	NIL	NIL	NA

30. Details of Infrastructural facilities

a) Library

Particulars	Titles	Volumes
Books		
U.G.	308	1767
P.G.	NIL	NIL
On line journal	NIL	NIL
ASME On line	NIL	NIL
Science Direct	275	NIL
Printed journal	NIL	NIL
Printed journal U.G.	NIL	NIL
Printed journal P.G.	NIL	NIL

b) Internet facilities for Staff & Students:

Internet line of 4 Mbps for computer laboratories

c) Class rooms with ICT facility:

Room Description	Usage	Shared/ Exclusive	Capacity	Room Equipped With
SE 1306	Teaching	Shared within department	80	LCD Projector, PC with Internet facility.
TE 1310	Teaching	Shared within department	80	LCD Projector, PC with Internet facility.
BE 1312	Teaching	Shared within department	60	LCD Projector, PC with Internet facility

d) Laboratories:

Sr. No.	Name of Laboratory	Exclusive Use/ Shared	Number of Experiments	Laboratory Manuals
1	Programming Language Lab.	Shared within Dept.	20	Yes
2	Computer Network Lab.	Shared within Dept.	22	Yes
3	Database Engg. Lab.	Shared within Dept.	25	Yes
4	Project Lab.	Shared within Dept.	--	--
5	Hardware Engg. Lab.	Shared within Dept.	11	Yes

31. Number of students receiving financial assistance from Institute, University, government or other agencies

S. N.	Type of Assistant	Agency Providing Financial Assistance	Academic Year			
			2011-12	2012-13	2013-14	2014-15
1	GOI PM Scholarship	Social Welfare Dept. & Tribal Development dept.	57	56	56	64
2	GOI PM Freeship		44	48	43	49
3	EBC Concession	Jt. Director of Tech. Education	42	37	32	33
4	Minority Scholarship	Dept. of Minority Welfare	3	2	1	1
5	Central Sector Scholarship	Jt. Director of Higher Edu.	0	1	0	1
6	STC/PTC	Zilha Parishad	1	1	0	1
7	J & K Special Scholarship	AICTE	0	0	0	0
8	Pvt. Scholarship	Trust, NGO, Companies, etc.	1	1	1	1

32. Details on student enrichment Programmes (Lectures / Workshops / Seminar) with experts.

S. N.	Title	Resource Person Details	Category	Date		No. of students
				From	To	
1	Guest lecture on Software Engineering	Mr. Rajesh Prasad Asst. Prof. VIIT, Pune.	Guest Lecture	18/8/2011	18/8/2011	72
2	Guest lecture on Computer Network Technology	Mr. Tushar Rane Asst. Prof. PICT, Pune.	Guest Lecture	19/8/2011	19/8/2011	78
3	Guest lecture on Mind Mapping	Dr. S. N. Mali Principal SITS,	Guest Lecture	11/1/2012	11/1/2012	60
4	Guest lecture on Presentation Skill for Paper Writing	Dr. S. N. Mali Principal, SITS, Pune.	Guest Lecture	7/3/2012	7/3/2012	65

5	Guest lecture on Processor Architecture & Interfacing	Mrs. M. V. Nimbalkar Asst. Prof.SCOE, Pune	Guest Lecture	20/3/2012	20/3/2012	55
6	Software Testing Techniques	Mr. Shivraj Jadhav SQS India, Pune.	SDP	27/09/2012	27/09/2012	65
7	Computer Networks	Mr. M. L. Dhore. Asst. Prof.VIT,	Guest Lecture	12/9/2012	12/9/2012	57
8	Regularization Theory in Artificial Neural Network	Mrs. Lajiri Shah Asst. Prof.WIT, Solapur.	Guest Lecture	26/2/2013	26/2/2013	70
9	Expert System in Artificial Neural Network	Mr. D. E. Upasani Asst. Prof. SITS, Pune.	Guest Lecture	13/3/2013	13/3/2013	60
10	Support Vector Machine in Artificial Neural Network and Expert System	Mrs. Uma Salunkhe Asst. Prof. SCOE, Pune.	Guest Lecture	16/3/2013	16/3/2013	65
11	MVC Architecture	Mr. Nitin Borge, Seed Infotech, Pune.	SDP	22/02/2013	23/02/2013	54
12	Object Oriented Programming Language	Mr. Riyaz Jamadar Acorn Infotech, Pune.	SDP	17/02/2013	18/02/2013	65
13	Advanced Programming in AWK	Mr. Mandar Karyakarte Asst. Prof.VIIT, Pune.	Guest Lecture	8/7/2013	8/7/2013	51
14	Memory Organization	Ms. Rajshree Agrawal	Guest Lecture	12/7/2013	12/7/2013	55
15	Memory Organization	Ms. Ashwini Shingare	Guest Lecture	13/7/2013	13/7/2013	45
16	GRE & GMAT	Mr. Abhishek Bavdhankar Centre Manager Kaplan Inc. Test Preparation (GRE and GMAT), India Desk,Pune	Guest Lecture	13/7/2013	13/7/2013	58
17	Digital Electronics & Trends in Integrated Circuit Technology	Mr. S. S. Kulkarni Asst. Prof. SAE, Pune	Guest Lecture	23/7/2013	23/7/2013	55

18	Study & Work Opportunities Abroad	Mr. Dayanand M. Hiremath The Chopras, Pune	Guest Lecture	31/7/2013	31/7/2013	45
19	Ethical Hacking and Cyber Forensic	Mr. Pavan Yadav CIB-ACTS, Pune.	Guest Lecture	2/8/2013	2/8/2013	56
20	Android Mobile Operating System	Mr. Drup D. Desai ATS, Pune.	Guest Lecture	24/8/2013	24/8/2013	43
21	A Novice's Guide to Final Year Project	Mr. Ganesh D. Khade IIT, Guwahati	Guest Lecture	6/9/2013	6/9/2013	48
22	UML Diagrams	Mrs. S. S. Telsang	Guest Lecture	14/9/2013	14/9/2013	50
23	Advances in Programming Paradigms	Mrs. Dr. Nilesh Uke Asst. Prof. SCOE, Pune	Guest Lecture	1/3/2014	1/3/2014	52
24	Database Management System with Oracle	Mr. J. B. Karande, Mr. S. G. Kamble, Mrs. S. S. Telsang,	SDP	17/06/2013	22/06/2013	51
25	Programming Skills In C & C++	Mrs. P. R. Thakare, Mr. T. D. Khadtare, Mr. R. C. Salunkhe	SDP	17/06/2013	22/06/2013	65
26	Making The Right Career Choice	Mr. Susshruth Apshankar Mrs. Sangeeta Apshankar	Guest Lecture	12/7/2014	12/7/2014	58
27	Personality Development	Mr. Ashok Chavan Founder President JivanSanjivani HRD Wai	Guest Lecture	5/3/2015	5/3/2015	70
28	OpenGL Programming	Mrs. Sheetal Jagtap Asst. Prof, VIT,	Guest Lecture	16/3/2015	16/3/2015	70
29	Web Designing	Mr. Ansar Shekh, Accenture, Pune	SDP	19/01/2015	20/01/2015	57
30	Core JAVA	Mr. Digambar Yedage,	SDP	28/06/2014	30/06/2014	55
31	Programming Skills In C & C++	Mrs. P. R. Thakare, Asst. Prof. SITS,	SDP	30/06/2014	04/07/2014	61

33. Teaching methods adopted to improve student learning

- K-Point server(Audio Tutorial Lessons)
- Remedial sessions for failure students
- Student Learning program

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

- Blood Donation
- Shiv Jayanti Celebration
- Teachers day
- Engineers day
- Tree plantation
- Gram Swachhata Abhiyan at kirkatwadi, Pune.
- Yoga training for NSS students.

35. SWOC analysis of the department and Future plans:

Strength:

- Faculty and staff retention
- Student centric learning environment
- Adaptive planning of T-L-P
- Consistent good academic performance
- Effective team work culture
- Parental care of students

Weaknesses:

- Number of research publications
- Moderate I-I-I
- Consultancy and extension activities
- Number of faculty with Ph.D. qualification
- Student placement in renown industries

Opportunities:

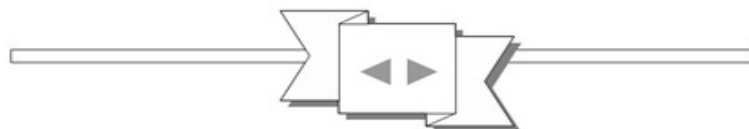
- Faculty up-gradation
- Center of excellence in specific domain
- Interdisciplinary approach
- Alumni interaction and industrial exposure
- Industry collaboration & consultancy
- Development of web based learning resources

Challenges:

- Learn wide range of upcoming technologies in an affiliate institute
- Sustainability in global competitive world
- Balance between fundamental concepts and customization with new technologies

Future Plans:

- Improve faculty qualification
- Inculcate research culture
- Strengthen alumni interaction
- Skill based training to faculty and students
- Enhance I-I-I and corporate collaborative projects



DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING

1. **Name of the Department** : Electronics and Telecommunication Engineering

2. **Year of Establishment** : 2008-09

3. **Names of Programmes/ Courses offered (UG, PG, etc.)**

Name of program	Year of Establishment
UG	2008-09
PG (VLSI and Embedded Systems)	2012-13

4. **Names of Interdisciplinary courses and the departments/units involved:**

Sr. No.	Class	Interdisciplinary Courses	Departments Involved
1	SE	Engineering Mathematics	Engineering Science
2	SE	Digital Electronics and Logic Design	Computer Engineering

5. **Annual/ semester/choice based credit system (Programme wise):**

UG: FE semester credit system and SE, TE, BE semester pattern

PG: Semester credit system

6. **Participation of the department in the courses offered by other departments:**

SN	Class	Courses	Departments Involved
1	FE	Basic Electronics Engg	Engineering Science
2	FE	Basic Electrical Engg	Engineering Science
3	SE	Digital Electronics & Logic Design	Computer Engineering
4	SE	Basic Electronics Engg	Mechanical Engineering
5	TE	Mechatronics	Mechanical Engineering
6	TE	Digital Signal Processing	Computer Engineering

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

Sr. No.	Certificate Course name	Participating institution /industry
1	Certificate Course in C, C ++	Kanitkar Institute, Pune
2	Certificate course in Handset Repairing	Aspire Knowledge And Skills., Pune
3	Certificate course in Tower Technician	
4	Certificate course in Optical Fiber Splicer	

8. Details of courses/Programs discontinued (if any) with reasons: Nil**9. Number of Teaching posts:****UG**

Teaching posts	Sanctioned	Filled
Professors	02	01
Associate Professors	05	0
Asst. Professors	17	15

PG

Teaching posts	Sanctioned	Filled
Professors	01	0
Associate Professors	01	0
Asst. Professors	02	03

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./ M.Phil. etc.,)

Sr. No.	Name of Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the last 4 Years
UG						
1	Dr. S.N. Mali	Ph. D. (Electronics) ME (Electronics)	Professor	Image Processing	27	06
2	Mr. D.E. Upasani	ME(Electronics) Ph.D. Pursuing	HOD	Signal Processing	22	Nil
3	Mrs. R.M. Mandi	ME(Digital Electronics)	Asst. Prof.	Computer Networks	8.5	Nil
4	Mrs. A. V. Kulkarni	ME (E &TC)	Asst. Prof.	Image and Signal Processing	12	Nil
5	Mr.T. K.Zombade	ME(Electronics)	Asst. Prof.	Communication	8.9	Nil
6	Mr. H. V. Kulkarni	ME(Pursuing)	Asst. Prof.	VLSI & ESD	6	Nil
7	Mrs. N.G. Shahare	Ph.D. (Pursuing)	Asst. Prof.	Image Processing	11.5	Nil
8	Mrs. S. J. Kamble	M.Tech(DE)	Asst. Prof.	Digital Electronics	07	Nil
9	Mr. S. P.Dhanure	M.Tech(E & TC)	Asst. Prof.	Computer Networks	16	Nil
10	Mr. H. B. Mali	Ph.D. (Pursuing)	Asst. Prof.	Digital Image Processing	11	Nil

11	Mrs. S. V. Yogi	ME(VLSI & EMBD)	Asst. Prof.	VLSI	6.5	Nil
12	Mr. V.V.Nalawade	ME(VLSI & EMBD)	Asst. Prof.	Image Processing	05	Nil
13	Mrs. D.B. Singh	ME(Digital Communication)	Asst. Prof.	Digital Communication	7.5	Nil
14	Mrs. S. A. Wagh	ME(VLSI & EMBD)	Asst. Prof.	VLSI	5.5	Nil
15	Mr. N.S. Kulkarni	M. Tech(E&TC)	Asst. Prof.	Communication And Signal Processing	2.5	Nil
16	Ms. S.D. Shukla	ME (Microwave)	Asst. Prof.	Microwave	4.2	Nil
PG						
01	Mrs. A.B. Kanwade	ME(Electronics), Ph.D. (Pursuing)	Asst. Prof.	Signal Processing	12.5	Nil
02	Mrs. D. D. Mondal	ME (E &TC)	Asst. Prof.	VLSI Embedded	08	Nil
03	Mr. S.B. Shrote	ME(VLSI & ESD)	Asst. Prof.	VLSI signal Processing RF communication	09	Nil

11. List of senior visiting faculty:

a) List of Faculty for UG

Sr. No.	Visiting Faculty	Topic
1	Ms. P. Pachpande	Micro-Controller and Applications
2	Ms. O. P. Bhawe	Information Theory and Coding Techniques
3	Ms. E. N. Kute	Information Theory and Coding Techniques
4	Sayali Ranbhor	Broadband Communication Systems

b) List of Faculty for PG

Sr. No.	Senior Visiting Faculty	Topic
1	Dr. M. P. Deshmukh ,SSBT College Of Engineering, Bambhori , Jalgaon	Quality Improvement
2	Dr. P. S. Patil ,Head E&TC ,SSVPS College Of Engineering, Dhule	
3	Dr. R. J. Bhivani, Professor BOS (Mem.) Electronics, SGBAU, Babasaheb Naik College of Engineering, Pusad	
4	Dr. B .G. Hogade , Head E&TC Terna Mumbai	UG Lab

5	Dr. G. G. Sarate , Head E&TC ,Government College Of Polytechnic, Tantravihar Colony, Opp,Rahategaonchouki, post shivajinagarAmaravati(MH)	Development
6	Dr. S. L. Nalbalwar, Associate Professor, Dr. BATU, Lonere	PG Lab Development
7	Dr. A. N. Gaikwad , Professor, BabasahebNaik College Of Engineering, Pusad	
9	Dr. A. J. Patil, BOS Chairman, NMU Jalgaon	VLSI Skill Development
10	Dr. U. V. Kulkarni , Professor, SGGS, Nanded	PG Lab Development
11	Dr. S. S. Patil, KBP, Satara	Advanced Communication
12	Dr. P. S. Patil ,Head E&TC,SSVPS College Of Engineering, Dhule	UG Lab Development
13	Dr. M. P. Deshmukh,SSBT College Of Engineering, Bambhori , Jalgaon	
14	Dr. P. J. Kulkarni, Walchand College Of Engineering, Sangali	Image Processing
15	Dr. SachinRuikar ,WIT, Sangli	
16	Dr. S. M. Mukane, Professor, College Of Engineering Pandharpur	
17	Dr. SachinRuikar , WIT, Sangli	Quality Improvement
18	Dr. A. J. Patil, BOS Chairman NMU Jalgaon	
19	Dr. P. S. Patil ,Head E&TC ,SSVPS College Of Engineering, Dhule	Research Aspects in Neural Network
20	Dr. SachinGenje, Professor WIT, Solapur.	
21	LeenaBokil(IETE Forum)	Opportunities in Space Technology

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: 20%

13. Teacher - Student Ratio (program wise):

Sr. No.	Programme	Specialization	Teacher - Student Ratio			
			2015-2016	2014-2015	2013-2014	2012-2013
1	UG	Electronics and Telecommunication	19:1	15:1	15:1	14:1
2	PG	VLSI and Embedded Systems	12:1	12:1	12:1	12:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Academic Support Staff	Sanctioned	Filled
Number of academic support staff (Technical)	02	02

15. Qualifications of teaching faculty with D. Sc/ D.Litt/ Ph.D/ M Phil/PG.

SN	Qualification	No. of Teaching Faculty
1	Ph.D. Completed	02
2	Ph.D. Registered	06
3	M.E. / M.Tech. Completed	15
4	M Phil / M Sc	00

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:

SN	Name of the Research Project	Name of Principal Investigator/ Coordinator	Funding Agency	Amount as seed money Rs.	Duration of the project
1	Automated ECG diagnostic P wave analysis using wavelets	PI- Mr. D. E. Upasani Co-I-Prof S. B. Shrote	BCUD	120000.00	02 years
2	Early stage detection of micro calcifications in mammograms using wavelet	PI- Prof. N. N. Ganvir Co-I- Prof S.V. yogi Prof. V. P. Niwane	BCUD	210000.00	02 years

18. Research Centre /facility recognized by the University: NIL

19. Publications:

Sr.No.	Name of the faculty	published in peer reviewed journals	No. of Publications listed in International DB	Chapters In Book	Books Edited	Books with ISBN in international DB	Citation Index	Impact Factor	h - Index Average
1	Dr. S. N. Mali	10	10						
2	Mr. D.E Upasani	16	16				15		3
3	Dr. S.M.Deokar	05	05				Nil	Nil	
4	Mr.S.R Deshpande	02	02						
5	Mrs. A.V. Kulkarni	01	01				Nil	Nil	
6	Mr.T.K. Zhombade	01	01						
7	Mrs. R.M. Mandi	03	03				04	01	
8	Mrs. N.G. Shahare	01	01						
9	Mr.S. B. Shrote	04	04				14	03	
10	Mr. M.D Patil	05	05				01	Nil	
11	Mr.V.P. Niwane	01	01						
12	Mrs.S.S. Havanoor	01	01						
13	Mr.S.P. Dhanure	10	10						
14	Mr. H.B. Mali	01	01				03	01	

Department of Electronics & Telecommunication Engineering

15	Mr. A. B. Deshmukh	04	04						
16	Mrs. S.A. wagh	03	03						
17	Mrs. A.B. Kanawade	04	04						

20. Areas of consultancy and income generated: NIL

21. Faculty as members in

a) National committees, b) International Committees, c) Editorial Boards

Sr. No.	Name of Faculty	Members
1	Prof. D. E. Upasani	IISc Life Time Researcher
2	Prof. S. B. Shrote	IISc Life Time Researcher

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/Programme:

Sr. No.	Year	No. of In house Projects	% of in house Projects
1	2012-2013	23	92 %
2	2013-2014	15	42.85%
3	2014-2015	36	76.59 %

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies:

Sr. No.	Year	No. of Projects in Collaboration	% of projects done in collaboration
1	2012-2013	02	08
2	2013-2014	20	57.14
3	2014-2015	11	23.40

23. Awards/ Recognitions received by faculty and students:

a) Faculty

Sr. No.	Name of Faculty	Year of Achievement	Achievement
1	Prof. H. B. Mali	2013-14	8 th Maharashtra state Inter University Research Convention -2 nd Runner Up In State level Avishkar on dated 16 th -18 th Jan 2014

b) Students: NIL

24. List of eminent academicians and scientists/ visitors to the department:

Sr. No.	Name of Visitor	Organization	Purpose of visit
1	Dr. M. P. Deshmukh	SSBT College Of Engineering, Bambhori , Jalgaon	Quality Improvement

2	Dr. P. S. Patil	SSVPS College Of Engineering, Dhule	
3	Dr. R. J. Bhivani	SGBAU, Babasaheb Naik College Of Engineering, Pusad	
4	Dr. B. G. Hogade	Terna Mumbai	
5	Dr. G. G. Sarate	Government College of Polytechnic, Tantravihar Colony, Opp, Rahategaonchouki, post shivajinagar Amaravati	UG Lab Development
6	Dr. S. L. Nalbalwar	Dr. BATU, Lonere	PG Lab Development
7	Dr. A. N. Gaikwad	Babasaheb Naik College of Engineering, Pusad	
9	Dr. A. J. Patil	NMU Jalgaon	VLSI Skill Development
10	Dr. U. V. Kulkarni	SGGS, Nanded	PG Lab Development
11	Dr. S. S. Patil,	KBP, Satara	Advanced Communication
12	Dr. P. S. Patil	Head E&TC ,SSVPS College Of Engineering Dhule	UG Lab Development
13	Dr. P. J. Kulkarni	Walchand College Of Engineering, Sangali	Image Processing
14	Dr. Sachin Ruikar	WIT, Sangli	
15	Dr. S. M. Mukane,	College Of Engineering, Pandharpur	
16	Dr. Sachin Ruikar	WIT, Sangli	Quality Improvement
17	Dr. A. J. Patil,	BOS Chairman NMU, Jalgaon	
18	Dr. Sachin Genje	WIT, Solapur	Research Aspects in Neural Network
19	Dr. U. V. Kulkarni	SGGS, Nanded	
20	Leena Bokil (IETE Forum)	NASA- Honeywell Educator	Awareness about Space Technology

25. Seminars/ Conferences/Workshops organized and the source of funding:

a) Conferences

Sr. No.	Conferences organized	Date	National/ International	Source of Funding
1	Technovision – 2014	5 th – 6 th April 2014	International	Self-Sponsored

b) Workshops

SN	Workshops Organized	Date	Source of Funding
1	Wavelets	13- 18/12/2012	Self-Sponsored

2	GPS	19/01/2013	IETE
3	Syllabus Detailing on EDC	17 - 22/06/2013	SPPU, Pune
4	Basic C Programming	29/07/2013 -3/8/2013, 12 -17/08/2013	Self-Sponsored
5	Robotics	08-10/07/2013	Self-Sponsored
6	LATEX	22-24/10/2013	Self-Sponsored
7	Avishkar 2013	23/12/2013	SPPU, Pune
8	Android	15-18/02/2014	Self-Sponsored
9	Corporate Culture and Etiquettes	22-24/02/2014	Self-Sponsored
10	Skill Development in Industrial Automation	27/07/2015 -1/08/2015	Self-Sponsored
11	Gandhian Thoughts	03- 05/8/2015	Self-Sponsored
12	LINUX Programming	6- 8/08/2015	Self-Sponsored

26. Student profile Programme /course wise:

Name of the Course/ Programme	Academic Year (Graduation)	Applications received	Selected	Enrolled		Pass percentage
				*M	*F	
E&TC	2014-15	Admission Process done by DTE, Mumbai, Govt. of Maharashtra	111	66	45	96.48
E&TC	2013-14		99	61	38	97.24
E&TC	2012-13		119	80	39	100
E&TC	2011-12		119	88	31	100

*M=Male *F=Female ** SEDA also considered

27. Diversity of Students

Name of the Course/ Programme	Academic Year	% of students from the same state	% of students from the other states	% of students from abroad
E&TC	2015-16	88	11.8	NA
E&TC	2014-15	92	7.4	NA
E&TC	2013-14	92.5	7.4	NA
E&TC	2012-13	88	12	NA

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Exam	No. of Students			
	2012-13	2013-14	2014-15	2015-16
GATE	13	08	21	30
Defense	-	-	-	-
CAT	-	1	1	-
SLET	-	-	-	-

MBA- CET	1	1	1	-
GRE	8	5	1	-
TOEFL	1	-	-	-

29. Student progression

Student progression	Against % enrolled			
	2012-13	2013-14	2014-15	2015-16
UG to PG	10	7	3	5
PG to M.Phil.	-	-	-	-
PG to Ph.D.	-	-	-	-
Ph.D.to Post-Doctoral	-	-	-	-
Employed Campus selection Other than campus recruitment	59.09	88.24	63.89	75.61
Entrepreneurship/Self-employment	1	1		
Government Sector	-	-	-	-

30. Details of Infrastructural facilities

a) Library

Particulars	Titles	Volumes
Books		
U.G.	351	3020
P.G.	135	368
On line journal		
ASME On line	ASPP +POP (143 magazine, transactions + 743 Conference proceedings)	-
Science Direct	275	-
Printed journal	-	-
Printed journal U.G.	-	-
Printed journal P.G.	-	-

b) Internet facilities for Staff & Students: Utilize internet with leased line 45 Mbps.

c) Class rooms with ICT facility:

Room Description	Usage	Shared/ Exclusive	Capacity	Room Equipped With
1202	Class Room	Exclusive	80	N-Computing instrument and mounted LCD Projector with internet facility
1204	Class Room	Exclusive	80	N-Computing instrument and mounted LCD Projector with internet facility

1206	Class Room	Exclusive	80	N-Computing instrument and mounted LCD Projector with internet facility
1213	Class Room	Exclusive	80	N-Computing instrument and mounted LCD Projector with internet facility
1216	Seminar Hall	Exclusive	80	N-Computing instrument and mounted LCD Projector with internet facility

d) Laboratories:

Sr. No.	Name of Laboratory	Exclusive Use/ Shared	Number of Experiments	Laboratory Manuals
1.	Project Lab	Exclusive	40	Available
2.	VLSI LAB	Exclusive	60	Available
3.	Embedded LAB	Exclusive	20	Available
4.	TV Lab	Exclusive	30	Available
5.	Communication Lab	Exclusive	60	Available
6.	Basic Lab	Exclusive	10	Available
7.	PG Lab	Exclusive	40	Available
8.	Network & Power Lab	Exclusive	40	Available
9.	Computer Lab	Exclusive	60	Available

31. Number of students receiving financial assistance from Institute, University, government or other agencies

Sr. No.	Type of Assistant	Agency Providing Financial Assistance	Academic Year			
			2011-12	2012-13	2013-14	2014-15
1	GOI PM Scholarship	Social Welfare Dept. & Tribal Development dept.	49	69	86	111
2	GOI PM Freeship		52	69	73	86
3	EBC Concession	Jt. Director of Tech. Education	34	46	56	58
4	Minority Scholarship	Dept. of Minority Welfare	4	2	3	0
5	Central Sector Scholarship	Jt. Director of Higher Edu.	0	1	0	0
6	STC/PTC	Zilha Parishad	3	2	0	4
7	J & K Special Scholarship	AICTE	0	0	0	0

8	Pvt. Scholarship	Trust, NGO, Companies, etc.	2	3	2	4

32. Details on student enrichment Programmes (special lectures / workshops / seminar) with external experts

Sr. No.	Title	Resource Person Details	Category	Date		No. of students
				From	To	
2012-2013						
1	Signal Coding And Estimation Theory	Prof. R. A. Barapate	Expert Lecture	02/1/12	5/3/12	155
2	Electromagnetics	Prof. R. A. Barapate	Expert Lecture	28/2/12	7/3/12	120
3	Wave Theory and Antenna	Prof. Khedkar A.R	Expert Lecture	29/2/12	14/3/12	155
4	Industrial Management	Mangesh Sanap	Expert Lecture	3/4/12	3/4/12	155
5	Career Opportunities After Engineering	Vishvjeet Vyas	Expert Lecture	24/7/12	24/7/12	185
6	Digital signal processing	Prof. R. A. Barapate	Expert Lecture	16/8/12	21/9/12	155
7	Digital Communication	Prof. Upadhye Priyanka	Expert Lecture	21/9/12	23/9/12	155
8	Wavelets	Prof. Manesh B. Kokare	Workshop	13/12/12	18/12/12	155
9	GPS	Prof. S. R. Jog, IETE	Workshop	19/01/13	19/01/13	125
2013-2014						
1	Syllabus Detailing on EDC	Prof. P.G.Shete, Prof. M.P. Deshpande, PVG,Pune	Workshop	17/06/13	22/06/13	200
2	Robotics	Mr. Sudhir Kumar, Mr. Aditya Jain, Matbrotics Technology, New Delhi	Workshop	8/07/13	10/07/13	200
3	Signals And System Convolution integralLTI system	Prof R.A. Barapte	Expert Lecture	23/7/13	8/10/13	120
4	Covert Communication	Dr. S. N. Mali	Expert Lecture	29/07/13	29/07/13	120
5	Basic C	Prof. R M	Workshop	29/07/13-	3/8/13	70

	Programming	Mandi, Prof. D DMondal, SITS Narhe		12/08/13	17/08/13	
6	LabVIEW	Upasani D.E.	Workshop	13/8/13	13/8/13	120
7	Opportunities for Higher Technical Education in India & Abroad	Prof. D.E. Upasani, Head E&TC	Seminar	23/7/13	23/7/13	120
8	Engineer's Day	Dr.PanditShelke , Director, Student Welfare SPPU	Seminar	16/09/13	16/9/13	100
9	How to prepare for oral exam of DSP	Prof. R. A. Barapte	Expert Lecture	9/10/13	9/10/13	155
10	LATEX	AnirudhhaRum ale, Head Computer, Malegaon Engg College, Baramati	Workshop	22/10/13	24/10/13	44
11	Android	Mr. Bande Nawaz, Wishdomware Technologies	Workshop	15/02/14	18/02/14	120
12	Corporate Culture and Etiquettes	Mr. Satyajeet Pangu, Tieto, Pune	Workshop	22/02/14	24/02/14	60
13	National Science Day	Upasani D.E.	Seminar	28/02/14	28/02/14	100
14	Career in Automation for E&TC students	Mr. Omprakash Barure	Expert Lecture	07/03/14	07/03/14	120
15	Industrial management Inventory logistics &supply chain management Management information system	Prof. Nishant Wasatkar and Prof. Pravin Gurav	Expert Lecture	10/3/14	31/03/14	155
16	Overview of TV Engineering	Prof.D. D. Choudhari	Expert Lecture	14/03/14	14/03/14	120
17	Overview of PLL and voltage regulator	Prof.S.R. Deshpande	Expert Lecture	20/3/14	20/3/14	120
18	Programmable logic controller	Prof.D.G. Ganage	Expert Lecture	27/03/14	27/03/14	120

2014-2015						
1	Industry Automation	Mr. Prasanna Joshi	Expert Lecture	05/02/15	05/02/15	155
2	Personality development	Mr. Rajesh Chavan	Expert Lecture	05/03/15	05/03/15	180
3	Information Theory And Coding Techniques	Mrs.L.K.Wani	Expert Lecture	24/03/15	24/03/15	155
2015-2016						
1	Skill Development in Industrial Automation	Mr. Rajendra Joshi, Entrepreneur, Pune	Workshop	27/07/15	1/08/15	44
2	LINUX Programming	Mr. Neeraj D. Deshmukh, Mr.Dattaprasad Madhur, Anshuman Tech Pvt. Ltd., Pune	Workshop	6/08/15	8/08/15	66
3	Gandhian Thoughts	Mr. Kamal Singh, Xanberri Natural care, Pune	Workshop	6/08/15	8/08/15	66
4	Robotics	Ashutosh Somkuwar	TE(E&TC)	08/7/15	08/7/15	155
5	Entrepreneurship Development	Kamal Singh	BE E&TC &TE(E&TC)	10/7/15	10/7/15	185
6	Data Acquisition System	Prof. S. S. Kendre	TE(E&TC)	19/09/15	19/09/15	155

33. Teaching methods adopted to improve student learning

- Guest Lectures
- Workshops
- Quiz Competition
- Industrial Visits
- Value Added Courses
- Mock Interviews
- Assignments
- Class Tests
- Tutorials
- Seminars
- Feedback Analysis
- Educational Tours
- Department Library Facility
- Internet Facility

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

❖ **ETSA**

SN	Name of the Event /Occasion	Speaker / Resource Person	Date of Conduction
1	Guest Lecture-	Mr. Joshi	06 th February 2015
2	one day seminar on “Virtual Lab – Digital Signal / Image Processing”	Mr. Mehendale from Wavelet Technologies, Pune	23 rd February 2015
3	Mini Project Competition	Mrs. Lalita K. Wani	24 th March 2015
4	Project Competition	Dr. S. R Patil	24 th March 2015
5	Guest Lecture- “Personality Development”	Mr. Rajesh Chavan	03 rd April 2015
6	Guest Lecture- positive attitude for TE and BE	Kamal Singh	1 st July 2015
7	FE Induction Program	Mr. Tushar Samnerkar	25 th July 2015
8	Traditional Day	-	14 th February 2014
9	group Day	-	14 th February 2014
10	Teachers day	Dr. S. N. Mali	5 th September 2014
11	Box cricket	-	13 th September 2014
12	Fresher’s function	-	23 rd September 2014
13	Art of Living	Mr.Saleel Pulekar	17 th January 2013
14	Traditional Day	-	15 th February 2013
15	Group Day	-	19 th February 2013
16	Welcome Function To First Year Engg	Dr. S. N. Mali	23 rd July 2013
17	Football Match	-	16 th August 2013
18	Welcome Function To Second Year Students	-	26 th August 2013
19	ETSA Inauguration & Teachers’ Day Celebration	Dr. S. N. Mali	05 th September 2013.
20	Toppers felicitation	Dr. S. N. Mali	05 th September 2013.
21	Engineers Day 16 September 2013	Dr. Pandit Shelke	16 th September 2013
22	Logo competition	-	16 th September 2013
23	Engineers Day	Dr. S. N. Mali	16 th September 2013
24	Farewell	-	4 th March 2012
25	Welcome Function to First Year Engg	Dr. S. N. Mali	30 th July 2012
26	Teachers day	Dr. S. N. Mali	5 th September 2012
27	Toppers felicitation	Dr. S. N. Mali	14 th September 2012

• **Student Council**

Sr.	Name of the Activity	Sponsoring Agency	No. of students enrolled		
			2012-13	2013 -14	2014-15
1	Teachers Day	-	50	110	120

2	First Screening of the film “The Hope” by Sagar Ambre Creative Director Third View Creations, Mumbai	-	-	100	-
3	Poster Presentation Competition	-	-	20	-
4	Blood Donation Camp	-	-	350	770
5	The College Times	-	30	50	100
6	Engineers day	-	30	80	100
7	Inter Departmental Football Tournament	-	-	40	-
8	I-VOTE	-	-	370	-
9	Mazhi Aai Mazhya Mahavidyalayat	SPPU	-	200	-
10	The National Science Day	-	-	70	70
11	Nirbhay Kanya Abhiyan	SPPU	-	370	150
12	Sinhgad Karandak – Sports	-	30	40	50
13	Sinhgad Karandak – Cultural	-	20	30	40
14	Sinhgad Karandak – Technical	-	40	80	100
15	Disaster Management	SPPU	-	120	150
16	Personality Development Workshop by Dr. Mohan Agashe	SPPU	-	150	-
17	“RAZHAKAR” Film Promotion by Mr. Siddarth Jadhav	-	-	-	100
18	The College Times, Monthly News Letter	-	30	80	150
19	First Year Induction Program	-	30	30	30
20	The Campus Film Society	-	-	-	100
21	Sakal as Media Partner	-	-	-	200

• **National Service Scheme (NSS) :**

Sr. No.	Name of the Event /Occasion	Speaker / Resource Person	Date of Conduction
A.Y. 2015-16			
1	Independence Day	Dr. A. K. Sahani	15/08/2015
2	RakshaBandhan	Prof. S. P. Velapure	29/08/2015
3	Teachers Day	Dr. S. N. Mali	05/09/2015
4	Yoga Camp	Prof. D. E. Upasani	09-11/09/2015
5	Engineers Day	Mr. Bapu Pingale, API Narhe	15/09/2015
6	Police Mitra activity	Inspector, Faraskhana Police Station	17-27/09/2015
7	Tree Plantation	Sarpanch, Narhe Grampanchayat	24/09/2015
8	Eco friendly Visarjan	Prof. G. S. Anaokar, Active Foundation	27/09/2015
9	Blood Donation Camp	Prof. D. E. Upasani, Prof. S. P. Velapure	01/10/2015

A.Y.2014-15			
1	Blood Donation Camp	Prof. A. B. Deshmukh	13/08/2014
2	Independence Day	Prof. M. N. Navale	15/08/2014
3	Republic Day	Prof. M. N. Navale	26/01/2015
A.Y. 2013-14			
1	Independence Day	Prof. M. N. Navale	15/07/2013
2	Blood Donation Camp	Dr. S. N. Mali	30/12/2013
3	Republic Day	Dr. A. V. Deshpande	26/01/2014
4	Shivaji Maharaj Jayanti	Prof. A. B. Deshmukh	20/02/2014
5	Farewell Ceremony	Dr. S. N. Mali.	30/04/2014
6	NSS Camp	Sarpanch, Kirkitwadi Grampanchayat	12/01/2014

• **Blood Donation Camp:**

Sr. No.	Name of the Event /Occasion	Number of members Registered	Date of Conduction
A.Y. 2015-16			
1	Blood Donation Camp	110	01/10/2015
A.Y. 2014-15			
1	Blood Donation Camp	100	13/08/2014
A.Y. 2013-14			
1	Blood Donation Camp	310	30/12/2013

• **Old Age Home Visit:**

Sr. No.	Name of the Event /Occasion	Name and address of the Home	Date of Visit
A.Y. 2015-16			
1	Dasara Festival	Jivan Sanvardhan Foundation IndrayaniKatkavasti, Paud Road, Pune	15/10/2015
A.Y. 2014-15			
1	Diwali Festival	Matoshri old age house, Rajaram bridge, Karvenagar Pune-52	20/10/2014
A.Y. 2013-14			
1	Dasara Festival	Nivara Old age house, 96, NaviPeth, ThosarPaga, Pune-411030	14/10/2013

• **Visit to Orphanage:**

Sr. No.	Name of the Event /Occasion	Name and address of the Home	Date of Visit
A.Y. 2014-15			
1	Rakshabandhan	ManavyaGokul, 74/5, Near Paranjapescheme, Mulshi, Pune-15	10/08/2014
A.Y. 2013-14			
1	Friendship day	Pune Blind Girls School, Gandhi Bhavan road, Chaitanyanagar, Pune -38	4/08/2013

35. SWOC analysis of the department and Future plans:

Strengths:

- State-of-the-art infrastructure

- Faculty and staff retention
- Transparent and conducive environment
- Competent & experienced faculty with team work culture
- Value based education
- Participation in technical & Non-technical activities by students
- Parental care of the students through TGs

Weaknesses:

- Faculty with Ph.D. qualification
- Research publications
- Industry interaction
- Consultancy and extension activities

Opportunities:

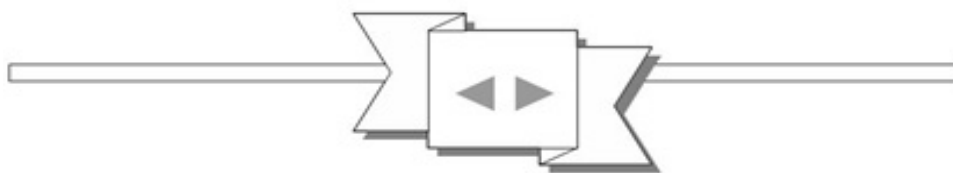
- Faculty qualification up-gradation
- Excellence in specific domain
- Interdisciplinary approach
- Developing good entrepreneurs
- Research funding from different agencies
- Collaborative projects with industries & other organizations
- Enhancing student placement in reputed industries

Challenges:

- Employability skill development as per the demanding need of the industry
- Development of product based learning
- Attracting meritorious students in the current industrial scenario
- Dynamic change in curriculum to accommodate new technologies

Future Plans:

- To develop Project Based Learning
- To increase Alumni interaction
- To initiate entrepreneurship activity and develop entrepreneurs
- Tie-up with renowned Industries
- To set up center of excellence



DEPARTMENT OF MECHANICAL ENGINEERING

1. **Name of the Department:** Mechanical Engineering

2. **Year of Establishment:** 2008-09

3. **Names of Programmes / Courses offered (UG, PG, etc.)**

Name of Programme	Year of Establishment
UG	2008-09
PG (Design Engineering)	2012-13

4. **Names of Interdisciplinary courses and the departments involved:**

Sr. No.	Class	Interdisciplinary Courses	Departments involved
1	SE	Engineering Mathematics III	Engineering Science
2	SE	Electrical & Electronics Engineering	E & T C
3	ME	Advanced Mathematics	Engineering Science

5. **Annual/ Semester/ Choice Based Credit System (CBCS) (Programme wise):**

UG: FE Credit System and SE, TE and BE Semester Pattern

PG: Credit System

6. **Participation of the Department in the courses offered by other Departments:**

Sr.	Class	Courses	Departments involved
1	FE	Basic Mechanical Engineering	Mechanical Engineering
2	FE	Engineering Graphics I & II	Mechanical Engineering
3	FE	Workshop Practice	Mechanical Engineering

7. **Courses in collaboration with other Universities, Industries, Foreign Institutions, etc.**

Sr. No.	Certificate Course name	Participating Institution / Industry
1	edX	MITx, IITs
2	Process Planning & Tolerance Analysis	Mr. Anand Bhise MechaWorks Engineering & Consultant

Department of Mechanical Engineering

		Ketan Park, Second Floor, Flat No.9 Opposite To Suraj Nagar Near Shantiban Chowk, Guruganesh Nagar, Kothrud, Pune 411038
3	Piping Design	Mr. Sanjay Deshpande, Asian Academy of Professional Training, Dhankawadi, Pune.

8. Details of Courses/Programmes discontinued (if any) with reasons: NIL

9. Number of Teaching Posts:

UG

Teaching posts	Sanctioned	Filled
Professors	04	0
Associate Professors	08	01
Asst. Professors	24	22

PG

Teaching posts	Sanctioned	Filled
Professors	01	0
Associate Professors	01	01
Asst. Professors	02	03

10. Faculty profile with Name, Qualification, Designation, Specialization, (D.Sc./D.Litt./Ph.D./ M. Phil. etc.)

Sr. No.	Name of Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the last 4 Years
UG						
1	Mr. Uday C. Agashe	M.E. (Mech.) B.E.(Mech.)	Assistant Professor	Heat Power	16	Nil
2	Dr. Kirankumar R.	Ph. D.	Associate	Design	20	Nil

Department of Mechanical Engineering

	Jagtap	M.E. (Mech.) B.E.(Mech.)	Professor	Engineering		
3	Mr. Prashant P. Patunkar	B.E.(Mech.) M. Tech. (Mech)	Assistant Professor	Thermal & Fluids Engg.	16.5	Nil
4	Mr. Sachin P. Velapure	M.E. (Mech.) B.E.(Mech.)	Assistant Professor	Heat Power	6	Nil
5	Mr. Govind S. Waghmare	M.Tech(Mech.)	Assistant Professor	CAD/CAM	5	Nil
6	Mr. Parag S. Tiwari	B.E.(Mech.), MBA , ME(Pursuing)	Assistant Professor	Design Engineering	7	Nil
7	Mr. Bharatkumar D. Patil	M.Tech.(Mech.) B.E. (Mech.)	Assistant Professor	Heat Power Engineering	2	Nil
8	Mr. Sandip U. Patil	M.E. (Mech.) B.E.(Mech.)	Assistant Professor	Design Engineering	7	Nil
9	Mr. Mailarappa Marachakkanavar	M. Tech (Mech.) B.E.(Mech.)	Assistant Professor	Machine Design	5 months	Nil
10	Mr. Abhijeet H. Kekan	M.E. (Mech.) B.E.(Mech.)	Assistant Professor	Design Engineering	5	Nil
11	Mr. Mandar M. Patunkar	M.E.(Mech.) B.E.(Mech.),	Assistant Professor	Manufacturing	7	Nil
12	Mrs. Amruta A. Gambhire	M.E.(Mech.) B.E.(Production)	Assistant Professor	Heat Power	3	Nil
13	Mr. Sachin K. Halgode	M. Tech (Mech.) B.E.(Production)	Assistant Professor	Manufacturing	1.5	Nil
14	Mr. Mangesh N. Dhavalikar	M.E.(Mech.) B.E.(Mech.)	Assistant Professor	Mechatronics	3.5	Nil
15	Mr. Prasad J. Waste	M.E.(Mech.) B.E.(Production)	Assistant Professor	Production	6	Nil
16	Mr. Vishal H. Borkar	B.E.(Mech.), M.Tech.	Assistant Professor	CAD-CAM	4 months	Nil
17	Mr. Amol B. Yadav	B.E.(Mech.) M.Tech.	Assistant Professor	Design Engineering	2	Nil
18	Mr. Atul G. Dange	BE (Mech.), ME (Mech.)	Assistant Professor	Heat Power	1	Nil

19	Mr. Virendra I. Mathpati	ME (Mech.) B.E.(Mech.)	Assistant Professor	Machine Design & Analysis	5 months	Nil
20	Mr. Sandesh S. Gaonkar	B E (Mech) M. Tech .(Mech)	Assistant Professor	Computer Integrated Manufacturing	4	Nil
21	Mr. Rajshekhar H.Nagraj	M.Tech. (Mech) B.E.(Mech.)	Assistant Professor	Product Design & Manufacturing	3	Nil
22	Ms. S.K. Kulkarni	BE(E & TC)	Asst. Prof.	Embedded System, Communication	17	Nil
23	Mr. Rohan S. Kapre	ME (Design)	Asst.Prof.	Design	2.5	Nil
PG						
1	Dr. Mangesh R.Phate	Ph.D. (Mech.) M.Tech. (Prod.) B.E.(Mech.) M.B.A.(HRM),	Associate Professor	Production	13.4 Years	Nil
2	Mr. Milindkumar S. Mali	M.E. (Mech.) B.E.(Mech.) Ph.D(Pursuing)	Assistant Professor	Design Engineering	18	Nil
3	Mr. Rajesh V. Patil	M.E. (Mech.) B.E.(Mech.), Ph.D.(Pursuing)	Assistant Professor	Mechatronics	6.1	Nil
4	Mr. Dileep N. Korade	M.E. (Mech.) B.E (Mech.) Ph.D. (Pursuing)	Assistant Professor	Design Engineering	7	Nil

11. List of senior visiting faculty:

UG

SN	Name of Faculty	Subject
1	Mr. S. V. Salunke	Mechanical System Design
2	Mr. S. R. Mote	Metallurgy
3	Mr. A. A. Nivase	Industrial Engineering
4	Mr. A. S. Kadam	Mechatronics
4	Ms. Snehal Bhumkar	Electrical and Electronics Engineering

PG

SN	Name of Faculty	Subject
1	Dr. S. B. Patil, College of Engineering, Pune	“Stresses in Piston”

2	Dr. Bimlesh Kumar, J. T. Mahajan College of Engineering, Faizpur	“Analysis of Composite Structure”
3	Dr. S. K. Patil, RIT, Sakrali, Sangli	“Sheet Metal Joints”
4	Dr. M. M. Patil, J. T. Mahajan College of Engineering, Faizpur, Dist:- Jalgaon.	“Analysis of bumper beam”
5	Dr. Abhay Arun Utpat, Fabtech Technical Campus, College of Engineering & Research, Sangola.	“Numerical Simulation of Over-Molded Front End Carrier of Automobile”
6	Dr. R. A. Kapgate, Principal, Sanjivani K. B. P. Polytechnic, Kopargaon	“Highly Efficient Energy absorber”
7	Prof. Shrikant S. Madiwale, Tolani Maritime Institute, Talegaon	“Design and Development of Three Wheeler Chassis”
8	Prof. A. B. Magar, Orchid College of Engineering & Technology, Solapur	“Automobile Seat”
9	Mr. Dattatraya B. Dandge, EATON Tech Pvt. Ltd., EON IT Park, Kharadi, Pune.	“Design and Development of Passenger Car Hood”
10	Dr. S. M. Shiyekar, Dange College of Engineering, Sangli	“Thermal post buckling analysis”
11	Prof. P. V. Salunke, Walchand Institute Technology, Solapur	“Effect of welding parameters on mild steel specimen”

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: 18 %

13. Student-Teacher Ratio (program wise):

Sr. No.	Programme	Specialization	Teacher - Student Ratio			
			2015-2016	2014-2015	2013-2014	2012-2013
1	UG	Mechanical	19:1	17:1	15:1	14:1
2	PG	Design Engineering	12:1	12:1	12:1	12:1

14. Number of Academic support staff (Technical) and Administrative staff; sanctioned and filled:

Academic support staff	Sanctioned	Filled
Number of Academic support staff (Technical)	06	06

15. Qualifications of teaching faculty with D. Sc/ D.Litt/ Ph.D. / M Phil/PG.

SN	Qualification	No. of Teaching Faculty
1	Ph.D. Completed	2
2	Ph.D. Registered	6
3	M.E. / M.Tech Completed	30
4	M Phil / M Sc	-----

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-Publication per faculty:

SN	Name of the faculty	No. of Papers published in peer reviewed journals Faculty	No. of Publications listed in International DB	Chapters In Book	Books Edited	Books with ISBN in International DB	Citation Index	Impact Factor	h - Index Average	
1	Mr. U. C. Agashe	-	02	-	-	-	-	-		
2	Mr. S. P. Velapure	04	-	-	-	-	-	-		
3	Mr. B. D. Patil	01	02	-	-	-	-	-		
4	Mr. R. V. Patil	13	-	-	-	-	-	-		
5	Mr. S. S. Gaonkar	1	-	-	-	-	-	-		
6	Mr. Y. R. Ingole	4	1	-	-	-	-	-		
7	Mr. V. S. Bhise	1	-	-	-	-	-	-		
8	Mr. A. G. Dange	1	-	-	-	-	-	-		
9	Mr. Dr. K. R. Jagtap	2	14	-	-	-	-	-		
10	Ms. S. G. Chavan	02	1	-	-	-	-	-		
11	Mr. G. S. Waghmare	04	-	-	-	-	-	-		

12	Mr. R. S. Kapare	01	-	-	-	-	-	-		
13	Mr. V. D. Patil	01	01	-	-	-	-	-		
14	Ms. K. M. Verma	01	01	-	-	-	-	-		
15	Mr. P. D. Darade	07	-	-	-	-	-	-		
16	Mr. D. N. Korade	02	-	-	-	-	-	-		
17	Mr. P. P. Patunkar	04	-	-	-	-	-	-		

20. Areas of consultancy and income generated: Nil

21. Faculty as members in

a) National committees, b) International Committees, c) Editorial Boards

SN	Name of Faculty	Members
1	Dr. M. R. Phate	International Journal of Engineering, Management & Economics(Nov. 2013) (ISSN No. 1756-5162) (Reviewer)
		Jordon Journal of Mechanical & Industrial Mechanical Engineering (ISSN No. 1995-6665) (Reviewer)
2	Mr. M. S. Mali	Indian Society for Technical Education (ISTE - 32625) Indian Society of Mechanical Engineers (ISME - 1079) Institute of Engineers (Associate Member AM – 093663-7) Indian Society of Instrumentation (ISOI - 1281) Indian Society of Ergonomics (ISE - 117)
3	Dr. K. R. Jagtap	ISTE Life Membership (LM 55999), IRED (Institute of Research Engineers and Doctors) (AM101000258), Journal of Sound and Vibrations (ISSN No. 0022-460X) (Reviewer)
4	Mr. U. C. Agashe	ISTE Life Membership (LM 79331)
5	Mr. P. P. Patunkar	ISTE Life Member (LM 56175), Universal Association of Mechanical & Aeronautical Engineers (AM 10100053135) Life Member of IIT Bombay Alumni Association (IITBAA). Membership Number:- 090203

22. Student projects

a) Percentage of students who have done In-house projects including inter-departmental/ programme:

Sr. No.	Year	No. of In house Projects	% of In-house projects
1	2012-13	02	9.09
2	2013-14	08	36.36
3	2014-15	14	63.63

b) Percentage of students placed for projects in organizations outside the Institution i.e. in Research laboratories/Industry/other agencies:

Sr. No.	Year	No. of Projects in Collaboration	% of projects done in collaboration
1	2012-13	20	90.91
2	2013-14	14	63.63
3	2014-15	8	36.36

23. Awards/ Recognitions received by faculty and students:**a) Faculty**

Sr. No.	Name of Faculty	Year of Achievement	Achievement
1	Dr. K. R. Jagtap	2014	Most Viewed Paper in Procedia Engineering, Elsevier Volume(s) 97, 30-Dec-2014(Total Views 354)
2	Dr. K.R. Jagtap	2014-15	Most Viewed Paper in Procedia Engineering, Elsevier Volume(s) 97, 30-Dec-2014 (Total Views 534)

b) Students

Sr No	Year	Activity	National/State/University level No. of Prizes won
1	2013-14	Devavrat Bhalerao SPREE-Pure Sport Badminton-BITS Pilani- Goa Campus	Gold Medal
2	2013-14	Omkar Shet & Kunal Phalak Madhura Barve -Techno Fest	National level

3	2013-14	Abhijee tChaudhari, Niranjan Patil, Nishant Mutha, RohitBorkar – TECHFEST-2013, IIT Mumbai	7 th rank
4	2013-14	Abhijeet Chaudhari, Niranjan Patil Nishant Mutha, Rohit Borkar - “Cynosure”, JSPM Wagholi	1 st rank
5	2012-13	Abhijeet Chaudhari	5 th rank in SPPU Examinations for May 2013 examination

24. List of eminent academicians and scientists/ visitors to the department:

SN	Name of Visitor	Organization	Purpose of visit
1	Mr. Vinod Kale	Assistant Manager-Didactic FESTO	TECHTONIC-2015
2	Mr. Jitendra Jagtap.	Founder and CEO Optimizt Technologies Pune	TECHTONIC-2015
3	Mr. Kedar.V.Datar	Designing Engineer, Demag Cranes & Components Pvt. Ltd.	Guest Lecture on Component designing case studies
4	Mr. Pravin Bell	Chief Technology Officer, IndiaSoft Techonolgies (P) Ltd.	Guest Lecture on Case studies of Hydraulics and Pneumatics in Automation Studio
5	Mr. A. Y. Mehendale	Energy Auditor, Enrich Consultants, Pune	Guest Lecture on Energy Conservation Case Studies
6	Mr. Ravi Pathare	Project Leader, Dow Chemical International Pvt., Ltd	Guest Lecture on Overview of Vehicle Design
7	Mr. Manoj Khaladkar	Head, Industry - Institute Cell, MMCOE, Pune	Indo –US Collaboration for Engineering Education
8	Mr. Sundaram Raut	Engineering, Head, Exten Core Solution Pune	CAD/CAM/CAE
9	Mr. Jayant Thatte	Vice President, TATA Motors, Pune	Manufacturing of Car -TATA Indica
10	Mr. Prasanna Joshi	CAD/CAM Guru Solution Pvt. Ltd., Pune	Finite Element Analysis
11	Mr. Shirish Sahasrabudhe	ELTIS- SIFIL	Business English Certificate, by University of Cambridge

12	Mr. Gurucharan S., Mr. Sumedh Ramteke	Asst. Manager, Onward Technologies, Pune	Guest Lecture on MASTERCAM X5
13	Dr. Mitaalee Miraashi	Sr. Counselor, GEEBEE Education Pvt., Ltd, Pune.	Guest Lecture on Studies Abroad
14	Mr. Anand Thakar	Counselor, CAD/CAM Guru, Solution Pvt, Ltd.	Industry Applications and Placement Opportunities in CAD/CAM/CAE
15	Mr. Satyajit Pokale	CEO, SPOK Technologies,	Robotics and its Applications
16	Mr. Nikhil Manchalwar	Business Development Manager., EDS Technologies Pvt. Ltd., Pune	CAD/CAM/CAE and its applications
17	Dr. Arun Mudbidri	SAMVIT School of Infrastructure Business	Guest Lecture on New Career Avenues after Graduation
18	Mr. Ashish R. Satao	CAMTECH Solutions Pune.	Guest Lecture on Introduction to CAD/CAM

25. Seminars/ Conferences/Workshops organized and the source of funding:

a) Conferences: NIL

b) Workshops

Sr. No.	Workshops organized	Date	Source of funding
1	Project Work Learning	26/06/2015 to 29/06/2015	Institute
2	Automation Studio	18/01/2015	Institute
3	Soft to Hard Workshop	18/01/2015 to 20/01/2015	Institute

26. Student profile Programme /course wise:

Name of the Course/ Programme	Academic Year (Graduation)	Applications received	Selected	Enrolled		Pass percentage
				*M	*F	
Mechanical	2014-15	Admission Process done by DTE, Mumbai, Govt. of Maharashtra	130	113	17	98.46
Mechanical	2013-14		82	71	11	97.56
Mechanical	2012-13		86	76	10	97.67
Mechanical	2011-12		60	55	5	96.67

*M=Male *F=Female ** SEDA also considered

27. Diversity of Students:

Name of the Course/ Programme	Academic Year	% of students from the same state	% of students from the other states	% of students from abroad
Mechanical	2015-16	88.5	11.49	--
Mechanical	2014-15	86.9	13.09	--
Mechanical	2013-14	84.26	15.73	--
Mechanical	2012-13	90.12	9.87	--

28. How many students have cleared National and State Competitive Examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Exam	No. of Students			
	2012-13	2013-14	2014-15	2015-16
GATE	-	-	4	-
Defense	-	-	-	-
CAT	-	-	-	-
SLET	-	-	-	-
MBA- CET	-	-	-	-
GRE	-	8	6	-
TOEFL	-	-	-	-

29. Student progression

Student progression	Against % enrolled			
	2012-13	2013-14	2014-15	2015-16
UG to PG	6.66	15.85	7.75	-
PG to M.Phil.	-	-	-	-
PG to Ph.D.	-	-	-	-
Ph.D.to Post-Doctoral	-	-	-	-
Employed Campus selection Other than campus recruitment	50.00	31.25	48.39	73.21

Entrepreneurship/Self-employment	-	-	-	-
Government Sector	-	-	-	-

30. Details of Infrastructural facilities

a) Library

Particulars	Titles	Volumes
Books		
UG & PG	350	817
On line journal		
ASME On line	Nil	Nil
Science Direct	Nil	Nil
Printed journal		
Printed journal U.G.	Nil	Nil
Printed journal P.G.	Nil	Nil

b) Internet facilities for Staff & Students:

Internet line 4 Mbps dedicated for Computer Laboratory & WiFi connectivity

c) Class rooms with ICT facility:

Room Description	Usage	Shared/ Exclusive	Capacity	Room Equipped With
Room No 1005	B.E	Exclusive	100	LCD
Room No 1006	T.E	Exclusive	90	LCD
Room No 1007	T.E	Exclusive	90	LCD
Room No 2107	B.E	Exclusive	100	LCD
Room No 2206	S.E.	Exclusive	90	LCD
Room No 2303	S.E.	Exclusive	90	LCD
Room No 2306	S.E.	Exclusive	90	LCD
Room No 2105	M.E.	Exclusive	30	LCD

d) Laboratories:

Sr. No.	Name of Laboratory	Exclusive Use/Shared	Number of Experiments	Laboratory Manuals
1	Theory of Machines	Shared	8	Available
2	Engineering Metallurgy	Shared	8	Available
3	Fluid Mechanics	Shared	8	Available
4	Refrigeration & Air Conditioning	Exclusive	8	Available
5	Turbo Machines	Shared	8	Available
6	Mechatronics	Shared	9	Available
7	Dynamics of Machinery	Shared	8	Available
8	Industrial Fluid Power	Shared	8	Available
9	Power Plant Engineering	Shared	8	Available
10	Metrology & Quality Control	Shared	8	Available
11	Strength of Materials	Shared	8	Available
12	CAD/CAM 1	Exclusive	9	Available
13	CAD/CAM 2	Shared	8	Available
14	CAD/CAM 3	Shared	6	Available
15	IC Engines	Shared	8	Available
16	Heat Transfer	Exclusive	8	Available
17	Applied Thermodynamics	Shared	8	Available
18	Workshop	Exclusive	8	Available
19	P G research lab	Exclusive	8	Available

31. Number of students receiving financial assistance from Institute, University, government or other agencies

Sr. No.	Type of Assistant	Agency Providing Financial Assistance	Academic Year			
			2011-12	2012-13	2013-14	2014-15
1	GOI PM Scholarship	Social Welfare Department&	39	73	100	150

2	GOI PM Freeship	Tribal Development Department	24	43	62	77
3	EBC Concession	Joint Director of Technical Education	32	49	79	101
4	Minority Scholarship	Department of Minority Welfare	3	2	1	2
5	Central Sector Scholarship	Joint Director of Higher Education	2	4	6	5
6	Secondary Teacher Concession /Primary Teacher Concession	Zilha Parishad	0	0	0	5
7	J & K Special Scholarship	AICTE	0	1	1	1
8	Private Scholarship	Trust, NGO, Companies, etc.	3	2	3	3

32. Details on student enrichment Programmes (special lectures / workshops / seminar) with external experts

SN	Title	Resource Person Details	Category	Date		No. of student
				From	To	
01	Automation Studio Workshop	Mr. Vinod Kale, Assistant Manager, Didatic Festo	Mechanical Engineering Students	18/01/15	18/01/15	78
02	Soft to Hard Workshop	Mr. Jitendra Jagtap.	Mechanical Engineering Students	18/01/15	18/01/15	235
03	Project Work Learning	Mr. M S Mali, Sinhgad Institute of Technology and Science, Pune	B.E (Mechanical Engineering) Students	26/06/15	29/06/15	225
04	Technical Value Added Programme	Mr. Manu Abraham, ICE Institute Pune.	T.E (Mechanical Engineering Students)	02/07/15	02/07/15	233

05	Human Research Development Programme	Mr. Rajesh Chauhan, Jivansanjivani, Satara	Mechanical Engineering Students	02/09/15	02/09/15	235
06	Advantages of Higher Studies	Mr.Pralhad Deshpande, Gate forum Institute	Mechanical Engineering Students	15/09/15	15/09/15	233
07	Cement Machinery	Mr N.E.Gupte, Sinhgad institute of Technology and Science Pune	Mechanical Engineering Students	28/12 /13	28/12 /13	200
08	Expectations from Design Engineer	Mr Kiran Lalsangi	Mechanical Engineering Students	4/1/14	4/1/14	200
09	Introduction to CAE	Mr Karan Kamble	Mechanical Engineering Students	4/1/14	4/1/14	130
10	GATE Scoring Guidelines	Mr. Jay Bhosale	Mechanical Engineering Students	11/2/14	11/2/14	130
11	Introduction to Company Profile (GKN Company)	Mr. Shrikant Chavan (Manager), Mr. Gunaran (Deputy Manager), Mr. Nilesh Desare, Mr. Nikul Shah	Mechanical Engineering Students	10/2/14	10/2/14	200
12	PDM and PLM	Mr. Vincent Schneider, Mr. Suhas Choudhari	Mechanical Engineering Students	20/04/14	20/04/14	200
Sr. No.	Title of the Module	No. of Hours	No. of students enrolled			
			2012	2013	2014	2015
Student Training Program(Module I)						
1	Personal and Career Goal Setting	2	-	166	237	228
2	SWOT Analysis	2	-	166	237	228
3	Behavioral Skills	2	-	166	237	228
4	Public Speaking	2	-	166	237	228

5	Presentation Skills	2	-	166	237	228
6	Resume Writing	2	-	166	237	228
7	Listening Skills	2	-	166	237	228
8	Group Discussion	2	-	166	237	228
9	Report Writing	2	-	166	237	228
10	Letter / Application Writing	2	-	166	237	228
Student Training Program(Module II)						
1	Introduction	2	-	166	237	228
2	Listening session -I	2	-	166	237	228
3	Listening session -II	2	-	166	237	228
4	Reading session I	2	-	166	237	228
5	Reading session II	2	-	166	237	228
6	Writing session I	2	-	166	237	228
7	Writing session II	2	-	166	237	228
8	Speaking session I	2	-	166	237	228
9	Speaking session II	2	-	166	237	228
10	Speaking session II	2	-	166	237	228
Student Training Program(Module III)						
1	Engineering Drawing	2	-	-	-	239
2	Fluid Mechanics	2	-	-	238	239
3	Applied Thermodynamics & Thermodynamics	2	-	-	238	239
4	Theory Of Machines &Strength Of Materials	2	-	-		239
5	Manufacturing Process- I &II	2	-	-	238	239
6	Material science	2	-	-	238	239
7	Heat transfer	2	-	-	-	239
8	Design Machine elements	2	-	-	-	239
9	Metrology and Quality Control	2	-	-	-	239
Student Training Program(Module IV)						
1	Introduction	2	-	-	-	230

2	Introduction & Group Formation for Group Discussion & Personal Interval	2	-	-	-	230
3	Group Discussion -I	2	-	-	-	230
4	Group Discussion -II	2	-	-	-	230
5	Group Discussion -III	2	-	-	-	230
6	Personal Interview -I	2	-	-	-	230
7	Personal Interview -II	2	-	-	-	230
8	Personal Interview-III	2	-	-	-	230
9	Personal Interview-IV	2	-	-	-	230

33. Teaching methods adopted to improve student learning

- Class Tests
- Tutorials
- Seminars
- Feedback Analysis
- Educational Tours
- Department Library Facility
- Industrial visits
- Implant/Internship training
- Student Training Program (Module I-IV)
- Student Training Program(Module V) (VAP- Value Added Programme)

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

S.N.	Name of the Event /Occasion	Speaker / Resource Person	Date of Conduction
A.Y. 2013-14			
1	Independence Day	Prof. M. N. Navale	15 August 2013
2	Blood Donation Camp	Dr. S. N. Mali	30 December 2013
3	Republic Day	Dr. A. V. Deshpande	26 January 2014
4	Shivaji Maharaj Jayanti	Mr. A. B. Deshmukh	20 February 2014
5	Farewell Ceremony for outbound students	Dr. S. N. Mali & All Heads of Department	30 April 2014
6	Winter Camp	NSS and Kirkitwadi Grampanchayat	12 to 18 January 2014

A.Y.2014-15			
1	Blood Donation Camp	NSS , SKNMC& GH	13/08/2014
2	Independence Day	Prof. M. N. Navale	15/08/2014
3	Republic Day	Prof. M. N. Navale	26/01/2015
A.Y. 2015-16			
1	Independence Day	Mr. G. K. Sahani	15/08/2015
2	Raksha Bandhan	Mr. Sachin Velapure and NSS Team	29/08/2015
3	Teachers Day	Dr.S.N.Mali and NSS Team	05/09/2015
4	Yoga Camp	Mr. D. E. Upasani and NSS Team	09/09/15 –11/09/15
5	Engineers Day	Asst Police Inspector Narhe, NSS Team	15/09/2015
6	Police Mitra	Faraskhana Police station	17/09/15 –27/09/15
7	Tree Plantation	NSS Team, PMC, sarapanch, Narhe	24/09/2015
8	Eco friendly Visarjan	Active Foundation, NSS Team	27/09/2015
9	NSS camp at Rahatwade	NSS Team	28/12/15 – 03/01/16

35. SWOC analysis of the department and Future plans:**Strengths:**

- State-of-the-art laboratories
- Student centric learning environment with STPs and VAPs
- Effective team work culture
- Industry based projects and interaction with reputed organization
- Students active participation at national level competitions

Weaknesses:

- Number of faculty with Ph.D. qualification
- Research culture and publications
- Low strike rate in student placement
- Consultancy and extension activities
- Patents

Opportunities:

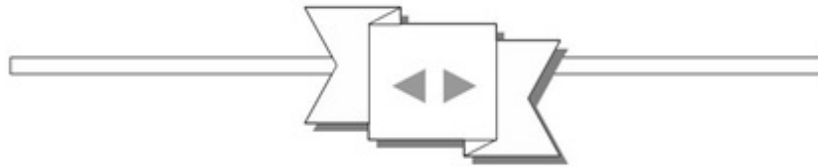
- Center of excellence in specific domain
- Improvement in faculty qualification.
- Improvement of research publications in reputed journals
- Enhance I-I-I, collaborative research, and consultancy
- Interdisciplinary approach
- Enhance student placements

Challenges:

- Balance between required skill based training and curricula of affiliated institute
- Faculty induction and retention
- Enrichment program for scholar students

Future Plans

- Faculty qualification up-gradation
- Focus on Research Activities viz. Publications, Copyrights, and Patent
- Develop domain specific center of excellence
- Enhance industry collaborative projects and consultancy



DEPARTMENT OF CIVIL ENGINEERING

1. Name of the Department : CIVIL ENGINEERING

2. Year of Establishment : 2010-2011

3. Names of Programmes/ Courses offered (UG, PG, etc.)

Name of program	Year of Establishment
U. G. Program in Civil Engineering	2010-2011

4. Names of Interdisciplinary courses and the departments/units involved:

SN	Class	Interdisciplinary Courses	Departments involved
1	Second Year	Engineering Mathematics III (207001)	Engineering Science

5. Annual/ semester/choice based credit system (Programme wise):

S N	Class	System
1	First Year	Semester credit system
2	S.E. to B.E.	Semester percentage system

6. Participation of the department in the courses offered by other departments:

SN	Class	Courses	Departments involved
1	First Year	Basic Civil and Environmental Engineering (101005)	Engineering Science
2	First Year	Engineering Mechanics (101011)	Engineering Science

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

SN	Name of the course	University
1	edX (80512073x): Financial analysis and decision making	Tsinghua
2	edX (1.01x): energy 101	Texas System

8. Details of courses/Programmes discontinued (if any) with reasons: NIL

9. Number of Teaching posts:

Teaching posts	Sanctioned	Filled
Professors	02	00
Associate Professors	05	02
Assistant Professors	17	12

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./ M.Phil. etc.,)

Sr. No.	Name of Faculty	Qualification	Designation	Specialization	No. of Yrs of Exp.	No. of Ph.D. Students Guided for the last 4 Years
1	Dr. S. D. Khandekar	M. Tech, Ph.D.	Asso. Prof. & HOD	Hydraulics & Water Resource Engg.	15	NIL
2	Dr. Mrs. A. N. Dalvi	M. Tech, Ph. D.	Asso. Prof.	Geotechnical Engg.	15	NIL
3	Mr. A. K. Kanase	M.E., Ph.D. Pursuing	Asst. Prof.	Structural Engg.	30	NA
4	Mr. G. S. Anaokar	M. E., Ph.D. Pursuing	Asst. Prof.	Environmental Engg.	11	NA
5	Mr. N. N. Deo	M.E.	Asst. Prof.	Town & Country Planning	20	NA
6	Mr. I. M. Jain	M.E., Ph. D. Pursuing	Asst. Prof.	Structural Engg , Town & Country Planning	17	NA
7	Mrs. P. V. Nimbolkar	M.E., Ph .D. Pursuing	Asst. Prof.	Structural Engg.	9	NA
8	Mr. A. T. Shingan	M.Tech.	Asst. Prof.	Construction Management	3	NA
9	Mrs. R. P. Kulkarni	M.E.	Asst. Prof.	Town & Country Planning	7	NA
10	Ms. R. A. Sonone	M.Tech.	Asst. Prof.	Structural Engg.	2	NA
11	Mr. P. M. Wale	M.Tech.	Asst. Prof.	Construction Management	2	NA
12	Mr. Y. G. Bamane	M. E.	Asst. Prof.	Water Resources Engg.	2	NA
13	Ms. M. V. Patil	M.Tech. (Pursuing)	Asst. Prof.	Environmental Engg.	1	NA
14	Mr. A. J. Kulkarni	M.E.	Asst. Prof.	Structural Engg.	1	NA

11. List of senior visiting faculty:

SN	Name of Faculty	Subject
1	Dr. S. S. Shastri	Environmental Engineering
2	Mr. R. B. Bajare	Surveying
3	Mr. B. N. Jagtap	Construction Management
4	Dr. Mrs. P. M. Alandkar	Structures
5	Mrs. V. A. Limaye	Town and Country Planning

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: 26%

13. Student-Teacher Ratio (programwise):

Sr. No.	Programme	Specialization	Student- Teacher Ratio			
			2012-2013	2013-2014	2014-2015	2015-2016
1	UG	U.G. (B.E. - Civil Engineering)	15:1	15:1	16:1	19:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Academic support staff	Sanctioned	Filled
Number of academic support staff (technical)	..	01
Number of administrative staff	..	01

15. Qualifications of teaching faculty with D. Sc / D. Litt. / Ph. D/ M Phil/PG.

Sr. No.	Qualification	No. of Teaching Faculty
1	Ph.D. Completed	02
2	Ph.D. Registered	04
3	M.E. / M.Tech Completed	11
4	M Phil / M Sc	NA

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

S N	Name of the Research Project	Name of Principal Investigator/ Coordinator	Funding Agency	Amount as seed money Rs.	Duration of the project
1	Design and fabrication of compact Sewage Treatment plant for educational premises	Prof. G. S. Anokar	Diligence Envirotech Pvt. Ltd. Pune	Funding of Rs.1.13Lac	2013-2014
2	Design of bio-energy plant	Prof. G. S. Anokar	Disha Enterprises	Funding of Rs.0.25 Lac	2014-2015

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received: NIL**18. Research Centre /facility recognized by the University: NIL**

19. Publications: a) Publication per faculty

Sr.No.	Name of the faculty	No. of Papers published in peer reviewed journals Faculty/students	No. of Publications listed in International DB	Chapters In Book	Books Edited	Books with ISBN in international DB	Citation Index	Impact Factor	h - Index Average
1	Dr. S. D. Khandekar	08	05	--	--	--	2	3.18	1
2	Dr. Mrs. A. N. Dalvi	09	04	...	...	...	11	0.9 to 5.5	49
3	Mr. G. S. Anaokar	04	04				7	0.9 to 2.1	
4	Mr. I. M. Jain	04	...						
5	Mrs. P. V. Nimbolkar	04	...						
6	Mrs. R. P. Kulkarni	02	...						
7	Ms. R. A. Sonone	01	...						
8	Mr. P. M. Wale	02	01					3.2	
9	Mr. Y.G. Bamne	01	01					2.3	

20. Areas of consultancy and income generated

S N	Area of consultancy	Name of Industry /organization	Income generated Rs.
1	Water analysis	Grand View 7	5000
2	Water analysis	Sharvil	3000
3	Water analysis	Ram Krushna Paradise	3000

21. Faculty as members in

a) National committees, b) International Committees, c) Editorial Boards: NIL

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental / programme:

Sr. No.	Year	No. of In house Projects	% of in house projects
1	2013-2014	15	87 %
2	2014-2015	16	87 %
3	2015-2016	22	85 %

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies:

Sr. No.	Year	No. of Projects in Collaboration	% of projects done in collaboration
1	2013-2014	02	13 %
2	2014-2015	03	13 %
3	2015-2016	05	15 %

23. Awards/ Recognitions received by faculty and students:

a) Faculty

Sr. No.	Name of Faculty	Year of Achievement	Achievement
1	Dr. Mrs. A. N. Dalvi	2009	2 nd Rank holder at College of Engineering at M. Tech level
2	Mr. Ajinkya J. Kulkarni	2011	Avishkar (project research convention) Secured 1st prize
3	Dr. Mrs. A.N. Dalvi	2012	Guinness World Records, RECORD HOLDER for participation in the event, "The most People solving Rubik's cube" in 2012. India Book of Records and Limca Book of records certificate holder for the same event.
4	Dr. Mrs. A. N. Dalvi	2015	Scholarship of Rs. 1.5 Lakhs for attending 6 th International Conference on Geotechnical Engineering, New Zealand

b) Students

Sr. No.	Academic Year	Activity	National/State/University level No. of Prizes won
1	2011-2012	Sports	Winner in Under 18 inter Institute Basketball Tournament organized by ZP(Pune) by Digvijay Bhosale
2	2012-2013	Sports	i) Gold Medal in national level kho-kho Competition. ii) third rank in state level Athletics by Dattaprasad Galphade
3	2012-2013	Sports	i) First prize in Sinhgad Karandak relay 4X100 Athletes. ii) Institute football team player by Digvijay Rajkumar
4	2013-2014	Academics	Sumer Navale cleared edX course offered by Texas university
5	2013-2014	Academics	Nilesh Jain cleared edX course offered by Texas university

6	2013-2014	Academics	First prize at event held by Modern College of Engg. named "Mpulse" by Ganesh Giramkar and Ashish Garate
7	2013-2014	Extra-Curricular	i) Best budding talent, "Battle"- Dance Competition ii) Runner up , State level Dance Competition in Mumbai. iii) Mr. Civil-SITS, Narhe by Shantanu Paraspathi
8	2013-2014	Academics	Best project in Civil Engineering group in second Maharashtra Dipex by Rajesh Chavan
9	2013-2014	Academics	i) Paper Presentation Competition in D.Y Patil Ambi. ii) Model Making Competition in D.Y Patil Ambi iii) Quiz Competition in D.Y Patil Akurdi by Abhijeet Dhavale
10	2014-2015	Sports	Second Prize in ground reality event by team led by Amol Nemade
11	2014-2015	Academics	10 th University Ranker (Makadia Deep- S.E. 2012 Patt. May 2014 Exam)
12	2014-2015	Academics	7 th University Ranker (Dhikale Pranav- S.E. 2012 Patt. May 2014 Exam)
13	2015-2016	Swimming	Prashant Kadam for participation in "Swimmathon 2015"
14	2015-2016	Sports (Swimming)	Prashant Kadam second at Inter College swimming tournament at University level. Also selected in SPPU swimming team.

24. List of eminent academicians and scientists/ visitors to the department:

Sr. No.	Name of Visitor	Organization	Purpose of visit
1	Dr. Dasaka Murthy	IIT Bombay, Mumbai	Guest lecture and Geotech. lab enhancement
2	Er. Prakash Medhekar	Leading consultant in Infrastructure and Devp.	Discussion on Best High rise buildings in the world
3	Mr. V. M. Kasture	AE- II (Irrigation Department of Maharashtra Government)	Guest lecture on Transportation Engg
4	Mrs. Sangeeta Dokey	Dy. Director- SAMVIT Infrastructure Business School	Guest lecture on Career guidance in Civil Engg
5	Dr. M. R. Shiyekar	Retired Professor from WCE, Sangli	Guest lecture and enhancement of concrete laboratory

25. Seminars/ Conferences/Workshops organized and the source of funding:

a) Conferences: NIL

b) Workshops

Sr. No.	Workshops organized	Date	Source of Funding
1	Five days Faculty Development Program	17/06/2013 to 22/06/2013	SITS
2	Five days Faculty Development Program	1/12/2013 to 6/12/2013	SITS
3	Two days workshop on “Effective Teaching Methodology in FM-II & Practical Detailing & Quot of Hydrology and Water Resources” in Association with Savitribai Phule Pune University.	30/06/2014 to 01/07/2014	SPPU, Pune

26. Student profile Programme /course wise:

Name of the Course/ Programme	Academic Year (Graduation)	Applications received	Selected	Enrolled		Pass percentage
				*M	*F	
B.E. (Civil)	2013-14	As per admission process of DTE	78 (S.E)	46	12	94.83%
	2014-15		86 (S.E)	69	8	97.4 %

*M=Male *F=Female ** SEDA also considered

27. Diversity of Students

Name of the Course/ Programme	Academic Year	% of students from the same state	% of students from the other states	% of students from abroad
B.E. (Civil)	2012-13	59 (89.39 %)	7 (10.61 %)	NA
	2013-14	108 (87.10 %)	16 (12.90 %)	NA
	2014-15	118 (93.65%)	8 (6.35 %)	NA
	2015-16	118 (92.91%)	9 (7.09%)	NA

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Exam	No. of Students	
	2013-14	2014-15
GATE	04	02
Defense	01	...
CAT	...	...
GRE	07	02
TOEFL	...	...

29. Student progression

Student progression	Against % enrolled		
	2013-14	2014-15	2015-2016
UG to PG	29 %	6 %	NA
PG to M.Phil.	NA	NA	NA
PG to Ph.D.	NA	NA	NA
Ph.D. to Post-Doctoral	NA	NA	NA
Employed			
Campus selection	20	50	33.33
Other than campus recruitment			
Entrepreneurship/Self-employment	17 %	12 %	NA
Government Sector	2 %	3 %	NA

30. Details of Infrastructural facilities

a) Library

Particulars	Titles	Volumes
Books		
U.G.	262	1230
P.G.	NA	NA
On line journal		
ASME/ASCE On line	NIL	NIL
Science Direct	29	NA
Printed journal		
Printed journal U.G.	NIL	NIL
Printed journal P.G.	NA	NA

b) Internet facilities for Staff & Students:

Internet line 4 Mbps dedicated for computer lab.Wifi connectivity

c) Class rooms with ICT facility:

Class Room No.	Usage	Shared/ Exclusive	Capacity	Room Equipped With
1012	100 %	Exclusive	64	Blackboard with LCD projector facility
1013	100 %	Exclusive	64	
1014	100 %	Exclusive	128	
3301	100 %	Exclusive	80	

d) Laboratories:

Sr. No.	Name of Laboratory	Exclusive Use/ Shared	Number of Experiments	Laboratory Manuals
1	Environmental Engineering	Exclusive	22	Available
2	Fluid Mechanics	Shared with Mechanical	19	Available
3	Geotechnical Engineering	Exclusive	12	Available
4	Engineering Geology	Exclusive	10	Available
5	Transportation	Exclusive	11	Available
6	Testing of Materials (SOM)	Shared with Mechanical	9	Available
7	Surveying	Exclusive	8	Available
8	Engineering Mechanics	Exclusive	6	Available
9	Basic Civil and Environmental Engineering	Exclusive	6	Available
10	Testing of Materials (Concrete Technology)	Exclusive	22	Available
11	Computer/ CAD	Exclusive	9	NA

31. Number of students receiving financial assistance from college, University, government or other agencies

Sr. No.	Type of Assistant	Agency Providing Financial Assistance	Academic Year			
			2011-12	2012-13	2013-14	2014-15
1	GOI PM Scholarship	Social Welfare Dept. & Tribal Development dept	10	28	65	96
2	GOI PM Freeship		19	25	37	47
3	EBC Concession	Jt. Director of Tech. Education	11	24	50	65
4	Minority Scholarship	Dept. of Minority Welfare	2	2	2	3
5	Central Sector Scholarship	Jt. Director of Higher Edu.	0	0	0	2
6	STC/PTC	Zilha Parishad	0	0	0	0
7	J & K Special Scholarship	AICTE	0	0	0	0
8	Pvt. Scholarship	Trust, NGO, Companies, etc.	2	3	3	3

32. Details on student enrichment Programmes (special lectures / workshops / seminar) with external experts

Sr. No.	Title	Resource Person Details	Category	Date		No. of students
				From	To	
1	Clean and Green campus	Petroleum Conservation Research Agency	Seminar	26/03/2013	27/03/2013	150
2	Disaster Management	Mr. Anil Dandekar	Special Lecture	13/07/2013	13/07/2013	140
3	Structural Design Software	Mr. Shabir Lokhandwala	Special Lecture	31/08/2013	31/08/2013	140
4	STAAD Pro	Mr. S. N. Mane	Training programme	20/8/2013	30/1/2014	16
5	Practical applications of various drawings (Building plan, Foundation plan) and to know legal aspects in civil engineering	Arch. Girish Deshmukh	Special Lecture	18/01/2014	18/01/2014	158
6	How to Prepare for competitive exams.	Mr. Gunjan Khalane	Special Lecture	10/3/2015	10/3/2015	124
7	Introduction to Civil Engg. Software's, CAD Centers	Mr. Kushal Mishra	Special Lecture	18/03/2015	18/03/2015	123
8	Overview of Civil Engineering in Today's Context	Er. Kishore Jain	Special Lecture	25/8/2015	25/8/2015	100
9	Total Station Surveys	Gallop Design and Construction	Workshop	23/09/2015	24/09/2015	165
10	How to prepare for GATE, PSU's	Mr. Vibhav Srivastava	Special Lecture	30/9/2015	30/9/2015	60
11	Pre seminar Topic Discussion: Third Year Civil	All Civil Faculty members	Special Lecture	31/12/2015	31/12/2015	68

33. Teaching methods adopted to improve student learning

- Project based learning
- Integrating new technology

- Open dialogue
- Inter departmental competitions
- Industrial visits / site visits
- Implant/Internship training
- Mentoring approach

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Sr. No	Year	Activity
1	2012-2013	Organization and participation in Blood Donation Camp
2	2013-2014	N.S.S. Camp organized at Kirketwadi, Pune
3	2013-2014	Participated in “Nirbhay Kanya” workshop by Pune University
4	2014-2015	Organization and participation in Blood Donation Camp
5	2014-2015	Street play on “Beti Bachao”
6	2015-2016	Participation as “Police Mitra” during Ganeshotsav
7	2015-2016	Participation in “Eco friendly Ganesh Idol Visarjan”
8	2015-2016	Cleanliness drive at Jambhulwadi lake
9	2015-2016	Organization and participation in Blood Donation Camp
10	2015-2016	N.S.S Camp organized at Rahatwade, Pune a) Inauguration at hands HOD, Civil, Dr. S.D. Khandekar b) Discussion and suggestions by faculty of Civil Department Mrs. R. P. Kulkarni and Mr. N. N. Deo on the topic “Adarsh Gram Yojna” to Sarpanch and Gram panchayat members.

35. SWOC analysis of the department and Future plans:

Strengths:

- Blend of qualified, experienced, and young faculty
- Good academic reputation of the department
- State-of-the-art laboratories
- Student centric learning environment
- Practical exposure through site visits

Weaknesses:

- Number of faculty research publications
- Consultancy and extension activity
- Patents
- Student campus placement

Opportunities:

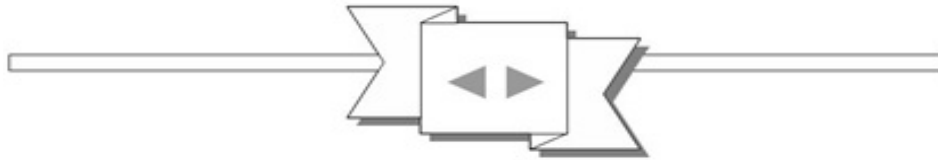
- Utilization of laboratory infrastructure for consultancy
- Interdisciplinary approach
- Learning with new technologies
- Establish as a center of excellence in specific domain
- Alumni interaction
- Networking with corporate world

Challenges:

- Enhancing employability skills as per industrial need in an affiliated institute
- Attract meritorious students at national level
- Dynamic modifications in curricula to accommodate new technologies
- Recruitment of faculty with desired qualification and industrial experience

Future Plans

- Establish center of excellence in specific domain
- Establish testing and consultancy cell
- Orientation programs for competitive exams
- MoUs with industries
- Organize national conference/STTP



DEPARTMENT OF ENGINEERING SCIENCES

1. Name of the Department : Engineering Sciences

2. Year of Establishment : 2008

3. Names of Programmes/ Courses offered (UG, PG, etc.)

Name of program	Year of Establishment
UG	2008

4. Names of Interdisciplinary courses and the departments/units involved:

Sr. No.	Class	Interdisciplinary Courses	Departments involved
1		Nil	

5. Annual/ semester/choice based credit system (Programme wise):

UG: FE semester credit system

6. Participation of the department in the courses offered by other departments:

Sr. No.	Class	Courses	Departments involved
1	SE	M-III	Mechanical Engineering
2	SE	M-III	Civil Engineering
3	SE	M-III	Computer Engineering
4	SE	M-III	E&TC
5	SE	M-III	IT
6	ME	Advanced Mathematics	M.E.(Design)

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Sr.No.	Certificate Course Name	Participating institution /industry
1		Nil

8. Details of courses/Programmes discontinued (if any) with reasons: Nil

9. Number of Teaching posts:

Teaching posts	Sanctioned	Filled
Professors	4	1
Associate Professors	8	0
Asst. Professors	28	27

**10. Faculty profile with name, qualification, designation, specialization,
(D.Sc./D.Litt./Ph.D./ M. Phil. etc.,)**

Sr. No.	Name of Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the last 4 Years
1	Mr.S. R. Deshpande	BE(IE), Ph.D. Pursuing	Assistant Professor	Image Processing Electronic Devices	22	Nil
2	Mr. Pradeepkumar D. Darade	M E (Mech.) Engineering) Ph.D. (Pursuing)	Assistant Professor	Design Engineering	21	Nil
3	Dr. B. S. Waghe	Ph.D(Maths)	Professor	Applied Mathematics	30	Nil
4	Ms. S. S. Kolekar	M.Sc(Chemistry)	Assistant Professor	Analytical Chemistry	15	Nil
5	Mr. M.N.Chougule	M.E.	Assistant Professor	Electrical Power & Energy Systems	15	Nil
6	Mrs. V.S.Patil	M.Sc(Physics), B.Ed.	Assistant Professor	Material Science Thin Film	14	Nil
7	Mr. R.A. Popale	M.Sc.(Maths)	Assistant Professor	Pure Mathematics	08	Nil
8	Mrs. K.R. Khatri	M.Sc.(Maths) MBA	Assistant Professor	Applied Mathematics	07	Nil
9	Dr Mrs R P Moon	M.Sc.,B.Ed., Ph.D (Chemistry)	Assistant Professor	Polymer Chemistry	08	Nil
10	Mrs.P.S.Badave	M.Sc	Assistant Professor	Organic Chemistry	08	Nil
11	Mr.S. N. Patil	PG DIM, M.Sc.(Ind. Maths)	Assistant Professor	Mathematics	06	Nil
12	Mr. V.T. Bandewar	M.Sc.(Maths)	Assistant Professor	Applied Mathematics	04	Nil
13	Mrs.R.A.Adate	M.Sc.(Maths)	Assistant Professor	Applied Mathematics	04	Nil
14	Dr. S.V. Kamat	Ph.D (Physics)	Assistant Professor	Material Science Thin Film	04	Nil
15	Mr. S.S. Jalkote	M.E.	Assistant Professor	Electrical Control System	04	Nil
16	Mr. Sfurti G. Chavan	B.E.(Mech),M.E (pursuing)	Assistant Professor	Heat Power	04	Nil

17	Mrs. Komal V. Thube	SET, M. Lib & Is	Librarian		04	Nil
18	Mr. R. C. Salunkhe	ME	Asst. Prof.	WSN	1Yr.	Nil
19	Mrs. P.V. Sadafal	ME	Asst. Prof.	WSN	1Yr.	Nil
20	Mr. Vishwajeet D. Patil	M.Tech.(Mech) Ph. D (Pursuing)	Assistant Professor	Computer Integrated Manufacturing	11	Nil
21	Ms.KomalVerma	M.Tech. (Mech.)	Assistant Professor	Industrial Engineering	5	Nil
22	Mr. Nitin E. Gupte	M.Tech. (Mech) B.E. (Mech.)	Assistant Professor	Mechanical Engineering	3	Nil
23	Mr. Vishwajeet S. Bhise	M. Tech (Mech.) B.E. (Mech.),	Assistant Professor	Design Engineering	3	Nil
24	Mrs. M. D. Joshi	B. Tech.	Asst. Prof.	Civil	22	Nil
25	Mr. B. K. S. Thakur	M. Tech.	Asst. Prof.	Structural Engg.	4	Nil
26	Mr. R. B. Vade	M. Tech.	Asst. Prof.	Structural Engg.	2	Nil
27	Mr. N. V. Pancholi	M.E.	Asst. Prof.	Structural Engg.	2	Nil
28	Mr. M. D. Patil	Ph.D. (Pursuing)	Asst. Prof.	Image Processing	09	Nil

12. List of senior visiting faculty:

Sr. No.	Name of Senior Visiting Faculty	Topic
1	Prof. S. R. Bandewar	Engineering Mathematics
2	Prof. Anurag Jain	Chemistry
3	Prof. Snehal B Zogde	Engineering Graphics-II
4	Prof. U. A. Awari	Engineering Mechanics
5	Mr. Balaji Magar	Engineering Mathematics

12. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty: 15%

13. Student -Teacher Ratio (Programme wise):

Sr. No.	Programme	Specialization	Teacher - Student Ratio			
			2015-2016	2014-2015	2013-2014	2012-2013
1	UG	All Branches	19:1	17:1	14:1	14:1

14. Number of academic support staff (technical) and administrative staff sanctioned and filled:

Academic support staff	Sanctioned	Filled
Number of academic support staff (technical)	03	03

15. Qualifications of teaching faculty with D. Sc/ D.Litt/ Ph.D/ M Phil/PG.

Sr. No.	Qualification	No. of Teaching Faculty
1	Ph.D.	3
2	Ph.D. Registered	6
3	M.E. / M.Tech.	15
4	M Phil / M Sc	9

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: NIL

17. Departmental projects funded by DST-FIST, UGC, DBT, ICSSR, etc. and total grants received: NIL

18. Research Centre /facility recognized by the University: NIL

19. Publications per Faculty:

Sr. No.	Name of the faculty	No. of Papers published in peer reviewed journals Faculty/students	No. of Publications listed in International DB	Chapters In Book	Books Edited	Books with ISBN in international DB	Citation Index	Impact Factor	h - Index Average
1	S.R. Deshpande	04	-	-	-	-	02	-	-
2	P.D. Darade	07	-	-	-	-	01	-	01
3	P.V. Sadafal	02	-	-	-	-	-	-	-
4	R. A. Salunkhe	02	-	-	-	-	-	-	-
5	Dr. S.V. Kamat	04	-	-	-	-	-	2.06	03
6	Dr. R.P. Moon	01	-	-	-	-	01	1.7	01
7	V.S. Patil	01	-	-	-	-	01	1.8	01
8	P.R. Thakare	04	-	-	-	-	-	-	-

20. Areas of consultancy and income generated - Nil

21. Faculty as member's in

a) National committees, b) International Committees, c) Editorial Boards

Sr. No.	Name of Faculty	Name of Committee
1	Dr. S. V. Kamat	The Optical Society of India
2	Dr. S. V. Kamat	Material Research Society of India

22. Student projects

a) Percentage of students who have done in-house projects including inter Departmental/Programme: NIL

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: NIL

23. Awards/ Recognitions received by faculty and students: Nil

24. List of eminent academicians, scientist visitors to the Department:

Sr. No.	Name of Visitor	Organization	Purpose of visit
1	Dr. V. L. Shah	COE, Pune	To guide Civil Engineering Students

25. Seminars/ Conferences/Workshops organized and the source of funding:
Workshops

Sr. No.	Workshops organized	Date	Source of funding
1	Teaching Methodologies of Basic Electronics Engineering-FE (2012)	3 rd August 2012	Self
2	Innovative Practices in Engineering Graphics	15 to 17 th July 2015	Self

26. Student profile Programme /Course wise:

Name of the Course/ Programme	Academic Year (Graduation)	Applications received	Selected	Enrolled	
				*M	*F
First Year	2015-16	631	631	467	164
	2014-15	612	612	453	158
	2013-14	579	579	437	142
	2012-13	616	616	455	161
	2011-12	430	430	334	96

*M=Male *F=Female ** SEDA also considered

27. Diversity of Students

Name of the Course/ Programme	Academic Year	% of students from the same state	% of students from the other states	% of students from abroad
FE	2015-16	90.90	9.10	0.0
	2014-15	90.00	10.00	0.0
	2013-14	91.54	8.46	0.0
	2012-13	88.96	11.04	0.0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?: NIL

29. Student progression: NIL

30. Details of Infrastructural facilities

a) Library

Particulars	Titles	Volumes
Books		
U.G.	320	1908
P.G.	NA	
On line journal		
IEEE on line	143	
ASME On line	0	
Science Direct	275	
Printed journal		
Printed journal U.G.	10	
Printed journal P.G.	NA	

b) Internet facilities for Staff & Students: 2 MBPS Lease Line

c) Class rooms with ICT facility:

Room Description	Usage	Shared/ Exclusive	Capacity	Room Equipped With
Class Rooms (7)	100%	Exclusive	65 each	LCD Projector (5) and OHP (2)
Computer Lab. (2)	90.9 %	Exclusive	33 each	LCD Projector (2)

d) Laboratories:

Sr. No.	Name of Laboratory	Exclusive Use/Shared	Number of Experiments	Laboratory Manuals
1	Engineering Physics	Exclusive	8	YES
2	Engineering Chemistry	Exclusive	8	YES

Department of Engineering Sciences

3	Electrical Engineering	Exclusive Use/Shared	8	YES
4	Computer	Exclusive	8	YES

31. Number of students receiving financial assistance from college, University, government or other agencies:

Sr. No.	Type of Assistance	Agency Providing Financial Assistance	Academic Year			
			2011-12	2012-13	2013-14	2014-15
1	GOI PM Scholarship	Social Welfare Dept. & Tribal Development Department	81	123	129	143
2	GOI PM Free ship		85	105	84	77
3	EBC Concession	Joint Director of Technical Education	26	60	53	73
4	Minority Scholarship	Department of Minority Welfare	1	4	2	1
5	Central Sector Scholarship	Joint Director of Higher Education	11	4	3	16
6	STC/PTC	Zilha Parishad	9	4	0	9
7	J & K Special Scholarship	AICTE	1	0	0	0
8	Private Scholarship	Trust, NGO, Companies, etc.	2	3	3	2

32. Details on student enrichment Programmes (special lectures / workshops / seminar) with external experts

Sr. No.	Title	Resource Person Details	Category	Date		No. of students
				From	To	
1	Induction Program	Mr. Atul Kahate	Student Enrichment program	24 th July 2015	25 th July 2015	584
2	Mazi Aai Mazya Mahavidyalayat	Mr. Manoj Ambike	Student enrichment program	7 th Feb. 2014	7 th Feb. 2014	587

33. Teaching methods adopted to improve student learning

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Sr. No.	Activity	Propose	Date
1	Street Play: Amachi Mati Amachi Manas (आमचीमाती आमचीमाणसं)	To collect funds for the famine sticker farmers with the help of NAM FOUNDATION.	27 th Jan. to 14 th Feb 2015

2	Informative and entertaining programmes	To collect funds and help for orphanage	17 th to 28 th Sep 2014
3	Street Play: E-addiction	To make young generation aware of addiction Electronic Communication using Social Networking Media	15 th to 30 th Jan 2014

35. SWOC analysis of the department and Future plans:

Strengths:

- Experienced faculty
- Parental care of students and counseling
- Adaptive and effective T-L-P using continuous evaluation
- Interdisciplinary team work

Weaknesses:

- Number of faculty with Ph.D.
- Number of research publications
- Patents

Opportunities:

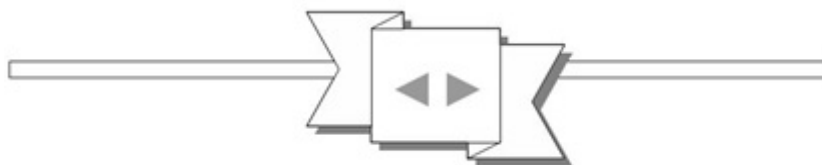
- Development of web based learning resources
- Faculty up-gradation

Challenges:

- Attract meritorious students
- Understanding students of new generation to fit into engineering education
- Embedding required skill sets in students in an affiliated institute
- Percolation of strong fundamental knowledge within given time frame

Future Plans:

- To encourage faculty for qualification improvement
- Inculcate research culture & improve publications
- Arrange need-based training to students & faculty
- Introduction of mini-projects for FE students



DEPARTMENT OF MASTER OF BUSINESS ADMINISTRATION

1. Name of the Department : Master of Business Administration

2. Year of Establishment : 2009-10

3. Names of Programmes/ Courses offered (UG, PG, etc.)

Name of program	Year of Establishment
Master of Business Administration(MBA)	2009-10

4. Names of Interdisciplinary courses and the departments/units involved: NA

5. Annual/ semester/choice based credit system (Programme wise):

PG: MBA I and MBA II- Semester credit system

6. Participation of the department in the courses offered by other departments:

Sr. No.	Class	Courses	Dept involved
1	S.E (Civil)	Architectural Planning & Building Design	Civil
2	T.E. (Civil)	Employability Skills Development	Civil
3	S.E (Civil)	Building Technology & Materials	Civil
4	B.E. (Civil)	Project Management	Civil
5	S.E. (Comp)	Finance & Management Information Systems	Computer
6	T.E. (IT)	Management Information Systems	IT
7	S.E. (IT)	Communication Language Lab	IT
8	T.E. (IT)	Soft Skills Lab	IT
9	S.E (Civil)	Building Planning & Design	Civil
10	T.E. (E&TC)	Industrial Management	E& TC
11	B.E. (Comp)	Artificial Intelligence	Computer

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:

Teaching posts	Sanctioned	Filled
Professors	01	00
Associate Professors	01	01
Asst. Professors	06	03

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./ M.Phil. etc.,)

Sr. No.	Name of Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the last 4 Years
1	Mr. H.B. Patil	B.E.(E&TC), MBA	Assistant Professor	Marketing	18	Nil
2	Dr. M. M. Jagtap	B.Arch., MBA	Associate Professor	Systems & HR	16	Nil
3	Mr. M. M. Sanap	B.E.(Comp), MBA	Assistant Professor	IT	16	Nil
4	Ms. K. K. Kamath	B.Com., MBA	Assistant Professor	Marketing	10	Nil

11. List of senior visiting faculty:

SN	Name of Faculty	Subject
1	Prof. Ms. Supriya Lakhangaonkar	Financial Management
2	Prof. Mahendra More	Operation Strategy
3	Prof. Anita Desai	Enterprise Resource Planning

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: 43%

13. Student-Teacher Ratio (program wise):

Sr. No.	Programme	Specialization	Teacher - Student Ratio			
			2015-2016	2014-2015	2013-2014	2012-2013
1	PG	MBA	17:1	15:1	15:1	15:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Academic support staff	Sanctioned	Filled
Number of academic support staff (technical)	0	0
Number of administrative staff	0	0

15. Qualifications of teaching faculty with D. Sc/ D.Litt/ Ph.D. / M Phil/PG.

SN	Qualification	No. of Teaching Faculty
1	Ph.D. Completed	01
2	Ph.D. Registered	03
3	M.E. / M. Tech Completed	01
4	M Phil / M Sc	00

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: NIL

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received: NIL

18. Research Centre /facility recognized by the University: NIL

19. Publications:

Sr.No.	Name of the faculty	No. of Papers published in peer reviewed journals Faculty/students	No. of Publications listed in International DB	Chapters In Book	Books Edited	Books with ISBN in international DB	Citation Index	Impact Factor	h - Index Average
1	Dr. M.M. Jagtap	03	03	04	00	00		1.7604 & 2.2052	
2	Mr. M. M. Sanap	00	01	01	00	00		Nil	
3	Ms. K. K. Kamath	05	04	00	00	00		3.259	
4	Ms. S. M. Lakhangaonkar	08	04	00	00	00		3.259	
5	Mr. N. R. Wasatkar	03	02	00	00	00			

20. Areas of consultancy and income generated: NIL

21. Faculty as members in a) National committees, b) International Committees, c) Editorial Boards: NIL

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/programme:

Sr. No.	Year	No. of In house Projects	% of in house projects
1	2014-2015	39	100
2	2013-2014	59	100
3	2012-2013	58	100

**b) Percentage of students placed for projects in organizations outside the institution
i.e.in Research laboratories/Industry/other agencies:**

SN	Year	No. of Projects in Collaboration	% of projects done in collaboration
1	2014-2015	39	100
2	2013-2014	59	100
3	2012-2013	58	100

23. Awards/ Recognitions received by faculty and students:**a) Faculty: NIL****b) Students**

Sr. No.	Year	Activity	National/State/University level No. of Prizes won
1	2013-2014	B-Plan Competition	University Level – Winner- 1
2	2014-2015	Dhruv 2014	University Level – Winner - 1
3	2014-2015	Brilliant Brigade	University Level – Runner up - 1

24. List of eminent academicians and scientists/ visitors to the department:

Sr. No.	Name of Visitor	Organization	Purpose of visit	Period
1	Ms. Medha Tadpatrikar	MD Mantraa Research & consultants Pvt, Ltd.	Research paper competition	23/10/2013
2	Dr. Shriniwas Tapadiya	Asst Manager, Arcelor Mittal, Luxembourg	Guest lecture	03/08/2013
3	Mr. Jaydeep Sant	Subject Expert – HR	Guest lecture	10/08/2013
4	Mr. Ruturaj Patwa	Opportunities in retail Sector	Guest lecture	17/08/2013
5	Mr. Uday Bhalchandra	Head - Sales, 3 M Purification corp.	Guest lecture	7/9/2013
6	Dr. HaroldD' Costa	Cyber Security Expert	Guest lecture	14/09/2013
7	Mr. D. J. Vaidya	Quality Circle in HRM	Guest lecture	3/10/2013
8	Mr. M.B. Khurjekar	Head CPC, SITS	Guest lecture	9/10/2013
9	Ms. Riya	Importance of aptitude test	Guest lecture	9/10/2013
10	Mr. Atul Joshi	GM (Sales) Indoco Remedies	Guest lecture	10/10/2013
11	Mr. Songaonkar	Retired GM, IDBI	Guest lecture	12/10/2013
12	Dr. Minal Oak	Librarian, IMCC	Guest lecture	12/10/2013
13	Mr. Makrand Chavan	How to read Economic Times	Guest lecture	15/10/2013
14	Mr. Ganesh Awatade	How to read Economic Times	Guest lecture	15/10/2013
15	Mr. Shantanu Sen Sharma	Finance in B2B	Guest lecture	21/10/2013
16	Mr. Ravi Rajapurkar	Chartered Accountant	Guest lecture	4/11/2014

17	Dr.Yogesh Bhowte	HoD MBA SAE, Kondhwa	Guest lecture	12/11/2014
18	Mrs. Snehal Halkude	(Alumni) Manager, Organizational Development – Fiat India	Guest lecture	11/04/2015
19	Mr. Aniket Bhujbal	(Alumni) Branch Credit Manager – India bulls	Guest lecture	11/04/2015
20	Mr. Vishal Patil	Associate Editor &Anchor, TV(, ABP maazha	Guest lecture	11/04/2015
21	Mr. Balasaheb Doiphode	AGM, IDBI	Guest lecture	11/04/2015
22	Mr. Girish Modi	Director MMM software	Guest lecture	11/04/2015
23	Mr. Vijay Pawar	Director, Cherry Telecom Network	Induction	04/08/2015
24	Mr. Shiv Kumar Ganar	Manager – General Electric	Induction	04/08/2015
25	C.A. Pravin Tungar	Chartered Accountant	Indirect Taxation Expert Session	26/09/2015

25. Seminars/ Conferences/Workshops organized and the source of funding:

a) Conferences

Sr. No.	Conferences organized	Date	National/ International	Source of funding
1	National Conference on Sustaining Organizational Excellence in Turbulent Times	23rd - 24th January, 2013	National	University of Pune
2	Seminar on service sector Growth for economic development	27 Sept 2013	University	University of Pune
3	Seminar on Challenges for SMEs	20 Sept 2014	Institute	SITS

b) Workshops

Sr. No.	Workshops organized	Date	Source of funding
1	Workshop on Case Study method of Learning	10 August 2013	SITS

26. Student profile Programme /course wise:

Name of the Course/ Programme	Academic Year (Graduation)	Applications received	Selected	Enrolled		Pass percentage
				*M	*F	
MBA	2015-16	NA	43	35	8	NA

MBA	2014-15	NA	43	33	10	92.5%
MBA	2013-14	NA	60	36	24	82%
MBA	2012-13	NA	60	46	14	77%

*M=Male *F=Female

27. Diversity of Students

Name of the Course/ Programme	Academic Year	% of students from the same state	% of students from the other states	% of students from abroad
MBA	2015-16	30	03	Nil
MBA	2014-15	43	01	Nil
MBA	2013-14	41	04	Nil
MBA	2012-13	55	05	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?: NIL

29. Student progression: NA

30. Details of Infrastructural facilities

a) Library

Particulars	Titles	Volumes
Books		
P.G.	439	2745
On line journal		
ASME On line	No	
Science Direct	Yes	
Pro Quest	Yes	
Printed journal		
Printed journal P.G.	10	

b) Internet facilities for Staff & Students:

Internet line 2 Mbps dedicated for computer lab & Wifi connectivity

c) Class rooms with ICT facility:

Room Description	Usage	Shared/ Exclusive	Capacity	Room Equipped With
1304	MBA I - Lectures	Exclusive	60	PC, LCD, Internet PA System
1301	MBA II Lectures & Practical, Management Games, Induction, etc.	Shared	120	PC, LCD, Internet PA System
1309	MBA II Skill Development Lectures	Shared	24	PC, LCD, Internet PA system

d) Laboratories:

Sr. No.	Name of Laboratory	Exclusive Use/ Shared	Number of Experiments	Laboratory Manuals
1	Digital Laboratory	Shared	6 per student	Reports Submitted at Library

31. Number of students receiving financial assistance from college, University, government or other agencies

Sr. No	Type of Assistant	Agency Providing Financial Assistance	Academic Year			
			2011-12	2012-13	2013-14	2014-15
1	GOI PM Scholarship	Social Welfare Dept. & Tribal Development dept.	20	26	29	28
2	GOI PM Freeship		19	15	8	7
3	EBC Concession	Jt. Director of Tech. Education	12	18	10	11
4	Minority Scholarship	Dept. of Minority Welfare	2	2	0	0
5	Central Sector Scholarship	Jt. Director of Higher Edu.	0	0	0	0
6	STC/PTC	Zilha Parishad	0	0	0	0
7	J & K Special Scholarship	AICTE	0	0	0	0
8	Pvt. Scholarship	Trust, NGO, Companies, etc.	0	0	0	0

32. Details on student enrichment Programmes (special lectures / workshops / seminar) with external experts

Sr. No.	Title	Resource Person Details	Category	Date		No. of students
				From	To	
1	Ms. Medha Tadpatrikar	MD Mantraa Research & consultants Pvt, Ltd.	Research paper competition	22/10/13	-	100
2	Dr. Shriniwas Tapadiya	Asst Manager, Arcelor Mittal, Luxembourg	Guest lecture	3/8/2013	-	100
3	Mr. Jaydeep Sant	Subject Expert - HR	Guest lecture	10/8/2013	-	100
4	Mr. Uday Bhalchandra	Head - Sales, 3 M Purification corp.	Guest lecture	7/9/2013	-	100
5	Dr. Harold D'Costa	Cyber Security Expert	Guest lecture	14/09/2013	-	100
6	Mr. D. J. Vaidya	Management Expert	Guest lecture	3/10/2013	-	60
7	Mr. M.B. Khurjekar	Head CPC, SITS	Guest lecture	9/10/2013	-	60
8	Mr. Atul Joshi	GM (Sales) Indoco	Guest lecture	10/10/2013	-	100

		Remedies				
9	Mr. Songaonkar	Retired GM, IDBI	Guest lecture	12/10/2013	-	50
10	Dr. Minal Oak	Librarian, IMCC	Guest lecture	12/10/2013	-	50
11	FCA Mr. Ravi Rajapurkar	Chartered Accountant	Guest lecture	4/11/2014	-	60
12	Dr. Yogesh Bhowte	HoD MBA SAE,	Guest lecture	14/11/2014	-	60
13	Mrs. Snehal Halkude	(Alumni) Manager, Organizational Development – Fiat India	Guest lecture	11/04/2015	-	60
14	Mr. Aniket Bhujbal	(Alumni) Branch Credit Manager – India bulls	Guest lecture	11/04/2015	-	60
15	Mr. Vishal Patil	Associate Editor & Anchor , ABP Maajha	Guest lecture	11/04/2015		60
16	Mr. Balasaheb Doiphode	AGM, IDBI	Guest lecture	11/04/2015		60
17	Mr. Girish Modi	Director 3M Software	Guest lecture	11/04/2015		60

33. Teaching methods adopted to improve student learning:

PPT, Harvard Based Case Study Methodology, Student PPT presentations, Live Projects (Research-based Assignments supervised & guided by the teachers), Remedial Classes for academically weaker students.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

NSS, Blood Donation Camp, Member of Sexual Harassment Prevention Committee & Women Empowerment & Awareness Programmes, Awareness about Disaster Management, Fruit distribution to Patients at SKN Hospital

35. SWOC analysis of the department and Future plans:

Strengths:

- Faculty with different specializations & expertise
- Good research orientation
- Mentorship programme for students
- Corporate grooming and co-curricular activities
- Collaboration with Harvard Business School Publishing

Weaknesses:

- Number of students admitted
- Number of research publications in reputed journals
- Consultancy and extension activity
- Number of student placement

Opportunities:

- Interdisciplinary approach
- Alumni and industry interaction to enhance academic and placement activity
- Collaborative research with corporate world and consultancy
- Entrepreneurship development activities

Challenges:

- Enhancing employability skills as per industrial need in an affiliated institute
- Attract students at national level
- Adaptability to globally changing industrial scenario

Future Plans:

- Enhance T-L-P through realistic case studies
- Organization of student competitions to show case their creativity
- Develop research culture among students
- Increase I-I-I for projects and internship
- Increase domain specific curricula inputs through alumni and industry experts



Prof. M. N. Navale
M. E.(Elect.), MIE, MBA
FOUNDER PRESIDENT

Dr. (Mrs.) Sunanda M. Navale
B.A. MPM, Ph.D.
FOUNDER SECRETARY

Dr. Suresh. N. Mali
M.E. (Electronics), Ph.D.
PRINCIPAL

Ref: SITS/OFF/2015-16/987

Date: 17/02/2016

DECLARATION BY THE HEAD OF THE INSTITUTION

I certify that the data in the Self Study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions and no part thereof has been outsourced.

I am aware that the Peer Team will validate the information provided in this SSR during the Peer Team visit.



DR. SURESH N. MALI
PRINCIPAL

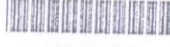
Place: Pune

Date: 17/02/2016



दूरध्वनी क्रमांक :

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सावित्रीबाई फुले पुणे विद्यापीठ
(पूर्वीचे पुणे विद्यापीठ)



शैक्षणिक विभाग
गणेशखिंड, पुणे-४११००७.

टेलिग्राफ : 'युनिपुणे'
फॅक्स : ०२०-२५६९१२३३
वेबसाइट : www.unipune.ac.in
ई-मेल : dyracademic@unipune.ac.in

संदर्भ क्र.: सीए/२३५२

दि.: २४/०६/२०१५

प्रति,

गा. प्राचार्य,

सिंगड टेक्निकल एजुकेशन सोसायटी सिंहगड
इंस्टिट्यूट ऑफ टेक्नोलॉजी अँड सायन्स पता: नर्हे
(अम्बेगांव), अपोजीट वेस्टरली बायपास, पुणे-मुंबई
एक्सप्रेसवे, पुणे - ४१ ता.: हवेली(महानगर पालिका
हद्द वगळून) जि: पुणे

विषय:- अटीच्या पूर्ततेच्या पडताळणी अहवालबाबत...

महोदय,

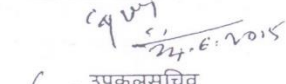
वरील विषयासंदर्भात विद्यापीठ अधिकार मंडळाने घेतलेल्या निर्णयानुसार आपणास कळविण्यात येते की, आपल्या महाविद्यालयास शैक्षणिक वर्ष २०१५-२०१६, या वर्षाकरिता खालील रकान्यात नमूद केलेल्या अभ्यासक्रमांच्या सलग्नीकरणाच्या नुतनिकरणास / नैसर्गिकवादीस अखिल भारतीय तंत्रशिक्षण परिषद, नवी दिल्ली व तंत्रशिक्षण संचालनालय, महाराष्ट्र शासन यांचे अभ्यासक्रम व प्रवेश क्षमता मान्यतेच्या अधीन राहून अटी पूर्ततेचा पडताळणी अहवाल स्वीकारण्यात आलेला आहे.

अनु. क्र.	अभ्यासक्रमाचा तपशील	विद्यार्थी संख्या	प्रथमपाळी/व्दित्तीय पाळी	संलग्नीकरणाचा प्रकार
1	एम. ई. (इ अँड टीसी) एम्बेडेड सिस्टम्स अँड व्ही. एल. एस. आय. डिझाइन	24	2015-2016 : - वर्ष प्रथम व व्दित्तीय- Div No.1,,	नूतनीकरण
2	एम.इ. (मेकॅनिकल)	24	2015-2016 : - वर्ष प्रथम व व्दित्तीय- Div No.1,,	नूतनीकरण
3	एम.बी.ए.	60	2015-2016 : - वर्ष प्रथम व व्दित्तीय- Div No.1,,	नूतनीकरण
4	बी.ई. (इन्फर्मेशन टेक्नॉलॉजी)	60	2015-2016 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण
5	बी.ई. (इलेक्ट्रॉनिक्स अँड टेलिकम्यूनिकेशन)	120	2015-2016 : - वर्ष पहिले ते चौथे- Div No.1,- वर्ष पहिले ते चौथे- Div No.2,,	नूतनीकरण
6	पी.ई. (कॉम्प्युटर)	120	2015-2016 : - वर्ष पहिले ते चौथे- Div No.1,- वर्ष पहिले ते तिसरे- दुसरी पाळी Div No. 2,,	नूतनीकरण

7	बी.ई. (मेकॅनिकल)	180	2015-2016 : - वर्ष पहिले ते चौथे- Div No.1,- वर्ष पहिले ते चौथे- Div No.2,- वर्ष पहिले ते तिसरे- Div No.3,,	नूतनीकरण
8	बी.ई. (सिविल)	120	2015-2016 : - वर्ष पहिले ते चौथे- Div No.1,- वर्ष पहिले ते तिसरे- Div No.2,,	नूतनीकरण
9	बी.ई. (कॉम्प्यूटर)	120	2015-2016 : - वर्ष चौथे- दुसरी पाळी Div No. 2,,	नैसर्गिकवाढ
10	बी.ई. (मेकॅनिकल)	180	2015-2016 : - वर्ष चौथे- Div No. 3,,	नैसर्गिकवाढ
11	बी.ई. (सिविल)	120	2015-2016 : - वर्ष चौथे- Div No. 2,,	नैसर्गिकवाढ

कळावे,

आपला,


 24.6.2015
 उपकुलसचिव
 शैक्षणिक विभाग

Savitribai Phule Pune University

(Formerly University of Pune)

Telephone Nos. :

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25601258

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E-mail : dyracademic@unipune.ac.in

Ref. No. : CA/191

Date : 08/02/2016

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Sinhgad Technical Education Society's Sinhgad Institute of Technology & Science, S. No.-49/1, Narhe, Off Westerly Bypass, Pune-Mumbai Expressway, Pune 411 041 is affiliated to the Savitribai Phule Pune University, since 2008 (PU/PN/Engg/323/2008) and the following courses are taught in the said college as per approval.

Courses <u>Under Graduate</u>	Duration of the Course	Affiliation (Permanent / Temporary)	Validity Period
Computer Engineering	04 Years	Temporary	Upto 2015-16
Civil Engineering	04 Years	Temporary	Upto 2015-16
Electronics & Telecommunication Engineering	04 Years	Temporary	Upto 2015-16
Information Technology	04 Years	Temporary	Upto 2015-16
Mechanical Engineering	04 Years	Temporary	Upto 2015-16

Courses <u>Post Graduate</u>	Duration of the Course	Affiliation (Permanent / Temporary)	Validity Period
M.B.A.	02 Years	Temporary	Upto 2015-16

2..

Courses <u>Post Graduate</u>	Duration of the Course	Affiliation (Permanent / Temporary)	Validity Period
Master of Engineering E & TC (Embedded systems & VLSI Design)	02 Years	Temporary	Upto 2015-16
Master of Engineering (Mechanical)	02 Years	Temporary	Upto 2015-16

The said certificate is issued as per the request application received from the Principal of the college Ref. No. SITS/OFF/2015-16/, dated 22.01.2016 so as to submit it to the National Assessment and Accreditation Council (NAAC), Bangalore.


Dr. V. B. Gaikwad
Director, B.C.U.D.