

Self-Study Report (SSR)

Submitted to



**National Assessment and Accreditation Council
(NAAC)
Bangalore
Submitted by**



KJ's Educational Institutes

Trinity Academy of Engineering

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

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2016-17

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Abbreviations

3D	3 Dimensions
4G	4th Generation
AAC	Alumni Association Cell
ACES	Association of Computer Engineering Students
AFMC	Armed Forces Medical College
AICTE	All India Council for Technical Education
AIEEE	All India Engineering Entrance Examination
AMC	Academic Monitoring Committee
API	Application Program Interface
ARAI	Automotive Research Association of India
ASCE	American Society of Civil Engineers
ASIC	Application Specific Integrated Circuit
ASME	American Society of Mechanical Engineers
ATM	Automated Teller Machine
AY	Academic Year
B.E.	Bachelor of Engineering
BAN	Body Area Network
BCUD	Board of Colleges and University Development
BEE	Basic Electrical Engineering
BoS	Board of Studies
CAD	Computer Aided Drafting
CAM	Computer Aided Manufacturing
CAP	Centralised Admission Process
CATIA	Computer Aided Three Dimensional Interactive Application
CAT	Common Admission Test
CBS	Credit Based System
CCL	Child Care Leave
CCNA	Cisco Certified Network Associate
CCTV	Closed Circuit Television
CD	Compact Disc
CEO	Course Examination Officer
CESA	Civil Engineering Students Association
CFD	Computational Fluid Dynamics
CGPA	Cumulative Grade Point Average
CL	Casual Leaves
CO	Course Outcomes
COEP	Government College of Engineering Pune
Co-PI	Co-Principal Investigator
CRO	Cathode Ray Oscilloscope
CSI	Computer Society of India
CSR	Campus Social Responsibility
CSSD	Central Sterile Services Department

DA	Daily Allowances
DPF	Department Placement Facilitator
DRDO	Defence Research and Development Organisation
DST	Department of Science & Technology
DTE	Directorate of Technical Education
EBC	Economically Backward Class
ECG	Electrocardiography
EDA	Electronic Design Automation
EDC	Entrepreneur Development Cell
EEG	Electroencephalogram
ENCORE	Electronics and Communication of Realistic Engineering
ERP	Enterprise Resource Planning
ESD	Employability Skill Development
ESE	End Semester Examination
FDP	Faculty Development Program
FEA	Finite Element Analysis
FEM	Finite Element Method
FFT	Fast Fourier Transform
GATE	Graduate Aptitude Test for Engineering
GB	Governing Body
GD	Group Discussion
GEC	Grievance Committee
GEPR	Global Economic Progress & Research Association
GFM	Teacher Guardians
GIS	Geographic Information System
GMAT	Graduate Management Admission Test
GOI	Government of India
GPS	Global Positioning System
GRE	Graduate Record Examination
HDTV	High Definition Television
HEC	Higher Education Cell
HOD	Head of Department
HR	Human Resource
ICT	Information and Communication Technology
ICU	Intensive Care Unit
IE	Institution of Engineers
IEEE	Institute of Electrical and Electronic Engineers
IETE	Institution of Electronics and Telecommunication Engineers
IIM	Indian Institute of Management
IIT	Indian Institute of Technology
IOT	Internet of Things
IPD	In Patients Department
IQAC	Internal Quality Assurance Cell
ISRO	Indian Space Research Organization
IT	Information Technology

ITS	Institute for Telecommunications Sciences
IUCAA	Inter-University Centre for Astronomy and Astrophysics
J & K	Jammu & Kashmir
JEE	Joint Entrance Examination
KJEI	Kalyan Jadhav Education Institute
KVA	Kilo Volt Ampere
LAN	Local Area Network
LCD	Liquid Crystal Display
LED	Light Emitting Diode
LMC	Local Managing Committee
MAC	Media Access Control
MATLAB	Matrix Laboratory
MBLP	Model Based Learning Program
MCQ	Multiple Choice Question
ME	Master of Engineering
MEP	Mechanical Electrical and Plumbing
MESA	Mechanical Engineering Students Association
MHCET	Maharashtra Common Entrance Test
MNC	Multinational Corporation
MOU	Memorandum of Understanding
MPSC	Maharashtra Public Service Commission
NA	Not Applicable
NAAC	National Assessment and Accreditation Council
NBA	National Board of Accreditation
NCC	National Cadet Corps
NET	National Eligibility Test
NFC	Near Field Communication
NIT	National Institutes of Technology
NPTEL	National Programme for Technology Enhanced Learning
NSDC	National Skill Development Corporation
NSS	National Service Scheme
OBC	Special Backward Class
OD	On Duty
OPAC	Online Public Access Catalog
OPD	Outpatient Department
OTDR	Optical Time Domain Reflectometer
PBL	Project Based Learning
PF	Provident Fund
PG	Post Graduate
PGCON	Post Graduate Conference
PhD	Doctor of Philosophy
PI	Personal Interview
PLC	Programmable Logic Controller
PO	Process Outcomes
PSU's	Public Sector Undertakings

R & D	Research & Development
RFID	Radio Frequency Identification
S.E.	Second Year Engineering
SBC	Other Backward Class
SC	Scheduled Caste
SCADA	Supervisory Control and Data Acquisition
SGPA	Semester Grade Point Average
SGS	State Government Scholarship
ST	Scheduled Tribe
STP	Student Training Program
STTP	Short Term Training Programme
T & P	Training & Placement
T.E.	Third Year Engineering
TA / DA	Travelling Allowance/ Dearance Allowance
TAE	Trinity Academy of Engineering
TBI	Technology Business Incubation
TCS	Tata Consultancy Services
TEQUIP	Technical Education Quality Improvement Programme
TFWS	Tuition Fee Waiver Scheme
TG	Teacher Guardian
TOFEL	Test of English as a Foreign Language
TPO	Training and Placement Officer
TTT	Train the Trainer
UGC	University Grants Commission
UoP	University of Pune
UPS	Uninterruptible Power Supply
UPSC	Union Public Service Commission
USP	Unique Selling Proposition
V2V	Vehicle to Vehicle
VAP	Value Added Programme
VB	Visual Basic
VCR	Variable Compression Ratio
VIT	Vishwakarma Institute of Technology
VJNT	Vimukta Jati, Nomadic Tribes
VJTI	Veer mata Jijabai Technological Institute
VLSI	Very Large Scale Integration
VTU	Visvesvaraya Technological University
WBAN	Wireless Body Area Network
WCO	World Customs Organization
Wi-Fi	Wireless Fidelity
WTP	Water Treatment Plant



KJ's EDUCATIONAL INSTITUTES,
TRINITY ACADEMY OF ENGINEERING

Approved by AICTE, Government of Maharashtra & Affiliated to Savitribai Phule Pune University

Dr. Vijay M. Wadhai

Ph.D. (Electronics & Telecom), MIEEE, LMISTE, MIE
Principal

Shri Kalyan. J. Jadhav

M. Com (Hons.)
Founder President

Ref. No.: KJEI/TAE/NAAC/2016-17/ 2786

Date: 17/04/2017

To,

**The Advisor,
National Assessment and Accreditation Council,
P.O Box No. 1075, Opp. NLSIU,
Nagabhavi, Bangalore - 560072**

Subject: Submission of Self Study Report (SSR)

Respected Sir,

Sincere thanks for acceptance of LOI on dated 11/04/2017. We are submitting herewith the Self Study Report (SSR) of KJEI's Trinity Academy of Engineering, Kondhwa (BK), Pune-411048. We would also like to inform you that the SSR copy is uploaded on our website <http://kjei.edu.in/> on dated for your kind perusal.

SSR URL: http://kjei.edu.in/tae/SSR/2016-17/NAAC_SSR_TAE_PUNE.pdf

For your kind reference, our Track ID is **MHCOGN27292**. 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.

Dr. Vijay M Wadhai
Principal
Place: Pune



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NAAC STEERING COMMITTEE

Sr.No	Name of the Committee	Designation	Designation in steering Committee
1	Dr. V. M. Wadhai	Principal	Chairman
2	Mr. S. S. Mulik	H.O.D. Mechanical Engg.	Co-ordinator
3	Mr. S. S. Deshmukh	H.O.D. Civil Engg.	Member
4	Ms. S. N. Maitri	H.O.D. Computer Engg.	Member
5	Ms. D. D. Kulkarni	H.O.D. E&TC Engg.	Member
6	Mr. A. B. Mali	H.O.D. Engg. Science	Member
7	Mr. N. Chandran	PG Coordinator Mechanical Engg.	Member

PREFACE

The K J's Educational Institute (KJEI), Trinity Academy of Engineering (TAE) is a private unaided institution established in 2010. The reason behind establishing KJEI in the year 2005 is to provide quality education for the students from different areas of Maharashtra and India.

Under the guidance & leadership of Honorable Founder President, Shri. K J Jadhav, society has set up various bench marks in imparting quality education. Under the young dynamic leadership of Hon. Mr. Vinod Jadhav-Tresurer KJEI, Hon. Mrs. Harshada Jadhav Managing Director, Hon. Ms. Vibhavari Jadhav institution is taking new shape in bringing the new horizon of quality Education in KJEI. The society also provides scholarships for economically weak students, to complete their degree.

TAE offers bachelor degree (B.E) in Civil Engineering, Computer Engineering, Electronics and Communication Engineering, and Mechanical Engineering; it also offers Masters Degree (M.E) in Mechanical Engineering (Design Engineering.), and Civil Engineering (Construction Management). All the programs are approved by All India Council for Technical Education (AICTE) and affiliated to Savitribai Phule Pune University (SPPU). Institute follows the curriculum provided by the SPPU.

Student Centric Activities, Participative Management, Adequate Transport Facility, Quality Infrastructural facilities, clean and green natural environment are the major features of this institute.

The institute was established with an objective of holistic development of the important stake holders such as students, faculty, alumni, parents and industry. The existing qualified, dedicated and experienced faculties play significant role for quality teaching, research and innovation.

The institute provides necessary atmosphere to inculcate ethical and moral values in faculty and students. Institute encourages skills and Entrepreneurship developemnet program. Faculty members are continuously encouraged and motivated for carrier advancement. The Industry-Institute interaction and excellent infrastructure facilitate quality learning various activities are organized for overall development of students.

All necessary quality policies are framed and implemented for providing quality education in the institute.

This self study report of the Trinity Academy of Engineering gives the real insight of institute.

Principal

EXECUTIVE SUMMARY

Criterion I: Curricular Aspects

KJEI's 'Trinity Academy of Engineering (TAE)' is affiliated to the Savitribai Phule Pune University (SPPU) and follows the curriculum provided by the University. The institute implements a standard process of planning and executing activities which are necessary for effective implementation of the curriculum delivery. The institute ensures that the curriculum objectives are achieved through the process called as 'Course Outcome (CO) attainment'. This process is monitored based on various tools like guest lectures, assignments, tutorials, unit test, etc.

The faculties of the institute are encouraged for their active participation in the Syllabus discussion meetings organized by Board of Studies (BOS) at university level. Through this activity, decision of BOS is circulated through all the faculty members and interaction of faculty members with experts from various institutions is successfully achieved.

The faculty organize various workshops and participate in Faculty Development Programs (FDPs) and Short Term Training Programs (STTPs), to understand the subject thoroughly and becomes ready for effective delivery of the curriculum. The institute has signed up Memorandum of Understanding (MOU) with various companies, in order to know importance of subject from industrial importance point of view.

Apart from the courses in program affiliated to SPPU, Institute offers value added certification courses. These types of value added courses reduces the gap between theoretical content and actual practices carried out in industry, by explaining knowledge about recent technologies.

To enrich the curriculum delivery, the institute organizes various events for the students like guest lectures, industrial visits, workshops, industrial training and value added programs. The objectives of these programs are to enhance the employability skills, to find and cherish entrepreneurship qualities amongst students and also encourage them for higher education.

The institute has different cells like Women Empowerment Cell, looking after the challenges faced by girl students; Anti-Ragging cell which prevents ragging in the college premises; Grievance Cell, which solves any grievances among faculties and students, Teacher Guardian (TG) Scheme, which is for continuous academic monitoring as well as providing support system to guide and motivate the students, etc. These cells help in keeping healthy environment at institute. The institute has SPPU approved National Service Scheme (NSS), through which the students can acquire moral and ethical values and get opportunity to serve society.

To address various issues, various programs are arranged for staff and students in the institute like awareness programs on social issues, health issues and environmental education. The institute organizes various cultural and sports activities. Under CSR (Corporate Social Responsibility) many activities are conducted like blood donation camp, funds collection for natural calamity affected areas, etc. These activities help

students to understand their responsibilities towards the society and also help in holistic development of faculty members and students towards the national building. Yearly Feedback on the curriculum is taken from different stake holders like students, faculty, alumni, parents and industry. These suggestions are incorporated by organizing various events like guest lectures, content beyond syllabi and value added courses.

Criterion II: Teaching –Learning and Evaluation

Teaching Learning is the central aspect of any educational Institute and therefore good teaching learning leads to academic excellence. This is achieved through recruiting and retaining well qualified and experienced teachers and by having a well-defined teaching-learning Process.

The admissions are made in accordance with standard procedures defined by the DTE and the Government of Maharashtra. A student training program (STP) is introduced for bridging the gap between the Skills required by industry and the skills acquired for strengthening the teaching learning process and practices.

The skills enhancement training during STP has five modules: Spoken English, writing skills, technical skills, Group Discussions and Performance during the interview. Student's performance is continuously evaluated on the basis of internal examinations and quantitative test conducted by the Departmental Placement facilitator.

The performance of the students is evaluated in summative assessment like internal examinations, mock practical examination. Formative assessment is done through continuous assessment. For slow learners with the assistance of Teacher Guardian System(TGS), remedial tutorial classes are conducted.

The Heads of all departments and Academic Monitoring Committee (AMC), currently known as IQAC, monitors the effective implementation of teaching plan and by adherence to the academic calendar. The innovative teaching methodologies like role play, quiz, cross word, animation and working models are used in teaching for conceptual understanding. Students are motivated for collaborative learning. They are encouraged in problem solving through technical application oriented industrial projects. Students are encouraged to take part in National and International level events to nurture their critical thinking and leadership qualities. The required support system is already in existence.

The faculty members are recruited as per the rules and regulations of SPPU, DTE and Government of Maharashtra. Faculty members are motivated for higher education, in-service training, research and development activity and consultancy periodically. The different programs like Teacher Advancement Program (TAP) and Train the Trainer (TTT) are organised for soft skills and technical skill enrichment. Faculty members are financially supported to participate in STTP/FDP and National and International conferences to get exposure to the advancement in technology. The institute has developed a well-defined process to evaluate the learning outcomes. Proper teaching learning process is defined to attain the desired program outcome. The well-defined policies are in place for creating innovative learning environment to produce globally competent quality engineers with sound fundamentals and applied knowledge, with scientific, technological and engineering temper.

Criteria III: Research, Consultancy and Extension

The Research and Development (R&D) Cell monitors all research related activities. It promotes research based learning in the institute by students and all faculty members.

Four R&D labs are made available for research and development activities for 12 hours in a day. The college has all academic resources like central library with advanced books, journals, e-journals and fully equipped laboratories with internet facility in all departments. Well qualified and senior staff members with their expertise contribute for research and development in their respective fields. Experienced professors and company executives are invited as resource persons for conducting seminars/conferences/workshops /UG & PG Projects. Financial assistance is given to students and staff members to promote research activities, like major/minor research projects, research publications, attending seminars/conferences/workshops, etc.

The Research committee ensures that activities are focussed on research based learning. It creates opportunities for participation of faculty members and students in research. The Research Committee monitors financial assistance from funding agencies and provides platform for participation in conferences/Seminars/Workshops at National/International levels conducted at the institute.

The institute motivates faculty members to pursue Ph.D. in their respective field. It identifies laboratories for upgradation to Research centre by intimating it to concerned authorities and collaborate with research organisations.

A Technology Business Incubation (TBI) centre, an Entrepreneur Development Cell (EDC) and an Industry Institute Interaction Cell (IIIC), 4 Centre of Excellence (COE) were set up to promote research by students and faculty members. This cell motivates students to participate in various events promoted by industry bodies like, GOKART, ROBOWRESTLING, etc. As a result, every year students are awarded at state and national level competitions. 7 National level conferences and 2 international conferences were conducted to create a culture of research and innovation,

R&D cell has contributed to considerable research outcome by providing various solutions to industry requirement. The institute has 2 doctorates and 7 faculty members are pursuing Ph.D. 20 patents are filed by faculties and 6 products are ready for commercialisation. Two of the faculties are assisting as reviewers for reputed journals. 8 books are published by faculty members from various departments. Ongoing research projects worth Rs.14.68 Lakh are in progress. Moreover faculty members received 16 reputed awards, and 372 research papers have been published in the last 4 years.

30 Memorandum of Understanding (MOU) have been signed with industries to establish and to promote inclusive growth of the nation. To encourages and promotes research activity the institute has framed a “Research , Innovation and Incubation “ Policy.

Criteria IV: Infrastructure

All the necessary state of art infrastructure, learning resources and facilities as per the AICTE norms to meet various requirements of teaching-learning process are made available. These resources are used for conducting curricular, co-curricular and extracurricular activities. Spacious, well ventilated classrooms equipped with modern ICT tools, tutorial rooms and well equipped laboratories with the state of art facility for students to perform their practical course work and projects work are provided. C.C.T.V. cameras are installed at the institute for surveillance and monitoring of academic activities and university examination. A modern seminar hall with audio visual equipment and power backup is made available for conducting workshops, conferences, seminars and various college functions. Conference hall for conducting group discussions and workshops is provided.

Institute has a well-equipped central library with reading room, digital library and with sufficient number of text books, reference books, and journals. The e-journals provide access to research publications to students and faculty members. All the departments are well equipped with IT infrastructure, computers, peripherals, internet service, internal networking and browsing facility to provide access to worldwide web to enhance their academic excellence. The information security and network security are ensured through the firewall. The websites which promote unauthenticated activities are blocked by the firewall. The campus has Wi-Fi connectivity and high speed (32Mbps) Internet facility. The institute offers excellent medical facilities to staff, students and others who stay in the hostel. The staff and students can avail this facility in Campus. Well-furnished hostel for boys is provided with the capacity of 480 in the campus.

The institute has other amenities and facilities like well-maintained lawn, play ground for outdoor games, gymnasium, indoor games facility, lift, canteens, mess, ATM and general stores. Uninterrupted electricity supply is ensured in the campus with the help of 500 KVA generators and UPS (70KVA) systems. The institute has provided safe drinking water facility through installation of water cooler with filter at various places in the campus and in the hostel. Sewage treatment plant is also setup for recycling and reuse of waste water.

The institute has effective mechanism for all kind of maintenance and upkeep of the infrastructure, campus facilities and equipment. The institute's housekeeping staff looks after day to day cleanliness, hygiene and maintenance of the premises. Security staff maintains security and safety in the campus. Electrician for repair and maintenance of electrical works is available at the institute. Laboratory equipment, electronic maintenance, computers and other gadgets are repaired, calibrated and maintained internally and also by periodic maintenance contracts. Campus estate manager looks after the repair and maintenance of civil works of the institute. Annual maintenance contracts are executed for the maintenance of UPS, generators and water coolers. Plantation in the campus is been taken care by a gardening agency. Adequate budget is allocated for maintenance, up keeping and for the up-gradation of infrastructural facilities.

Criterion V: Student Support and Progression

In this institute has about 1225 students are studying from diverse background. Various schemes have been implemented to conduct activities for academics and progression towards employment, higher studies and entrepreneurship. Institute provide support to diverse category of students like SC,ST,OBC and economically weaker sections of society through various scholarships, freeship and earn and learn scheme. Facilities like competitive examinations, career counseling, soft skill development etc. are made available to make students globally competent. The institute has active placement cell that helps students to identify job opportunities and arrange campus interviews and a separate ED cell to develop entrepreneurship skills among the interested students to start their own business. Institute maintains strong association with alumni for monitoring of academic quality, for providing career guidance to students and for arranging guest lectures etc. The progression of student in various departments of the institute is regularly monitored by AMC using the parameters such as attendance, result analysis, student feedback, placement and progression to self-employment and higher studies. This AMC is now referred as IQAC. The corrective actions are taken to improve the results periodically. Feedback is taken from students during the course and also after exit, for continuous improvement in the quality of education.

Student participation in co-curricular and extracurricular activities is encouraged. This is evident from the track record of participation and achievements in the various events. TAE organizes three mega events annually, a KJ youth festival which include MAIDAN (Sports), YANTRA (Technical Events) and MALHAR (Cultural Events) in which thousands of students participate every year.

College has various student clubs such as NSS, Rotract-club, yoga, women empowerment cell, sports club, cultural club, robotics club, environmental club, health club, social club, and student welfare club. Many events are organized under these cells for developing the various qualities among the students like teamwork, management, leadership and responsibility towards society. In addition to this every department has a student association which helps the students to arrange trainings, competitions and promote publications. The institute has a college wall magazine "AKSHARBRAHMA" that not only serves a platform for students to express their creativity and talents but also creates publicity among students about recent creations of their colleagues. The Student Welfare and Support Policy is in place to mentor the students to enjoy the teaching learning process to achieve their goals.

Criterion VI: Governance, Leadership and Management

The institute is nurtured by the President Hon. Kalyan Jadhav, of KJ Educational Institutes, Pune. It has a well-defined organisational structure to execute the vision and mission of the institute.

The proper governing and monitoring system are in place like governing body and local management committees and constituted for effective governance and management of entire KJs Educational institutes.

The institute has well defined quality policies for finance, academics, research and innovations, setting quality infrastructure, and HR Policies are also in existence.

The institute believes in optimum utilisation of resources to give quality education to students. The focus is therefore on research based learning by students and faculty members, creating a centre of excellence to provide solutions to the industrial needs. Efforts are focused on strengthening the industry-Institute interactions for presenting the recent trends in industry in to class room activities and also for generating start up ideas for entrepreneurship.

The institute promotes student centric environment to enable them to become quality professional

The students are encouraged to participate in several activities, while undergoing class room learning.

Faculty members are encouraged for participative management process. They are made integral part of decision making to build an institute of national importance and of high quality, which is considered as premier institute.

Students are also motivated to participate in management and decision making process of the institute by allowing them to be part of various important committees.

The institute has adequate provisions for academic and administrative budgets and it is periodically audited as per the regulations. The resource participation is thereby ensured for effective functioning of the institute.

The principal, HODs are continuously monitoring the teaching learning process and overall development of the students through Academic Monitoring Committee (AMC). AMC is part of internal quality Assurance Cell (IQAC). AMC audits and assesses the quality of departmental activities at periodic intervals.

Criterion VII: Innovation and Best Practices

The institute believes in respecting environment which is the basis for creating responsible professionals and good citizens of a nation. The development of society is dependent upon the care we take for environment. Therefore activities like plantation of trees, treatment and reuse of waste water, proper disposal of e-waste and use of solar energy for making hot water in hostel are some of environment friendly activities are taken up in the institute to make its surrounding, a green environment.

The institute has introduced innovative practices like use of ERP system for administrative work for updating staff profiles, service data, appraisals, and. To promote applications of knowledge acquired in class rooms by students, “Project Based Learning” and “Student Training Program” are introduced. The facilities such as research lab, studio and class rooms with ICT have been provided by the institute. ED Cell, and Social Cell have been initiated to promote development of student’s creativity and imagination to provide solutions of industrial problems.

Among Best practices, Teacher Guardian System (TGS) is one that support students to effectively participate in teaching learning process. The TGS helps identify students who are weak in learning and make them understand encourage them for interactive learning and educate them about blended learning.

Another Best Practice is enhancing the quality of technical education by enticing students by organising guest lectures from industry experts.

To ensure the quality of teaching learning, Academic Monitoring Committee (AMC) continuously keeps track of handling of teaching learning process in every department. All students are able to get support in the teaching learning process. The Department heads keep the transparency in the evaluations and academic process. Teachers are appreciated by principal for their achievements and for their contribution to various activities and faculties are honoured at appropriate times.

To promote the culture of innovation, problem based learning is nurtured in the campus to solve real time problems of industry and enable them to become capable and globally competent Engineers.

SWOC ANALYSIS OF THE INSTITUTE

1. Strengths:

- Excellent Teaching and Learning Process
- Experienced and dedicated faculty
- Best in class infrastructure for smooth conduction of Practical oriented teaching
- Entrepreneurship Development Cell(EDC)
- Planned activities like FDP/STTP, Workshops, and Guest Lectures to enrich faculty and students
- Guardian Faculty Scheme to enable student centric environment
- Memorandum of Understanding (MOU) with industries
- Support to Faculty and Students for holistic development
- Joyful culture in campus
- Transport facility provided to Staff and Students to commute
- Play Ground facility for Indoor and Outdoor sports activities
- Clean and Green campus for healthy learning environment

2. Weakness:

- Need to Tie up with national R&D labs and Research Centre with IIT's
- Sponsored projects by Industry
- Faculty with PhD Qualification
- Consultancy and extension activities
- Value added Programs

3. Opportunities:

- Preparing students as per Industry requirement
- Enhancing skill development activities
- Motivating students to join entrepreneurship which can lead to fulfill the dream of Make in India initiative of Government of India
- Enhancing number of Patents and Commercialization
- Internationalization of education through collaboration with Abroad Universities

4. Challenges:

- Certification courses for academic enrichment
- Improving the Training and Placement
- Skill development for Placement specially for students from rural background
- Enabling faculty for Technology transfer and product development
- Need to improve communication skills in students as per market demand

COLLEGE PROFILE

1. Name and Address of the College:

Name : KJEI's Trinity Academy of Engineering
 Address : S.No.25&27, Kondhwa-Saswad Road, Kondhwa Annex,
 Pune,
 City : Pune, Pin: 411048,
 State : Maharashtra
 Website : <http://www.kjei.edu.in>

2. For Communication: Description

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr. Vijay M. Wadhai	020-65799009	9921843549	--	printae@kjei.edu.in
Steering Committee Co-ordinator	Mr. Sharad S. Mulik	020-65799009	9850992250	--	homtae@kjei.edu.in

3. Status of the Institution:Affiliated College: Constituent College: Any other (specify): **4. Type of the Institution:**

By Gender:

i. For Men ii. For Women iii. Co-Education

By Shift:

i. Regular ii. Day iii. Evening **5. It is a recognized minority institution?**YES NO

6. Sources of funding :

Government

Self Financing

Grant-in-aid

Any Other

✓

7. a. Date of establishment of the college : 27/08/2010
 b. University to which the college is affiliated : SPPU
 c. Details of UGC Recognition : NA

Under Section	Date Month & Year (DD-MM-YY)	Remarks (If Any)
i. 2(f)	NA	NA
ii. 12(B)	NA	NA

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 & Year(dd-mm-yyyy)	Validity	Remarks
Regulations 2012 by the council vide notification F. No. 37/3/legal 2012 at 27/09/2012	F. No. Western/1-1349566653/2013/EOA UG: i. Civil Engg. ii. Comuter Engg. iii.E&TC Engg. iv.Mechanical Engg.	19/03/2013	A.Y. 2013-14	
	F.No. PG	--	--	
	F.No. Western/1-2013068095/2014/EOA UG: i. Civil Engg. ii. Comuter Engg. iii.E&TC Engg. iv.Mechanical Engg. PG: i. Construction Management ii. Design Engg.	04/06/2014	A.Y.2014-15	
Regulations 2012 by the council vide notification F. No. 37/3/legal 2012 at 27/09/2012	F.No. Western/1-2450739014/2015/EOA UG: i. Civil Engg. ii. Computer Engg. iii. E&TC Engg. iv. Mechanical Engg. PG: i. ConstructionManagement ii. Design Engg.	07/04/2015	A.Y2015-16	
	F.No. Western/1-2808437350/2016/EOA/ Corrigendum-1 UG: i. Civil Engg. ii. Computer Engg. iii. E&TC Engg. iv. Mechanical Engg. PG: i. Constructio Management ii. Design Engg.	10/06/2016	A.Y. 2016-17	
	Ph.D Research Center	NA	NA	

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

YES **NO**

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

YES **NO**

9. Is the college recognized

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

YES **NO**

If yes, date of recognition: **Not Applicable**

b. For its performance by any other governmental agency?

YES **NO**

If yes, Name of the agency **Not Applicable**

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

Particular	Description
Location *	RURAL
Campus area in sq. mts.	48560.68 sq.mts.
Built up area in sq. mts.	21886.57 sq.mts.

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

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

1. Auditorium/seminar complex with infrastructural facilities

2. Sports facilities

*Play Ground

3. Hostel

Boy's Hostel

i. Number of Hostels - 01

ii. Number of Inmates- 320

Available Facilities:

- Attached toilet & bathroom of extra large size per room. **YES**

✓
✓
✓

- Drinking Water Purifier (Aquaguard) floor wise separate provided. YES
- Water Cooler YES
- Wi-Fisystem YES
- Mess YES
- Canteen YES
- Cafeteria YES
- 24hrs. Medical facilities with well equipped Ambulance. YES

Girl’s Hostel: NOT AVAILABLE

- i. Number of Hostels- NO
- ii. Number of Inmates- NO

Available Facilities:

- Attached toilet & bathroom of extra large size per room. NO
- Drinking Water Purifier (Aquaguard) floor wise separate provided.NO
- Water Cooler NO
- Wi-Fisystem NO
- Mess NO
- Canteen NO
- Cafeteria NO
- 24hrs. Medical facilities with well equipped Ambulance. NO

Working women’s hostel–Not Applicable

- i. Number of inmates
- ii. Facilities(mention available facilities)

4. Residential facilities for teaching and non teaching

- i. Teaching Staff
- ii. Non teaching Staff



5. Cafeteria : YES

6. Health Centre

First aid, Inpatient, Outpatient, Emergency care facility, Ambulance.....

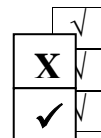
Health centre staff –

Qualified doctor: Fulltime: NIL Part-time: YES

Qualified Nurse: Fulltime: NIL Part-time: YES

7. Facilities like banking, post office and book shops:

- i. Bank – Union Bank ATM
- * ii. Book shop – In the premises
- iii. Post Office - Beside College Campus
- S
wimming Pool
- * Gymnasium



8. **Transport facilities to cater to the needs of students and staff:** Available

9. **Animal house:** Not Applicable

10. **Biological waste disposal:** Not Available

11. **Generator or other facility: 500 KVA(Gmmco Ltd)**

Gen set available by management /regulation of electricity and voltage

12. Solid waste management facility:

Wet Waste: PMC Collects wet waste



13. Waste water management:

- STP facility: Sewage treatment plant is installed:
- Recycling of sewage water for gardening and lawn purpose

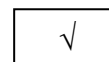


14. Water harvesting:



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

Sr. No.	Programme Level	Name of the Programme	Course Duration	Entry Qualification	Medium of instruction	Sanctioned/approved student Strength	No. of Students Admitted
1	UG First Shift	Civil Engg.	4 Years	12 th Pass	English	60	28
		Computer Engg.				60	16
		E&TC Engg.				120	03
		Mechanical Engg.				120	23
2	PG	Civil Engg. (Construction Mgmt.)	2 Years	BE/B.Tech./GATE	English	24	16
		Mechanical Engg.(Design Engg.)				24	04



13. Does the college offer self-financed Programs? YES

If Yes, How many STP Operator training Program: 01

14. New programs introduced in the college during the last five years if any ?YES NO Number: PG -02**15. List of departments:**

Faculty	Departments (e.g. Phy,Bot etc.)	UG	PG	Research
Science Arts, Com.				
Engineering	Civil Engg.	UG	PG	---
Engineering	Computer Engg.	UG	--	---
Engineering	E&TC Engg.	UG	--	---
Engineering	Mechanical Engg.	UG	PG	---

16. Number of Programs offered under (Programme means a degree course like B.A., B.Sc.,M.A.,M.Com.,...)i. Annual System ii. Semester System iii. Trimester System **17. Number of Programs with**

(a) Choice Based Credit System : N.A.

(b) Inter/Multidisciplinary Approach : N.A.

(c) Any other (specify and provide details) : ---

18. Does the college offer UG and /or PG programs in Teacher Education?YES NO

19. Does the college offer UG or PG program 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		Asso. Professor		Asst. Professor					
	M	F	M	F	M	F	M	F	M	F
Sanctioned by the UGC/University / State Government	9	4	19	9	66	33	NA	NA	NA	NA
Recruited	1	0	0	0	44	25	NA	NA	NA	NA
Sanctioned by the Management /Society or other authorized bodies	0	0	02	0	12	09	28	06	09	02
Recruited	0	0	02	0	12	09	28	06	09	02
Yet to recruit	8	4	17	09	10	0	0	0	0	0

21. Qualifications of the teaching staff :

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	M	F	M	F	M	F	
Permanent Teachers							
D.Sc./D.Litt.	---	---	---	---	---	---	---
Ph.D.	1	0	0	0	2	0	3
M.Phil.	---	---	---	---	---	---	---
PG/ME	0	0	2	0	56	34	90
Temporary Teachers							
Part-time teachers	Not Applicable						

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

32

23. Furnish the number of the students admitted to the college during the last four academic years:**UG – Category wise**

Categories		2013-14		2014-15		2015-16		2016-17	
		M	F	M	F	M	F	M	F
SC		09	00	20	03	37	00	21	08
ST		00	00	00	00	00	00	01	01
OBC		75	07	144	16	137	04	102	12
General		206	32	331	48	262	25	278	23
Others	TFWS	13	05	10	05	11	05	17	02
	J&K	00	00	01	00	01	00	00	00

PG – Category wise

Categories		2013-14		2014-15		2015-16		2016-17	
		M	F	M	F	M	F	M	F
SC		N.A.	N.A.	02	00	00	01	04	01
ST		N.A.	N.A.	01	00	00	00	00	00
OBC		N.A.	N.A.	06	01	02	02	02	01
General		N.A.	N.A.	33	05	30	06	10	02
Others		N.A.	N.A.	42	06	32	09	16	04

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

Types of students	UG	PG	M.Phil	Ph.D.	Total
Students from the same state where the college is located	462	20	---	---	482
Students from other states of India	03	00	---	---	03
NRI students	---	---	---	---	---
Foreign students	---	---	---	---	---
Total	465	20	---	---	485

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

UG : 6.29

PG : 0

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. 98,937/-

(b) Excluding the salary component : Rs. 28,768/-

27. Does the college offer any programmes in distance education mode (DEP) ?Yes No **28. Provide Teacher-student ratio for each of the programme/course offered :**

Sr.No.	Programme	Ratio
1	UG	14
2	PG	7

29. Is the college applying for Accreditation?Cycle 1 Cycle 2 Cycle 3 Cycle4 Re-assessment: (Cycle 1 refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to re-accreditation)**30. Date of Accreditation *(applicable for Cycle 2, Cycle 3, Cycle 4 and Re-assessment only)**

Not Applicable

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

274

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

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

178

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

12/10/2014

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

Not Applicable

35. Any other relevant data (Not covered above) the college would like to include
No

CRITERION-I: CURRICULAR ASPECTS**1.1 CURRICULUM PLANNING & IMPLEMENTATION**

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

Vision:

To be a premier knowledge centre of the nation for socio-economic development.

Mission:

To provide education that combines rigorous academics with joy of discovery through sustained efforts and dynamic strategies, in building innovative, participatory, problem based learning practices and research that leads to capacity building of the students.

Objectives:

- To create conducive learning environment by providing world class infrastructure, state-of-art laboratories and enriched library, to implement effective teaching and learning process.
- To improve the quality of education through sustained effort towards attaining excellence.
- To induce the thirst for higher studies and lifelong learning in students.
- To develop a human resource with desirable abilities, proficiencies, attitudes, values and qualities of self confidence and creativity by motivating them to participate in various technical, cultural, sports & co-curricular activities.
- To accentuate the students on real life problems, for serving the society and nation at large.
- To provide qualitative technical education as per need of the industry along with co-curricular and extracurricular activities for enhancement of society and thus become a centre of excellence in engineering.
- To establish healthy atmosphere for students and teachers by encouraging exchange of thoughts and discussion leading to their holistic development.
- To provide opportunities for students to work with reputed industries through collaborative activities.

Communication to Stakeholders:

The institutes Vision, Mission are communicated to the Stakeholders in the following way:-

- The institute's Vision, Mission is available on the website, and communicated to students, staff and other stake holders.
- It is also displayed on prominent places in the Institute like Principal cabin, entrance and corridors.
- Vision Mission statements are available on all the Notice boards, HOD cabin, Staff Cabins, laboratories.
- The institutes Vision, Mission are available in the Admission Broachers.
- These are conveyed to the students during induction & orientation programs.

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).

- Institute is affiliated to SPPU and follows the syllabus prescribed by the Board of Studies (BOS) at the university.
- Institute plays a role in the development of the curriculum by participating in the proposal, drafting and finalizing of the curriculum.

Action Plan:

- Institutional and Departmental Academic calendar is prepared with reference to the university academic calendar. It includes teaching dates, unit test dates, University exam dates, Semester end dates and Theory/Practical examination dates.
- HOD conducts department meeting to review the syllabus given by University. Subject's choice for Electives are asked from BE students. The HODs asks for three choices of subjects from each faculty. Work Load is given to the staff by considering their competencies and their specialization as well as area of interest.
- The subject allocation to faculty is done well in advance. So that the faculty can study the subject, prepare course file, subject notes, PPTs, Question bank and other study material.
- Departmental time table is prepared in consideration with guest lecturers /workshops /industry interaction for students.
- Teaching plan prepared by each faculty member of their respective subjects.
- Strict adherence to the Academic Calendar, Time Table and Teaching Plan is monitored by HOD. Expert lectures, extra sessions are arranged if required.
- Departmental work other than teaching distributed to respective staff by considering their efficiency and area of interest.
- Industrial visits and add on courses are planned as per the requirements of the curriculum.
- All study material is made available to students via email. Laboratory manual is prepared as per the guidelines given by University for practical conduction.
- Book requirement is given to the Central Library semester wise. Institute is availing the required books before the start of semester to refer to both staff and students.
- In case of project allocation for BE students, a standard process is followed. Projects are allocated to faculty as per their area of interest, experience. Project progress is timely monitored in project work books. Individual and Team efforts are taken into consideration. Marks are given based on multiple parameters and assesment of individual and team.
- In case of seminar allocation for TE students, faculty is assigned as a guide as per area of interest. Marks are given based on standard format which is known to the students.
- Daily attendance is recorded by the subject in-charge for lecture and lab sessions. The Teacher Guardian (TG) makes sure that the attendance of his/her allotted students is above a certain set threshold..
- The class teacher monitors overall attendance of class. Feedback is taken from the students. Internal Quality Assurance Cell (IQAC) monitors this feedback and corrective actions are taken by HODs.

- Unit tests and Prelim, Mock oral/practical exams are conducted before the University examination in the same format as that of University. Marks are communicated to the students immediately after the examination. Assignments are given for better understanding of the subject.
- Review of available and required resources is taken before commencement of the semester and required quantity is purchased through the purchase process.

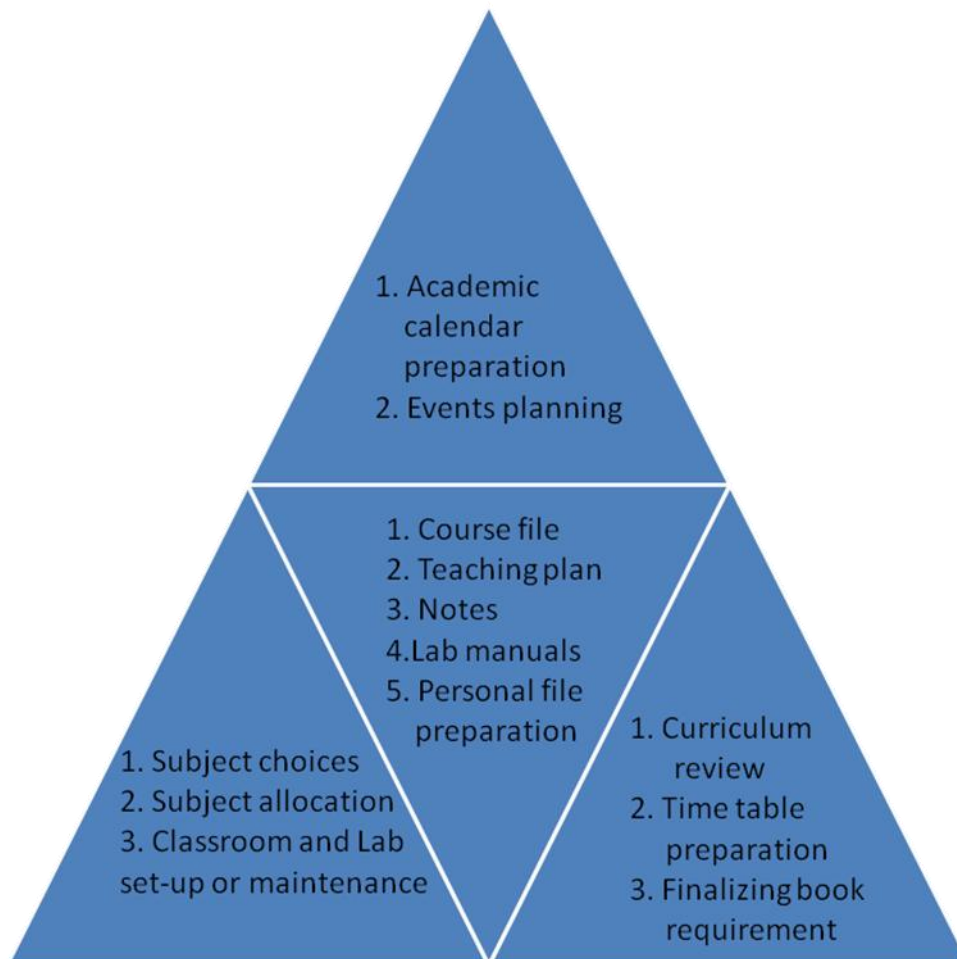


Fig. 1.1.2.1: Academic Action Plan

Action Deployment:

Action deployment is done as per following aspects:

- At the beginning of the academic year Principal and Head of the Department (HoD) conducts the meeting to discuss the academic calendar, time table, confirmation of industrial visits, expert lectures, and the course file of the faculty.
- Continuous progressive assessment with respect to practical / assignments/ tutorial work is monitored by respective faculty
- Periodic unit tests are conducted by the department and study of students are analyzed to improve university results.
- Project work and its progress is reviewed by respective guides.
- These records are audited during the semester by the HOD and Dean Academics.
- IQAC ensures the academic process to strength curriculum delivery process.

Faculty prepares the course file which contains

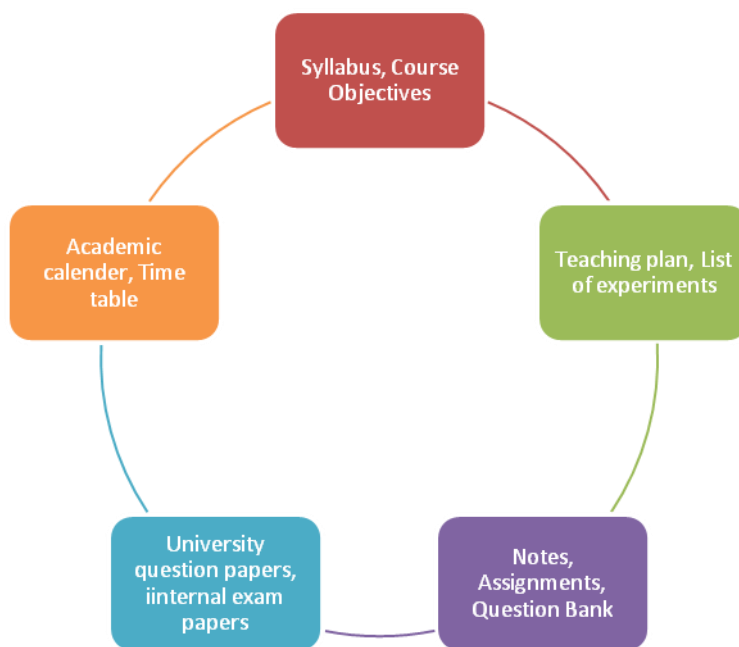


Fig. 1.1.2.2: Course File Contents

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?

University supports teachers to effectively translate the curriculum, by following ways:

- Involving teachers in framing and drafting of the syllabus in various capacities like participant faculty, subject expert, BOS member, Academic Council member.
- University Organize course implementation workshops in various institutes, where teachers are introduced to course contents, books, teaching plan, practical's and agencies for procurement of related equipment.
- Institute Depute faculties for respective course workshops, for the courses which he/she is teaching.

The following table shows count of faculty involved in activities like FDP, workshops and conferences attended.

Table 1.1.3.1 FDP/Workshops/Conferences attended

Year	Department wise Count					Total
	Civil	Comp	E & TC	Mech	First Year	
2016-17	11	3	6	67	1	88
2015-16	7	2	1	35	1	46
2014-15	6	9	2	20	1	38
2013-14	2	5	14	12	1	34
Total						206

Please refer Annexure 1.1.3 for details.

Institute supports teachers to improve their teaching practices in following ways:

- Internet facility and digital library of broadband speed 32 Mbps.
- Facilitating the faculty members for up gradation of qualification.
- Motivating faculty to do research projects as well as to file patents
- Conducting induction programs for newly joined faculty.
- Organizing different Teachers Advancement Programmes for holistic development of teachers
- Organizing expert lectures
- Organizing Faculty Development Programmes
- Providing Library Resources to its fullest(Books, Digital Library, Journals, Periodicals etc)
- Encouraging faculty in participating different FDPs/Conferences/Workshops/Seminars etc. by availing On Duty Leaves
- Nurturing faculty by senior faculty to smoothly conduct the newly assigned subjects
- Having collaborations with national and international organizations.

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.

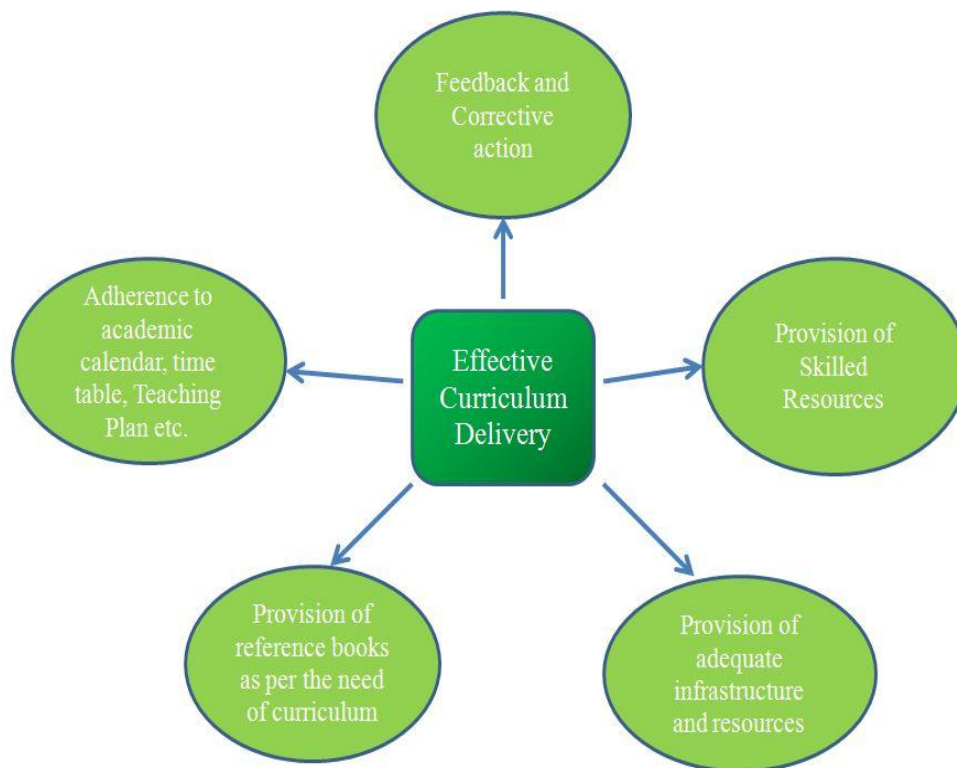


Fig 1.1.4.1: Effective curriculum delivery system

- The faculty adheres to the Academic Calendar, Timetable and Teaching Plan
- Extra practical and lecture sessions are conducted for directly admitted second year diploma students.
- Extra tutorials sessions are carried out for courses with Mathematical orientation.

- Online MCQs practice is generally practiced through applications like my examo moodle.
- Use of NPTEL, video lectures for a course.
- Faculty gives lesson plans, time- table, course materials, question banks, Test marks and the attendance to students regularly/ Displayed on Notice Board.
- Feedback related to Teaching-Learning Process is taken from students. Department Academic Monitor and Head of the Department analyze the feedback and take the corrective actions.
- The students can access to their attendance reports, continuous assessment report and test marks timely.
- Teacher Guardian communicates attendance and progress reports to parents on weekly/monthly basis. There is a TG for every 20 students. TG interacts with the allotted students to solve their problems, guide them and motivate them for over all development.
- The Library has a rich collection of reference books needed by all departments. Library timing is done from 8.00 am to 8.00 pm for all working days of the college.

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

- Research & Development (R & D) Cell and Industry Institute Interaction (III) Cell of the Institute are regularly enhancing their network with research organizations and industries. Corrective actions like MOU signing, Entrepreneurship Development Cell (EDC) activities, sponsored projects for BE, various events in consultation with industry are planned in tune with the curriculum. Sponsored projects from industry are allowed for implementation as BE project towards the partial fulfillment of the Bachelor’s Degree
- The institute has signed up Memorandum of Understanding (MOU) with companies from different domains. It organizes training sessions under these MOUs. This helps students to enhance their technical skills required by the companies.

Table 1.1.5.1 Inputs taken from various beneficiaries

Name of The Beneficiary	Advice	Action Taken
Industry	Students are lagging in aptitude and communication skill.	Aptitude as well as communication improvement sessions are arranged.
Research Body	Separate resources required for researcher (Students/Staff).	Departmental Research Labs are formed.

Table: 1.1.5.2 MOU signed by the Institute:

Sr. No.	Department	Count
1	Civil Engineering	8
2	Computer Engineering	6
3	Electronics and Telecommunication Engineering	6
4	Mechanical Engineering	10
Total Count		30

Table 1.1.5.3 BE projects sponsored by companies

Year	2016-17	2015-16	2014-15	2013-14
BE Sponsored Projects	7	19	5	5

- Organization smoothens the activity of getting in touch with industry through their contacts/ friends/ alumni and plan different programmes under it.
- The institute has well established Training & Placement Cell which looks after placement and works in coordination with Industry Interaction Cell. It gives feedback from industry. It reflects a skill set to be acquired by the students.
- The institute has an Entrepreneurship Development Cell (EDC). This cell encourages and support young entrepreneurs. Many industry interaction programs are organized under EDC.
- The institute has a Technology Business Incubation (TBI) unit. It is designed to assist companies in the early stages of development and to the greatest extent possible.

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.)

Number of experienced faculty of the Institute is Chairman of various subjects at various departments appointed by BoS at university.

Table: 1.1.6.1 BoS Members

Role	No. of faculties
BoS Members	02
Subject Chairman	04
Paper Setter	09
University FDP Attendee	24

Please refer Annexure 1.1.6 for details

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.

No, All the courses are conducted under affiliating University SPPU. If any changes in the curriculum is designed and circulated to affiliating colleges by BOS.

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

The institute ensures the completion of COs and POs by various processes. During this, academic hierarchy is maintained to make the process effective and efficient.

The POs (Program Outcomes) are as follows;

- The engineering graduate will be capable of applying the engineering concepts and knowledge wherever required.
- The graduate will be proficient in problem analysis, design and development of solutions for complex problems using modern tools.
- Understand the impact of professional engineering solution in societal and environmental context and demonstrate the knowledge and need for sustainable development.
- Learn and apply professional ethics in engineering practices.
- Proficient in working as an individual as well as a member or leader of a group.
- Communicates solutions on engineering problems efficiently with engineering community and society.

Methods to ensure that the stated objectives of curriculum are achieved in the course of implementation are as follows;

- All the faculty members strictly follow the teaching plan for the successful implementation of syllabus.
- Unit tests and preliminary tests are conducted regularly for improvement of students.
- Faculty members continuously assess the students based on their performance during academic activities.
- Assisting weak students and encouraging bright students.
- Smooth conduction and result analysis of nit tests and prelim exams is ensured.
- Faculty arranges guest lecture for respective course as per the need of syllabus.
- Content beyond syllabus is covered through guest lectures, videos, industrial visits, etc.

The process is developed to calculate the attainment of learning outcomes is as follow

- Course Outcomes (CO) for each subject are decided by respective subject teacher before the commencement of the semester.
- Analysis of POs is carried out against each course outcome and POs are rated on the scale of 1 to 3 based on their attainment as shown in table number 2.5.6.1.
- Later on average of each PO is calculated based on all course outcome of that subject. Thus we get the clear idea of attainment of that PO.

- Further the table is prepared for the attainment of Pos for that year as shown in table number 1.1.8.1.

Table No. 1.1.8.1 Example of CO-PO mapping

Course Code	Course Name											
Course Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO201.1	1	2	3	3	3	2	3	2	3	3	3	3
CO201.2	1	2	3	3	3	2	3	2	3	3	3	3
CO201.3	2	3	3	3	2	2	2	1	2	2	1	3
CO201.4	1	2	2	2	2	1	1	-	2	1	2	3
CO201.5	1	2	3	2	3	2	2	-	3	2	3	3
CO201.6	3	3	2	2	1	2	1	1	2	2	1	3
CO201	2	2	3	3	2	2	2	1	3	2	2	3

CO – Computer Branch, 2 – Semester, 01 – Subject no, .1 – Course outcome number

Table No. 1.1.8.2 Example of Program Outcome Attainment

Division	Course Code	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	PO 10	PO 11	PO 12
S.E.(A)		2	2	3	3	2	2	2	1	3	2	2	1
		3	2	3	-	3	2	2	1	2	3	2	3
		2	1	3	3	2	1	2	1	3	2	1	3

Program Outcome Attributes:

- PO1. Engineering knowledge
- PO2. Problem analysis
- PO3. Design/development of solutions
- PO4. Conduct investigations of complex problems:
- PO5. Modern tool usage
- PO6. The engineer and society
- PO7. Environment and sustainability
- PO8. Ethics
- PO9. Individual and teamwork
- PO10. Communication
- PO11. Project management and finance:
- PO12. Life-long learning

Justification:

- **Slight:** The contextual knowledge of the subject is not sufficient for building professional ethics.
- **Moderate:** The subject contents sufficiently apply the knowledge of mathematics, science, engineering fundamentals and helps to identify and formulate complex engineering problems. The subject knowledge helps to assess societal and health issues and facilitates in project management using modern tools.

- **Substantial:** The subject contents strongly help in designing solutions for complex engineering problem and also help for conducting research experiments. Applying the subject knowledge, student can effectively function as an individual or team member and possesses the potential for lifelong learning.

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.

Goals and objectives of the certificate/diploma/skill development courses, etc. offered by the institute are as follows:

- To bridge the gap between curriculum and industry needs.
- To make engineers respond to current and future needs of industries.
- To add value in overall knowledge of students on recent trends and technologies.
- To develop students with positive attitude, skill and qualities of self-confidence.
- To create interest in higher studies as well as research.

Apart from the courses affiliated to SPPU, institute offers certification courses which provide useful value addition to students. These courses enhance the employability skill of the students.

In the institute, Skill development program is offered to the personnel from government or private background, in the area of Waste Water Management. This is carried out at the Sewage treatment Plant present in the institute campus. For this skill program, the MOU has been signed with 'Reya Group Pty. Ltd.' and 'Australian Institute of Water Sciences Pty. Ltd., Australia' under which, few faculty members of Civil Engineering Department are trained, to train the personnel attending the program.

- To create academic awareness in different field skill development courses are introduced.

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

NO. The institute does not provide any dual degree, as all programmes are affiliated to SPPU.

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.

A wide range of Elective subjects are offered by the university. To develop generic attributes relevant to a career for the students, the SPPU offers core subjects that are mandatory along with a wide range of electives from which the college opts for selective elective subjects. The student's choices of elective subjects are always discussed beforehand.

Table: 1.2.3.1 Electives offered by SPPU

Sr. No.	Core / Elective offered by University	Offered by College
Civil Engineering Department		
1	Elective – I 1. Structural Design of Bridges 2. Systems approach in Civil Engineering 3. Advanced Concrete Technology 4. Architecture & Town Planning	1. Architecture & Town Planning, 2. Systems approach in Civil Engineering,
2	Elective – II 1. Matrix Method of Structural analysis 2. TQM & MIS in Civil engineering 3. Earthquake Engineering	1. TQM & MIS in Civil engineering 2. Earthquake Engineering
3	Elective – III 1. Advanced Structural Design 2. Advanced Foundation Engineering 3. Hydro power Engineering 4. Air Pollution Control 5. Finite Element method in Civil Engineering	1. Air pollution control 2. Advanced foundation engineering.
4	Elective – IV 1. Construction Management 2. Advanced Transportation Engineering 3. Statistical Analysis & Computational methods in Civil Engineering 4. Open elective	1. Construction Management, 2. Plumbing Engg. (Open elective)

Sr. No.	Core / Elective offered by University	Offered by College
Computer Engineering Department		
1	Elective – I 1. Image Processing 2. Computer Network Design and Modeling 3. Advanced Computer Programming 4. Data Mining Techniques and Applications	1. Data Mining Techniques and Applications 2. Computer Network Design and Modeling
2	Elective – II 1. Problem Solving with Gamification 2. Pervasive Computing 3. Embedded Security 4. Multidisciplinary NLP	1. Pervasive Computing 2. Embedded Security
3	Elective – III 1. Mobile Computing 2. Web Technology 3. Cloud Computing 4. Cyber Security	1. Cloud Computing 2. Web Technology
4	Elective – IV 1. Business Analytic and Intelligence 2. Operations Research for Algorithms in Scientific Applications 3. Mobile Applications 4. Open Elective	1. Mobile applications 2. Business Analytic and Intelligence
Electronics and Telecommunication Engineering Department		
1	Elective I 1. Digital image processing 2. Embedded systems and RTOS 3. Software Defined Radio 4. Industrial Drives and Control	1. Digital image processing, 2. Embedded Systems and RTOS
2	Elective II 1. Multi-rate and Adaptive signal processing 2. Electronic Product Design 3. PLCs and Automation 4. Artificial intelligence	1. PLCs and Automation 2. Electronic Product Design

Sr no	Core / Elective offered by University	Offered by College
3	Elective III 1. Speech and Audio signal processing 2. Audio and Video Engineering 3. RF circuit design 4. Soft computing	1. Audio and Video Engineering 2. Speech and Audio signal processing
4	Elective IV 1. Biomedical signal processing 2. Nano Electronics and MEMS 3. Detection and Estimation Theory 4. Wireless network 5. Open elective	1. Wireless Network 2. Biomedical signal processing
Mechanical Engineering Department		
1	Elective I 1. Energy Audit Management 2. Tribology 3. Reliability Engineering 4. Machine Tool Design	All
2	Elective II 1. Gas Turbine Propulsion 2. Product Design & Development 3. Operational Research 4. Advanced Manufacturing Processes	All
3	Elective III 1. Ref. and Air Cond Equipment Design 2. Robotics 3. Industrial Engineering 4. Open Elective	All
4	Elective IV 1. Computational Fluid Dynamics 2. Finite Element Analysis 3. Design of pumps, blowers and Compressors	All

Credit Based System and range of subject options:

Credit Based System (CBS) is implemented in UG from Academic year 2015-16 and in PG from academic year 2012-13.

Lateral and vertical mobility within and across programs and courses

Lateral mobility facility is available at second year level, if a student wishes to change the allotted programme. The students can avail interdepartmental facilities so as to

prepare them to understand concepts and apply their knowledge and experience globally.

Lateral entry for direct second year is availed by the students as per the DTE and University guidelines.

Table 1.2.3.2: Summary of direct second year admission

Year	Departments			
	Civil	Comp	E & TC	Mechanical
2016-17	128	25	7	235
2015-16	112	27	25	208
2014-15	121	50	56	193
2013-14	46	29	33	81

Enrichment courses:

- Every department of institute conducts skill based training programs and enrichment courses with or without collaboration with industry.
- All programs are meant for students to gain skills during their academics. The programs have been benefitting the students.
- Large number of students is getting placed in reputed companies because of these enrichment courses.
- Details of enrichment courses offered by the institute are as follows.

Table 1.2.3.3: Enrichment courses

Sr No	Name of Events	Date	Duration	Topic Covered	No of participant
Mr. S.S. Deshmukh (Dept of Civil Engineering)					
1	Bridge Design Training	23/2/2015 to 24/2/2015	2 Days	Bridge design	62
2	Tall building design workshop	10/3/2016 to 11/3/2016	2 Days	Tall building design	28
Ms. S.N. Maitri (Dept. of Computer Engineering)					
1	Zensar ESD -3 Advance Training .NET	6/12/2016 to 16/12/2016	10 Days	Advance .NET	35

Sr No	Name of Events	Date	Duration	Topic Covered	No of participant
2	Aptitude Training	20/1/2017 to 24/1/2017	4 Days	Aptitude	22
Ms. D.D. Kulkarni (Electronics & Telecommunication Engineering)					
1	EDA Tools-PROTEUS Software	18/3/2014 to 19/3/2014	2 Days	PCB Layout and design	52
2	Embedded Linux, Development tools	25/9/2014 to 26/9/2014	2 Days	Theory and Programming	28
3	Embedded processors-Hands on training	10/9/2015 to 11/9/2015	2 Days	ARM 7, ARM 9 Programming	30
Sr No	Name of Events	Date	Duration	Topic Covered	No of participant
4	PLC & SCADA	3/3/2016 to 4/3/2016	2 Days	Details of SCADA Language Programming	29
5	ARM cortex	24/3/2017 to 25/3/2017	2 Days	Theory and Programming	24
Mr. S. S. Mulik (Mechanical Engineering)					
1	Matlab	10/2/2015 to 11/2/2015	2 Days	Matlab Simulink, Basic coding	40
2	ANSYS	1/6/2014 to 31/8/2014	3 Months	Parametric modeling, static and dynamic analysis.	25

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

No. The institute doesn't offer any self-financed programs.

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

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

- The institute has signed MOUs with various companies.
- The institute arranges entrepreneurship development programs, to develop entrepreneurship qualities amongst the students.
- The training and placement officer of the institute is constantly in contact with different companies, from which he collects the industry requirements and conveys the same to concerned HODs and programs are planned according to it.
- Some of the NSDC and MSDC program are conducted in campus.

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?

Yes. Institute has taken an initiative to start NSDC program from current year, as per the government guidelines.

For this, the institute has studied the Skill gap report of Pune District and has identified the skill courses which can be run at the institute. High level talk is currently in process with industries in various sectors like IT, E & TC, Capital goods, Construction and Automobile. The final proposal will be sent to NSDC for approval and then after, respective skill courses will be started at the institute to meet the industry needs.

AICTE encourages to attend webinar for different central Government scheme and are organized in our institute.

1.3 CURRICULUM ENRICHMENT

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

An academic calendar is prepared semester-wise by an academic dean in consultation with all Heads of the departments. It consists of detailed plan regarding the syllabus completion milestones and the exams based on them, academic holidays mentioned in the University circular, any major events planned in the respective semester. Apart from the formulated curriculum of the university, an institute has undertaken following activities to fulfill the gap for achieving the institute’s goals and objectives.

- Guest lectures delivered by experts from industry and academic background.
- Soft skills and personality development programs.
- Various workshops, seminars, webinars, etc.
- Various value added programs for enhanced employability.
- Organizing site visits and industrial visits.
- Organizing skill development activities like aptitude tests and employability skill development courses by Zensar.

- Remedial classes for weaker students.
- Faculty development training program by eminent academic personalities.
- Various activities under different cells of student council.

Table 1.3.1.1: supplementary events conducted

Year	2016-17	2015-16	2014-15	2013-14
Supplementary events conducted	23	19	15	11

For details refer Annexure 1.3.1

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?

Our institute has also made efforts to enrich employability skills of students to make them survive in this competitive world. The Training and Placement (T&P) cell of institution is constantly reviewing the requirements of different companies and conveying the same to respective departments. According to that, the activities are likely to be arranged for students in the campus itself. Students undergo different internship Programs and Company trainings. An institute is bound to:

- Provide choice of open electives to the students
- Organize industrial visits, site visits to enrich their practical knowledge and skills.
- Implement Student Training Program for better employability
- Implement various value added programs for student’s technical enrichment
- provide a platform to interact with industry people through Industry Institute Interaction cell

Following Table represents total count of internship programs, Industrial Visits and Conferences.

Table no. 1.3.2.1 Total count of internship programs, Industrial visits and Conferences

Year	2016-17	2015-16	2014-15	2013-14
Internship Programs and Company trainings	41	41	13	1
Industrial Visits	24	21	19	19
Conferences	1	1	0	0
STP	14	24	25	32

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?

To integrate the cross cutting issues various awareness programmes are arranged for staff and students in the institute.

Gender Issues:

- Institute has established ‘Gender Equality Committee’, ‘Anti-sexual & Women Harassment Committee’ and ‘Women Empowerment Committee’.
- A Student Grievance Cell exists in all departments to address any issues related to student’s grievance.
- Counseling is provided to students by guardian faculties.
- Boys and Girls Common rooms are provided with first aid boxes.
- Objectives of Gender Equality committee should be mentored.

Climate change:

- The institute is located in a lush green campus away from the city and efforts are taken for its maintenance for reducing the adverse climatic changes due to pollution.
- Environmental club has been established in the institute, which regularly carries out activities like tree plantation in overall campus.
- Awareness is spread through display boards for implementation of economy measures for electricity, plantation, water and stationery saving.
- Awareness program is arranged for reduction of plastic based things.
- Rough pages are utilized for printing.
- A central switch is provided for disconnecting the power supply.
- Saplings are presented to the dignitaries visited to institute as a concern towards environment.
- Attempts are made to promote internal communication through e-mail.
- Waste Water Recycling plant is constructed in campus.
- Standard practices are carried out for disposal of waste.
- A modular course on environmental education at First Year Engineering curriculum
- World Environment Day, Earth Day, Water Day etc are celebrated in the institute campus.
- Creating awareness through various events like tree plantation and guest lectures.
- Environmental club is started for above listings.

Human Rights:

- Scholarship schemes from Government of Maharashtra are implemented as per the norms.
- Scholarship is provided to the talented students of the institutes.
- Initiation on Grievance Cell, Anti ragging Activity Cell, Cell against Women sexual harassment.
- The exposure regarding rights of Human and Women is made by organizing relevant program.

ICT:

- Wi-Fi connectivity and Browsing Centre
 - Class rooms equipped with LCD and Internet
- } Purpose for curriculum delievery mechanism

CSR activity:

- Road Safety Programme – Ethical and Moral value.

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

Different cultural events are arranged in the institute during “K J Youth Fest”. It is the most awaited event of the year. Students can show their technical as well as non-technical talents through this. It consists of many technical events like poster presentation, Robo-war, Games like Talent Hunt, quizzes, etc. Along with these, there are different cultural events viz., Groupdance, solodance, streetplay, one-act play, Fashion Show, Fun fair activities. It gives the platform to students to showcase their talents in different areas.

- Different sports are arranged in KJ Karandak like Cricket, Foot ballet to improve student's team spirit, management skills as well as health. Indoor games like Badminton, Carrom, Chess etc. are also planned during the same.
- Institute organizes the “YANTRA”, this includes all the technical events to storm student's brains beyond threshold.
- The institute facilitates the students to participate in “FIRODIYA KARANDAK”. The competition usually address the current social issues creating awareness about the community.
- STP is a well organized training program for students which help them in employment.
- Under CSR (Corporate Social Responsibility) Cell, various activities are conducted like Blood Donation camp, funds collection for natural calamity affected areas, etc. This helps the students to understand their responsibilities towards the society.
- Various Value added programs are arranged in the institute like MATLAB Training, ANSYS, PLC SCADA, etc. For details, refer Table no. 1.2.3.3.

Moral and ethical values

- Observance of International yoga day and conduction of yoga seminars.
- Observance of Days of National Importance.
- Seminars on Cyber security and ethical hacking.
- Seminars and for the physical, mental, emotional and spiritual development of the students.
- Speech on Employable and life skills.
- Continuous efforts through Lecture series and orientation by T& P Cell and faculty coordinators.
- Conduction of Aptitude Tests.
- Guest Lectures, Seminars, Presentations are encouraged for improving the presentation skills.
- Existence of Entrepreneur Development Cell.
- Seminar by well-known foreign university for higher studies.
- Conduction of Job Fair.
- Conduction of Open Campus placements.
- Orientation by companies on campus.

- Community orientation.
- Organizing and participating in Blood Donation Camps
- Organizing activities like Tree Plantation

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

The institute collects feedback from stakeholders for enriching the curriculum in following manner.

- Mid-semester and End-semester online feedbacks are taken from students.
- Alumni feedback is taken during Alumni meet.
- Feedback is taken from recruiters when they come for campus recruitment.
- Parent's feedback is taken during parent's meet.

The inputs are obtained from stakeholders regularly and further used for enriching the curriculum that helps in increasing the competency of the students. These feedbacks are conveyed to respective HODs and required actions are taken for the same.

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

Feedback by students related to value added programs both formally and informally certifies the quality of a programme. The institution has a very clear and transparent way to monitor and evaluate the quality of various enrichment Programs initiated by it. The feedback in the form of online feedback/interactions/discussions and suggestions are collected and submitted to the Heads of the department. The feedback is analyzed and suggestions are incorporated in the future programs. The Institute IQAC makes sure that these programs contribute to National development, fostering global competencies among students, inculcating a value system among students, promoting the use of technology and quest for excellence. Refer annexure 1.3.6 for feedback and curricular enrichment details.

The integrated framework for quality assurance of academic and administrative activities is displayed in the following figure no. 1.3.6.

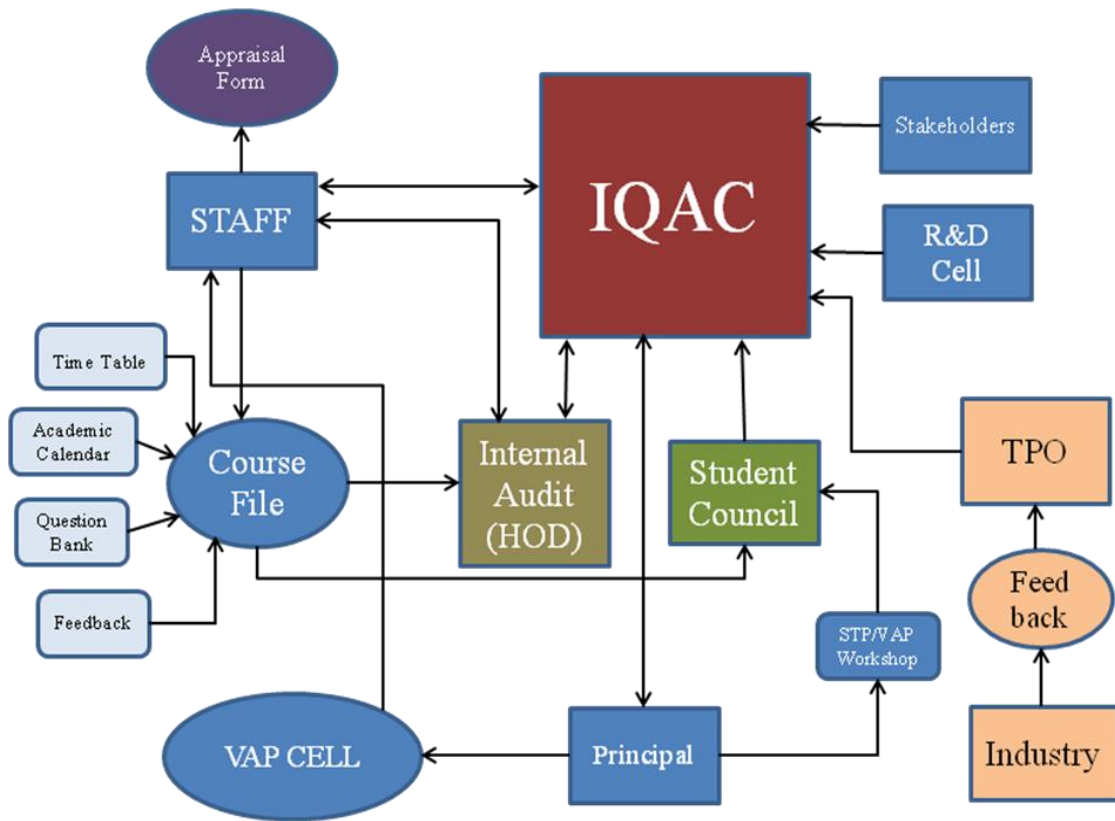


Figure 1.3.6: Functioning of IQAC

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 of the Institute are involved in revising, framing and drafting the curriculum at various levels as academic council member, BoS chairman, course chairman, experts and paper setter. Apart from this, the teachers also participate in Syllabus- revision workshops organized by various colleges/ institutes.

Table 1.4.1.1. Contribution of faculties

Sr No	Faculty	Recognition
1	Dr. V.M. Wadhai	Principal
2	Dr. V.J. Kakhandki (Mech)	BoS Chairman SPPU
3	Dr. H.R. Kulkarni (Physics)	BoS Member SPPU Subject Chairman-Engg. Physics Paper Setter
4	Mr.S.S. Mulik (Mech)	Syllabus Finalization Committee Member: CONM, TOM,DOM, Mechatronics Subject Chairman: Mechatronics

Sr No	Faculty	Recognition
5	Ms. S. N. Maitri (Comp)	Paper Setter
6	Mr. S. P. Nalawade (Mech)	Syllabus Finalization Committee Member: THM, PPE, RAC ; Paper Setter
7	Dr.N.J.Sathe(Civil)	Subject Chairman : Geology; Paper Setter
8	Mr. S.S.Khonde (E&TC)	Subject Chairman : DSA Paper Setter
9	Mr. M. M. Moog (Mech)	Paper setter
10	Mr. K. H. Ghorpade (Civil)	Paper setter

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 formal mechanism to obtain feedback from the students and stakeholders. The process is as follows:-

The Institute takes feedback on curriculum from the different stakeholders like students, parents, alumni, industry in a pre defined feedback format.

These feedbacks are gathered and analyzed by the Domain Heads and concerned subject in charge.

These are discussed by the Domain Heads with the HOD.

Also, Institute organizes various guest lectures, events, content beyond syllabus bits to enrich the curriculum.

Table 1.4.2.1: Received Feedbacks and Corrective Actions Implemented

Sr. No.	Target	Feedback Comments	Corrective actions
1	Alumni	Arrange more industry interaction for practical knowledge	More focus is given on practical knowledge for this purpose arranging visits to service station, industrial visits etc.
2	Alumni	Difficulty in clearing aptitude tests	Arranged lectures on Aptitude, interview techniques, personality development.
3	Parent	Give more practical knowledge	Arranged expert lectures, visits.

Sr. No.	Target	Feedback Comments	Corrective actions
4	Student	Take value added courses beyond University syllabus	Arranged ANSYS and MATLAB courses.
5	Industry	Graduates are lacking software knowledge, which should be focused on.	Software Training Programs are arranged.

Please refer Annexure 1.4.2 for details.

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.

Institute has introduced 2 PG programmes during the last three years to enable engineers to be empowered for facing the challenges of the technical world in specific and satisfy the needs of the society at large.

Table no. 1.4.3.1 new introduced programs.

Sr. No.	Course	Year	Intake
1	ME (Civil) Construction Management	2014-15	24
2	ME (Mechanical) Design Engineering	2014-15	24

The rationale for introducing the new programmes are-

- Need of skilled engineers – Construction activities in Pune region / Auto Hub in MIDC Chakan.
- Enhancing analytical and designing skills towards a technical real time problem.
- Opportunity for exploration, research and to become innovators and visionaries.
- Thus ultimate aim of the curriculum of the various programs of the institute is to transform teaching learning process in to ‘Learning factory’, to produce capable engineers with aptitude for research and leadership.

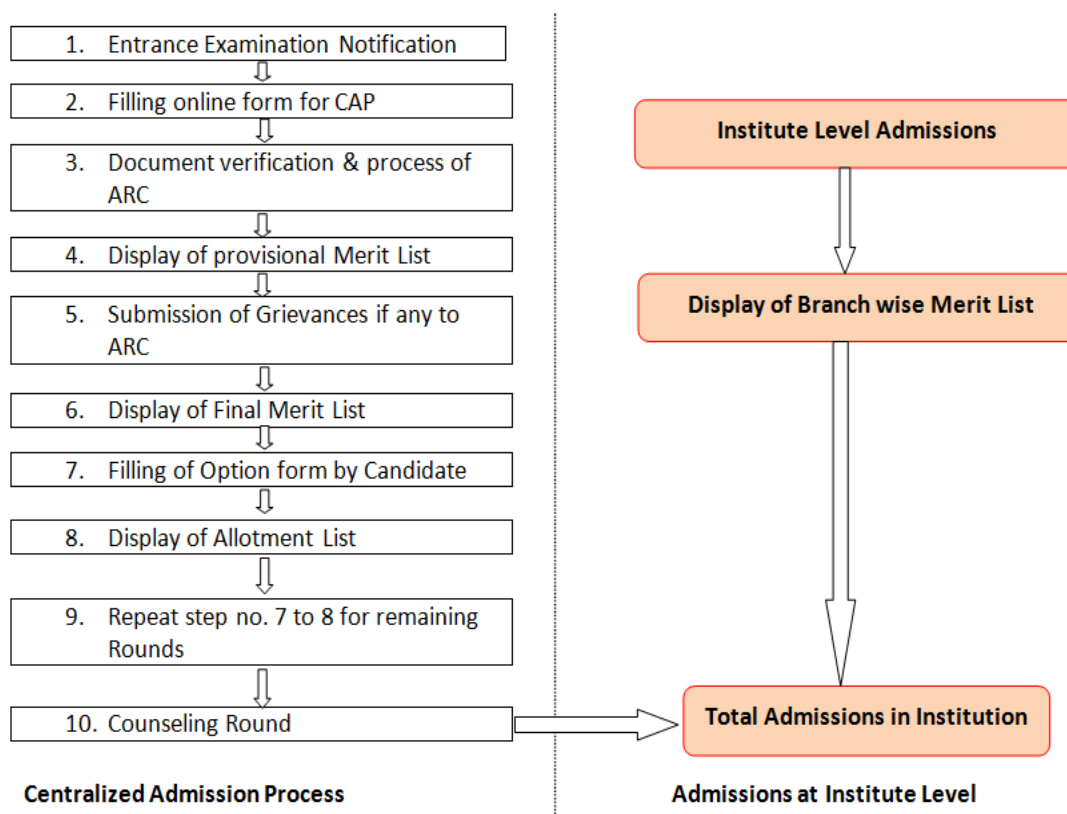
CRITERION II: TEACHING LEARNING EVALUATION**2.1 Student Enrollment and Profile****2.1.1 How does the college ensure publicity and transparency in the admission process?****Publicity:**

- Admission notifications are given by the direct technical education, Maharashtra on their website <http://www.dtemaharashtra.gov.in/fe2016/StaticPages/frmImportantDates.aspx>
- The institute continuously offers the advertisements in leading State and country level news papers at the time of admission process. The advertisement contains detailed information about courses, eligibility, process of admission and academic as well as support facilities.
- Admission process publicity is followed by education fair tie up with country level news papers.
- The Publicity seminar is done at the prime locations in Pune & nearby areas by establishing the desk.
- The seminar on general awareness about education in engineering is delivered to various schools & colleges with innovations done in various branches in engineering.
- Admission process mentioned on college website <http://www.kjei.edu.in/tae/> Institute provides all the relevant information to the student through separate admission cell. The admission cell also provides the guidance for parents as well as students about the scope of engineering courses and its importance in future.
- ERP System is deployed to ensure the admission process at institute right from registration to till student is admitted in the institute.
- Admission Cell is established to ensure smooth and systematic execution of admission process under DTE.

Transparency:

- Trinity Academy of Engineering is the part of Centralized Admission Process (CAP) which is run by DTE, Government of Maharashtra, which ensures the transparency in admission process of students.
- Out of total admission, 80% admissions are done through a Centralized Admission Process (CAP), which is online admission process by D.T.E, Government of Maharashtra. The process is fully transparent for Institutes as well as Students.
- Student can fill up the online registration form on D.T.E. website in specified time. Student can also fill up option form using online portal.
- The remaining 20% Institute intake seats are filled at the Institute level as per the admission rules of Direct Technical Education. First advertisement is given in leading news paper for Institute level quota. All the applications are collected for Institute level quota. Then according to merit admission procedure is completed. It is shown in Fig. 2.1.1.1

Fig.2.1.1.1 Admission Process for CAP and Institute Level Admission



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

- The Institute participates in CAP of DTE, Maharashtra State Government. It follows all admission rules, regulations and guidelines setup by the state government.
- The eligibility criteria for the selection of students for admission in different level of courses are as under:

Under Graduate

- 65% Students are admitted through Maharashtra State Common Entrance Examination (MHCET) as per the guideline of DTE, Maharashtra.
- 15% Students are admitted through All India Engineering Entrance Examination (AIEEE) as per the guideline of DTE, Maharashtra.
- 20% Students are admitted under Institute quota subject to having valid score in MHCET of current year.
- 20% Students of approved intake are admitted through Central Admission Process Conducted by DTE, Maharashtra for Lateral Entry in 2nd year. The rules for admission in under graduate courses are mentioned to get the overall idea of admission process about college on the Following Web site. http://www.kjei.edu.in/tae/admissions/ug_admissions.html

Post Graduate:

- The Selection Process for admission is based on the score in the national level Graduate Aptitude Test for Engineering (GATE) conducted by IITs. The detailed information about Post Graduate courses in college is given on website http://www.kjei.edu.in/tae/admissions/pg_admissions.html

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

- The following table shows the minimum and maximum % marks of admitted students in H.S.C. score for AY 2016-17. The minimum and maximum marks of admitted students are shown in Table 2.1.2.1.

Table 2.1.2.1 Minimum and maximum marks of admitted students

Courses offered in TAE	% Marks of Admitted Students	
	Maximum	Minimum
Civil	79.11	48
Computer	79	47.67
E&TC	64	46
Mechanical	95.56	45.33

- Table 2.1.2.2 & 2.1.2.3 provides a comparison with other colleges of the affiliating University within the city/district. Fig. 2.1.2.1 & 2.1.2.2 gives graph of comparison.

Table 2.1.2.2 Comparison of Maximum Marks of Admitted students

Courses	Maximum Marks of Admitted students		
	TAE, Pune	Navsahyadri College, Pune	Universal College, Sasewadi
Civil	101	79	75
Computer	113	88	86
E & TC	60	76	60
Mechanical	97	85	80

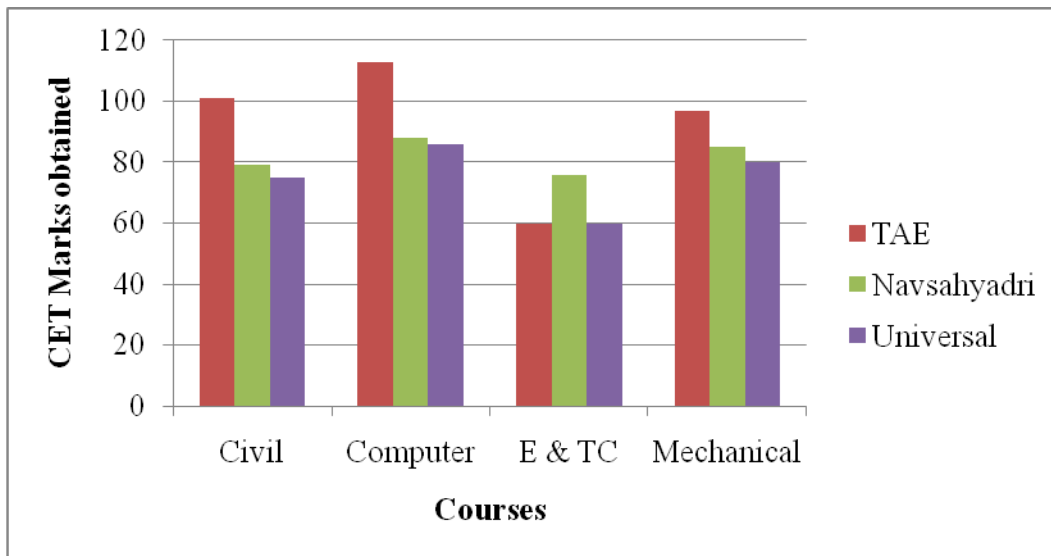


Fig. 2.1.2.1 Graphical Comparison of Maximum Marks of Admitted students

Table 2.1.2.3 Comparison of Minimum Marks of Admitted students

Courses	Minimum Marks of Admitted students		
	TAE, Pune	Navsahyadri College, Pune	Universal College, Sasewadi
Civil	13	34	40
Computer	18	33	25
E & TC	43	34	--
Mechanical	8	30	42

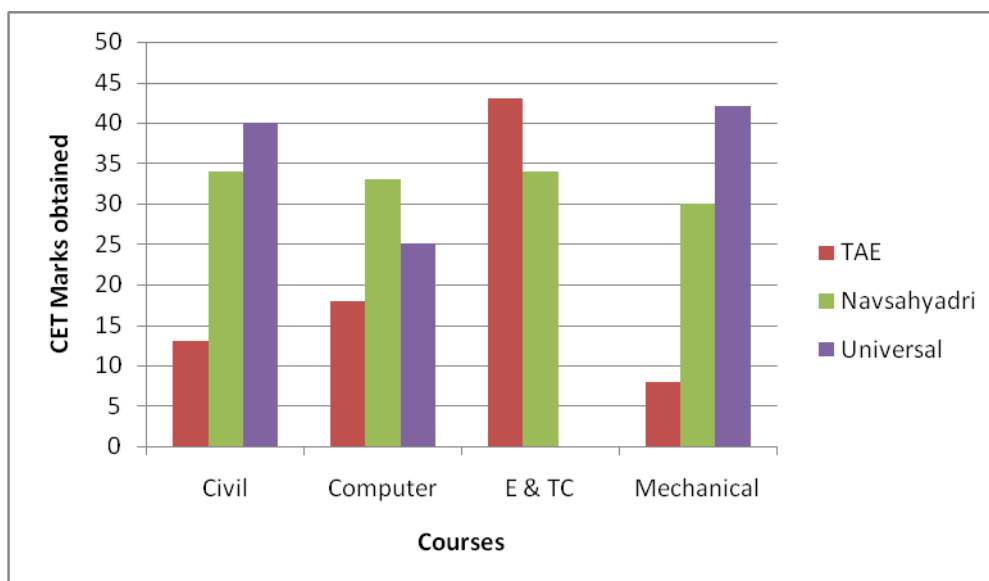


Fig. 2.1.2.2 Comparison of Minimum Marks of Admitted students

2.1.3 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 follows all the guidelines, rules and regulations of Director of Technical Education (DTE) and Government of Maharashtra for admission of the student.

The institute is having admission cell headed by Registrar and senior professor which takes care of smooth functioning of admission process.

The institute reviews the admission process and the admitted Students.

The students are also analyzed based on the Academic background, Category, Contact Details, Economic status, Gender and Representation which gives idea about the background of the student.

Outcome

- This help in understanding the students need & their background.
- The necessary support is provided to students.

Contribution to improvement of process:

- Based on the understanding of the student, institute plans for various programs to develop the students in all the respect. This also helps institute to decide the advertisement policy.
- The information about best practices in the institute is provided to students approaching for taking admission.
- The continuous improvement with annual review of teaching learning processes, qualified staff, and various training programs contributes to improve the admission process.

2.1.4 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate / reflect the National commitment to diversity and inclusion SC/ST/OBC, Women, Differently able, economically weaker sections, Minority community, any other?

- Trinity Academy of Engineering follows all rules, regulations and guidelines set up by state government body and DTE. It admits students of categories such as SC, ST, and OBC, women, economically weaker sections as per the government norms, rules and regulations.
- Institute offers the admissions under the Tuition Fee Waiver Scheme which is mainly developed for Economically Weaker Section of the society as allotted by the central admissions committee.
- Institutes Provides the assistance to get free ship and scholarship to category students.
- Institute also assists for E.B.C. Scholarship from govt. for economically weaker student as per norms of DTE.
- The Earn and Learn scheme with association of SPPU is also in practice for the economically weaker students.
- There is special reservation for the candidate of J&K and GOI (Mizoram student) as per the norms.
- The students from economical backward areas such as Gadchiroli, Chandrapur are provided with the free ship for quality education with Hostel & Mess facilities.

- **Reservation as per the DTE and Maharashtra Govt. is as follows.**
 - Scheduled Castes : 13.0%
 - Schedule Tribes(ST) : 7.0%
 - Vimukta Jati (VJ)/De notified Tribes(DT)(NT-A) : 3.0%
 - Nomadic Tribes1(NT-B) : 2.5%
 - Nomadic Tribes2(NT-C) : 3.5%
 - Nomadic Tribes3(NT-D) : 2.0%
 - Other Backward Classes(OBC) : 19.0%

Total 50 % reserved
- **Jammu & Kashmir Migrant Seats:**
One seat over and above the sanctioned intake capacity in each institute is available under the CAP.
- **TFWS Seats:**
Maximum 5% seats of sanctioned intake per course are available for admissions. These seats shall be supernumerary in nature and to be filled through centralized admission process conducted by Competent Authority only.
- **Reservation for sons/daughters of Defense service personnel:**
Five (5) % seats of the total sanctioned intake for an institute, subject to a maximum of five (5) seats in each institute coming under CAP shall be reserved.
- **Reservation for Persons with Disability Candidates:**
As per the provisions in Clause 39 of Equal Opportunities, Protection of Rights and Full Participation Act 1995, three percent (3%) seats of total sanctioned intake capacity of all the institutions coming under CAP shall be reserved for Persons with Disability candidates.
- **Reservation for Female candidates:**
30% seats available for Maharashtra State CAP shall be reserved for female candidates in all the courses of the institutions coming under CAP. The table 2.1.4.1 shows details for AY 2016-17

Table.2.1.4.1 Students admitted for A.Y. 2016-17 under CAP

Program	SC	OBC	VJNT	TFWS	OMS	ST	Open
Civil	4	4	5	3	-	1	11
Computer	3	1	-	3	-	-	9
E&TC	-	-	-	-	1	1	1
Mechanical	2	5	1	4	2	-	9

Ratio of admitted from Academic year 2012-13 to 2016-17

The ratios of Categories other than open are increasing from A.Y. 2013-14. The ratio is calculated by taking the reference of total number of Open category candidates admitted & total number. of other categories admitted. It is shown in Fig. 2.1.4.1

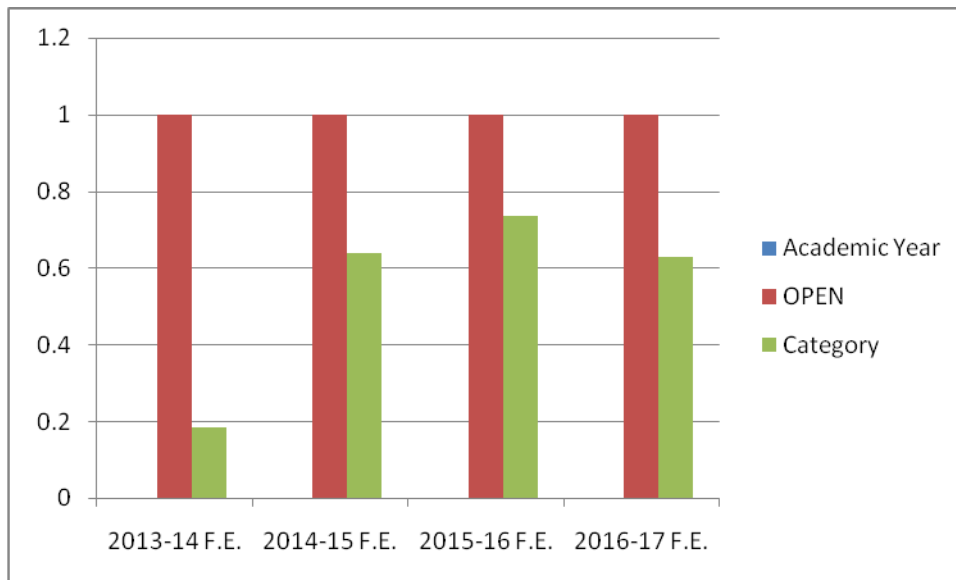


Fig. 2.1.4.1 Ratio of admitted candidates of Open category to Other Categories

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

The admission process is managed by the centralized admission process (CAP), Gov. of Maharashtra on-line counseling process and the whole process is very much transparent from the very bottom-line, i.e., students to the College authority. Students fill up both the choice of Stream and College by online counseling process followed by DTE. Table 2.1.5.1 & Table 2.1.5.2 show the Details of U.G.& P.G. students admitted respectively.

Under Graduate

Table 2.1.5.1 Details of U.G. students admitted from A.Y.2011-12 to 2016-17

Sr. No.	Name of Programs	Year	No. of Applications	Intake	No. Of Students Admitted
1	Civil Engineering	2011-12	The admission process is governed by Directorate of Technical Education Therefore this data is not available	60	23
		2012-13		60	28
		2013-14		60	20
		2014-15		60	40
		2015-16		60	25
		2016-17		60	28
2	Computer Engineering	2011-12	The admission process is governed by Directorate of Technical Education Therefore this data is not available	60	35
		2012-13		60	17
		2013-14		60	22
		2014-15		60	25
		2015-16		60	27
		2016-17		60	16

Sr. No.	Name of Programs	Year	No. of Applications	Intake	No. Of Students Admitted
3	Electronics & Telecommunication Engineering	2011-12	The admission process is governed by Directorate of Technical Education Therefore this data is not available	120	46
		2012-13		120	14
		2013-14		120	14
		2014-15		120	18
		2015-16		120	6
		2016-17		120	3
4	Mechanical Engineering	2011-12		60	60
		2012-13		60	63
		2013-14		120	104
		2014-15		120	77
		2015-16		120	53
		2016-17		120	23

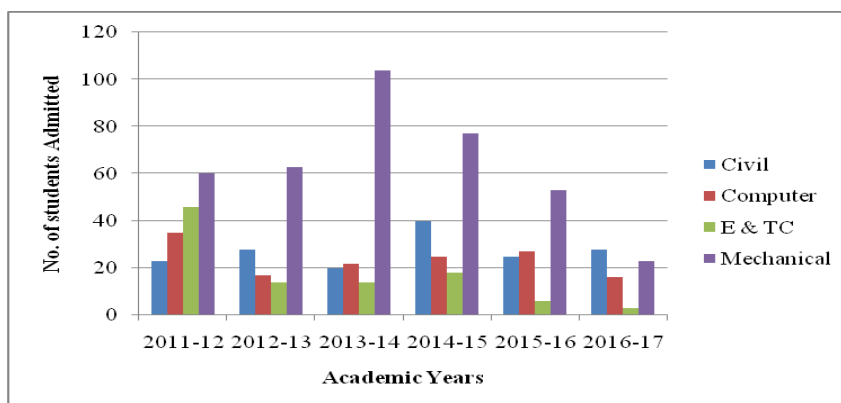


Fig. 2.1.5.1 Graph of U.G. students admitted to F.E. from A.Y.2011-12 to 2016-17

Post Graduate

Table 2.1.5.1 Details of P.G. students admitted from A.Y.2014-15 to 2016-17

Sr. No.	Name of Programs	Year	No. of Applications	Intake of Students	No. Of Students Admitted
1	Civil Engg. (Construction Management)	2014-15	The admission process is governed by Directorate of Technical Education Therefore this data is not available	24	24
		2015-16		24	24
		2016-17		24	16
2	Mechanical Engineering (Design)	2014-15		24	24
		2015-16		24	17
		2016-17		24	4

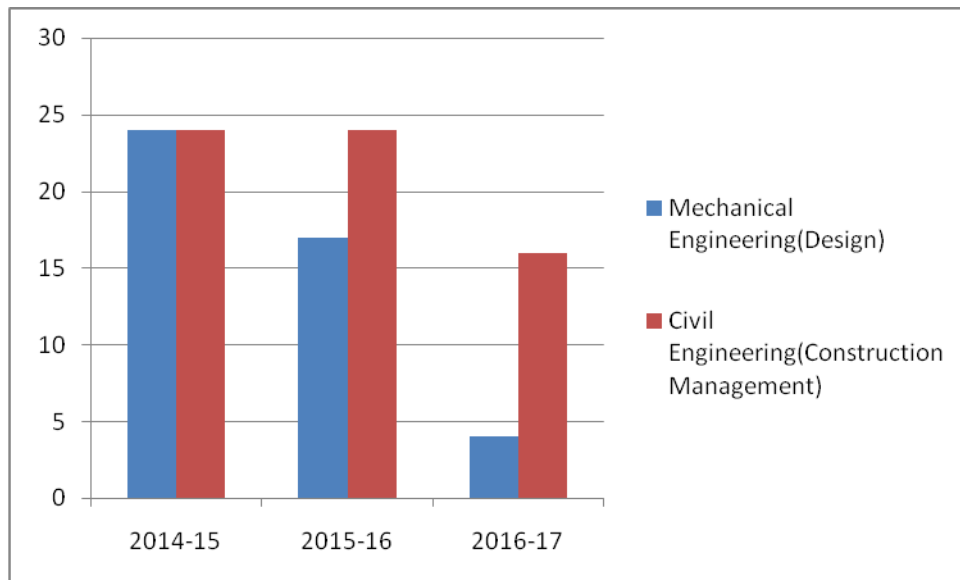


Fig. 2.1.5.2 Graph of P.G. students admitted from A.Y. 2011-12 to 2016-17

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 colleges based on the surrounding locality and placement trend of particular institute.
- Every year new colleges are establishing as well as there is increase of intake in existing colleges for various programs in the state of Maharashtra.
- Fig. 2.1.5.1 & Fig. 2.1.5.2 shows the graph of admitted students for U.G. & P.G. respectively. According to the graph following reasons found out:
- Global and national employment scenarios are mostly responsible for admissions. The students mostly select the colleges based on the surrounding locality and placement trend of particular institute.
- Every year new colleges are establishing as well as there is increase of intake in existing colleges for various programs in the state of Maharashtra.

Action initiated for improvement placement and as a result admissions:

- Providing effective training and placement activities
- SCOUT Pvt. Ltd. – Aptitude training for all Branches.
- UnGap Pvt.Ltd. – Aptitude & Soft skill Training for all Branches.
- Parineeti Foundation - Aptitude & Soft skill Training for all Branches.
- Global Talent Track, initiated by Barclays- Aptitude & Soft skill Training for all Branches.
- First Naukri – Training all Branches.
- Micro Embedded Pvt. Ltd. – Technical Training in Embedded for E&TC students.
- Indwell Automation Pvt Ltd- Technical Training in Embedded for E&TC students.
- Zensar ESD Program - Technical Training in VB.Net & Java for Comp students.
- I-CAD Pvt Ltd- Technical Training in Catia for Mechanical students.
- CAD/CAM Guru Solutions Pvt Ltd - Technical Training in CAD software for Mechanical students.
- QSpiders Pvt Ltd- Technical Training in Software Testing for E&TC, Mechanical, Comp students.

- WAHAN Eng & Electromechanical Pvt Ltd - Technical Training in Mechanical, Electrical & Plumbing(MEP) for E&TC, Mechanical, Civil students.
- Conducting value added courses in consultation with Industry Organizing awareness programs.
- Counseling before and during admission process.

2.2 Catering to Student diversity:

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

In order to cater to the requirements of differently-abled students, support is always been provided by the college as follows:

- Ramp ways are provided at appropriate places for easy movement.
- Preferential treatment is given to students in the classrooms, laboratories and library.
- Special arrangements are made at the time of examination.
- Extra time is also given to such students in examination as per directives of SPPU.
- Special attention and support is provided.
- The Institute abides by the government policies regarding admissions. It is based on centralized admission process where merit list based on CET in state of Maharashtra and JEE mains conducted across the country.

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

Yes, the institution assesses the student's needs in terms of knowledge and skills before the commencement of Program in following manner.

- The qualifying marks and the score of students admitted are analyzed for understanding the need and background of the student.
- First Year students undergoes FE Induction program where awareness is created in students and parents about educational curriculum.
- Information on rules and regulations of Institute and University is given to the students on the very first day of college.
- The students are also get introduced with the institute and department and also made aware about the different facilities and training programs available.
- Induction program is carried for direct second year students on academic structure and course curriculum.
- Identification of direct SE slow learner students is done on the basis of diploma results.
- Motivation and support is provided to slow learners.
- In order to identify background of students, help them to cope with college environment, assist them in their studies and to monitor their academic performance regularly, Teacher Guardian is appointed for every batch of students.
- At second year level, foundation training for critical subjects as well as laboratories is conducted to cope with the subjects and challenges.
- At the beginning of the semester, the first lecture of each course is devoted to motivate the students to develop their practical attitude towards the subject.
- The institute provides guidance for final year and ME students to help them on the

issues like selection of project work, literature survey, finding the gap from literature survey, defining the research problem, developing the methodology and writing the paper and project report/dissertation/thesis.

- Contents of student training programs (STP), Value Added Programs are finalized.
- Institute assesses student’s needs in terms of General Knowledge, Technical Knowledge based on Physics, Chemistry & Mathematics, Market Trends Knowledge and need of the companies of their branches.
- Institute also assesses student’s needs in terms of Technical, Communication, Soft, Entrepreneurial and Presentation Skills before the commencement of program.

STP Details

Table 2.2.2.1: Details of STP

Sr. No.	Program Particular	Contents	Target Audience
1	STP-1	Personal and Career Goal Setting, Behavioral Skills, Public Speaking, Presentation Skills, Resume Writing, Listening Skills, Group Discussions, Report Writing, Letter/ Application Writing	SE
2	STP-2	Listening Skills Session Reading Skills Session Writing Skills Session Speaking Skills Session	SE
3	STP-3	Signal Processing 1, Programming Language, Electronic Circuit Design, Embedded System.	TE
4	STP-4	Group Discussion Personal Interview Assembly and disassembly of Mechanical system like I/C engine and M/C Tool System Skills in varies processes involve in mechanical system like RAC equipment, Hydraulic Pneumatic system	TE
5	STP-5	Value added Program	BE

Table 2.2.2.2: Details of STP (Yearwise)

Academic Year	Number of STP
2013-14	14
2014-15	24
2015-16	25
2016-17	32

VAP Details:

Table 2.2.2.3: VAP Details

Sr. No.	Topic
Mechanical Department	
1	MATLAB
2	MASTERCAM Workshop
3	ANSYS Workshop
4	Introduction to FFT Analyzers and Challenges
5	Course on Fundamentals of Engineering Graphics
6	Course on Material Science and Mechanical Behavior of Materials
7	Course on Energy Audit
8	Course on Advanced stress analysis
10	Challenges and opportunities of CFD
11	Course on Program development in Numerical Methods and Optimization
12	Advances of Mechatronics
13	Course on Product Design and Development
14	Advances in Mechatronics
15	Course on Advanced Mechanical Vibrations
18	Automation studio
19	Recent trends in Refrigeration and Air Conditioning Industry.
20	Workshop on Confidence, Concentration & Personality Development
E&TC Department	
1	EDA Tools PROTEUS Software.
2	Embedded Linux Development Tools
3	Hands on Training on Embeded Processors
4	CCNA Course
5	Automation Course
Computer Department	
1	Zensar Employability Skills Development Program
2	Aptitude Training
3	Hadoop Workshop
4	Soft Skills Training
5	Routing and Network management
6	Android workshop
Civil Department	
1	Basic of AutoCAD
2	AutoCAD workshop
3	Hit Office

Refer Annexure 2.2.2.3 for details of VAP.

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

Different strategies are adopted by Institute to bridge the knowledge gap of the students.

- Induction Program: The institute conducts orientation program on very first day of commencement of program at institute level and department level.
- At institute level programs, students are made aware about the recent trends in industries and information about the engineering branch opportunities etc. by eminent personalities. Then they get introduced with the college and different facilities in college.
- In department level programs, they get introduced with the respective department and guided by the eminent personality in the respective field.
- Separate batch for Lateral entry: Lateral entry students are admitted after the start of 3rd semester. A separate batch is formed for these students and special efforts are taken to conduct their academics.
- Academic Plans: Institute follows prescribed curriculum and the faculty members prepare course file containing academic calendar, syllabus, teaching plan, question bank, question papers before commencement of semester so that they can make the students aware of their respective curriculum effectively.
- Institute –Industry Interaction: The inputs are also taken by industry persons and MOU with reputed companies.
- Industrial visits/Technical training: Knowledge sharing through technical training, industrial visit, etc. helps student updated.
- Domain committees: The department has different domain committees who review the curriculum and find the gap between curriculums to meet the targeted program outcomes.
- Expert Lectures: The Expert lectures and events are planned to bridge the gap and made part of the academic curriculum. This ensures the fulfillment of Institutional academic and employability objectives.
- STP/VAP: Student Training programs (STP), Value Added Programs (VAP) are finalized before the commencement of semester and conducted in respective departments which help the students to cope with program of their choice.
- The Institute takes efforts for enabling the students to cope up with the fast developments in syllabi of various subjects as well as takes efforts in improvement of their general academic quality by organizing the different programs. The detailed summary of Orientation Program, Soft Skill Development Courses, Enrichment Courses, Add-On Learning, Industrial Visits and Expert Lectures is given below.

Table 2.2.3.1: Details of Programmes/Courses

Particular	2013-14	2014-15	2015-16	2016-17
Mechanical Engineering				
Orientation Program	1	1	1	1
Soft Skill Development	1	1	2	2
Enrichment Course	2	3	4	5
Add-On Learning	1	1	2	3
Industrial Visits	4	6	6	8
Expert Lectures	7	10	11	13
Total	16	22	26	32

Particular	2013-14	2014-15	2015-16	2016-17
E&TC Engineering				
Orientation Program	1	1	1	3
Soft Skill Development	1	1	1	2
Enrichment Course	1	1	1	1
Add-On Learning	1	1	3	1
Industrial Visits	3	1	2	1
Expert Lectures	1	2	2	2
Total	8	7	10	10
Computer Engineering				
Orientation Program	2	2	2	2
Soft Skill Development	3	3	3	3
Enrichment Course	1	3	4	4
Add-On Learning	2	3	4	5
Industrial Visits	2	2	1	2
Expert Lectures	1	4	2	4
Total	11	17	16	20
Civil Engineering				
Orientation Program	1	1	1	1
Soft Skill Development	1	1	1	1
Enrichment Course	1	2	2	2
Add-On Learning	-	-	-	-
Industrial Visits	10	10	12	13
Expert Lectures	9	22	16	19
Total	22	36	32	36
Engineering Sciences				
Orientation Program	1	1	1	1
Soft Skill Development	1	1	1	1
Enrichment Course	-	-	-	-
Add-On Learning	-	-	2	2
Industrial Visits	-	-	-	-
Expert Lectures	1	1	2	2
Total	3	3	6	6
Grand Total	60	85	90	104

Refer Annexure 2.2.3 for details.

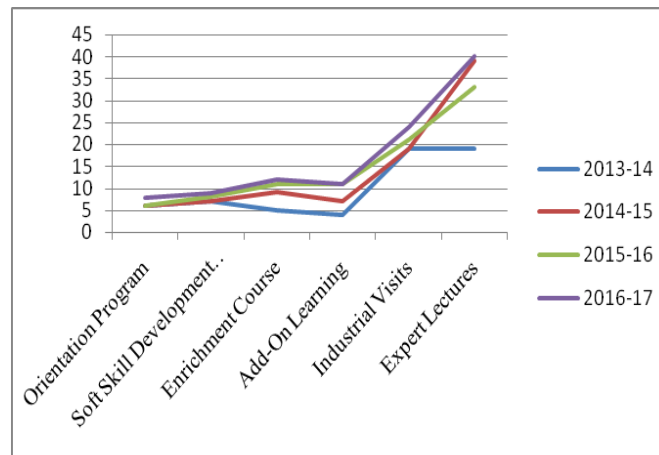


Figure 2.2.3.1: Conduction of Programs/Courses (Year wise)

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

Institute takes all the efforts to maintain secular environment which helps to promote teaching-learning process elated.

Gender sensitization:

- The Institute has students from rural/urban background, various states and economically weaker sections. All students are involved in academics, co – curricular and extracurricular activities, sports and technical events without any discrimination (gender, caste, religion) depending on their choice.
- The Institute has Women’s Anti-sexual Harassment Committee, Gender equality Committee, Grievances Redressal committee which also play an important role in sensitizing the gender issues.
- Special talks and seminars are organized for girls.
- The various activities like lectures on Woman empowerment for girls are organized.
- Joy at work culture, to make the learning enjoyable.
- Student associations organize various programs like gender bias, environmental issues.

Efforts for Inclusion:

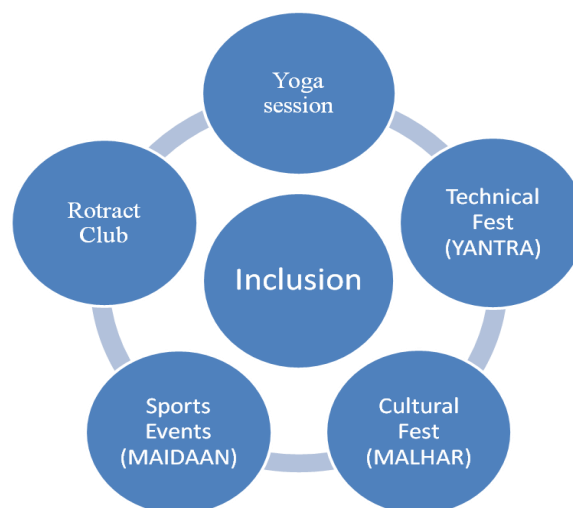


Figure 2.2.4.1: Efforts for Inclusion

- Different committees are formed at the college level to conduct co-curricular, extracurricular and welfare activities which involve all faculty members and student coordinators as per their interest.
- Institute organizes technical, cultural, sports and extension activities which involves faculty, staff and students without any discrimination leading to a healthy campus culture.

Environment sensitization:

- Various committees are formed at college level and all faculty members along students enthusiastically involved in it making a healthy environment in college.
- All the activities carried under these committee's help to make unity among faculty members.
- For students to feel homely environment in college, Teacher Guardian scheme is run in the institute which makes the student feel teachers as their second parents.
- The Anti Ragging committee functions actively to maintain discipline and peaceful environment in the institute.

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

The institution identifies special educational/learning needs of advanced learners as follows:

- Earlier in FE, the advance learners are identified by their 12th percentage, JEE and MH-CET marks.
- The advance learners in subsequent period are identified by their performances in continuous internal assessment tests, classroom and laboratory performance, university examination results.
- Discussion made with faculty members and Teacher Guardian also helps to identify advanced learners.
- Respond to advanced learners:
- Class Toppers are awarded to motivate and do further well in their academics.
- Advance learners are provided with special responsibilities like class representative, student coordinator for different committees so that they can develop leadership quality.
- They are given the task of organizing various activities under Professional Students Chapters.
- They are guided and supported to participate in various competitions and technical events organized at various institutes to exhibit their performance.
- Special guest lectures are arranged to provide guidance to advanced learners about higher education.

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)

Institute collects and analyzes the data and information on the academic performance of the students at the risk of drop is as follows:

- During admission process, detail information of every student is collected (students from the disadvantaged sections of society, physically challenged, economically

- weaker sections)
- For every class, a class teacher is appointed who keeps the record of students of their respective class.
 - Teacher Guardian is appointed for a batch of 20 students who maintains all record of students in the batch. TG regularly interacts with students through which institute gets information about slow learners, physically challenged and economically weaker students.
 - The record of results of internal examinations viz. unit test, mock online test, preliminary examination, mock oral and practical are maintained by the department.
 - University exam result analysis is available with each department which helps in getting the academic performance of students in preceding examination
 - Special attention to slow learners resulted in improvement of students to higher level.

The Institute uses the data as follows:

Slow learners:

- Special attention is given by teachers and teacher guardian towards the slow learners. They keep boosting up the confidence of slow learners and give them full academic support.
- Teacher repeatedly teaches the content as per requirement of slow Learners.
- A booklet containing syllabus, question bank, question papers, assignments is provided to the students.
- Teacher provides notes to understand the contents easily.
- The Institute arranges remedial lecturers for slow learners for subjects like BEE, Mathematics and APM before and after college hours.

Physically Challenged:

- Teacher makes special arrangements to teach the syllabus contents as per the convenience of the respective students.
- Awareness regarding scholarships from government and nongovernmental organizations is created among the students.
- Special arrangements are made to meet academic and examination requirements for the students.

Economically Weaker Section:

- Tuition Fee Weavers Scheme (TFWS) is provided by government.
- Provisions like fees concession, deferred payments, fees payment in installments etc. are permitted for needy students.
- Information is provided to students and parents about free ships, EBC scholarship, government schemes and education loan facilities
- Institute provides information about government and nongovernmental scholarship, benefits of reservations in admission for SC/ST/OBC/minority students.
- The Earn and learn scheme is implemented in association with SPPU.

Disadvantaged sections of society:

- SC/ST/OBC/minority students are given benefits of reservations in admission and scholarship as per government norms.
- Institute provides information about free ships, EBC scholarship, different government schemes and education loan facilities to the students and their parents.
- Management Trust awards scholarships to the meritorious students.

2.3 Teaching Learning Process

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

Savitribai Phule Pune University (SPPU) has mainly recommended the number of days which would be available for evaluation and teaching. All departments take care to complete teaching and evaluation within the predetermined time. For that following strategies are followed semester-wise:

Academic Calendar:

- The Academic year of college starts in accordance with the schedule given in the Academic Calendar of University.
- Then in accordance with university calendar college prepares the own Academic Calendar including curricular and extracurricular activities.
- The Academic Calendar of Department takes into consideration. After that accordingly the deadlines are specified in Academic Calendar of University as well as Academic Calendar of college.
- Every faculty gives subject choice and according to that before start of Semester load distribution takes place. While distributing the load different load distribution guidelines of Academic Monitoring Committee (AMC) are taken into consideration. Then timetable committee prepares timetable in consultation with other departments.
- For deciding set up of laboratory, every subject teacher identifies the requirements with reference to practical for his/her subject. The new/current syllabus is taken from faculty and the purchase procedure is carried out. The inspection of existing instruments/equipments is done before the commencement of each semester and then maintenance work is undertaken.
- The books which needed for current curriculum are mainly updated in the library. For that library advisory committee works in co-ordination with library co-coordinator of each department.

Teaching Plan:

- Before commencement of teaching every faculty prepares Course File and gets it checked by HOD. The Course File mainly consists of teaching plan, subject history, results analysis of subjects, previous years question papers, continuous evaluation sheets and subject notes.
- The Teaching plan is regularly monitored by HOD after regular intervals (at the end of each unit) in order to ensure that teaching learning is going as per planned schedule. The records of lectures delivered as per the time table are maintained and verified by the class teacher and academic monitoring committee

Laboratory schedule:

The laboratory schedule is prepared by the concerned faculty and batch wise details with dates are specified in laboratory schedule. The Timetable displayed on notice boards and ERP.

- The Class teachers for each class and Teacher Guardian (TG) for each batch of 20 to 22 students.

- The Academic monitoring committee currently referred as IQAC & Timetable committee monitor attendance of students at the end of each day. After that respective Teacher Guardian (TG) make phone calls to absent students and their parents. Class teachers send defaulter letters and SMS are sent to parents of students who continually remain absent. Then defaulter list displayed at the end of every month and parents of these students are called to college to meet the authorities and give explanation about their wards poor attendance. Teacher Guardian counsels the students having poor attendance and performance. They also conduct meetings with their parents periodically. Thus, parents are kept informed about their ward regularly.
- Student's performances are continuously evaluated by tutorials, unit tests, Mid-Sem tests, prelims and accordingly remedial actions are undertaken. As a fruitful product of all results like Mid-Sem tests results, online results the weak students are counseled and provided the necessary help. Also advance learners are provided with suitable extra material.
- As per requirement of subject extra lectures are allocated in the timetable to cover the curriculum in more elaborated way.
- Revision and remedial classes are conducted towards the end of the course. Open house sessions are conducted for students having poor attendance and suitable assignments are given to them.
- Submission is done in the allotted time and term work marks are allotted based on continuous assessment.
- Co-curricular and extra-curricular activities are organized to supplement the curriculum.
- The Head of respective departments conduct weekly meetings of faculties to discuss the lacunae/ shortcomings/ problems and possible solutions to overcome them.
- There is a mock in semester examination conducted at the end of 50% completion of syllabus for TE and BE and mock online examination for SE. There are retest examinations to improve student performance. There is a midterm submission at the middle of the semester in order to monitor the completion of practical.
- At the end of class room teaching there are turns for repetition of practical.
- Prelim examination is conducted at the end of semester to evaluate student performance.
- Savitribai Phule Pune University examination schedule is displayed on notice board and examinations are conducted as per University rules and regulations.
- Result analysis is carried out after declaration of the University result its record is kept and is used for further improvements.

Evaluation Blue Print:

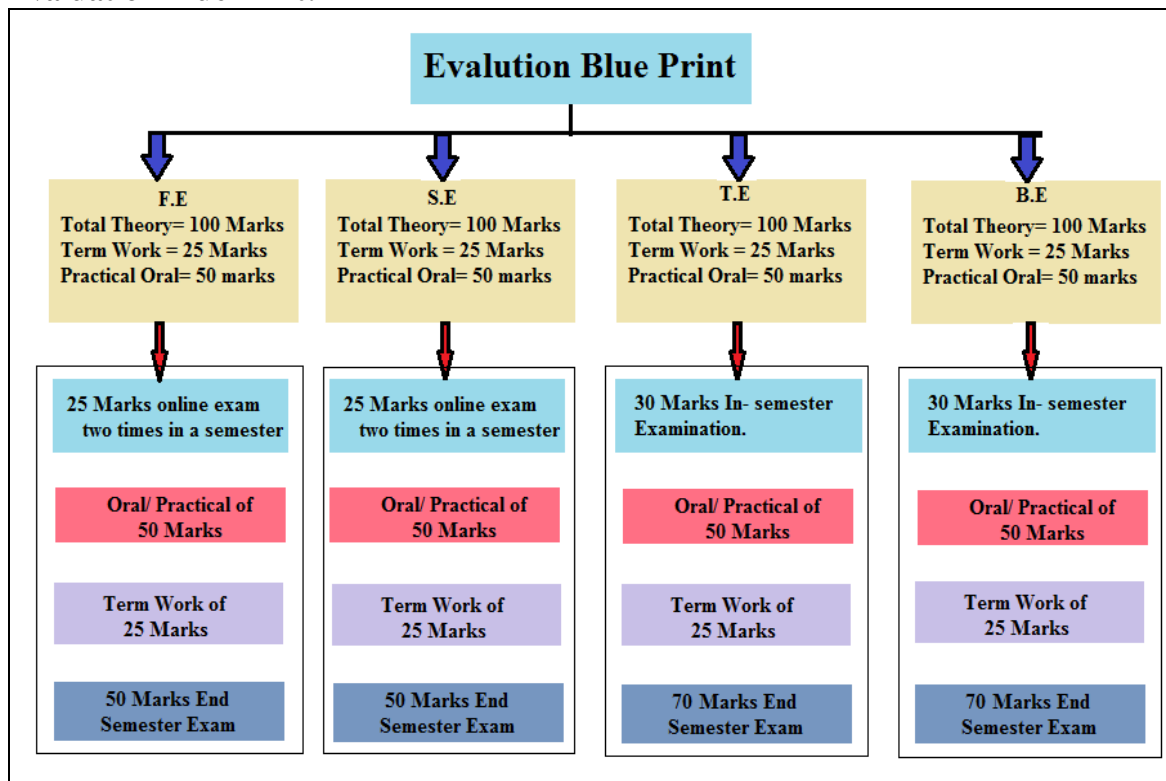


Fig. 2.3.1.1: Evaluation Blue Print

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

Internal Quality Assurance Cell (IQAC) is established which comprises of internal peer members. The main aim of the IQAC is to develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution.

The role of IQAC in ensuring quality standards in teaching, learning and evaluation becomes crucial. In this IQAC mainly help to regulate teaching - learning process and improve quality by different ways. Academic monitoring committee (AMC) and IQAC go hand in hand to improve quality of teaching learning process. For that, course file with study material, lesson plan and continuous progressive assessment is done by faculty. Academic monitoring committee (AMC) uses indirect methods through IQAC to improve teaching learning process. Any type of suggestions to improve quality is taken into consideration by IQAC

Process of IQAC to improve teaching learning is depicted through below figure:

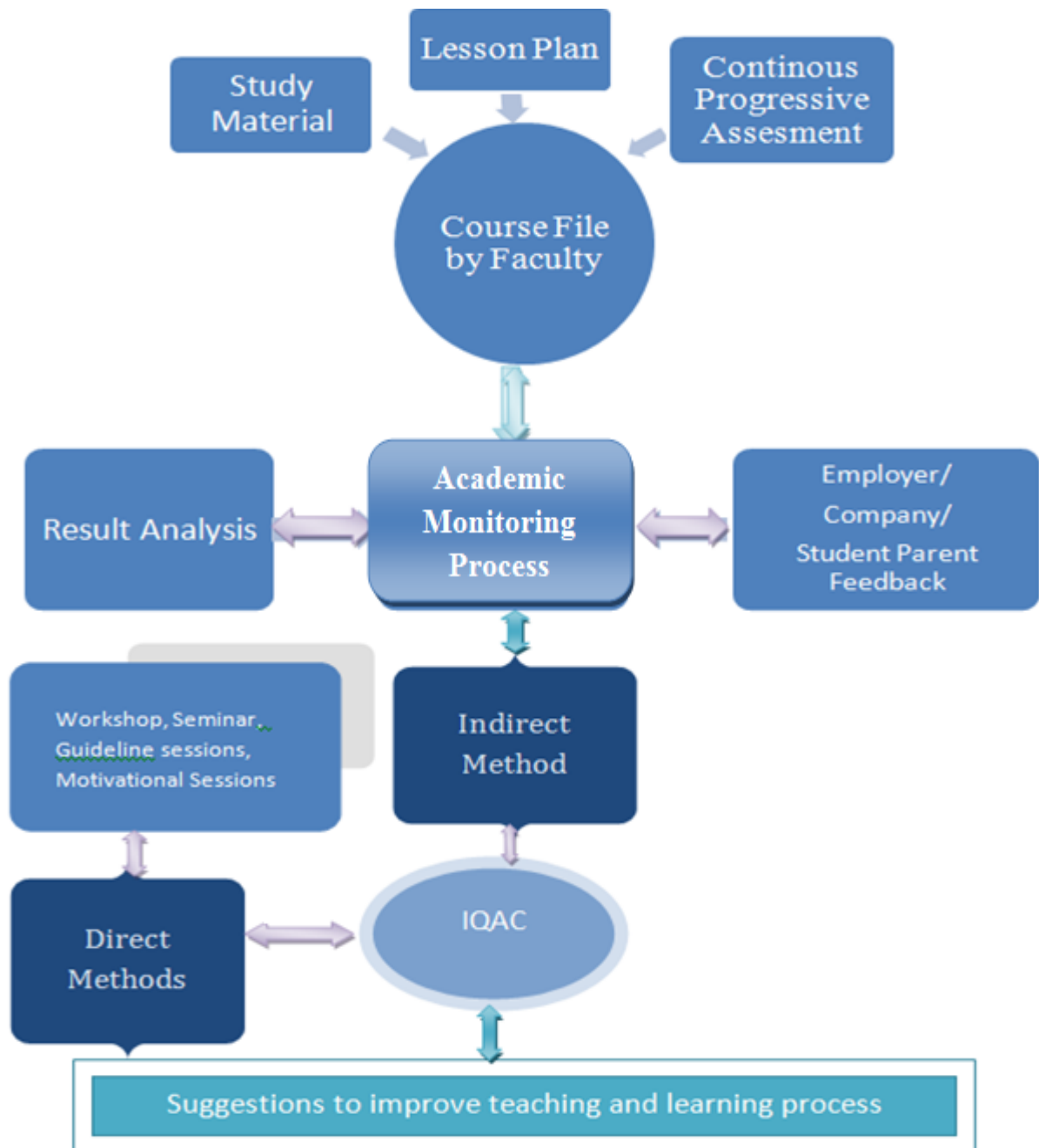


Fig. 2.3.2.1: Process of IQAC to improve teaching learning

IQAC evolved mechanisms

IQAC evolved mechanisms and procedures for:

- Ensuring timely, efficient and progressive performance of academic, administrative and financial tasks.
- The relevance and quality of academic and research programmes.
- Equitable access to and affordability of academic programmes for various sections of society.
- Optimization and integration of modern methods of teaching and learning
- The credibility of evaluation procedures.
- Ensuring the adequacy, maintenance and functioning of the support structure and services.

IQAC facilitated / contributed:

- To a heightened level of clarity and focus in institutional functioning towards quality enhancement and facilitate internalization of the quality culture NAAC for Quality and Excellence in Higher Education
- To the enhancement and integration among the various activities of the institution and institutionalize many good practices
- To provide a sound basis for decision making to improve institutional functioning
- To act as a change agent in the institution
- To better internal communication.
- Providing provides the support in implementation in all the academic polices.

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?**Student centric**

To make learning more students centric following activities are carried out at Departmental level

- Assignment
- Project
- Technical events
- Tutorials
- Mock oral test
- Group discussion
- Dissertations
- Teacher Guardian (TG) scheme
- Industrial visits
- Seminar
- Workshop
- Exhibitions

Interactive Learning:

- Using PPT presentation, Videos and Animations for making sessions interactive
- Project based learning improves interactive Learning of students.
- Learning using NPTEL video lectures.
- ERP cell which helps faculty to add lesson plans, laboratory schedule, question bank, notes and lecture content material.
- Materials are made available to students for preparing possible innovative material

Collaborative Learning:

- The institute has signed MOU with 30+ industries and Industrial visits are organized frequently for students.
- Students and staff work together to solve problems of industries. Recently, students have participated in Smart India Hackathon 2017 under value added program committee for collaborative learning.

Independent Learning

- Allowing students to participate in different competitions. Workshops, Exhibitions, Cultural and Sports activities are conducted for students individual learning development.
- Independent learning ability of student is developed by giving regular assignments and mini projects.

- ICT based learning through videos of NPTEL/standard virtual classroom

Details of support structure and systems available:**Infrastructure Support:**

- Each classroom has proper ventilation, desks and sufficient area.
- Class rooms and tutorial room with LCD projector, computer system and internet connection
- Whole institute is equipped with free JIO wi-fi for improve e-learning program.

Training Support:

- Institute organizes Seminar, Workshops and Conferences for faculty development.
- Institute organizes Soft Skill program, run by 'Parineeti Foundation'.
- Institute organizes Industrial Visits, for training students with practical knowledge.

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

The institute organizes different activities through student association to nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators.

Critical Thinking:

- Students are assigned with different practical task and hands on session during practical which leads to critical thinking in them.
- Industrial visits are organized for the students to gain practical knowledge about the functioning which gives a way to broad thinking.
- Real time, interdisciplinary and sponsored projects are allocated to the students which lead to critical thinking.
- To develop critical thinking project based learning is used. Because of that student concepts are cleared practically.

Creativity and Innovation:

- Students are exposed to latest development in the industry by arranging visits to tech fests and exhibitions.
- Students are assigned various technical and non technical tasks under the guidance of faculty.
- Students are motivated and guided to participate in various academic and non academic events.
- YANTRA is a technical event organized by Institute every year.
- Faculty encourages the students to participate in different technical paper writing and poster competitions organized across University region.
- Students are encouraged and guided to undertake industry sponsored projects.

Scientific Temper:

- Students who are interested in research and development work are motivated and encouraged to present their work in different national/international seminar/conference/workshop and publish their work in national/ international journal.
- Students are encouraged to use latest techniques which lead to research aptitude among the students. This helps them to have instinct in-depth interest for higher studies.
- Students are rewarded for their best and outstanding performance in project, research and other relevant areas.

- Faculty members are also engaged with research work in association with potential students by sharing their innovative concepts with these students.
- Invitation to scientific and eminent personalities to guide and motivate student’s scientific temper.
- Entrepreneur skill development activities are organized in the college to encourage promising entrepreneurs. College supports and motivates students through EDC (Entrepreneur Development Cell).
- Students are encouraged and financially supported to participate into the competitions like YANTRA, MALHAR, MAIDAN.
- Industrial visits are organized to get the exposure to real time working
- Workshops and guest lectures are organized to give the platform to the students.
- Department Newsletter and Wall magazine are published on regular basis.
- Science and technology programs are taken to develop scientific temper

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.

Following technologies and facilities are available and used by the faculty for effective teaching

- Staff and students make use of NPTEL lecture videos for clarity of concepts and thorough understanding of subject contents
- There are regular online examinations conducted at the department using tae.myexamo.com, MOODLE software.
- Software like MATLAB, NPTEL Lecture Videos, CREO 3.0, Auto CAD, MASTERCAM, ANSYS, CATIA etc are being used by students and faculties
- Reference books and Journals (e-copy) like IEEE, ASME etc of reputed authors and publications are available
- Multimedia teaching aids are provided like projectors
- Wi-Fi facility for staff and students and 32 Mbps line is available
- A separate server is dedicated for the institute.
- ERP for repository and information to stakeholders
- Mobile based education and sharing learning material through Youtube
- ICT enabled labs are made available in every department

Table 2.3.5.1: E-Learning Resources

Sr. No.	Course/ Programme	E- learning resources
1	MECH	MATLAB, NPTEL Lecture Videos, CREO 3.0, Auto CAD, MASTERCAM, ANSYS, PPTs
2	E&TC	Video Recording, NPTEL videos, Matlab, C, C++, PPTs, Proteus
3	COMP	Video, Quiz, PPTs, NPTEL Video Lectures
4	CIVIL	PPTs, NPTEL Video, YouTube videos
5	FE	PPTs, Video Lectures

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

Faculty:

- The Institute motivates the faculty to participate in different technical programs
- The Institute provides faculty the latest available technical information through memberships of reputed journals like Science Direct and IEEE
- Faculty uploads tutorials, assignments, lecture notes and other relevant materials on ERP

The Institute organizes different faculty development Programmes at institute, National and International Level and in collaboration with well-known personalities and organizations.

Students:

- The Institute organizes various technical competitions such as paper presentations, project competitions, Quiz and poster competitions
- The faculty encourages students to undertake projects on advanced technologies, industry sponsored projects and Research & Development projects
- The Institute promotes students to participate in National/International competitions and events by providing all technical and financial support
- Eminent speakers are invited from the industry to deliver lectures so as to expose the students to developments in the field of their study.

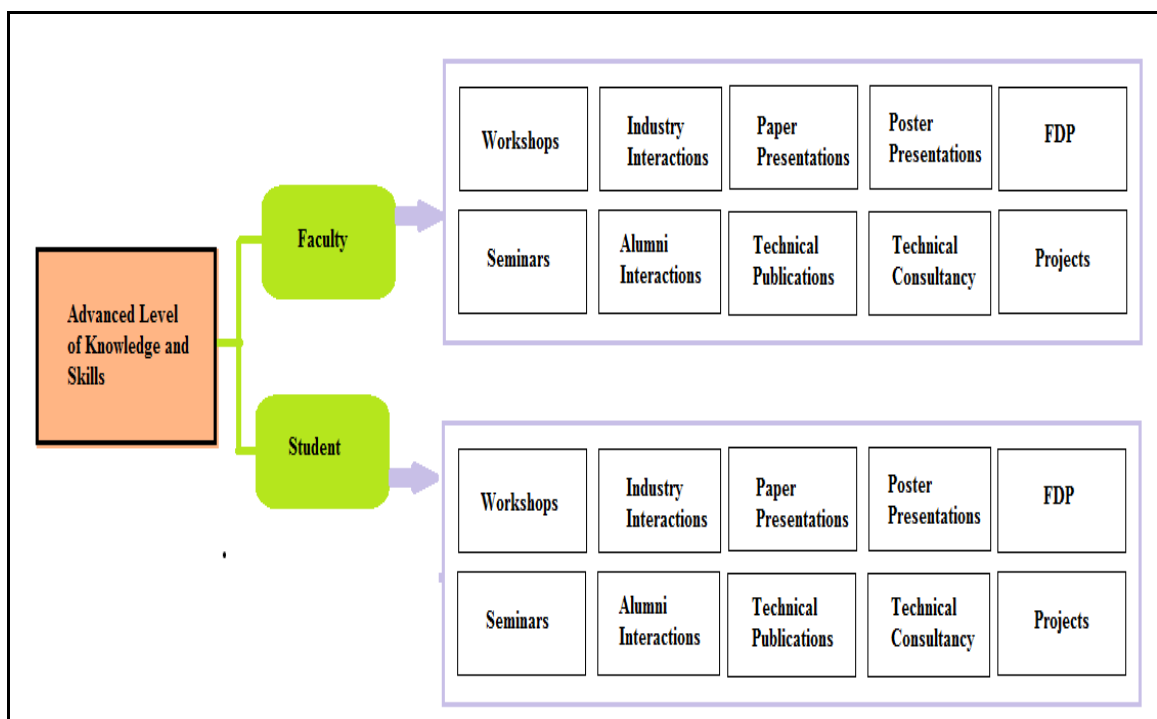


Fig. 2.3.6.1: Exposure of Faculty and students to Advance Level of Knowledge and skills

Table 2.3.6.1: Number of Expert Lectures conducted for students

Department	Number of Expert Lectures conducted for students			
	2013-14	2014-15	2015-16	2016-17
Mechanical	7	10	11	13
E n TC	1	2	2	2
Computer	1	4	2	4
Civil	9	22	16	19
FE	1	1	2	2

Refer Annexure 2.3.6 for Details

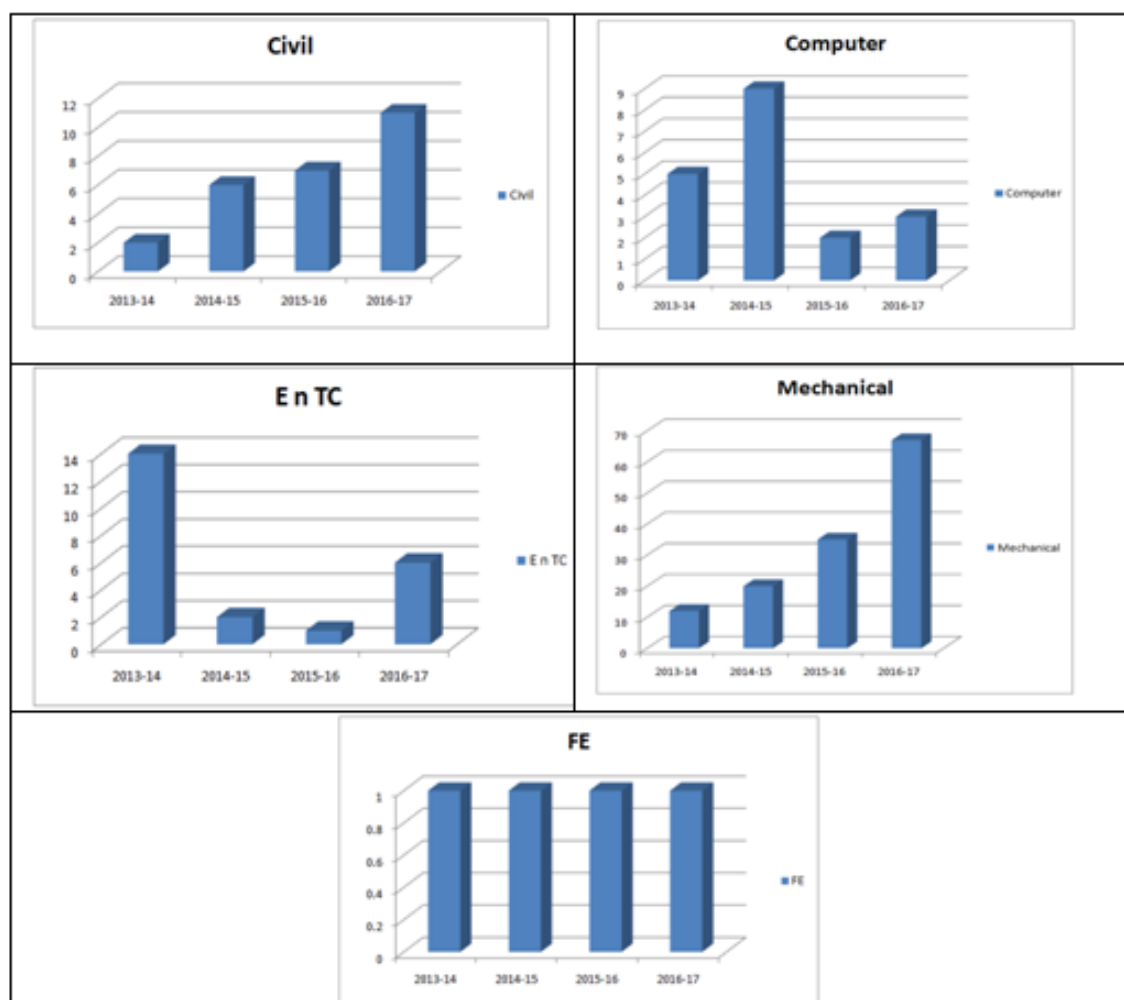


Fig. 2.6.3.2 Graphical representation of Expert lecture conducted for students

Table 2.3.6.2: Number of FDP/Conf./Workshops/Seminars attended by faculty

Department	Number of FDP/Conf./Workshops/Seminars attended			
	2013-14	2014-15	2015-16	2016-17
Civil	2	6	7	11
Computer	5	9	2	3
E & TC	14	2	1	6
Mechanical	12	20	35	67
FE	1	1	1	1

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?

Academic and Personal Guidance and Support:

- The Guardian Faculty Member is appointed for a batch of 20-22 students, who mainly take care of these students for all the support and guidance required. Teacher guardian conducts the meeting of the students allotted to him/her on regular basis and then tries to understand their academic as well as personal problems. TG tries to get sort the problem, if required forwarded to Head of Dept, and Principal. The attendance is monitored by TG on daily basis and the closely monitored the performance as well. TG takes the necessary action according to the need of students.
- Students are supported and counseled by teacher guardian in regards of their home sickness
- Class Teacher and Head of department interact with the students regularly to understand the need of students in terms of infrastructure, teaching and personal.
- All the students are covered under the TG scheme and get the continuous support and guidance from the TG.

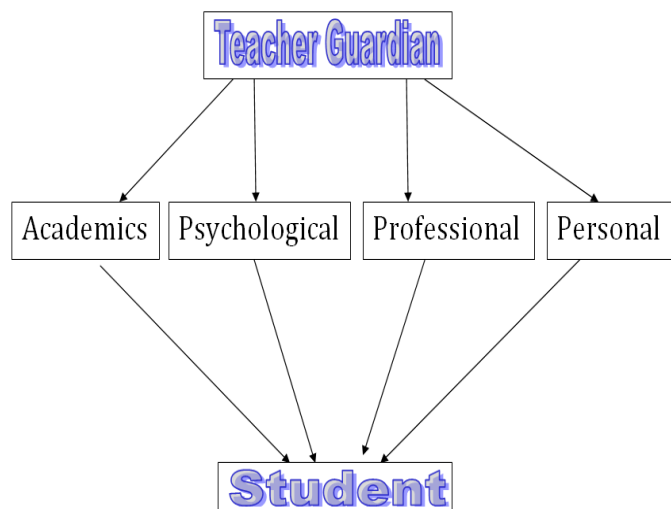


Fig. 2.3.7.1: Guidance services from Teacher Guardian to students

Students Benefited:*Table 2.3.7.1: Number of students benefited academic, personal and psycho-social support*

Sr. No.	Particular	Year	No of students benefited
01	Academic and Personal Support (TG Scheme)	Every semester	All the students
02	Psycho-Social support	2013-2014	37
		2014-2015	314
		2015-2016	366
		2016-2017	83

Refer Annexure 2.3.1 for details.

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? (Project based learning, model making, cross word, working with industries, extract from table, case study, video)

Complete support to the faculty is provided by institute in adopting various innovative teaching practices. Faculties can complete curriculum with any type of teaching methodologies. For this these practices are mainly followed:

- The Institute encourages the faculty to use proactive teaching methodologies such as role-play, brainstorming, group discussion.
- Faculty members make question banks to improve the success rate, mock Practical which helps students to prepare for their examinations.
- Senior faculty provides support to junior faculty by sharing their knowledge about effective teaching through and FDP.
- Quiz, puzzles and crosswords are used to assess the understanding of the students.
- The Institute conducts two days induction seminar for newly joined faculty to give them information regarding Institutes code of conduct.
- Institute constantly encourages the faculty to adopt various innovative practices by deputing the faculty to various workshops and seminars involving Teaching Learning Process

Impact:

The student attendance in the class improved because of student centric pedagogical methodology used in teaching-learning. The participation of the students and interest in getting the concept understanding is increased. This reflects in their project, academic result, participation in co-curricular activity etc. Results and placement also shows positive impact of these methods used in teaching.

Refer annexure 2.3.8 for more details.

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

- Collection of rare reference books, handbooks on different subject help the student to get thorough knowledge.
- Online journals, hardbound journals and magazines keep the student updated with the current state of art knowledgebase.
- Students are encouraged to utilize the library as frequently as possible for referring various books, magazines and journals. For that library is functioning from 8:00 am to 8:00pm.
- Faculties use library resources to make their teaching learning process effective and upgrading their knowledge. Also they use journals and e-journals for technical knowledge up gradation.
- Project report and thesis available in library help students to design and develop the problem statement for their project work.
- Facilities like Wifi and internet keep students connected to huge knowledge database available online.
- The library catalogue is available.
- Other facilities like digital library, Wi-Fi connectivity, reading room, add to teaching learning.
- Adequate numbers of books are also issued to the students for reference.

Central Library

Table 2.3.9.1: Central library

Sr. No	Academic Year	No of Titles	No of Volumes	No of Journals	No of e-Journals
1	2016-17	821	1101	64	507
2	2015-16	91	628	64	380
3	2014-15	154	540	54	380
4	2013-14	2338	7536	50	0

Departmental Library

Table 2.3.9.2: Departmental Library

Sr. No.	Course/Program	No. of Volumes
1	Mech	400
2	E&TC	100
3	Comp	170
4	Civil	200

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

Yes, the Institute faces some minor challenges in completing the curriculum within the planned time frame 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.
- Correlation of theory and practical.
- Laterally admitted students join late.

Provision to face Challenges:

- Extra lectures are allocated in regular timetable and on weekends.
- For direct second year students extra lectures are conducted on Sunday and also on holidays.
- For slow learners special efforts are taken by providing remedial classes and counseling.
- In case of unexpected holidays due to reasons beyond the control of the Institute, provision of additional working days and extra classes helps the
- Institute to manage this challenge effectively.

Refer Annexure 2.3.2 for details.

2.3.11. How does the Institute monitor and evaluate the quality of teaching learning?**Monitoring quality of Teaching-Learning:**

- The institute conduct Induction Program for fresh faculties recruited to the college every semester
- Academic Monitoring Committee(AMC/IQAC) regularly monitors teaching learning process
- The Institute takes online feedback, from students for each faculty he/she taught in the semester.
- The institute distinguish faculty on Performance Index (PI) and reports to take necessary steps for improvements, if required.
- The Head of Department is mainly lead, manage and also develop the department to ensure it achieves the highest possible standards of excellence in all its activities.
- Principal provide direction, leadership and co-ordination within the college. Main focus of principal is to develop and maintain effective educational programs within college and to promote the improvement of teaching and learning. The Principal attempts to create an organization which fosters student and teacher growth.

Evaluation of Teaching- Learning:

- Monthly unit test is conducted to evaluate Teaching learning process
- TG meeting is conducted to by respective TG
- Parent teacher meeting is conducted for evaluating and discussing students progress with parents
- Remedial lectures are conducted for slow learners
- Analysis of University exam result is done after each exam

Student's evaluation is done by taking feedbacks from faculty. Also Faculties' feedback is taken from students regularly.

Refer annexure 2.3.11 for details

2.4 Teacher Quality

2.4.1. Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum (write on changing requirements of the curriculum, visiting faculty, industry person)

The Institute appoints teachers based on student strength and workload calculated as and when required. The institution follows the SPP University and AICTE/DTE guidelines in selection of faculty members and through the local selection committee in order to ensure that eligible and proficient persons are selected by a well defined procedure. Institution has quality policy for recruitment and retention.

UGC Selection Committee

- The roster is verified by the Assistant Commissioner, Reservation Cell, Pune and Government of Maharashtra State.
- After approval from the Reservation Cell and Savitribai Phule, Pune University advertisements are published in leading Newspapers.
- AICTE qualification norms are followed while scrutinizing the applications.
- Applications for recruitment are screened with conducting written test
- Technical and personal interviews of the candidates are carried out by selection committee appointed by SPP University
- Qualified candidates are selected and appointment letters are issued for the same
- List of selected candidates is submitted to the University for approval

Local selection committee

- The candidates are scrutinized on the basis of pivot in curriculum and the relevant experience in industry/research work
- The shortlisted candidates are called for an interview and Demo Lecture
- The Staff selection Committee comprises of the principal, two subject expert and Head of department for interviews of short listed candidates
- Based on the performance in the interview, a list of selected candidates is prepared
- The selected candidate is appointed initially on probation for one year.

Adjunct faculty from industry

- The expert faculty from industry related to a particular subject is invited as visiting faculty.
- The college has sufficient number of qualified and competent teachers to handle the courses offered.

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

- Institute has good maintenance ratio of faculty and staff.
- Retention of faculty and staff at TAE because of
- Ideal working environment while 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.
- Cognizance of performance appraisal and qualification improvement of

the employees by the respective head of the department & head of the institution for annual increment and higher post.

- Teachers 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 to faculty for participating in FDPs, workshops, seminars and conferences.
- Faculty development programmers organized to enable the teachers to adapt to changing needs of society.
- Guest lectures by experts from various sectors to motivate faculty and staff.
- Encouragement and appreciation of participation of international conferences and training programmes.
- Allocation theory and practical subjects as per their area of specialization and preference.
- A sort of freedom and transparency in every department because of which ownership feeling in every faculty and staff.
- Flexibility is provided for higher education.
- Admissions to the eligible wards of employee are given to schools and colleges on vacant seats if any 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 always follow certain coherent.
- Innovative ideas given by any faculty or staff are very well appreciated by the management.

Refer Annexure 2.4.1 for policies for recruitment and retention

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

The institute has taken following steps to cope with growing demand/ paucity of qualified senior faculty to teach new programs.

- Deputed/ encouraged the faculty members for higher education by considering the need of growing demand in a particular field. Few examples are discussed and shown below.
- Prof. M.S. Shewale is deputed to IEEE Bombay for the studies in Blood Warmer.
- Prof. M.S. Shewale is deputed to IEEE Bombay for the studies in Sensor less XYZ Scanner for high precision applications.
- Prof. M.S. Shewale is deputed to IEEE Bombay for the studies in Machine Health Monitoring System.
- Prof S. Parode deputed to Bharati University for faculty developement programme in her studies in Networking Systems.

- Prof Mayur Jain (Civil Engineering) supported for Ph.D in Environmental Engineering at IIT Guwahati
- Prof Rohini Kale (Civil Engineering) supported for Ph.D in Geotechnical engineering at IIT Guwahati.

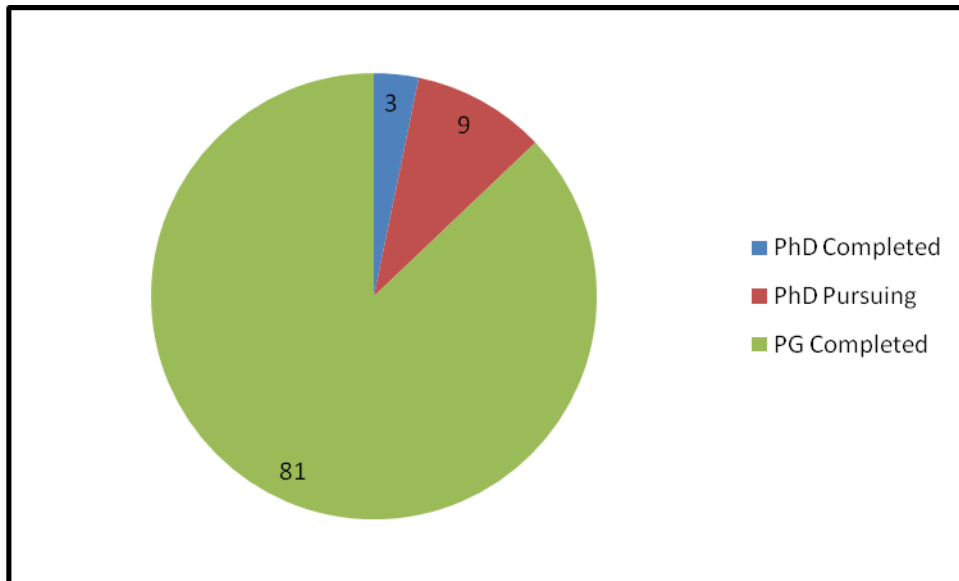


Fig.2.4.1 Faculty Qualification

Faculty Pursuing Ph. D. while working

Total 9 faculties are pursuing PhD while working.

In addition the college invites experts to deliver guest lecturers in selected areas of interest. Courses like Embedded system and signal & image processing, Microwave Engineering, Computer Science, Heat Transfer, Design are offered by our institution. Guest faculty members are invited on temporary basis to update the knowledge of faculty and students on special subjects such as Cloud Computing, Automation, robotics, VLSI design, Antenna Design etc. During the last 4 years about 179 such different programs were delivered at this institution.

Faculties are encouraged for attending the national and international seminars, conference workshop, training programs by fully sponsoring the registration fees.

The outcome of all these efforts reflects in

- Higher faculty retention
- Improvement in the faculty qualification
- Increasing number of research project, patents filed, publication in reputed conference and journals.
- Increased student publication and awards.

Table 2.4.2 Faculty Details

Sr. No.	Particular	Number
01	Faculties working in TAE for five or more than five Years	11
02	No. of faculties pursuing Ph.D.	9
03	Research Projects granted	7
04	Patents Filed and published	20

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

The institute and management have keen interest in the overall development of the faculty. This is encouraged by the institute by following ways

- Encouraging faculty for pursuing higher studies by giving study leave and sponsorship.
- Organization of various workshops, short term training programs.
- Providing opportunity for research through active Research and Development cell and Incubation center.
- Providing Opportunity to work on industrial project through signed MOU
- Organizing teacher's advancement programs in each semester.

a) Nomination to staff development Programmers

The Management has a positive attitude for the professional development of the faculty in acquiring the knowledge of recent developments and engaging them in the research activities. The following are some of the highlights.

Table 2.4.3.1: Staff Development Programmes Details

Academic Staff Development Programs	2013-14	2014-15	2015-16	2016-17	Number of faculty Nominated
Refresher Courses (TTT*)	4	5	7	8	24
Orientation Programs	2	2	3	3	10
Staff Training conducted	28	42	54	60	184
Staff Training conducted	1	1	2	2	6

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

Refer Annexure 2.4.3 for details

b) Percentage of Faculty

- Invited as resource persons in Workshops/Seminars/Conferences organized by external professional agencies- 4.4%
- Participated in external Workshops/Seminars/Conferences recognized

- by national/international professional bodies- 66 %
- Presented papers in Workshops/Seminars/Conferences conducted or recognized by professional agencies- 68%

Table 2.4.3.3 Faculty Involved in Workshops/Seminars/Conferences

Sr No	Dept	Invited as Resource Person in Workshops/seminar/conferences/journal				Participated in Workshops/ seminar / conferences				Presented paper in Workshops / seminar/conferences/journal			
		13-14	14-15	15-16	16-17	13-14	14-15	15-16	16-17	13-14	14-15	15-16	16-17
1	Mech. Engg	1	1	2	3	12	20	35	67	9	9	18	36
2	E&TC	1	2	1	3	14	2	1	6	28	21	7	2
3	Comp Engg	-	-	-	-	5	9	2	3	8	3	-	-
4	Civil Engg	-	-	-	-	2	6	7	11	7	11	14	11
5	FE	-	-	-	-	1	1	1	1	4	5	2	1
Total		2	3	3	6	34	38	46	88	56	49	41	50
% Faculty		3.4	4.2	3.7	6.4	59	54	57	95	97	70	51	54

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

The Management has a positive attitude for the professional development of the faculty in acquiring the knowledge of recent developments and engaging them in the research activities. The following are some of the highlights:

- Research grants: The Institution provides the support and help required along with infrastructural help to take the research projects from the external funding agencies like BCUD Savitribai Phule Pune University, Department of Science and Technology, ISRO-UOP projects.
- Study leave: The Institution Provides the study leave for pursuing higher education to faculty and staff.
- Deputation to National/International Conference/Seminars: The Institution provides partial sponsorship to the faculty for attending the conference and seminars.
- In-service training: Faculties are encouraged for industrial training and projects through the MOUs.

- Holding of national/international conferences: The Institutional provides seed money for organizing national and international conferences

Table 2.4.4.1: Faculty Benefited in Workshops/Seminars/Conferences

Sr. No.	Activity	No. of faculties benefited from the
1	Study leave for PhD	03
2	Sponsorship for national/inter-national conference/seminar/Workshop	28
3	Grants for conducting conferences / workshop	02

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

The faculty of the institute is awarded with awards like best innovative teacher, young scientist etc. and recognized in university and outside university for research work. The list is given below:

Table 2.4.5.1: Awards and Recognition Received

Name of Faculty	Awards and Recognition Received
Dr. V. M. Wadhai	Award for incredible support Pranay Chakshu
Dr. V. M. Wadhai	Yashodeep Award
Dr. V. M. Wadhai	Sadh Manuski
Dr. V. M. Wadhai	National level prize as Indira Gandhi Gold Medal Award
Dr. V. M. Wadhai	State Level Award in Samwaad Parivartancha
Dr. V. M. Wadhai	State Level Award Sanman Chinha -Vidharbha Mahotsav
Dr. V. M. Wadhai	State Level Award As Best Student Council for IEEE
Dr. V. M. Wadhai	State Level Prize As IETE award
Dr. V. M. Wadhai	State Level Award Institute Engineer Award (IE)
Dr. V. M. Wadhai	University Topper
Mr. M.S. Shewale	International level prize Young scientist research awards
Mr. M.S. Shewale	International level prize Best paper award
Mr. M.S. Shewale	International level prize Best paper award
Mr. M. K. Choudhary	Best project Award
Mr. M.S. Shewale	International level prize Best paper award
Prof.Sonali S. Kale	University 1 st Rank (ME)
Prof.Shradha Behede	Second prize in Civil PGCON 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,

The student feedback system is used to evaluate the teachers by students. A complete transparent online feedback of teacher is taken based on different parameters related to teaching after one month of starting the semester. The feedback is analyzed and teachers are given the necessary guidelines by Academic Monitoring Committee.

Appreciation letters are given to the faculties and staff based on their performance.

Self appraisal of Faculty Members:

All the faculty members are required to submit self appraisal report every year in the prescribed format.

Review of faculty self-appraisal: TAE has evolved a standard method of evaluating the teaching research and administrative activities of the faculty. The information furnished by the faculty member will be analyzed by the HOD, Principal.

The self appraisal report is accessed by IQAC formerly AMC and the necessary guidelines for the improvement are given to teacher. e.g. related to suggestions based on student feedback, research and development activity, publication and improvement in education. Self appraisal report is access by alternating report manager (HOD for all the faculty) and the report is submitted to reporting manager (to Principal). Finally it is submitted to the management for the review.

Appreciation in terms of appreciation letter, additional increment is given to faculty and staff, based on their performance.

Refer Annexure 2.4.6 for details.

2.5 Evaluation Process and Reform

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 answerable to the stakeholders - students, faculty, parents, alumni and the society. The evaluation processes are brought to the notice of the students and faculty of institution through the followings:

- At the commencement of the term students are notified about the criteria for evaluation of University, Credit system, Grades, Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA).
- Induction programmes are conducted for First Year students and for direct second year students as well as parents where they are made aware about university and institute evaluation procedure.
- The evaluation parameters and method is finalized in the faculty meeting. Suggestions from the faculty are integrated in finalizing the policies.
- The suggestions of alumina taken in alumni meeting are also considered while deciding the strategies.
- Institute also declares criteria for allocation and evaluation of term work marks which includes attendance, timely submission and performance in unit tests and prelim exams.
- Unit Test, Prelim dates and End Semester examination (ESE) starting dates are provided in the calendar of academic activities.

- All this information is given to the parents through parent-teacher meeting. The letters/SMS are sent to the parents after each unit examination and the marks and attendance is conveyed to the parents.
- The students are informed of the same through Teacher Guardian, Class Committee Meetings and distributing the circular in the class rooms and displaying the same in the Notice Boards.
- The complete evaluation procedure in the form of regulations of various programmes are printed in the academic calendar and made available to all the students.
- The End Semester Examination results once declared are also displayed.
- Any amendments made in the regulations are conveyed to the students by the Class Teacher and Teacher Guardian in the Class.
- The policies are revised in every semester in general meeting.

Refer annexure 2.5.1.1 for details.

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 institute follows all the evaluation reforms 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 College Examination Officer (CEO):

The Institute has appointed a senior and experienced faculty member as College Examination Officer (CEO) as per the directions of university. The Examination Committee is a structured with the Principal as the Chairman assisted by CEO who is the member Secretary and senior faculty members from each department.

University Examination Pattern:

The examination structure of SPPU is given in table 2.5.2.1. In University evaluation pattern contains On line, In-semester examination and End semester examination per semester.

Table 2.5.2.1: SPPU Evaluation Pattern

Year	Exam by SPPU		Mark	Exam by SPPU	Marks
FE	Phase I On Line	Phase II On Line	25+25	End semester	50
SE	Phase I On Line	Phase II On Line	25+25	End semester	50
TE	In – semester		30	End semester	70
BE	In – semester		30	End semester	70
ME	In – semester		50	End semester	50

Computerization:

University has introduced online examination for evaluation of FE and SE students. The Institute conducts online examinations of the University during every semester. The marks of term work, practical/oral examination and those for in-semester (for TE, BE and PG) are submitted online to the University.

Appointment of Internal Examiners:

Institute appoints internal examiners for the practical/oral examinations as per the directions of the University online examination.

Credit system:

As per the SPPU guidelines credit system has been introduced for the UG and PG Programmes.

The major evaluation reforms initiated by the Institute are –

- Institution also organizes supporting competition for students to develop their intellect.
- For FE and SE two internal online examinations of 25 marks each are taken. The results are displayed on the same day on the notice board and also conveyed to the parents.
- For TE and BE internal in semester examination of 30 mark is taken as per the format of university. The results conveyed to the parents.
- Students performance is assessed continuously in practical slots for regular completion and assessment.
- CEO has been appointed on behalf of university to conduct all examinations smoothly.
- Institute also conducts project competitions, quizzes and soft skill development competitions for the students.

Refer annexure 2.5.2 for details.

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**

- Exam coordinators are appointed from each department for smooth conduction of the examination.
- The examination committee members meet at times to discuss all the examination related matters.
- Continuous assessment of practical work, seminars, mini project and project are done by the faculty.
- Final year term work is mutually evaluated by internal and external examiners.
- For smooth conduction of University examination, an internal team comprising of senior faculty members is allotted.

Institute

- College Examination Officer is appointed at institute level to conduct all examination according to university directions.
- At Institute level, effective implementation of unit test, tutorial and mid-semester test takes place and results are declared within three to four days. The students can see their evaluated answer sheets and discuss the same with concerned staff.
- All measures taken at university and institute level are also contributing to ensure effective implementation of evaluation.

- The Principal, College Examination Officer , Head of Departments and examination coordinator of departments make sure that:
- Conduction of mock practical and theory examinations
- Submission of term work marks based on continuous evaluation scheme.
- Assessment of in semester examination answer sheets at Cap centre.
- Conduction of online and theory examinations SPPU exam supervision duties

Refer annexure 2.5.3 for details.

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 formative assessment help to observe the students learning which gives continuing feedback that can be used by teacher to make teaching efficient and by students to improve knowledge and learning. Formative assessment of student is carried out by following parameters and methods:

- Regularity in attending theory and practical sessions during semester.
- Interaction with subject teacher in class room
- Performance in Unit tests.
- Assignments submission on time.
- Mock on-line and practical/oral examinations
- Co-curricular activities viz. workshops / seminars / mini and major projects etc.
- Industrial visits
- Value added program
- Overall impression of TG
- Social Activities

Summative assessment is carried out in semester and also at end of semester at institute and university level.

Institute Level Summative Assessment:

- Online internal Unit Test 1 and 2 for FE and SE students.
- Internal Unit Test 1 and 2 for TE and BE students.
- Internal In semester examination for TE and BE students.
- Seminar given by students.
- Project Demonstration.
- Mid Prelim and Prelim examination.
- Mock on-line and practical/oral examinations

University Level Assessment:

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

Refer annexure 2.5.4 for detail.

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

Transparency

- The weightage are decided in the meeting for internal assessment.
- The parameters for assessment are:
 - a. Behavioral Aspect
 - b. Independent Learning
 - c. Communication Skills.
- Institute has placed the parameters for formative and summative evaluation process and it is notified to the students at the start of semester. The division of 25 marks in **Figure 2.5.5.1** and **Figure 2.5.5.2** is communicated to the students in the commencement of semester.

Figure 2.5.5.1: Weightage for Assessment of Term work

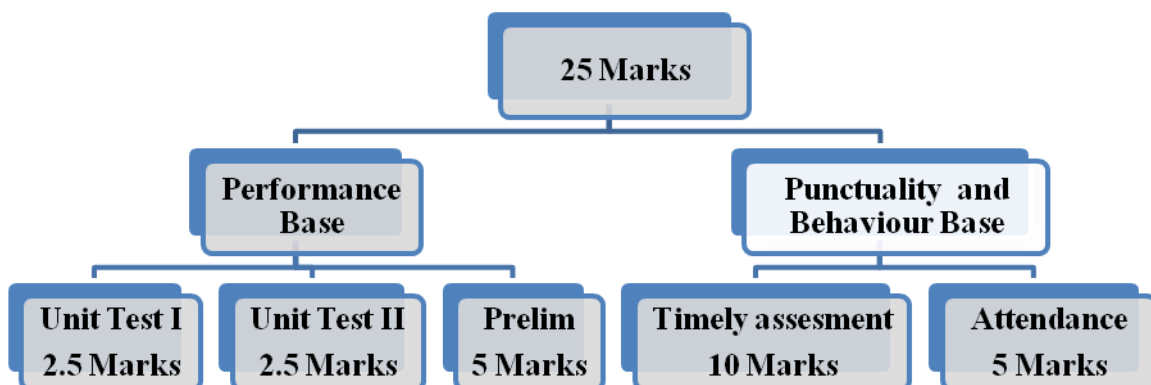
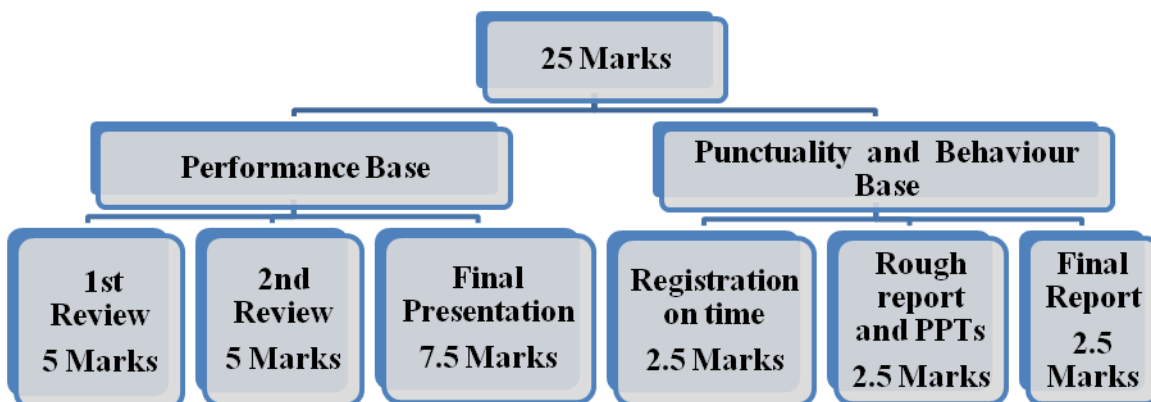


Figure 2.5.5.2: Weightage for Assessment of Seminar/Project.



- Assessed papers of internal examination are given to students for their own evaluation. Students can clarify their doubts after evaluation with subject teacher.
- The attendance record of each student is maintained and due weightage is given for attendance in theory class and practical sessions, performance in test, tutorial, practical and timely submissions.
- In semester exam answer sheets are masked before its evaluation by respective

faculty.

Behavioral aspects:

- The weightage is given for the overall behavior.
- The efforts are taken on different level viz. Teacher Guardian, Class teacher, Head of Departments and Principal for improving the behavior of students which is responsible for their overall growth.
- The overall growth of students gets reflected not only in academic performance and mark sheets, but also reflects in developed character and self-confidence amongst the students due to acquired knowledge and skills.

Independent learning:

- Independent learning of the student is evaluated during execution of seminars, mini –projects, final year projects and completing their independent tasks of assignments, for which University has given suitable weightage in the marking scheme of curriculum.
- Teacher Guardian also keeps the eye on independent participation of the students who can recommend suitable marks and transparently give to Head of Department for further consideration.

Communication skills:

- University has conjointly also marked suitable weightage of marks within the curriculum implementation by the student in the semester. Students are evaluated during seminar and presentation of their projects as well as practical/oral exams, while explain concepts of respective subjects.

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

Graduates Attribute form a set of individually measurable outcomes that are the components pinpointing the graduate`s potential to acquire competence to practice at the appropriate level.

The following are the graduate attributes specified by SPPU:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering basics, and an engineering specialization for the solution of engineering problems.
2. **Problem analysis:** Recognize, formulate research literature and analyses complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components that meet the specified needs with appropriate consideration for civil health and safety, cultural, and environmental considerations.
4. **Conduct investigations of complex problems:** to conduct independent research for information required in engineering problem solving, identify, formulate and solve engineering problems.
5. **Modern tool usage:** make use of modern engineering techniques and computing tools necessary for engineering practice.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the subsequent responsibilities relevant to the professional engineering

- practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
 8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
 9. **Individual and teamwork:** Function effectively as an individual, and as a member or leader in diverse teams, and in multi disciplinary settings.
 10. **Communication:** to communicate effectively through engineering drawing, written reports and oral presentations
 11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one`s own work, as a member and leader in a team, to manage projects and in multi disciplinary environments.
 12. **Life-long learning:** Identify the need for, and have the homework and skill to engage in independent and life-long learning in the broadest context of technological transform.

The following are the graduate attributes specified by institute:

- 1) Performance QALR
- 2) Qualifying in ET
- 3) Communication skills in GD, PI
- 4) Ability to work in team

Attainment of Graduate Attributes specified by SPPU:-

- The learning outcomes are defined from the graduate attributes.
- A process is developed to calculate the attainment of learning outcomes.

Attainment of Graduate Attributes specified by Institute:-

- The college ensures the attainment of these attributes by conducting QALR
- The institute also uses ET to scrutinize the registered students in CPC for specific industry placement.
- The mock GD, PI 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 of CPC.
- QALR and ET are also responsible for preparing students for cracking aptitude tests conducted by different industries while short listing students in CPC

The process is developed to calculate the attainment of learning outcomes is as follow

- Course Outcomes (CO) for each subject are decided by respective subject teacher before the commencement of the semester.
- Analysis of POs is carried out against each course outcome and POs are rated on the scale of 1 to 3 based on their attainment as shown in table number 2.5.6.1.
- Later on average of each PO is calculated based on all course outcome of that subject. Thus we get the clear idea of attainment of that PO.

- Further the table is prepared for the attainment of Pos for that year as shown in table number 1.1.8.1.

Table No. 1.1.8.1 Example of CO-PO mapping

Course Code	Course Name											
Course Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO201.1	1	2	3	3	3	2	3	2	3	3	3	3
CO201.2	1	2	3	3	3	2	3	2	3	3	3	3
CO201.3	2	3	3	3	2	2	2	1	2	2	1	3
CO201.4	1	2	2	2	2	1	1	-	2	1	2	3
CO201.5	1	2	3	2	3	2	2	-	3	2	3	3
CO201.6	3	3	2	2	1	2	1	1	2	2	1	3
CO201	2	2	3	3	2	2	2	1	3	2	2	3

CO – Computer Branch, 2 – Semester, 01 – Subject no, .1 – Course outcome number

Table No. 1.1.8.2 Example of Program Outcome Attainment

Division	Course Code	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	PO 10	PO 11	PO 12
S.E.(A)		2	2	3	3	2	2	2	1	3	2	2	1
		3	2	3	-	3	2	2	1	2	3	2	3
		2	1	3	3	2	1	2	1	3	2	1	3

Program Outcome Attributes:

- PO1. Engineering knowledge
- PO2. Problem analysis
- PO3. Design/development of solutions
- PO4. Conduct investigations of complex problems:
- PO5. Modern tool usage
- PO6. The engineer and society
- PO7. Environment and sustainability
- PO8. Ethics
- PO9. Individual and teamwork
- PO10. Communication
- PO11. Project management and finance:
- PO12. Life-long learning

Justification:

- **Slight:** The contextual knowledge of the subject is not sufficient for building professional ethics.
- **Moderate:** The subject contents sufficiently apply the knowledge of mathematics, science, engineering fundamentals and helps to identify and formulate complex engineering problems. The subject knowledge helps to assess societal and health issues and facilitates in project management using modern tools.

- **Substantial:** The subject contents strongly help in designing solutions for complex engineering problem and also help for conducting research experiments. Applying the subject knowledge, student can effectively function as an individual or team member and possesses the potential for lifelong learning.

Refer annexure 2.5.6 for details.

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

Level 1 - Departmental Level:

The continuous evaluation of students is carried out by faculty in terms of theory lectures, internal tests, assignments etc. The term work is allotted based on defined parameters and displayed on notice board. Query if any is discussed with subject teacher and Head of Department.

Level 2 – College 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. If students are facing any problems, they are solved by Senior Supervisor in coordination with College examination officer appointed by the University. The grievances during the conduction of online/theory examinations are considered and discussed in consultation with the Principal and if necessary forwarded to the University by examination section. Figure 2.5.3.1 shows Grievances Handling with reference to Evaluation.

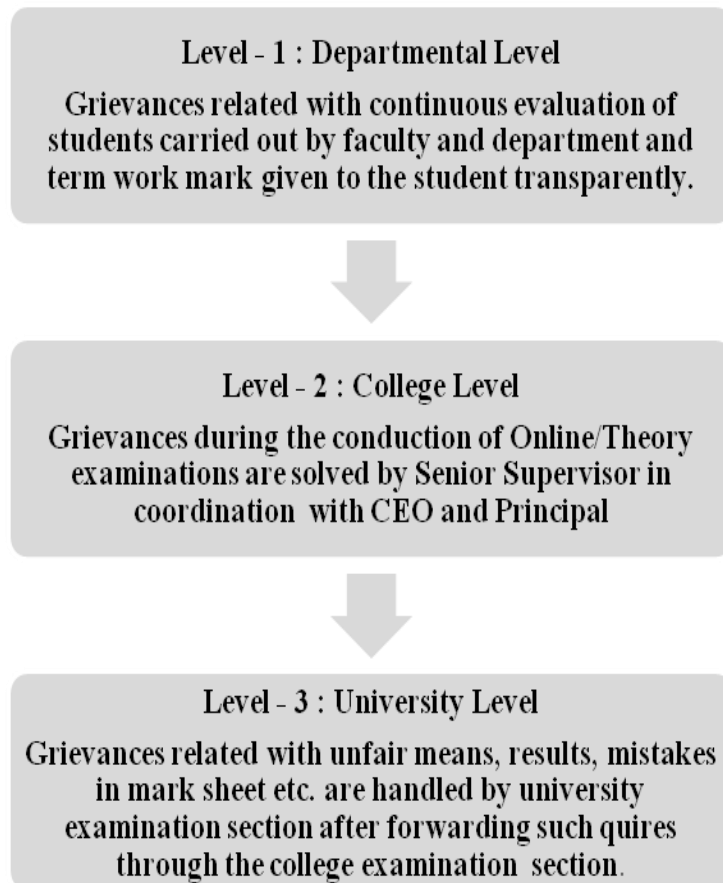


Figure 2.5.3.1: Grievances Handling with Reference to Evaluation

Level 3 – University Level:

Examination online form filling, exam seats allotments, results, photocopy, revaluations etc. are coordinated by office superintendent to University. The result queries, printing mistakes of mark sheets, corrections if any are handled at University examination section after forwarding such queries through the college examination section. Any 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 University theory examination. The queries related with errors in mark sheets, evaluation, photocopy are totally handled by University in which the role of institute is to take the follow – up with SPPU till the student satisfies.

Refer annexure 2.5.7 for details.

2.6 Student Performance and Learning Outcomes

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

The Institute has well defined learning outcomes. The vision and mission of the institution is to develop well educate student by our trained faculty, so they are sufficiently prepare to accept the challenges of globalization.

The program/learning outcomes are:

- To develop graduates who will be successful, demonstrate technical capability by applying knowledge in industry, government, academia, research, entrepreneurial pursuit and consulting firms.
- To develop graduates who will contribute to society with their education, ethics and values and will be responsible citizens.
- To develop graduates who will be excellent team member as well as efficient individual by applying good analytical, design and implementation skills.
- To develop graduates who will have ability to identify, formulate, solve and implement solutions for engineering, managerial and social problems.
- To develop graduates who will be in continuous learning process and apply their knowledge to fulfill their goal.
- To develop graduate who will adapt in every environment and give their best performance.
- To develop graduate who will solve multidisciplinary engineering problems through systematic approach.
- To develop graduate who will have excellent verbal and non verbal communication skills.
- To develop graduate who will conduct experiments, who will design new methodologies and solutions for engineering and social problems.
- To develop graduate who will develop an attitude of continuous learning.
- To develop graduate will develop confidence to face challenges in their career.
- To develop graduate will develop ability to do research.
- The process of defining the learning outcomes is as given in Fig.2.6.1.1.

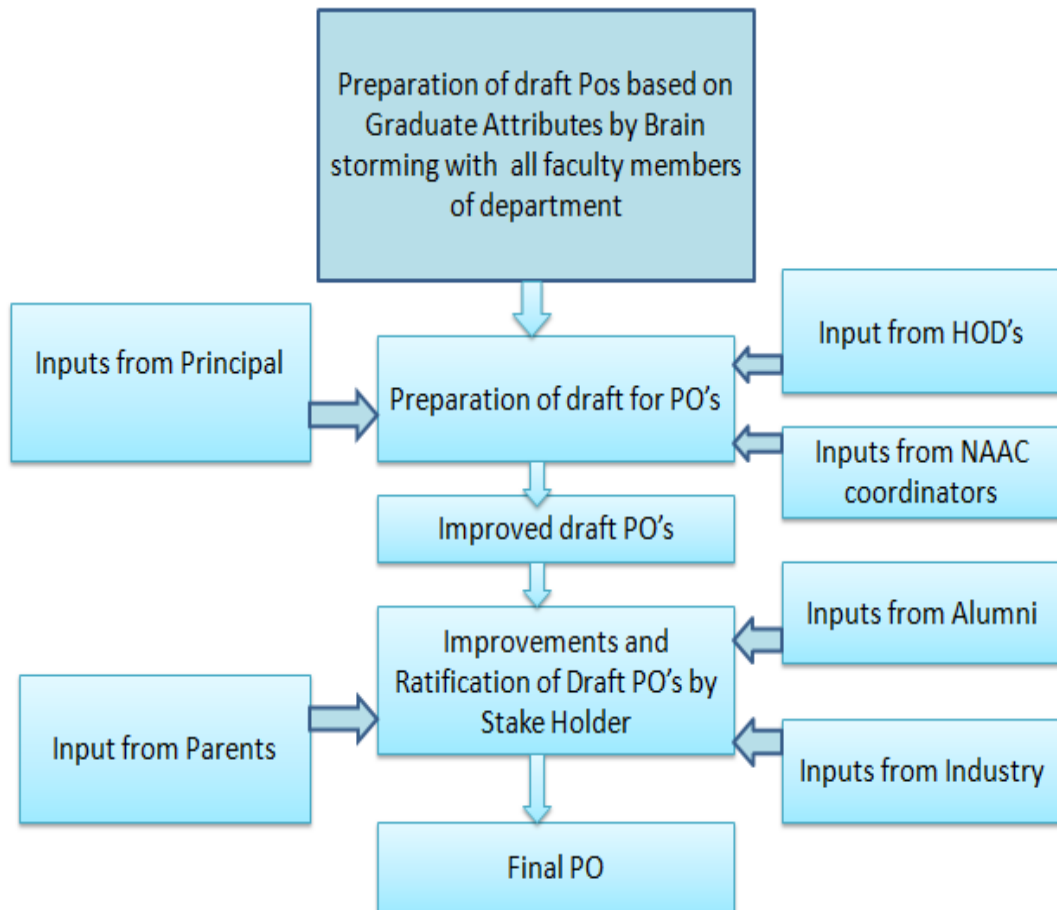


Fig.2.6.1.1 Process of Defining Learning Outcomes

Students and staff are made aware about the learning outcomes by following ways:

- The vision and mission statements are displayed on the college website and at various key positions in the college building.
- Programme Educational Objectives (PEO), Programme outcomes (PO) and course outcomes (CO) have been defined by every department. Programme Educational Objectives and Programme outcomes are printed in journals and course outcomes are discussed by faculty in the classrooms.
- Programme Educational Objectives, Programme Outcomes are published on the college website.
- At the end of every semester, all the departments evaluate POs and COs by using tools like tutorial and mid-term results, on-line exam results, course end survey and yearly alumni feedback etc.

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

To monitor the students progress and performance, the Institute has a continuous internal assessment system which consists of class test, open note book test, unit test, mid-term tests, mock practical, mock online exam and oral examination. These tools

are help to find out the progress of the students.

- The marks of class test and open book test are shown by respected teacher of subject to their student in class room.
- The marks of internal department examination like unit test 1,2 and prelim are displayed on the notice board in one week from the end of examination.
- The Institute regularly communicates the marks obtained in the internal examination to the parents.
- The marks of university online examination are also displayed on the notice board for the student reference.
- The teacher guardian maintains record of student about his/her performance in examination, co-curricular and extracurricular activity.
- After the declaration of University results, a result analysis report (Subject wise and class wise) 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.
- The result analysis and list of topper of each class is displayed on notice board.
- ERP is used to communicate the progress and performance of all student for each test conducted to parent and student both.
- Result of pass out students is displayed on:
http://www.kjei.edu.in/tae/student_corner/Result%20Analysis.pdf

Table No.2.6.2.1 B.E. Result Analysis: Passing Percentage (%)

YEAR	2013-14	2014-15	2015-16
Civil Engg	75	88	86.49
Computer Engg	85.41	95	64.10
E&TC Engg	100	100	95
Mechanical Engg	97.18	95.65	63.32

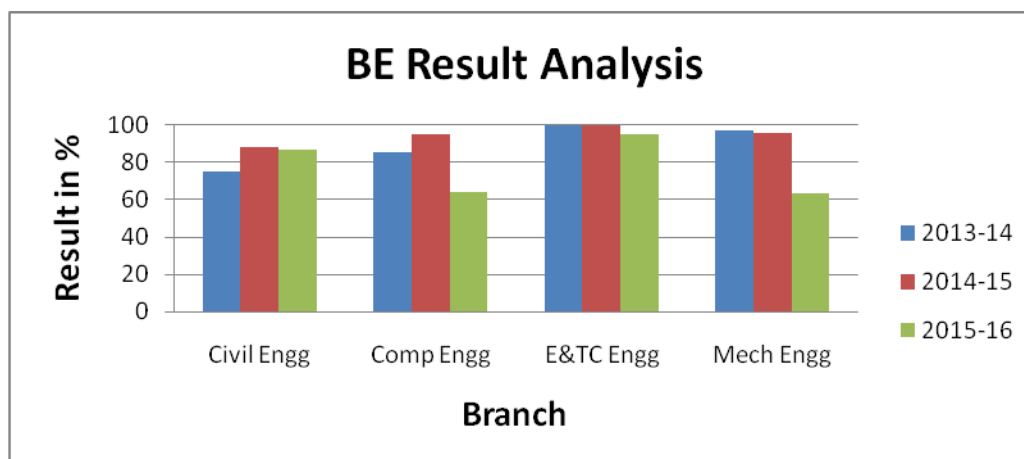


Fig. 2.6.2.1 BE Result Analysis

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 institute has well defined process for assessment of learning outcomes:

- The methodology to achieve this learning outcome is decided in the meeting of different domain heads faculty members and the Head of Department.
- The subject in charge then prepares the teaching plan and practical plan by considering these learning outcomes as per university academic schedule.
- The domain committee decide the tools for assessment of course outcome.
- Course file, PPT and innovative study material is prepared by the subject in charge.
- Guest lecture of advanced topic related to subject is also arrange.
- Planning of extra lectures for difficult subject is also part of teaching plan
- The execution of the teaching plan is intensely monitored by Head of Department necessary steps are taken if any deviations in teaching plan.

The CO’s are assessed based on the parameters decided and from co assessment PO assessment is carried out. Inputs are used for planning of the next semester.

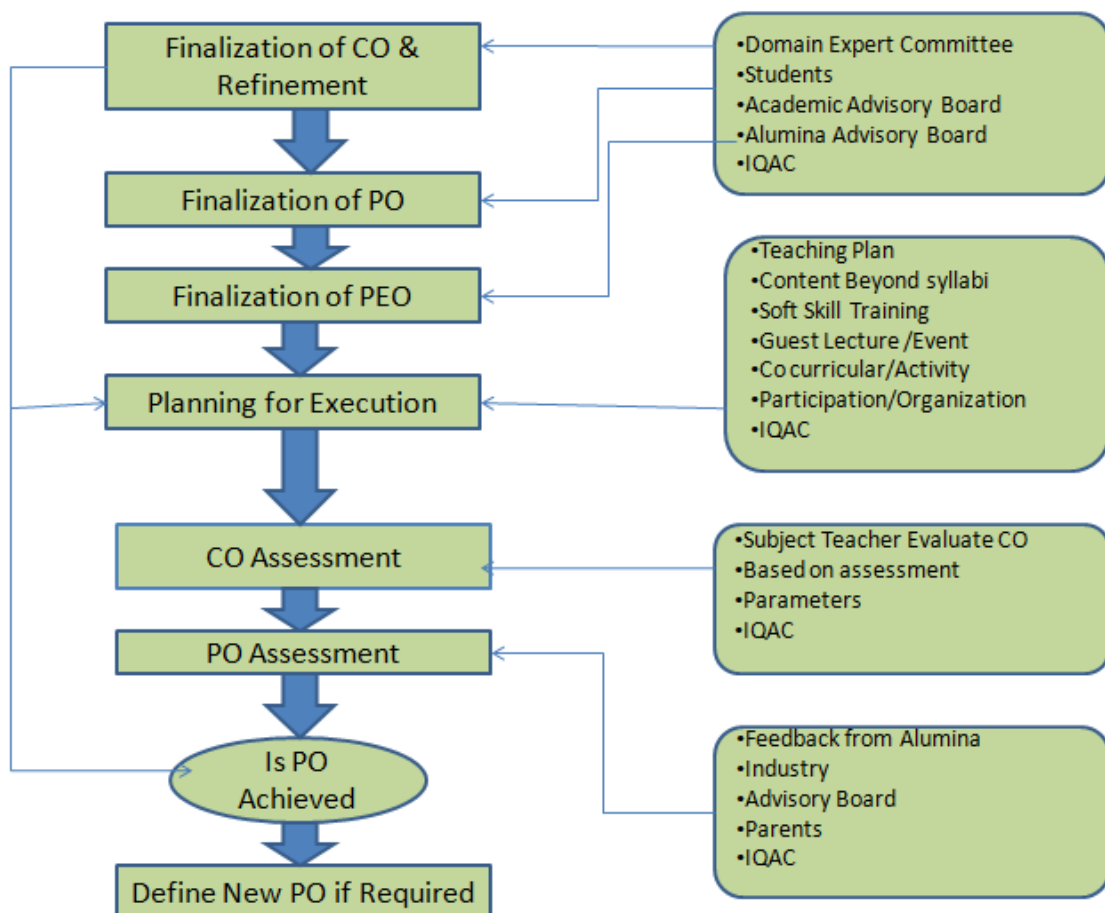


Fig.2.6.3.1 Assessment Process

Assessment Strategies:**Direct Assessment:**

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

Indirect Assessment:

- Alumni Feedback
- Exit Survey
- Employer Feedback

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?

Institute has formed following Cells to enhance the social and economic relevance of the course:

- Industry Institute Interaction Cell
- Training and Placement Cell
- Technology Business Incubation Centre (TBI) ,
- Training and Placement Cell ,
- Research and Development Cell ,
- Entrepreneurship Development Cell,
- Higher Education Cell
- Corporate Social Responsibility Cell
- Competitive Examination Cell
- Environmental Club

Initiatives of quality Jobs:

Institute has taken great efforts to provide quality jobs to student by providing following facilities:

Institute has established Training and Placement Cell, Higher Education Cell, Competitive Examination Cell.

- These cell provide :
- Soft Skill training
- GATE Coaching
- Personality development programs
- Software Training
- Competitive exam guideline

Initiatives for Entrepreneurship

- Institute has taken following measures to instill entrepreneurial spirit among the students.
- Institute has established an Entrepreneurship Development Cell (EDC) & Technology Business Incubation Center (TBI) .
- Expert lectures of successful entrepreneurs are organized.
- Seminars/ workshops on entrepreneurship are organized.

To develop innovation and research aptitude

Institute has taken following measures to develop innovation and research aptitude among the students.

- Institute has established Research and Development Cell.
- Institute has started many professional courses like M.E.
- Students are motivated to work on innovative projects.
- The projects are exhibited in the project competition and most innovative projects are awarded in order to encourage the creativity and innovation of the students.
- Students are encouraged to use resources in library for research like digital library to improve their research aptitude.

For social relevance Institute takes following steps

- Institute has established Environmental Club , Corporate Social Responsibility Cell for social relevance.
- Also institute has conducted Traffic Awareness program, Tree Plantation, Expert lecture on “to follow traffic rules” as part of social relevance.

Refer Annexure 2.6.4 for details

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

- The Institute has a well defined process for collecting and analyzing the students learning outcomes.
- The assessment parameters of student performance are defined in terms of different summative and formative assessment forms.
- The Institute has uses ERP System for collect and analyze data on student learning outcomes.
- The assessment of the course outcome is done by using following defined assessment parameters.

The assessment parameter includes:

- a. Class Test and Open Notebook Test
 - b. Mock Orals.
 - c. Unit Test and Prelim examination.
 - d. Assignments.
 - e. Quiz.
 - f. Feed back on guest lecturers/events/workshop.
 - g. Online Examination etc.
- The Program outcomes (Learning outcomes) are mapped with subject outcome as well as course outcomes of each subject.
 - The CO assessment is carried out at the predefined time interval
 - The Program Outcome (Learning Outcome) is carried out based on
Direct assessment—from co assessment
Indirect assessment—from feedback of stakeholders
 - This is used for planning in the domain expert meeting of next semester
 - The corrective measures and drawbacks are decided for planning in the next semester.

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

The Institute has predefined process for monitoring and measuring the achievement of the program outcome (Learning Outcome).

- Student attendance is monitored on regular basis by TG and informed to their parents through phone call /SMS/letters.
- TG meets are planned with students on regular basis to share feedback about subject teaching and their problem.
- Result data analyzed through internal examination and previous university examination is referred to make sure achievement of learning outcome.
- Based on previous history, difficult subject from student point of view are identified and expert lectures are arranged.
- Slow learners are identified separately and extra efforts are made through remedial classes and practice sessions.
- Feedback obtained by alumni as well as industry experts are taken care with suitable changes in learning methods.
- Data of passed out students is maintained by alumina cell and evaluation is done regarding their job status, further education etc

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

Yes, Institution and individual teachers use following guide lines for learning objectives and planning for evaluating student performance.

- Effective course file is prepared by adding all content and it is checked by academic monitoring committee.
- Students are questioned personally in class by class teacher to take verbal feedback.
- Mock test written/online helps in deciding further necessary course of action.
- Interview, feedback from T&P department is considered to modify learning objectives.
- Students participate in different academic activities viz. tutorial, mini-projects, solution of numerical problems, quiz, seminar, oral etc. These activities help to assess proficiency of students in application of mathematical and engineering concepts, effective communication skills. This process helps in achievement of learning outcomes. Teaching and learning process monitoring is depicted in Figure 2.6.7.1.

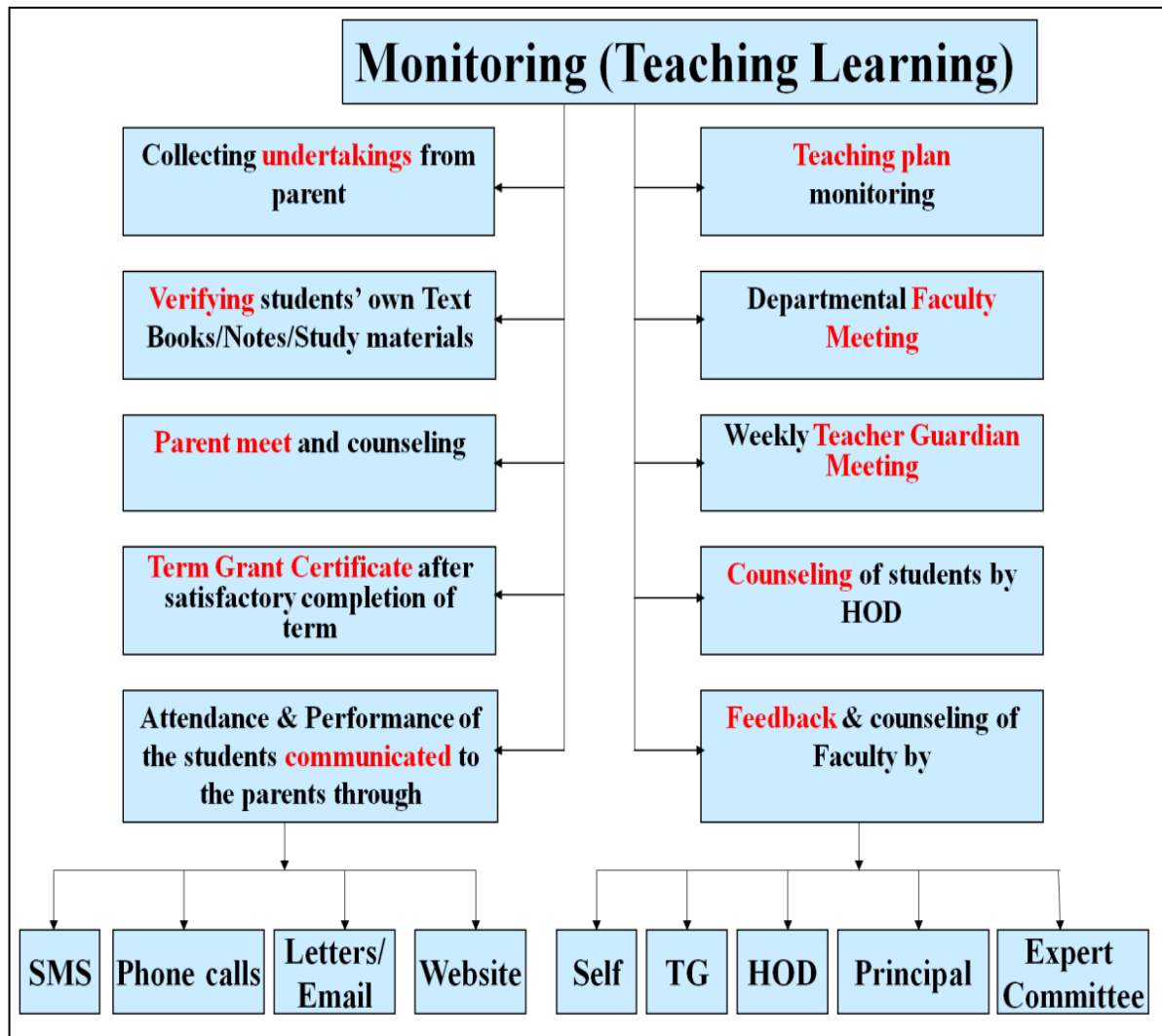


Figure 2.6.7.1 Teaching and Learning Process Monitoring

Refer Annexure 2.6.7 for details.

CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

3.1 Promotion of Research

The institute not only provides essential infrastructural resources for the research activity but also encourages the faculty and students for their active involvement to showcase their innovations through research. Policy promotes participation in all research activities, higher studies and internship program. Policy also comprises provision of resources and other facilities for the promotion of research. Institute also encourages and sponsors teachers for their postgraduate, doctoral and post-doctoral studies in India and abroad.

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 (Civil-Construction Management). Currently the institute has 1 Doctoral Faculty guiding to other centers, 1 has completed his doctoral studies and total 7 PhD scholars are pursuing their doctoral research and three of them are on the verge of completion. 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.

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 to monitor the research activities scheduled in the institute. The institute promotes the research work in all engineering disciplines and supports interdisciplinary research activities. Research Committee mentioned below in Table No. 3.1.2 encourages and motivates the faculty to undertake research/consultancy projects in collaboration with industries and institutes.

Table 3.1.2: The Research Committee

Sr. No.	Name of Faculty	Designation	Post
1	Dr. V. M. Wadhai	Principal	Chairman
2	Mr. S. S. Mulik	Associate Professor & HOD (MECH.)	Member
3	Mr. S. S. Deshmukh	Associate Professor & HOD (CIVIL)	Member
4	Ms. S. N. Maitri	Assistant Professor & HOD (COMP)	Member
5	Ms. D. D. Kulkarni	Assistant Professor & HOD (E&TC)	Member

Sr. No.	Name of Faculty	Designation	Post
6	Mr. A. B. Mali	Assistant Professor & HOD (FE)	Member
7	Mr. M. K. Chaudhary	Assistant Professor (MECH)	Member
8	Mr. M. S. Shewale	Assistant Professor (MECH)	Member
9	Mrs. Sarika S. Kale	Assistant Professor (CIVIL)	Member
10	Mr. M. B. Gulame	Assistant Professor (E & TC)	Member
11	Mr. S. P. Yadav	Assistant Professor (COMP)	Member
12	Mr. S. P. Nalavade	Assistant Professor (MECH)	Member
13	Dr. Mahesh Swami	Assistant Professor (CIVIL)	Member
14	Mr. S. S. Kudale	Assistant Professor (CIVIL)	Member
15	Mr. D. A. Jakkan	Assistant Professor (E & TC)	Member
16	Ms. Sonali S. Kale	Assistant Professor (COMP)	Member
17	Mr. Vaibhav Kumbhar	Student, BE (MECH)	Member
18	Mr. Abhishek Agrawal	Student, TE (COMP)	Member
19	Ms. Priyanka Shinde	Student, TE (COMP)	Member

Aims and Objectives of Research and Development Cell:

- The R&D Cell is responsible for assisting the faculties and students in the performance of the Institute's research and development.
- To inspire students and faculty members towards research and innovation.
- To promote research culture in various departments of the institute.
- To create centers of Excellence in the area of research and Innovation in all the departments.
- Collaboration with industries for mutual benefits.
- Identify R&D projects by collaborating with other universities, public and private sector companies.
- To work closely with industries to develop products and to improve process/systems or services that will help industry.
- To encourage and support student and faculty members to publish research papers in journals of index.
- To ensure functioning of R&D cell at the institute through effective monitoring process.
- To promote students and faculty members for filing patents and commercialize the product.

- The provision of research and development opportunities for academic staff to maintain enthusiasm, awareness of current scholarship and relevance in teaching and other Institutional activities.
- Monitor the application of Research Funds to ensure that the funds are properly and formally accounted for.
- To monitor and enhance the quality of research programs, projects and the research infrastructure within Institute, including the training of research scholars.
- Monitor the research and development performance of individuals, groups, Centers, Schools and Faculties to encourage excellence and productivity through maintaining a database of research and development activities.

Roles, Recommendations and Implementation:

- The committee recommends and gives all support to seek research projects sponsored by various Government, non-Government organizations and research funding agencies such as AICTE, BCUD- SPPU etc.
- Administrate specialized workshops/ conferences/ seminars sponsored by UGC, AICTE, etc.
- Promote joint collaborative Inter-Disciplinary Research activities.
- It recommends forming four research laboratories for carrying out research work in the Institute for the benefit of Institute and society.
- Arrange In-Campus workshops for motivating and aiming to trigger creativity and innovativeness among the students and faculty members particularly in patenting, which results in potential growth.
- Administrate joint collaborative programmers by identifying scope for signing MOUs with national as well as multinational industries and academic/research institutions to strengthen the collaborative research efforts.
- Administrate the promotion of institute-industry interactions by providing a helping hand in establishing collaborative research.
- Partnerships for conducting creative and advanced research in emerging areas of interest to the industry.
- To assist in matters related to collaborative research with other agencies.
- Implementation, follow-up, progress and monitoring of on-going projects.

Impact of the recommendations of research committee:

- Various faculty members and students have received meritorious awards and recognition from reputed organizations like IEEE.
- Several faculty members have applied for research grants from various agencies like COEP, SPPU, Sathyabama University, VTU, VJTI and Chhattisgarh university. Till date college has received funds from BCUD, SavitribaiPhule Pune University, Pune for 2 research projects.
- Faculties have published about 372 research papers in journals and conferences. 7 faculty members are pursuing their doctoral programs from various Universities.
- Four R&D labs have been established in the college which provides additional research facilities.
- The student projects for UG and PG courses are being pursued in the R&D labs.
- Four Centre of Excellence labs have been established in the college which has additional research Facilities.

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

- Institutional support is provided to faculties who undertake funded projects.
- Faculty members have full time access to institutional facilities to carry out research work.
- As and when required the existing laboratories are upgraded in terms of latest technologies.
- Teachers are motivated to pursue PhD programs and their teaching load is adjusted accordingly.
- Through the R&D cell the auditing and submission of utilization certificate to the funding authorities are done smoothly.
- Faculties are encouraged to participate as resource persons in various workshops, seminars and conferences.
- Research journals in both print and online version are available in the central library.

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

- Institute conducts workshop for the students which educate them on the aspects of research like Why & How to Research, formulation of Research Problem, Literature Review, Methods and Methodology & Technical Writing for Presentation of Outcomes.
- These workshops act as an input to the students in their seminar and project work and bring a radical change in the students' mindset and help them to perform quality research at undergraduate level.
- Students also gain vast knowledge by hearing perspectives on “Why & How” of Research.
- Students are also encouraged to participate in various activities like ROBOCON, SUPRA, POCKET TANK, CALL OF DUTY, and STRUCTURAL MODEL through which the students are developing innovative projects.
- Encouraging and motivating students to participate in workshops, seminars, national and international conferences under the guidance of teacher & experts.
- Faculty members are constantly encouraged and motivated to upgrade the knowledge and pursue higher education.
- The institute also promotes faculties and students to undergo internship in various industries so that they remain updated with the latest technologies.

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.

Every department of the institute has specialized research areas and have state-of-art computing facilities available in the respective department. In addition to this, many faculties of the department are also guiding good number of research scholars. The proactive mechanism is also adapted by college to facilitate smooth implementation of research.

- Management and institute are very much positive and supportive to release the funds in advance for the sanctioned research projects.

- The seed money is also provided based on the request to initiate the research project.
- Flexibility and autonomy is provided to Principal Investigator and Co-principal Investigator for utilization of the research grants and overhead charges.
- Funds are jointly handled by PI and Co-PI with consultation with accountant of the college which reduces the delay in release of grants.
- Timely audit and file checking is carried out by central team of auditors and accountant of the college.
- Yearly audit is also conducted by funding agencies like SPPU for timely release of grants.

Faculty guiding Ph.D. research scholars:

The details of faculties guiding Ph.D. Research Scholars is mentioned in Table No. 3.1.5.1 below.

Table 3.1.5.1: List of Faculty Guiding Ph.D. Research Scholars

Sr. No.	Guided By	Name of the Subject	Status
1	Dr. V. M. Wadhai	Health Care Data Mining	Awarded
2	Dr. V. M. Wadhai	Cognitive Radios	Awarded
3	Dr. V. M. Wadhai	Cognitive Radios & Spectrum Issues	Awarded
4	Dr. V. M. Wadhai	Robust Object Tracking Techniques for Next Generation Video Applications	Awarded
5	Dr. V. M. Wadhai	Cognitive Radios & Spectrum Handoff	Awarded
6	Dr. V. M. Wadhai	Wireless Sensor Network	Awarded
7	Dr. V. M. Wadhai	NFC Technology & Security	Awarded
8	Dr. V. M. Wadhai	Wireless BAN Mobility Management	Awarded
9	Dr. V. M. Wadhai	Congestion control in Wireless Sensor Network	Awarded
10	Dr. V. M. Wadhai	Clinical Depression detection	Awarded
11	Dr. V. M. Wadhai	V2V Communication - ITS	In Progress
12	Dr. V. M. Wadhai	Bio Sensor Design and ASIC	In Progress
13	Dr. V. M. Wadhai	Multimodal Clinical Depression Analysis	In Progress
14	Dr. V. M. Wadhai	Cancer Detection and Analysis with Advanced Imaging Technologies in Adults	In Progress
Total no. of Ph.D. completed students			10
Total no. of Ph.D. pursuing students			04

Leading research projects:

The details of funded projects in the institute have been detailed in Table No. 3.1.5.2 below.

Table 3.1.5.2: List of Leading Research Projects

Sr. No.	Name of the Research Project & Year	Name of PI/ CO-PI	Funding Agency
Department of Mechanical Engineering			
1	Modeling, System Identification and Experimental Investigation of Double Parallelogram Flexural Manipulator for High Speed and High Precision Scanning Proposal No. 15ENG001675 Duration: 2016-18 (2 Years)	PI: Sharad Sampatrao Mulik Co-PI: Mahesh Shivaji Shewale	BCUD, SAVITRIBAI PHULE PUNE UNIVERSITY
2	Experimental investigation of flow divider type inserts on heat transfer and fluid flow in forced convection Proposal No. 15ENG001182 Duration: 2016-18 (2 Years)	PI: Sandeep Pundalik Nalavade	BCUD, SAVITRIBAI PHULE PUNE UNIVERSITY
Department of E&TC Engineering			
1	Security in Cognitive Radio	PI: Dr. V. M. Wadhai	BCUD, SAVITRIBAI PHULE PUNE UNIVERSITY
2	Wireless Body Area Network (WBAN)	PI: Dr. V. M. Wadhai	ISRO-UoP Research Cell, SAVITRIBAI PHULE PUNE UNIVERSITY
Total No. of funded research projects			04

Faculty Pursuing Ph.D.:

Our faculty members are active in performing research activities. Forty faculty members are involved in various research projects while pursuing their Ph.D. from various

universities. Following Table 3.1.5.3 summarizes department wise area of specialization of research of faculties.

Table 3.1.5.3: List of Faculty Pursuing Ph.D.

Sr. No.	Name of faculty	Branch	Area of specialization
1	Mr. S. S. Mulik	MECH	Mechatronics & Control Systems
2	Mr. S. S. Deshmukh	CIVIL	Water Resource Management
3	Mr. S. P. Nalavade	MECH	Heat Transfer
4	Mr. M. K. Chaudhary	MECH	Thermal Engineering
5	Mr. M. M. Moog	MECH	Production Engineering
6	Mr. P. H. Jadhav	MECH	Thermal Engineering
7	Mr. Akash Shrivastav	MECH	Thermal Engineering

Faculty guiding P.G. students:

Following table 3.1.5.4 shows the list of post graduate students guided by faculty members.

Table 3.1.5.4: List of Faculty Guiding P.G. Students

Sr. No.	Name of Faculty	P.G. Students guided
Department of Mechanical Engineering		
1	Mr. S. S. Mulik	8
2	Mr. S. P. Nalavade	8
3	Mr. M. S. Shewale	4
4	Mr. M. K. Chaudhary	2
5	Mr. M. M. Moog	4
6	Mr. P. H. Jadhav	3
7	Mr. AkashShrivastava	4
8	Mr. V.D. Kolate	3
9	Mr. Shambhu Kumar	2
10	Mr. N. Chandran	3
Department of Civil Engineering		
1	Mr. S. S. Deshmukh	7
2	Mr. S. C. Tandale	5

Sr. No.	Name of Faculty	P.G. Students Guided
3	Mr. K. H. Ghorpade	5
4	Mrs. S. D. Pagay	3
5	Mr. P. V. Joshi	3
Department of E&TC Engineering		
1	Dr. V. M. Wadhai	3
Grand Total		67

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

Various workshops and training programs are arranged for the benefit of students and faculty members. These programs exposes the students and staff members to the recent advancements in latest technologies like heat transfer, design engineering, communication, VLSI and embedded system, cloud computing and structural engineering. This helps them to nurture and foster a research environment in the institute. The following list provides the detail of conferences/seminars, FDPs and allied activities organized by the institution for imbibing research culture.

- A total of 745 activities were organized like National conferences/ FDPs/ Workshops/ Seminars and other relevant activities for capacity building in terms of research as shown in Table 3.1.6.

Table 3.1.6: List of Event/Activity

Sr. No.	Event	Number
1	FDP/Workshop/ Training	206
2	Competitions	15
3	Poster presentation and Value Added courses	10
4	Project Based Learning	22
5	STTP	159
6	Other Event	21
7	National Conference	7
8	International Conference	2
9	Guest Lectures	179
10	Sponsored projects of students	36
11	STP	95

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

Our faculty members and students are working on many research projects which are funded by agencies like DST, ISRO, and SSPU-BCUD. By constantly working on these projects they have expertise in the areas mentioned in the table.

Also students receive guidance of staff in research activities like Avishkar, BAJA, SUPRA, UG and PG projects. Following are the details in Table 3.1.7 of prioritized research areas and the expertise available with the institution for teaching, learning, research and innovation.

Table 3.1.7: List of Prioritized Research Areas and Expertise

Sr. No.	Research Area	Name of Expert	Qualification	No. of papers	Citations, H-index	Funded projects (Nos.)	Amount (Rs.)
Department of Mechanical Engineering							
1	Design, Mechatronics & Control Systems	Mr. S. S. Mulik	PhD (Pursuing)	15	-	1	66,000
2		Mr. M. S. Shewale	ME (Design)	13	-		
3	Heat Transfer	Mr. S. P. Nalavade	PhD(Pursuing)	1	-	1	72,000
4	Thermal	Mr. Shambhu Kumar	ME (Heat Power)	10	-	-	-
5	Thermal	Mr. M. K. Chaudhary	PhD(Pursuing)	07	-	-	-
Department of Electronics & Telecommunications Engineering							
1	Digital Compression Techniques using VLSI and Applications	Dr. V. M. Wadhai	Ph.D.	190	8	0	-

Sr. No.	Research Area	Name of Expert	Qualification	No. of papers	Citations, H-index	Funded projects (Nos.)	Amount (Rs.)
2	Security in Cognitive Radio	Dr. V. M. Wadhai	Ph.D.	190	8	1	1,80,000
3	Wireless Body Area Network (WBAN)	Dr. V. M. Wadhai	Ph.D.	190	8	1	11,50,000
4	Embedded Systems and VLSI	Mrs. D. D. Kulkarni	ME (Electronics)	05	-	-	-
5	Embedded Systems and VLSI	Miss. S. V. Parode	ME (Embedded and VLSI systems)	05	-	-	-
Department of Civil Engineering							
1	WATER RESOURCES	Mr. S. S. Deshmukh	M.Tech(Civil-Hydraulics Engg.)	10	-	-	-
2	Geology	Dr. Mahesh C. Swami	Ph.D.	03	-	-	-
3	STRUCTURAL	Mr. Pravin A. Manatkar	M.E. in Structural Engineering	6	-	-	-
4	ENVIRONMENTAL	Mr. GajananSupe	M.Tech in Environmental Engineering	9	-	-	-

Sr. No.	Research Area	Name of Expert	Qualification	No. of papers	Citations, H-index	Funded projects (Nos.)	Amount (Rs.)
Department of Computer Engineering							
1	Cloud Computing	Miss. Sonali Kale	ME (IT)	3	-	-	-

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 takes following efforts for attracting researchers of eminence to visit the campus and interact with teachers and students by:

- Organizing Faculty Development Programs by involving industry personalities
- Inviting experienced professional from the industry for sharing their views by organizing conferences and workshops
- Establishing the existing institutes R & D labs in the institutes as center of excellence
- Initiating and promoting MOU's with industries and R & D organizations
- The institute has ED cell under this cell various eminent personalities visits at institute for interaction with faculty members and students
- Inviting the eminent people to mentor the students project.

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?

Yes. The Institute strongly believes in promoting a research culture by granting study leave for faculties pursuing their Ph.D. and related research work. Various faculties who are pursuing their doctoral studies are given On-Duty leaves for their curriculum and research work.

Sr. No.	Name of faculty	Type of Work	Place
1	Ms. Rohini Kale	Ph.D.	IIT Guwahati
2	Mr. S. S. Deshmukh	Ph.D.	IIT Guwahati
3	Ms. Sulakshana Doiphode	M.Phil. Ph.D.	SPPU, Pune

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)

For creating awareness and propagation of research temperament in the student's community following initiatives are taken up by the institution:

- Exhibitions of Final year projects
- Inculcate the students to participate in inter and intra college technical events
- Baja, Supra competitions.
- Conducting National & International level conferences
- Encouraging the faculty and students to participate in the National & International level conferences held in other institutions
- Funding the research activities of the faculty and reimbursing the registration fee and TA/DA expenses incurred in attending such technical conferences
- Providing access to National & International journals thereby encouraging the faculty to keep themselves updated with the recent developments in their respective areas of research
- Faculty and students have published about 372 research papers in journals and conferences and 20 patents have been filed.

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.

Following table 3.2.1 depicts the amount allocated & actual utilization on research and development activities:

Table 3.2.1: Budget Allocated for Research & Development in Last Four Years

Year	Allotted Total Budget (Rs.)*	Allotted Research Budget (Rs.)	Percentage of Budget
2016-17	1,36,22,000	2,35,000	1.725
2015-16	2,80,90,000	3,80,870	1.355
2014-15	2,82,00,000	4,21,570	1.494
2013-14	3,42,33,000	3,90,981	1.14

*Allocated Budget excluding salary

Refer annexure 3.2.1 for details.

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. Research proposals from faculty and students which are approved by R&D cell are shortlisted for funding (seed money). The institute has allotted Rs. 15 Lakh for the purpose of research.

Seed money is also provided for staff to attend conferences, seminars, workshops and to publish papers in conferences etc. Following table 3.1.7 shows details of seed money used by faculty.

Table 3.1.7: Faculty availed Seed Money for R&D

Year	Percentage of faculty availed seed money	Amount disbursed (Rs.)
2016-17	25.36	82,578
2015-16	23.45	74,587
2014-15	20.98	71,345
2013-14	15.28	60,587

Refer annexure 3.2.2 for details.

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

Institute has very simple and flexible policy for providing finance to student's research projects. Institute constantly encourage and provide financial support to students for their research:

- By providing fund to the department for purchasing hardware equipment's and software for students projects
- By sponsoring students to national and international summits where they can interact with the eminent resource persons
- By providing travel grants to attend international racing competition abroad like BAJA, SUPRA.
- By providing financial assistance to students to manufacture ROBOTS, design to
- Grants are also provided to the students for building state of the art equipment for the purpose of laboratory experiments.
- Department's E-cell provides finance for purchasing project equipment (Hardware & software). Table gives list of Equipment's purchased for Student Projects.
- The national level technical event Techtronic is organized by institute.
- To promote research activity amongst the students guest lecture, workshops, seminars, industrial visits, STP etc. are organized.

Table 3.2.3.1 denotes the list of items and equipments purchased for research & development purpose which are useful to students.

Table 3.2.3.1: List of Equipment to Support Student Research Projects

Sr. No	Year of purchase	Item/Equipment	Price (Rs.)	Quantity
Department Of Mechanical Engineering				
1	2015-16	1 HP Blower	8000	1
2	2016-17	Data Logger	17000	1
3	2016-17	Wind Turbine blade	30000	3
4	2016-17	ADX335 Accelerometer	1500	3
5	2015-16	Arduino Mega 2560 Microcontroller	2500	3
6	2015-16	Motor Shield for DC & Stepper Motor	1200	1

Sr. No	Year of purchase	Item/Equipment	Price (Rs.)	Quantity
7	2015-16	NEMA17 Stepper Motors	1500	3
8	2015-16	Infrared Sensor	1800	3
Department of E&TC Engineering				
1	2013-14	Network Analyzer	370000	1
2	2013-14	Logic Analyzer	49000	1

Following table 3.2.3.2 shows the financial provisions made by Institute to support different research activities by students:

Table 3.2.3.2: List of Grants received by faculty

Sr. No.	Name of the Project	Name of PI/ CO-PI	Amount in Rs.
2016-17			
1	Sensorless XY Scanning Mechanism	Mr. S. S. Mulik and Mr. M. S. Shewale	32,000
2	Heat Transfer enhancement using inserts	Mr. S. P. Nalavade	36,000
3	Differential Settlement Detection	Mr. S. S. Kudale	20,000

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 college has a Research Cell which comprises of Research heads and subject experts from various departments. Every department of the college has its own final year project coordinator. Various departments/faculty members of the Institute interact with the cell in undertaking inter-disciplinary research work.

Presently many UG students are involved in inter-disciplinary projects. In the institute 18 interdisciplinary research projects are ongoing in various departments. For example the XY flexural mechanism developed under DST for precision mechanism involves mechanical and electronics knowledge. Also, the novel machine health monitoring system involves the knowledge sources from mechanical as well as computer background

Following challenges were faced in organizing inter-disciplinary research:

- Core knowledge of inter-disciplinary subjects
- Programming for control systems and understanding its behavior

Challenges faced in implementing interdisciplinary projects were successfully faced in consultation with industry experts with whom the institute has MOU's to endeavor such research projects.

Special lab in interdeciplanary area for architecture and civil engg Research & Development has to be created to give holistic idea of architecting and planning of Development of Smart architecture.

The details of interdisciplinary projects are mentioned below in Table 3.2.4.

Table 3.2.4: List of Inter-Disciplinary Research Project

Sr. No.	Name of the Research Project	Guide
Department of Mechanical Engineering		
1	Sensor less XY – flexural mechanism for precision application	Mr. S. S. Mulik
2	Machine health monitoring system	Mr. S. S. Mulik & Mr. M. S. Shewale
3	IoT based data logger system for 3 Phase AC Pump monitoring	Mr. M. S. Shewale
4	High precision 3D Scanner	Mr. M. S. Shewale
5	High Speed Booklet Scanner with page turning mechanism	Mr. M. S. Shewale
6	Water Shade Management	Mr. S. S. Desmukh
7	Rapid Construction of Buildings	Mr. S. S. Kudale
8	IoT enabled cancer detection using deep learning	Dr. V. M. Wadhai

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

College has four R&D research labs with advanced research equipments and facilities. The labs are open from 8AM to 9PM every day. Inter-disciplinary projects related to other departments need various R&D labs and these are utilized fully up to their extent. Optimal use of various equipment and research facilities are ensured by:

- Maintaining Log books for usage of equipment
- Laboratories are also utilized for technical add-on courses for students such as MATLAB, ANSYS, PRO-E, STAAD-PRO, ETAB to name a few.

- The college central library maintains records of usage of Reference Book, National/International Journals, etc.
- Advanced research e-journals are made available.

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

Yes. The Institute has signed MoUs with industries and other agencies for promoting training, research and extension activities in technical education.

The Institute has received research grants from Department of Science and Technology (DST), Board of College and University Development (BCUD) of SavitribaiPhule Pune University (SPPU), Indian Space Research Organization (ISRO) for conduction of research and for the development of department laboratories.

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

The Institute has several senior faculty members with good experiences in research activities. These senior faculty members guide other faculty members in preparing research proposals and advise them about current trends in research in their area of expertise.

Subsequently the research proposals are sent to various funding agencies for their considerations. Following table 3.2.7 shows details of ongoing projects and completed projects funded by various agencies.

Table 3.2.7: Grants/ Finances Received from SPPU/Industry

Sr. No.	Name of the Project	Name of PI/ CO-PI	Funding Agency	Amount in Rs.	Status
Department of Mechanical Engineering					
1	Sensorless XY Scanning Mechanism	Mr. S. S. Mulik and Mr. M. S. Shewale	BCUD, SavitribaiPhule Pune University	32,000	Ongoing
2	Heat Transfer enhancement using inserts	Mr. S. P. Nalavade	BCUD, SavitribaiPhule Pune University	36,000	Ongoing

3.3 Research Facilities

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

The Institute provides facilities like central library and internet with various information resources and access to digital libraries on 24x7 basis. Apart from computer systems, sophisticated instruments, modeling tools, data processing software and modern equipments are provided to create infrastructural facilities to meet the needs of new and emerging areas of research. The various departments in the institute have developed research facilities to support research work. With reference to Fig. 3.3.1, The institute is bound to support students and faculties in research from every aspect.

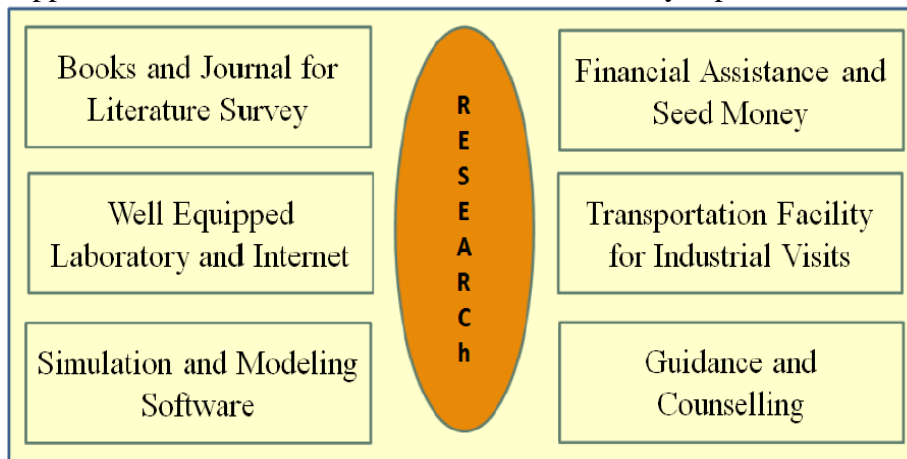


Figure 3.3.1: Research facilities Within the Campus

Following is the list of Grants/ Finances Received from SPPU/Industry as shown in Table 3.3.1.

Table 3.3.1: Grants/ Finances Received from SPPU/Industry

Sr. No.	Department	Research Equipments	Research Lab
1	Civil	3	1
2	Computer	2	1
3	E&TC	2	1
4	Mechanical	5	1

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

The Institute is continuously striving to improve its infrastructural requirements in order to facilitate research in new and emerging areas. This is taken care with the help of following points.

- By encouraging faculty and students to attend research programmes, workshops, seminars and conferences conducted in the Institute and at other organizations. The Institute bears the cost of registration fee, conveyance and sanctions duty leave for the same.
- By encouraging faculty members to organize research workshop, seminars, conferences, with funding provided by Institute and from AICTE/UGC /DST/SPPU
- By making available and upgrading the library of the Institute with wide range of books and various national and international journals. Online journals of IEEE and Science Direct are also accessible to the researchers.
- By providing uninterrupted facilities like high bandwidth Internet facility along with Wi-Fi connectivity in campus for faculty members and students for carrying out research work.
- With R&D Cell the research groups of faculties and students are formed by the Institute for identifying planning and carrying out research.
- The Institute sanctions budget for procuring latest software and equipments to carry out research work across all departments.
- The development of infrastructure conducive to promoting the quality and quantity of research and development.
- To monitor and enhance the quality of research programmes, projects and the research infrastructure within Institute, including the training of research scholars.
- New and current resources to be directed towards the most important targets: strengths and selected priority fields; infrastructures; the research career system; internationalization.
- College has signed MoU with other research organizations.

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, a number of agencies have supported establishment of state-of-the-art training and research & development facilities in the college.

The support has been provided in the form of making available equipment and training set-upset no cost or at subsidized affordable cost to the college.

Following table 3.3.3 shows the facilities created with support from various agencies:

Table 3.3.3: Equipment Developed by External Funding Agencies

Sr. No.	Industry or Other Beneficiary Agency	Instruments/ Facilities Created	Year	Grants Or Finances Received in Rs.
Department of Mechanical Engineering				
1	BCUD	Voice Coil Actuator	2016	16,000
2	BCUD	Inserts	2016	16,000
3	CADD Center	Design Software	2017	5,00,000

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

- Students are encouraged to use facilities of various agencies like ARAI, ISRO IITs, Government College of engineering Pune (COEP) and industries
- Through UG and PG sponsored projects students avail facilities from the industries like TATA, TCS, etc.
- Students visits various organizations like Gaurav Enterprises, Prompt laboratory, Central Water Power and Research Station Pune etc. for calibration of instruments and testing.
- Institute arranges visits to leading industries/organizations for the students. These visits enrich the knowledge of students and make them familiar with the recent happening/research in industry.

Details of research facilities available to students and research scholars outside the campus are mentioned in Table 3.3.4 below.

Table 3.3.4: Research Facilities to Students & Research Scholars outside the Campus

Sr. No.	Name of the industry/ Organization	Location
1	Sinhgad Academy of Engineering	Pune
2	VIT	Pune
3	Sai Service Station	Pune
4	IoTMechatronics Technologies Pvt. Ltd.	Pune
5	Brainaic IP Solutions	Pune
6	Sathyabama University	Chennai
7	College of Engineering	Pune
8	VTU	Karnataka
9	CADD Centre	Pune

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

- A central library and departmental library for each department is available.
- WI-FI network is available in campus.
- Facility to download refereed journal papers.
- NPTEL and e-books.
- Magazines like Refrigeration and Air Conditioning, World pumps India,
- Indian Foundry Journal and, Cutting tools etc.
- Reference books and thesis on various research topics and project.
- A separate facility s made available for referring research book/international journal etc.
- Library has 9816 books, 2949 titles, 64 printed journals and online subscription for 507 journals for all 4 departments.

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

Different departments have created some specified research laboratories and procured specified equipment/software/hardware in the respective departments to augment the research facilities. With the ongoing and completed research projects of nearly 85 lakhs various research outcomes have been achieved in the four R&D labs of the college. Some of the research lab equipments are developed in collaborative efforts with agencies/Industries like COEP, DRDO, ISRO, etc.

Table 3.3.6: Collaborative Research Facilities Developed by the Institutes

Sr. No.	Research Area	Name of Collaborative Research Facility	Collaboration With
1	Mechatronics	ADXL335 Accelerometer	IoTMechatronics Technologies Pvt. Ltd.
2	Mechatronics	Arduino Mega 2560 Microcontroller	IoTMechatronics Technologies Pvt. Ltd.
3	Mechatronics	DSPACE, DS1104 PPC microprocessor	COE, Pune
4	Mechatronics	BEI Kinco Voice coil Actuator	DRDO, Pune

3.4 Research Publications and Awards

3.4.1. Highlight the major research achievements of the staff and students in terms of Patents obtained and filed (process and product).

The faculty members at our institute are actively concerned in research in various fields of engineering and technology. The faculty also safeguards their genuine research outcomes by obtaining/filing the patents. The following table 3.4.1.1 represents the detail of patents published/filed by faculty members at the institute.

Table 3.4.1.1: List of patents by Faculties

Sr. No.	Title of Patents	Name of Faculty	Registration No.	Status
Department of Mechanical Engineering				
1	Sensor less XYZ Scanner for High Precision Applications	Mr. Mahesh Shewale, &Mr. Sharad Mulik,	201621027261	Published
2	Blood Warmer	Mr. Mahesh Shewale	201721002404	Published
3	Machine Health Monitoring System	Mr. Sharad Mulik, & Mr. Mahesh Shewale	201721003774	Published
Department of Electronics and Telecommunication Engineering				
1	Method and apparatus for wireless sensor network based intelligent framework for mobile real time health care system	Dr. V. M. Wadhai	1259/MUM/2011	Published
2	Method and apparatus for outlier detection in high dimensional categorical data sets.	Dr. V. M. Wadhai	1260/MUM/2011	Published
3	Hybrid cryptography and phonetic based method for digital water marking	Dr. V. M. Wadhai	1692/MUM/2014	Published
4	A standalone RFID and NFC based healthcare system	Dr. V. M. Wadha,	170/MUM/2015	Published
5	Optimization of Hand of Latency using efficient spectrum sensing for cognitive radio in 4G wireless network	Dr. V. M. Wadhai	2221/MUM/2014	Published

Sr. No.	Title of Patents	Name of Faculty	Registration No.	Status
6	Phonetic based digital watermarking in text data repository	Dr. V. M. Wadha,	849/MUM/2014	Published
7	Methods and Apparatus for Secure healthcare System Based on Near Field Communication	Dr. V. M. Wadhai	1454/MUM/2015	Published
8	Real Time Depression Detection and Analysis Using multi parametric Fusion Approach	Dr. V. M. Wadhai	4093/MUM/2015	Published
9	NFC Based Library Automation Using Smart Phone	Dr. V. M. Wadhai	1596/MUM/2015	Published
10	Method for Music Based Computing of Human Emotions and evaluating the Raga of Indian Classical Music for Stress Release and Emotion Control	Dr. V. M. Wadhai	4212/MUM/2015	Published
11	Fabrication and Design of ECG Electrode for long Term Health Monitoring Applications	Dr. V. M. Wadhai	2444/MUM/2015	Published
12	Dynamic Spectrum Management Techniques using Cognitive Radio	Dr. V. M. Wadhai	3811/MUM/2013	Published
13	NFC based loyalty management System	Dr. V. M. Wadhai	Patent filed	Published

Sr. No.	Title of Patents	Name of Faculty	Registration No.	Status
14	Method and apparatus for secure healthcare system based on NFC	Dr. V. M. Wadhai	Patent filed	Published
15	Real time depression detection and analysis using multi parametric fusion approach	Dr. V. M. Wadhai	Patent filed	Published
16	Security of Cognitive Radio using smart radio channel change protocol	Dr. V. M. Wadhai	Patent filed	Published
17	Indoor localization system for mobile device with integration of wireless and RFID technology	Dr. V. M. Wadhai	Patent filed	Published
Grand Total			20	

Product Commercialization:-

The faculty at our institute is actively involved in current area of research in their particular fields of engineering and technology. The faculty members are also focused on commercialization of research outcomes after obtaining the patents. The following products shown in Table 3.4.1.2 are planned for commercialization.

Table 3.4.1.2: List of Product Commercialized

Sr No.	Name of Product	Name of Faculty
1	Smart dashboard For Two Wheelers Using NFC	Dr. V. M. Wadhai
2	NFC based system for healthcare sector	Dr. V. M. Wadhai
3	Real time apnea detection, real time arrhythmia detection	Dr. V. M. Wadhai
4	Real time depression analysis by speech, EEG signal and emotional expression signal processing	Dr. V. M. Wadhai

Sr. No.	Name of Product	Name of Faculty
5	Design and development of wearable biosensor node for body area network	Dr. V. M. Wadhai
6	LED light 3 to 12 W	Mr. S. D. Mahajan

Research studies or surveys by faculties benefiting the student career or improving the services are mentioned in Table 3.4.1.3.

Table 3.4.1.3: List of Project Survey and Outcome to Students

Sr. No.	Name of Faculty	Topic of survey	Outcomes
Department of Mechanical Engineering			
1	Mr. P. H. Jadhav	WCO biodiesel and additives fuelled in CI engine	Students get a wider view of alternative fuels
2	Mr. M. M. Moog	Friction Welding	Novel welding method efficient as compared to other
Department of E&TC Engineering			
3	Ms. D. D. Kulkarni	Data Aggression in wireless sensor network using TCDGP	Students get deep knowledge about wireless networks
4	Mrs. S. V. Parode	A MAC protocol for Cognitive Wireless Body Area Sensor Networking	A broad view of concepts in cognitive network is imposed
Department of Computer Engineering			
5	Mrs. Sonali Kale	Cloud Computing	Student gets idea Software as services.
6	Ms. Sheetal S. Jadhav	Image Processing	Improve image Searching With the Help Feedback System
Department of Civil Engineering			
7	Mr. S. S. Deshmukh	Hydrology, watershed management	Applications of Remote Sensing and GIS.

Sr. No.	Name of Faculty	Topic of survey	Outcomes
8	Mr. Sachin S. Kudale	Structural Designing & Planning	Student get idea about Building Design & Structural Steel design

Research inputs contributing to new initiatives and social Development:

Some faculty in our institute are involved in Flexural Mechanism, Renewable Energy, Bio-Diesel, study which have After shrinking of Flexural mechanism significant reduction in Medical problem, improvement in production of electricity for small house hold where power grid has been uncertainty and also reduced global warming. Table 3.4.1.4 enlists the details of surveys by faculty which are beneficial to society.

Table 3.3.6(d): List of Project Survey and outcome to Social Society

Sr. No.	Name of Faculty	Topic of survey	Benefits to Social Society
Department of Mechanical Engineering			
1	Mr. M. A. Bhandare	Sugarcane bud cutting machine	Reduce the efforts in sowing sugarcane buds
2	Mr. M. K. Chaudhary	Small wind turbine blade design and testing	Enhancement in performance of renewable energy devices
Department of E&TC Engineering			
3	Ms. D. D. Kulkarni	Digital Notice Board	To Give the Information/Notice to the student
Department of Computer Engineering			
5	Mr. A. S. Kulkarni	Advanced E-Learning management System	Saving of materials and paper for teaching & learning purpose
6	Ms. S. G. Nandanwar	Project Management System for Students	To ease finalization of unique work by avoiding repetition

Sr. No.	Name of Faculty	Topic of survey	Benefits to Social Society
Department of Civil Engineering			
7	Mr. S. S. Deshmukh	Watershed management	Applications of Remote Sensing and GIS
8	Mr. S. S. Kudale	Rapid construction of buildings	Speedy construction of buildings

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?

N/A

3.4.3. Give details of publications by the faculty and students.

The faculty members of the institute are energetically involved in research. The research outcomes are shared with outside world through publication in reputed national/international journals and conferences. A total of 372 papers and 20 patents have been published in various field by our faculty members in a multiplicity of national/international conferences and journals with 20 patents. Also their publications have received good citations from the research community. The details of the papers published by faculty members are enlisted below in table 3.4.3.1 department wise:

Table 3.4.3.1: Details of publications

Sr. No.	Department	Papers published in				Patents Filed / Granted
		National Journal	International Journal	National Conference	International Conference	
1	Civil Engineering	14	25	7	2	0
2	Computer Engineering	1	5	6	5	0
3	Electronics and Telecommunication	1	100	35	77	17
4	Mechanical Engineering	13	34	31	16	3
Total		29	164	79	100	20
Grand Total		392				

Citation of Publications:

The research publications of the faculty members are cited by various authors. The following table 3.4.3.2 enlists the citations of the faculty members

Table 3.4.3.2: Details of Citations

Sr. No.	Name of Faculty	Citations	H-Index	i10 index
1	Dr. V. M. Wadhai	250	8	5

Books Published

The faculty members enriched with a enormous experience and technical knowledge have contributed to the academic by publishing books this benefits the student community at large. Our faculty members have contributed to the academic by publishing 8 books for the benefit of student community to enhance their knowledge in technical era. The following table 3.4.3.4 enlists the books published by the faculty members of this institute:

Table 3.4.3.4: List of Book Published

Department Wise Number of Books Published			
MECH	CIVIL	E & TC	COMP
--	02	04	02

3.4.4. Research Awards and Recognition Received From Reputed Professional Bodies and Agencies:

The faculty members at the institute has been accepted and awarded with various awards and recognitions by the apparent professional bodies and agencies at both state level and national level. The following table 3.4.4 enlists the details of such awards and recognition.

Table 3.4.4: Research Awards and Recognition

Sr. No.	Name of Faculty	Name of Award	Year	Award Given by
1	Dr. Vijay M. Wadhai	Award for incredible support Pranay Chakshu	2016	Kshitij Foundation
2	Dr. Vijay M. Wadhai	Yashodeep Award	2016	Deep Stambh Foundation
3	Dr. Vijay M. Wadhai	SadhManuski	2016	Deeper.co.in Organization

Sr. No.	Name of Faculty	Name of Award	Year	Award Given by
4	Dr. Vijay M. Wadhai	Indira Gandhi Gold Medal Award	2015	GEPR(A)(Global Economic Progress and Research Association)
5	Dr. Vijay M. Wadhai	SamwaadParivartancha	2014	Pune Shahar Police Aayuktalay
6	Dr. Vijay M. Wadhai	SanmanChinha - VidharbhaMahotsav	2014	VidarbhaSahayogMandal, Pune
7	Dr. Vijay M. Wadhai	Best Student Councilor for IEEE	2008	IEEE Bombay section
8	Dr. Vijay M. Wadhai	IETE award	2008	IETE, Mumbai Chapter
9	Dr. Vijay M. Wadhai	Institute Engineer Award (IE)	2003	Nashik Institute, Nashik
10	Dr. Vijay M. Wadhai	University Topper	1995	PDA College of Engg, Gulbarga
11	Mr. M.S. Shewale	Young scientist research awards	2017	IEEE Bombay section
12	Mr. M.S. Shewale	Best paper award	2015	IEEE Bombay section
13	Mr. M.S. Shewale	Best paper award	2017	IEEE Bombay section
14	Mr. M. K. Choudhary	Best project Award	2012	GHRCEM, NAGPUR
15	Ms. S. S. Jadhav	Best Paper Presentation	2014	cPGCON, Nashik
16	Ms. S. G. Nandanwar	Best Paper of Session	2014	cPGCON, Nashik

3.5 Consultancy

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

Institute believes that industries and research organizations are the backbones for any academic institute. Trinity Academy of Engineering (TAE) always encourages inviting industries in all the disciplines to in order to receive inputs on curriculum and required efforts to be taken to bridge the gap between industry and academic.

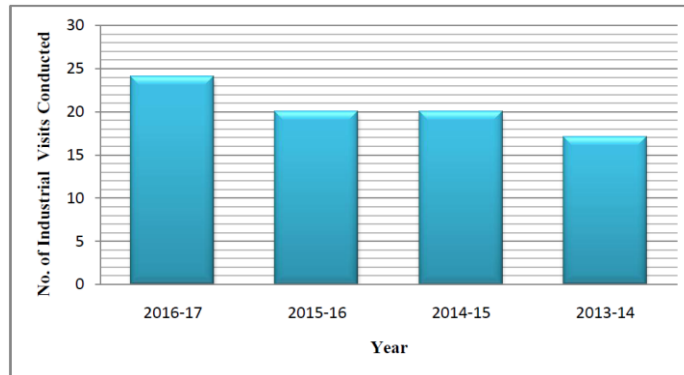


Fig.3.5.1: Industrial visits year wise

Systems:

- Institute works on several comprehension projects from industries which help to get knowledge and hands on experience which also gives opportunities to interact with industry experts.
- Student council is actively functioning which is a perfect blend of clubs to produce competent students to face the newer challenges of today's globalized world through holistic development.
- This council also provides a platform for students to support, share and excel in potential qualities. It also helps to build knowledge sharing, attitude building, integration and implementation.
- Institute gives more stress to develop Entrepreneurship skills amongst students and every year E-cell organizes Entrepreneurship conclave where successful Entrepreneurs are invited for panel discussion with the students.
- Institute also conduct industry-driven training in association with experts from industry which helps students to get industry perspective for technologies and its application in real life.
- Institute also offer Open elective in final year in various streams of respective departments.

Strategies

- Institute arranges industrial visits, industrial trainings, workshops, FDP and STPs.
- Internship programs are planned for the students in industries every semester in various respective departments.
- To foster Entrepreneurship skill in collaboration with industry Offering Industry oriented Certification Programmers to address the growing need of engineering professionals.
- Validating research activities so as to develop sustainable long-term interactions with industry Enhancing research engagements with industry and public sector

- To develop the designs for latest technologies through R&D cell with Centre of Excellence.

Various activities in cells are described in Table 3.5.1.

Table 3.5.1: Cell Activity and respective outcomes

Sr. No.	Cell Name	Cell outcome
1	Technology Business Incubation Center (TBI)	Cell is formulate to trigger students to build their novel minds for egging up a startup ahead by being an incubate of this cell
2	Training and Placement Cell	Students are motivated to have good communication skills and overall personality development and enhance interview skills
3	Research and Development Cell	<ul style="list-style-type: none"> • Research and innovation importance is inculcated among students. • Faculties are motivated to explore knowledge in their domain. • Developed research culture in various departments of the institute
4	Higher Education Cell	Created awareness about Higher Education Possibilities Abroad
5	Entrepreneurship Development Cell	Motivated students to become an entrepreneur
6	Alumni Cell	Inputs were taken from alumni on development of institute
7	Corporate Social Responsibility Cell	It offers a customized 3 months training course for youngsters who are financially backward to improve their skills and enhance their employability
8	Competitive Examination Cell (UPSC, MPSC, Gate etc.)	Sessions were conducted to guide students for GATE and competitive exams
9	Internal Quality Assessment Committee	<ul style="list-style-type: none"> • The faculty members were educated about the insights of NAAC • The undocumented and informal activities related to NAAC visit were put forward
10	Institute level program committee	Faculty had learned few handwriting secrets and were motivated and relaxed from their demanding busy schedule
11	Anti-Ragging Committee	College students as well as staff understood the different rules and regulation about Anti-Ragging and what action to be taken on the person who is committing that act.
12	Women anti sexual harassment Committee	Awareness about sexual harassment and to promote the general well-being of female students, teaching and non-teaching women staff of the college

Sr. No.	Cell Name	Cell outcome
13	Gender Equality	College students as well as staff understood the different ways of empowerment of women, How to treat all gender equally and how women can protect themselves independently.
14	Environmental Club	<ul style="list-style-type: none"> • Research work on Carbon Credit of KJEI was presented. • Total carbon emission level for Dec 2016 was determined and found to be 195 MT.
15	Wall Magazine , Student & Faculty Achievement	A platform was provided to students. It helped in evolution of students in various prospects of life.
16	Student Welfare	It helped in grooming of students who are weak in Soft Skill so that students face interview of various companies without any hesitation
17	Library Advisory Committee	The Book Exhibition provided a platform for students as well as faculties to directly interact with different publishers
18	Health Club (Yoga)	Promoted healthy lifestyle by incorporation of Yoga in daily lifestyle
19	Student Association	All active student members of the Association understood how they can improve their technical skill along with academic curriculum.
20	Sports Club	<ul style="list-style-type: none"> • Built sports driven culture • Highlighted importance of sports in life
21	Cultural Club	<ul style="list-style-type: none"> • Exercised leadership in different cultural contexts. • Developed competency in navigating at institutional as well as personal level
22	Student Council	Represented students & provided a platform of interaction with the higher authorities
23	Rotaract / Social Club	Committee gained good management skills to conduct any program



Figure 3.5.1: Latest technologies through R&D

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

The Institute promotes consultancy activities in various ways. Faculty in each department is acceptable to attract consultancy projects from various industries, associations or individuals on demand through their research activities. The faculty has the independence to quote consultancy charges and also free to utilize the infrastructural facilities for the same. In mainstream of cases, consultancy is done on the honorary basis.

- Consultancy always helped institute to disseminate knowledge and expertise. There are many industries approaching institute and inviting students to collaborate on industry live problems. Many industry oriented courses are also conducted for the students and faculties.
- Agreement is signed between institute and industry mentioning sharing of revenue towards the use of institute resources.
- Consultancy work should benefit to institute and should not hamper the any academic process.
- Consultancy work can also be carried out at department level in consultation with concern HOD with the approval of principal.
- College resources and man power is available for consultancy and research activities.
- There is also provision of grants to be given to in-house faculties for initiating consultancy and research.

Expertise advocated and publicized in the following manner:

- There is central overseas placement cell which always explores the possibility of international collaboration with industries and universities.
- There is a provision of study leave, duty leave for the faculties who are involved in consultancy work.
- Major areas of expertise are advertised through the college website at <http://www.kjei.edu.in/> the departmental section and also through technical events, significant cell and social cell.
- The expertise with the institute is published by advertising in college website, college research handbook, college magazines and newsletters.

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

The Institute promotes consultancy activities. It encourages senior faculty to recommend their expertise to clients from different sectors to establish trustworthiness in the society in their respective domains.

- The faculty is free to undertake consultancy with the organizations of the choice and are free to quote their charges.
- Faculty members are always encouraged to attend reputed national and international symposium where they get an opportunities to interact with eminent resources across the global and establish some rapport to start consultancy
- Consultancy is mostly based on revenue sharing where the major share is allocated to concerned faculty.
- Institute provides all laboratory facilities like free Wi-Fi, high computing labs,

- generator back up and well furnished infra structure with dedicated instruments/equipments are made available for research work and institutional resources along with human resources at extended hours to faculty members for consultancy work.
- Certificate of appreciation is also issued by respective HoDs for their stupendous contribution in Academic as well as in Social Contributions.
 - All the latest software's are made available such as MATLAB, CAD FEKO, PROTEES, ANSYS, CREO, MASTER CAM, CATIA, Q-BLADE, FFT, for the faculty and suitable environment is nurture.

The college motivates the professionally qualified staff to utilize their expertise for consultancy services with the permission of institute. The organization has framed a policy in this regard. The policy is as follows

- All the expenses involved in consultancy projects like equipments, consumable, electricity charges and water charges are met through the funds generated by means of consultancy charges.
- The remaining amount generated through consultancy is shared by the institution and staff as per institute policy.
- Civil consulting work can be carried out in various fields i) Surveying ii) Structural Designing iii) Construction Planning etc.

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

Institute provides services of infrastructure and laboratories to other institutes and industries in its close vicinity and around Pune. Sometimes the services are provided on reciprocator basis. Institute has a wide spectrum of areas for consultancy as follows:

- TCS, TECH MAHINDRA, conducted exams like IIM CAT, ISBP.
- Institute conduct exam like JEE, NET, GATE
- Faculty of institute imparted training to students in soft skills and relevant professional etiquettes under Pariniti Foundation.
- Major research work is carried out in areas like Power Electronics, Communication, GPS Technology, PLC Automation, etc by faculty from E&TC Department.
- The institute infrastructure is utilized to conduct external exams from Government and Private sectors on holidays.
- Department of Civil Engineering provides consultancy to KJ Infrastructure in the field of Structural Design and Construction Management.

3.5.5 What is the policy of the institution in sharing the income generated through consultancy and its use for institutional development?

The organization has framed a policy for sharing the income generated through consultancy. The policy is as follows:

- All the expenses involved in consultancy projects like equipments, consumable, electricity charges and water charges are met through the funds generated by means of consultancy charges.

- The remaining amount generated through consultancy is shared by the institution & staff.
- The standard income distribution model is based on income per consultancy agreement per financial year and is accordance with circulars generated by
- Institute time to time
- Accounts department facilitate this decision by providing institute with quarterly reports of the consultancy income (per financial year) generated by their staff.

3.6 Extension Activities and Institutional Social Responsibility

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?

Our objectives:

- To proactively support the health and wellbeing of our students.
- To protect and built up our environment.
- To reduce the wastage of natural resources.
- To support our local communities.
- To establish partnerships with charitable organizations with supporting activities

The program was organized by Corporate Social Responsibility Cell for underprivileged students. Those students have technical knowledge but they are lack in communication such students number is more in villageous area. “PARINEETI” foundation is working for such students. With the help of “PARINEETI” CSR cell offers a customized 3 months training course for youngsters who are financially backward to improve their skills and enhance their employability. The first batch with 18 students will start from 23rd January.

“PARINEETI” Foundation’s German Director Mrs. IndraChibb and Pune coordinator Ms. Swati Nair and Mr. Vishwajeet were present. Final year 67 Students appeared from all departments to give Entrance. Among 67 students 33 cleared Entrance and selected for personal interview. From 33 Students 18 Students are Shortlisted for training.

- The Institute has social activity cells. These cells help to develop social responsibility among students. A number of social activities are organized by the Institute. These activities contribute to society.
- The college has student associations at departmental levels. Mechanical department has mechanical engineering student’s association (MESA), civil department has civil engineering student’s association (CESA), E&TC department has electronics and communication of realistic engineering (ENCORE) and computer department has association of computer engineering students (ACES).
- Every year a number of activities are carried out by these student associations. The associations arrange blood donation camp in college two times a year.

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

Social activities are conducted by different social clubs as shown in Table 3.6.2. The social clubs work at institute level. These clubs are headed by faculty members. Each department has departmental coordinator looking after these clubs. Social movements are monitored and guided by Dr. VijayWadhai.

Table 3.6.2: List of Cells for Various Activities in Institute

Sr. No.	Cell Name	Sr. No.	Cell Name	Sr. No.	Cell Name
1	Social Club	9	Wall Magazine	17	Higher Education
2	Anti-Ragging Squad	10	Entrepreneurship Development	18	Competitive Examination
3	Student Council	11	Industry Institute Interaction	19	National Service Scheme
4	Grievance Redressed	12	Alumni Association	20	Health Club National Service scheme
5	Woman Anti-Sexual Harassment	13	Training & Placement Cell	21	Corporate social responsibility
6	Student Welfare	14	Research & Development	22	Sports Club
7	Student Association	15	Technology Business Incubation Center	23	Environment Club
8	Gender Equality	16	Value Aided Technical & Training skill Development		

A student record file is maintained which has details of students volunteering in different cells. Details of students such as student class, student division, student name, contact number and mail ID are maintained in a file at college level. File is available with cell coordinators. Students are involved in activities, which help in holistic development of students.

The students are motivated to participate in various social events like NSS, Blood donation camps, Visits to Orphanages and Clean up march for the social ,ethical and environmental responsibility (March for road safety).

- Institute has Women Anti-Sexual Harassment Committee. Ms. Sonali S. Kale from computer department is coordinator of committee. This committee looks after awareness of women safety and focuses on program intended to respecting women
- Yoga committee is headed by Ms. SheetalJadhav from computer engineering department. Prime objective of committee is to spread awareness of healthy soul and healthy body. Yoga programs are conducted by Ms. Jadhav under the committee.
- Institute has gender equality club under university of Pune.

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

For continuous development of the institute suggestions and feedbacks are welcomed from different stakeholders. It helps for institution growth and survival. Institute performance and quality is the reflection of stakeholder's feedback. Major stakeholders of the institute are students, parents, alumni, recruiting companies, employees, etc. Feedback is collected by following feedback templates.

- Regular course feedback from students is conducted during every semester.
- Parents meet are conducted regularly in the institute. Student performance, strengths and weaknesses are discussed with parents.
- Alumni are very important stakeholders of institute. Institute gives high priority to alumni feedback. Inputs are taken from alumni for betterment of institute.
- Continuous feedback is taken from recruitment companies. It helps to convey shortcomings to students. Student strengths are enhanced and weaknesses are diminished.
- Students are USP of the institute. Students result assessment is done at department level in institute. Reflection of assessment on admission status is predicted.

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

Various extension activities and programs are carried out by institute every academic year.

- Cultural and sports activities
- Guest Lectures
- Workshops
- Technical and non-technical competitions
- Visit to orphanage, donation of clothes, food, books, etc. to the needy
- Blood donation camps
- Celebration of Independence day, Republic day,
- Teacher's day.
- Engineers Day.
- Conferences
- NSS

These activities help in personality improvement, team spirit, enrich technical knowledge, understand current trends. Conducting blood donation camps, orphanage visit, traffic awareness, etc., are organized. It helps in building social awareness among students.

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 numerous associations, clubs and cells to conduct various extension activities. These associations promote the role and importance of all such activities during induction programmes and motivate the students to participate voluntarily. The Institute has created and supported all clubs to perform their activities as shown in Table 3.6.5.1.

Table 3.6.5.1: List of Clubs for Various Activities in Institute

Sr. No.	Cell Name	Sr. No.	Cell Name	Sr. No.	Cell Name
1	Gender Equality	9	Student Welfare	17	Higher Education
2	Anti-Ragging Squad	10	Student Association	18	Competitive Examination
3	Right to Information	11	Industry Institute Interaction	19	National Service Scheme
4	Grievance Redressed	12	Library Advisory	20	Student Council
5	Internal Quality Assessment	13	Training & Placement Cell	21	Corporate social responsibility
6	Woman Anti-Sexual Harassment	14	Research & Development	22	Wall Magazine
7	Sports committee	15	Technology Business Incubation Center	23	Alumni Association
8	Environment Club	16	Value Aided Technical & Training skill Development	24	Entrepreneurship Development

The coordinators discuss the benefits and scope of activities with the students. The proposed activities are promoted through academic calendar, displaying on college notice board, circulars and web notifications

The academic calendar for NSS activities is followed accordingly as tabulated below in Table 3.6.5.2.

Table 3.6.5.2: List of NSS Activities

Sr. No.	Event	Date
1	Inauguration Function NSS	19/06/2017
2	Swachata Abhiyan	02/10/2015
3	Guest Lecture:-Girls be safe on your own	23/01/2016
4	One Day Camp:- Health Checkup Camp	02/10/2015
5	Aids Day	01/12/2016
6	Makarsankranti	14/01/2016
7	Yuva Din	12/01/2017
8	Republic Day	26/01/2015
9	Engineers Day	15/09/2016
10	Traffic Control One day	24/01/2017
11	Special One week Camp at Himachal Pradesh	07/02/2016
12	Cancer day	04/02/2016
13	Tree plantation	28/01/2017
14	Slogan Posters (Save Environment)	24/02/2017

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

The college social groups have conducted number of social activities as listed below

- The Life Editors team has conducted the Cleanliness March for supporting Swachh Bharat Abhiyan. Also this team has supported “NAAM Foundation” in raising the funds for farmers which are impacted by the drought.
- For educating the physically challenged people By Dr. V. M. Wadhai
- This program was about traffic awareness and road safety on road. in this program CSR cell invited Mr. Sunil SitaramShelke(API) Kondhwa Region Pune ,and SachinVittalShinde (Police Naik) as a chief guest also our principal Prof. Dr V.M. Wadhai and all head of department was invited.
- TE (Mech) student SaheshVichare. Speaker has completed B.E. from BharatiVidyapeeth in 1996. He is giving such value aided seminars in most precious college like NITs and IITs. Speaker outlined various tips for how not become victim of bad habits.
- A programme was organized on POWER OF HABITS for FE students by Mr. SundarShyam Das on 03/01/2017.

- A social contribution for crime reduction and rehabilitation of criminals by Dr. V. M. Wadhai (2014)
- A social contribution uplifting the unprivileged students from villages by appreciating their merits and giving them directions to serve the country (2014)

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.

Engineering practices have impact on society. Engineer work for issues, problems faced by society. An engineer's conduct towards fellow engineers, employers, clients and towards the public is an essential part of the life of a professional engineer. Engineering affects virtually every aspect of our society and engages a substantial set of the population in carrying out engineers' plans and designs. Society has become increasingly dependent on technology.

Such activities are performed under the groups of students association of every department to develop their interpersonal skills and team building. These associations are led by students for the students which boost their leadership skills and self-confidence. The institute imbibes the moral and social values among the students by motivating them to participate in all such activities.

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

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

- Blood Donation Camps
- Cleanliness Drives
- Tree Plantations
- Visits to rural areas and spreading awareness about social issues such as the dowry system, female foeticide and Environment protection to name a few.
- Educating the youth about underlined traffic rules.

The institute surveys the need and extends the helping hand to the underprivileged community by organizing various activities like Blood Donation Camps, Cleanliness Drives, Tree Plantations and visits to orphanage and donate them food, clothes, books etc and share happiness by arranging entertainment programs. Thus the active participation of students and positive response from the community helps build a strong bond between the institute and community.

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.

Relationship with other institutions has been developed by following activities:

- Blood donation camps are organized in institutes.
- MoUs signing with companies and groups is carried out. It provides platform to build relationships.
- Students from various departments actively participate in cultural programs at the inter-college level.

Table 3.6.9 enlists such relationships with other organizations in locality.

Table 3.6.9: List of Tie-up with Institutes for Outreach and Extension Activities

Sr. No.	Name of Organization	Purpose
1	NAAM Foundation	Funds raised for farmers affected by drought conditions
2	Kondhwa Police Station	Women Empowerment
3	Maharashtra fellowship for Deaf and Dumb, Mohammedwadi, Pune	Orphanage visits and donations
4	AFMC, Pune	Blood Donation Camp

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.

Yes. The institute has received many awards for its contribution in technology and social awareness towards society.

Table 3.6.10: Awards Received by the Institution for Contributions to the Social/Community Development

Sr. No.	Name of the award	Award received for	Year	Award Given by
1	Award for incredible support PranayChakshu	Service to Blind Community (Student)	2016	Kshitij Foundation
2	Yashodeep Award	For educating the physically challenged people	2016	DeepStambh Foundation
3	SadhManuski	Driving the nation for educating the students for entrepreneurship skill, Health and education	2016	Deeper.co.in Organization
4	Indira Gandhi Gold Medal Award	Outstanding Individual achievement and distinguished service in Engineering & Research	2015	GEPR (Global Economic Progress and Research Association)
5	SamwaadParivartancha	For contribution of crime reduction and rehabilitation of criminal and also For data analysis and mind transformation work.	2014	Pune Shahar Police Aayuktalay
6	SanmanChinha - VidharbhaMahotsav	A Social contribution for uplifting the unprivileged students from villages by appreciating their merits and giving them the direction to serve the country	2014	VidarbhaSahayogMandal, Pune

Sr. No.	Name of the award	Award received for	Year	Award Given by
7	Best Student Councilor for IEEE	Fostering the skill development in technology.	2008	IEEE Bombay section
8	IETE award	Significant Contribution towards IETE chapter, Navi Mumbai	2003	IETE, Mumbai Chapter
9	Institute Engineer Award (IE)	Best Engineer		Nashik Institute, Nashik
10	University Topper	Master Degree	1995	PDA College of Engg, Gulbarga

3.7 Collaboration

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

Institute collaborates and interacts with research laboratories, Institutes and industries for research activities. Students and staff identify the research areas through interaction with industries, corporate, research labs, other Institutes/Universities and draft research proposals. These research proposals are further put up before Research and Development Cell which consists of Principal as chairman, R&D Head and other members. R&D Cell approves the proposals, interact with industries, corporate, research labs, other Institutes/Universities and finally sign MOUs with the stake holders. These MOUs result into number of beneficial outcomes for the institute in terms of funds for research projects, lab developments, new technology developments etc. Below in Fig.3.1 flow chart shows how the R&D cell functions to collaborate and interact with research laboratories, Institutes and industries for research activities.

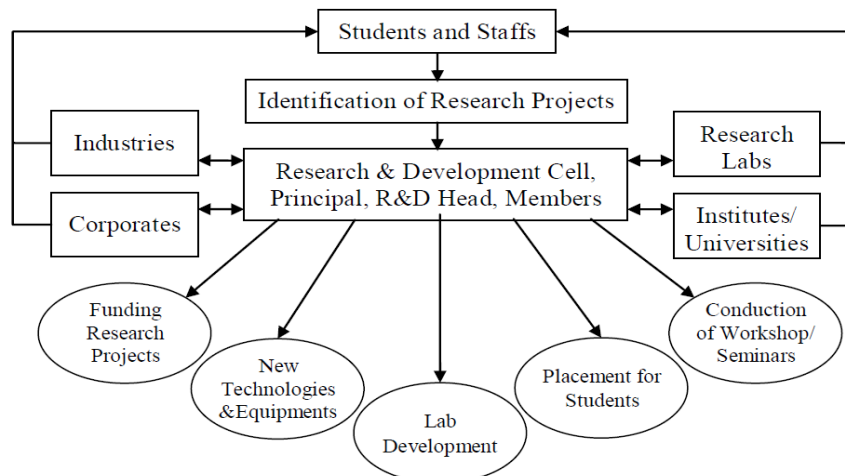


Figure 3.7.1: Functioning of R&D Cell

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

The Institute has signed MoUs with external organizations to conduct activities like Training, Placement, Development of training facilities for students, Guest Lectures, Participation in technical events and Advanced Learning. The Institute has signed 30 MOUs with various industries/ Organizations to promote various collaborative activities with mutual benefit as shown in Table 3.7.2.

Table 3.7.2: Department Wise of MoUs

Department Wise MoU			
MECH	CIVIL	E&TC	COMP
10	08	06	06

There are number of collaborations with industry like Zensar Center of Excellence

- The collaboration helps in employability skills development program (ESD).
- For soft skills training institute has MoU with Parineeti foundation.
- CADD training center private limited trains students on CAD.
- MoU with IoTMechatronics Technologies Pvt. Ltd. for collaborative research work.

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

Interaction with renowned personalities from various reputed institutes and industries are very useful for the creation of better academic facilities for staff and students. The Institute interacts with industry people through industrial visits, seminars/Guest Lectures, workshops, conferences and placement.

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

Many reputed industries visit the institution for placements. Acknowledging our efforts, both industry and government agencies have made strategic tie-ups with our educational Institution. A partnership with government and industry enhances our Institute's research, education, and outreach mission. Such partnerships enable the Institute to investigate new trends and technologies, and to launch new initiatives. Partners provide valuable funding access to enhanced educational opportunities through visiting lecturers, workshops, industrial visits and special courses. Details of Industry-Institution-Community Interactions is shown in Table 3.7.3.1.

Table 3.7.3.1: Industry-Institution-Community Interactions

Branch	2016-17	2015-16	2014-15	2013-14
Mechanical Engg	05	55	43	30
Electronics and Telecommunication Engg	03	41	26	12
Computer Engg	04	18	18	29
Civil Engg	00	05	04	02
Total	12	119	91	73
Grand Total	295			

Details of companies and students placed are mentioned in following table 3.7.3.2.

Table 3.7.3.2: List of Companies and Students Placed

Sr. No.	Name of Company	Number of Student Placed
Department of Mechanical Engineering		
2013-14		
1	Sify Technology, Indiana, Moujj	30
2014-15		
2	Bosch Chassis and Brakes int., Endress and Hasser, High Temp Furnace, Kohlr Power System, SiporexIndPvt Ltd., Diesel Care Ltd., 5/2 Army Base Workshop, Siemens, Microcheck Calibration Services, FIAT India Pvt Ltd, Sandvik Asia Pvt Ltd, Om Engg, 3M Industry, Accurate Engineering, AccureGauging,Ognibene India Pvt Ltd IntervalvePoonawala Ltd., Baker Gauges, DigiMetalwarePvt Ltd, S.S. Engineers, Tata Motors, RMS Controls, Zeal Indus, Atharv Polymer ,SIPL, Chakan, Trimech, HDFC Bank, GangotriEngg, Litens automobile, Puja Fluid Seals Pvt Ltd, Mahindra Rise, MNGL, SaileenTechnocrafts, TAFE, PMT Workshop, Ashok Leyland, Heat Transfer EnggPvt Ltd, RAKA and Oil company, Track Components, Vimal Industries	43

Sr. No.	Name of Company	Number of Student Placed
2015-16		
3	Technifab Industries, U.K. Industries, 3D Printword PVT. LTD, Pune Muncipal Corporation, MIDC Chakan, Sagatech Automation, Intervolve, Indoskalp Autocom Pvt. Ltd, Hilda Automation Rabale, Divgi Metalwares, Electronica Pvt Ltd, Electronica Pvt Ltd, A J COMPRESSORS L L P, SM AUTO STAMPING PVT LTD, Aditya Engg, Bharat Forge, Super Auto India Ltd, CAD Center Design Trainer, Chaphekar Engg Pvt. Ltd, Span Filtration Pvt. Ltd, Auto one Solution, Max. Energy solution, TATA motors, Stauff India, Sandvik Pune.	55
2016-17		
4	TECH MAHINDRA, AMAZON, Q-Spiders	5
Department of Civil Engineering		
2013-14		
1	KJ Infrastructure, Transtech India Pvt. Ltd.	4
2014-15		
2	Ashirwad Constructions	3
2015-16		
3	Ashok Constructions	4
2016-17		
4	Sachin Kudale & Associates	5
Department of E & TC Engineering		
2013-14		
1	Cybage, Syntel, Flextronic	12
2014-15		
2	S. D. Systems, Opulent Systems, Intalexindia, U. L. Automation, Prolifics Private Ltd, Reliance, L G Electronics, Tata Communications, Minilec Electronics	26

Sr. No.	Name of Company	Number of Student Placed
2015-16		
3	HP, Satyam Tech, Flextronic, DMRC, ITC Techpark, RexcellIndPvt Ltd, Bramha Software sol	41
2016-17		
4	Tech Mahindra, Amazon, Q-Spiders, Flextronic, IRTM Robotics	03
Department of Computer Engineering		
2013-14		
1	Cybage, Winsworld tech, Bajaj Fieserv, Vodaphone, SQR Infotech, Trinity Polytechnic, Pandura, Varahi Technology, VidushiInfotech, ASI, Synechron Technologies	29
2014-15		
01	Persistant Systems, Infosys, Accenture, Vodafone, Varahi Technology	18
2015-16		
02	Persistent, HP, Zensar Technology, Cern Technology, L&T Infotech, TCS, Future Tech Solution, ADM Softtech, HP	18
2016-17		
03	Zensar, Amazon, Q-Spider, Prolifics Private Ltd, Satyam Tech, Accel Front line	04
Total no. of student placed		295

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

Following table 3.7.4 highlights the names of eminent scientists who contributed to contribute to the events (Guest lecture, Seminars, Workshop, and conferences etc.)

Table 3.7.4: Scientists/Participants Visited To Institute

Sr. No.	Name	Organization
1	Dr. Vijay Bhatakar	Chancellor Nalanda University, India
2	Dr. Ramaji Prasad	Aalborg University, Denmark
3	Dr. Flemming Frederiksen	Aalborg University, Denmark
4	Dr. Naveen Kumar	IIT , Ropar, Punjab, India
5	Dr. Sanjay Kumar	IIT Indor, India
6	Dr. Murugan	Sathyabama University, Chennai
7	Dr. Jayant Naralikar	Director IUCAA, Pune
8	Dr. S. A. Khan	Malaysia

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.

Individual departments are always engaged in developing linkages and association with industries. MoUs and agreement are signed at department and institute level for extending guidance and discussion with students and faculties as shown in Table 3.7.4.

Table 3.7.4: Details of MoUs

Sr. No.	Name of Company
Department of Mechanical Engineering	
1	IoT Mechatronics Technologies PVT. LTD., Pune
2	TAN Engineers, Pune
3	Neeshionics
4	Everest Electromagnetics Pvt. Ltd., Pune
5	CADD Center, Pune
6	Shivam TVS, Ahmednagar
7	Sai Service Station, Pune
8	Atul Industries, Kolhapur
9	Fabrimech Industries, Sangli
10	Uniautomation Pvt. Ltd., Pune

Sr. No.	Name of Company
Department of Civil Engineering	
1	KJ Infrastrucuture, Pune
2	SachinKudale& Associates, Pune
3	Ashok Infrastructure, Pune
4	Savi Infrastructure, Pune
Department of E&TC Engineering	
1	Microembedded Technologies Pvt. Ltd., Pune
2	Indwell, Pune
3	Brainaic IP Solution Pvt. Ltd., Pune
4	Opulent Technology, Pune
5	Parallel Minds Technologies, Pune
6	Gajanan Electricals, Pune
Department of Computer Engineering	
1	Zensar Technologies, Pune
2	Parineeti Foundation, Pune
3	QSpiders, Pune
4	Om Solutions Pvt. Ltd., Pune
5	Tech Trainers & Testers Pvt. Ltd., Pune
6	Plural Technologies Pvt. Ltd., Pune

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.

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

- Established collaborations related to academic and research activities for students and faculty members in various domains.
- Facilitate collaborative interdisciplinary projects.
- Conduction of workshop for students.
- Institute has established incubation business Cell for development of industry linkages and Collaborations.
- Planned and established linkages/collaborations related to academic and research activities for students and faculty members in various specializations.
- Signing of MoUs with leading industries.
- Inviting expertise from various industries for delivering Guest Lectures, key note address in Conferences, speaker in workshops and symposiums.
- Conducting joint technical Programmes and events with other organizations.
- Organizing industrial visits with the help of various collaborating agencies.

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 institution strictly follows all rules and regulations laid down by AICTE/DTE/University relating to the creation and enhancement of infrastructure and other facilities. The institute has given its highest priority to effective teaching learning process. The institution believes that for effective teaching learning process good infrastructure facilities are required. The institute reviews all the infrastructure facilities like human resources, IT resources, purchase and maintenance of laboratory equipments, library resources, internet facilities, sports facility, hostel facility, canteen and sanitation facility and power backup facility before the academic session begins. The institute always believes in an optimistic approach to enhance and improve the infrastructure in tune with the growing needs of the learners and the revised syllabus by the university or in view of additional courses.

The policy of the institute for the creation and enhancement of the infrastructure is in places focuses on

- Preparation and allocation of the required budget for all departments
- To provide well equipped laboratories and classrooms with proper ventilation, good lighting and acoustics, LCD projectors, seminar halls, conference room for effective teaching and learning.
- To provide tutorial rooms for conducting remedial classes and discussion among small groups.
- Providing individualistic breathing space for each department.
- To provide new research laboratories to promote research and development activities
- Apart from only well equipped laboratories, to make the laboratory space with appropriate size of doors and windows for moving equipments and proper light & ventilation respectively. Also provide electricity and plumbing to meet specific needs of the practical work to be conducted.
- Maintain circulation space for accommodating the dynamic needs of ever increasing number of students.
- Faculties have comfortable cabin space with computer facility to function in a non intrusive manner for their academic needs.
- The landscape and aesthetically constructed building for maintaining energetic working environment.

- Enrich the facilities by regularly taking the feedback from stake holders and also by visiting the renowned academic institutes.

For detail of infrastructure refer Annexure 4.1.1

4.1.2 Detail the facilities available for

- (a) Curricular and co –curricular activities in terms of classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, animal house, specialized facilities and equipments for teaching, learning, and research.**

- **Curricular and Co-curricular activities:**

The institute has spacious well ventilated classrooms with LCD projector, computer system and with CCTV surveillance. The institute has tutorial rooms, well equipped laboratories with the state of art facility for students to do their practical and projects. The institute has a modern seminar hall with audio visual equipment and power backup for conducting workshops, conferences, seminars and various college functions.

The institute has conference hall for conducting group discussions and workshops. The institute has a well maintained lawn , botanical garden, CCTV surveillance in all classrooms and at all strategic locations, generator, UPS, canteens, mess, ATM, general stores.

The institute has separate common room for girls and boys. The institute has a well-furnished library with reading room, digital library, and with a large number of text books, reference books, journals and e-journals. Apart from the central library every department has its departmental library with a good number of reference books.

- **Specialized facilities and equipments for teaching, learning and research.**

To facilitate teaching, learning and research in the institute, the central library has a separate text book and reference section and reading room. For self- learning, digital library with e journals and e-content is available in the institute. To promote teaching and learning, the institute has a language laboratory equipped with multimedia systems. The institute has signed MOU's with many industries to promote co-operative ventures with industry for research and development activities and training programs. In this regard, the institute has research laboratories, excellent facilities and a conducive working environment that encourage healthy teaching learning activities.

Table: 4.1.2.1. The area details of classrooms, laboratories, seminar hall and other infrastructure.

Sr No	Particular	Area/ Room as per AICTE	Total Nos of Rooms required as per AICTE	Total area required as per AICTE in m ²	Total Nos of Rooms available	Total actual Area in m ²
1	Class rooms for U.G. Courses	66	33	2178	36	3257.33
2	Class rooms for P.G.Courses	33	4	132	4	324.21
3	Tutorial Rooms UG and PG	33	12	396	12	518.11
4	Laboratories(Engg/Tech)	66	55	3630	55	4640.22
5	Research Lab	66	2	132	2	190.2
6	Workshops	200	1	200	1	211.52
7	Additional Workshop	200	2	400	2	469.37
8	Computer Centre	150	1	150	1	150.61
9	Drawing Halls	132	2	264	3	327.04
10	Library & Reading Room	400	1	400	1	584.30
11	Seminar halls	132	2	264	4	528.22
12	Principal Office	20	1	20	1	30
13	Board Room	20	1	20	1	20
14	Admin Office	150	1	150	3	351
15	Department Offices	20	4	80	5	100

Table: 4.1.2.2. The area details of Administrative offices and other infrastructure.

Sr No	Particular	Total area required as per AICTE Norms (in m ²)	Total Nos of Rooms available	Total actual Area in m ²
1	Cabin for HOD	280	7	575.8
2	Faculty Rooms	660	93	720.24
3	Central Stores	30	1	33
4	Maintance Office	10	1	25.25
5	Security Office	10	1	25.25
6	Housekeeping room	10	1	25.25
7	Pantry for staff	10	1	25.25

Sr No	Particular	Total area required as per AICTE Norms (in m ²)	Total Nos of Rooms available	Total actual Area in m ²
8	Examination control office	30	1	151
9	Placement Office	50	1	183
10	Toilets	350	8	433.44
11	Boy's Common room	75	1	99.99
12	Girl's Common room	75	1	100.9
13	Cafeteria	150	1	150
14	Stationary Store & Reprography	10	1	33.06
15	First Aid & Sick room	10	1	15.97
16	Sport- Club	200	1	225
17	Hostel (Boys)	Adequate	140	6826.78

- Infrastructure Details**

The major equipments of the departments which are used for students laboratory work as well as for research are shown in the following tables.

Table: 4.1.2.3a. List of major equipments with cost (in lacs) in civil Engineering Department

Sr. No.	Name of Equipment	Cost in Lac (Rs.)
Civil Engineering		
1	Impact Testing Machine Izod-Charpy	1.24
2	Digital Compression Testing M/C	2.82
3	Universal testing machine (UTN. 60 Cap.600KN)	5.22
4	Analog Torsion testing M/c	1.30
5	Cylindrical mould,	0.85
6	Direct Shear Test Apparatus(Motorized)	1.18
7	Unconfined Compression Test	0.59
8	Swell pressure test apparatus	0.65
9	Triaxial Test Apparatus	2.15
10	Digital flame photometer with Na, K, Ca, Li filter	0.62

Sr. No.	Name of Equipment	Cost in Lac (Rs.)
11	High volume sampler	1.02
12	Spectrophotometer	0.50
13	COD Digestion Apparatus	0.61
14	Ductility testing Apparatus with brass mould.	0.80
15	Marshall stability machine complete apparatus electrically operated	1.69
16	Film stripping Device	0.58
17	Los Angles Abrasion Testing Machine	0.63
18	Auto Level with Tripod	1.14
19	Verier theodolite 20" with Tripod, Box	0.65
20	Total Station - Leica Model - TSO2-7 With Accessories	4.22
21	1" Theodolite	2.24
22	Wind Tunnel	3.25
23	Tilting Flume	6.50
Total		40.57

Table: 4.1.2.3b. List of major equipments with cost (in lacs) in Computer Engineering Department

Sr. No.	Name of Equipment	Cost in Lac (Rs.)
Computer Engineering		
1	Gestetner copy printer(Dx2430,speed 60-90 CPN/PPM)	1.39
2	IBM Server x3400 M2(7837-i25)	1.15
3	Emerson UPS 20 KVA online	2.98
4	Emerson ITA 10KVA UPS	1.05
5	IBM Server x3400 M3(7379)	0.91
6	Champion 20 KVA UPS	1.94
7	XEROX Machine	1.00
Total		10.44

Table: 4.1.2.3c. List of major equipments with cost (in lacs) in E&TC Engineering Department

Sr. No.	Name of Equipment	Cost in Lac (Rs.)
Electronics and Telecommunication		
1	OTDR MTS-4000 Fiber Platform	3.52
2	Vector network Analyser 100MHZ-2.7 GHz	3.70
3	Base Matlab CD 25 users	2.14
4	CRO Dual Trace 60MHZ 2-Channel	0.69
5	DMM (6 1/2)	0.77
6	Linear IC Testing System	0.65
7	CRO: Digital Storage Oscilloscope	0.66
8	PSTN Switch Configuration	0.74
10	Direct to Home TV Set top box Trainer Kit	0.54
11	WI-FI TV Trainer	0.54
12	Mobile TV trainer	0.66
13	IPTV Trainer Kit	0.66
14	1 MHZ - 240 MHZ VHF Wobulator with test Jig	1.21
15	HDTV trainer	1.13
16	DIGITAL TV trainer	0.66
17	Link -F,FOP 01Fibre Optic Trainer Kit for glass & Fibre	1.14
18	LB5610.ATRPLRS525262(LED TV)	0.56
19	I3130S BINDLLK INSE140982/KRS(SOUND SYSTEM)	1.03
20	AMTEK MAKE 5.8GHZ CORDS BAND SATELLITE	2.15
21	Spectrum Analyzer	4.09
22	Arbitrary Function Generator	1.60
23	Dval trace CRO 60MHZ	0.69
24	CAD-FECO	0.82
25	AMITEC make microstrip Antenna	1.95
26	CRO Digital storage Oscilloscope	0.61
27	Spectrum Analyzer	4.00

Sr. No.	Name of Equipment	Cost in Lac (Rs.)
28	Diesal Generator Set 125KVA	6.15
29	Alternator Set 5hp,220V,1500	0.58
30	DC Thyristor power supply	0.84
Total		45.30

Table: 4.1.2.3d .List of major equipments with cost (in lacs) in Mechanical Engineering Department

Sr. No.	Name of Equipment	Cost in Lac (Rs.)
Mechanical Engineering		
1	Forced convection apparatus	0.49
2	Pneumatic Trainer	0.80
3	Pressure Relief Valve	0.67
4	Hydraulic Trainer	1.78
5	Piston Pump	1.00
6	Four Cylinder four stroke Petrol engine test rig with eddy current dynamometre	4.97
7	Four Cylinder four stroke Diesel engine test rig with eddy current dynamometre	6.14
8	Computerised VCR single cylinder four stroke diesel engine test rig with eddy current dynamometre	5.60
9	Interfacing of sensor transmitter with Data Acquisition	0.78
10	PLC Ladder Logic implementation trainer	0.93
11	Real Time PID temperature controlled trainer	0.71
12	Linear conveyor system- Bottle filling system	0.77
13	PID based DC motor speed controlled trainer	0.90
14	Ladder diagram develoment software with accessories	0.93
16	Magnetic ParticleCrack Detector	0.64
17	Jomney Quench Apparatus	0.62
18	Vickers cum BrinellHaardness tester	1.35
19	Table Top Double Disc Polisher	0.54
20	Floating Carriage Micrometer	0.86

21	Tool Maker Microscope	0.95
22	Dial Calibration Tester	1.30
23	Profile Projector	1.45
24	Surface Roughness Tester	1.60
25	Gear Rolling Tester	3.20
26	Refrigeration trainer (vapour compression refrigeration trainer)	0.67
27	Air conditioning trainer	0.74
28	Mechanical heat pump	0.75
29	Ice plant trainer (30kg per day)	0.61
30	Vapour absorption refrigeration trainer	0.83
31	Exhaust Gas Analyser	2.19
32	Two Stage Reciprocating Air Compressor	0.92
33	Bomb calorimeter	0.70
34	Gas Calorimeter	0.70
35	Single Cylinder four stroke diesel engine with rope brake Dynamometer	0.79
36	Rope Brake Dynamometer	0.68
37	Epicyclic gear train	0.79
38	Motorised gyroscope with stainless steel disc	0.53
39	Impact of Jet On Vanes	0.47
40	Pelton Turbine Test Rig with digital Techometer	2.35
41	Francis turbine Test Rig With Digital Techometer	2.79
42	Centrifugal Pump Test Rig. Variable Speed	0.81
43	Gear Pump Test Rig (Variable Speed)	0.83
44	Lathe Machine(Anil) 4' 6"	1.15
45	Lathe Machine(All Gear) with Accessories (20 PCS)	26.71
46	Universal Milling Machine	2.20
47	Surface Grinding Machine	1.56
48	Shaping Machine	1.11
49	Wood Turning Lathe (1/2 HP 3 Phase with bed)	0.60
Total		90.64

Table: 4.1.2.3e. Total cost (in lacs) of major equipments in various departments

Sr. No	Departments	Total Major equipment Cost
1	Civil	40.57
2	Computer	10.44
3	E & Tc	45.30
4	Mechanical	90.64
Total cost of Major equipments in Institute (In Lac.)		186.96

For major equipment details refer Annexure 4.1.2

4.1.2 (b) Extra-Curricular Activities: Sports outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, public speaking, communication skills development, yoga, health and hygiene.

For the all-round development of the students, the institute encourages the students to participate in various sports/ tournaments at the university and state level, cultural activities, NSS etc.

- Sports: To nurture the talents of students in different fields and for their all round development, a large number of sports activities are conducted to shape their personality and health and fitness. The institute provides facilities for both indoor and outdoor games to the students.
 - a) Outdoor Games: A spacious playground is available for outdoor games like cricket, football, volleyball, basketball, badminton, lawn tennis etc.
 - b) Indoor Games: The institute also has an indoor area for playing chess, table tennis, carom and badminton etc.
- Gymnasium: The institute has a gymnasium facility for students to strengthen their physical & mental ability .
- Seminar hall: The institute has a modern, well equipped air conditioned seminar hall with audio visual equipment with power backup for conducting workshops, conferences, seminars, Alumni meet and various college events and functions
- NSS: The College has a NSS unit. The unit is started with an objective to cultivate an attitude of social service in the minds of students and to make them responsible citizens. Various socially relevant activities are being carried out like tree plantation, Swachhata Abhiyan camps, social awareness camps, blood donation camps, medical checkup camps.
- Cultural activities: To bring out the hidden talents of the students and for getting tremendous exposure in interpersonal skills, team spirit, time management and delegating, the students are encouraged to participate and arrange various cultural activities. Every year an annual event KJ Youth Fest

is conducted where the students participate actively and enthusiastically in various competitions like singing, dancing, fashion show etc. Besides these, the students are also encouraged to participate and have won several prizes in state level cultural events like Purshottam Karandak, Firodiya Karandak. Besides these events the students celebrate Teachers day, Engineers day, Dahi Handi and many other festivals.

- **Communication Skills:** The institute conducts Student Training programs to help students to improve their communication skills, public speaking and practice of group discussions and interview. It also provides training on soft skills like Goal setting (Personal and Career), Personality and Stress management, behavioral skills, listening, reading (technical/ non technical) writing resume, letter, report etc. The institute publishes college magazine “AKSHARBRAHMA” through which students learn to express themselves through technical/non-technical articles, poems etc.

Technical skill enhancement: An annual technical event is conducted every year for the students to promote innovative ideas, share and apply their technical knowledge. The students are encouraged to participate in various university levels, state level and international level events, to improve their technical knowledge and public speaking

- **Health and Hygiene:** The College maintains a medical center with a doctor to treat the students and staff for any minor problem. In-house team of housekeeping staff is appointed for day to day cleanliness and maintenance of the premises. The Yoga club has been formed for students to maintain good health, possess mental and emotional stability, and integrate moral values and to attain a higher level of consciousness

For details of facility refer Annexure 4.1.2

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

The institute plans about the forthcoming infrastructure in accordance with the requirement of new courses to be started as well revision in the syllabus structure, principal recordation and discuss about the permission of adequate facility in the local management committee and get it approved in governing body meeting. The institute has developed the infrastructure and facilities as per the AICTE norms. The institution is utilizing the entire available infrastructure like land, buildings, classrooms, laboratories, furniture, teaching aids, and library facilities to the maximum extent possible.

- All classrooms and laboratories are utilized for conducting regular classes and practical.
- All classrooms are utilized for conducting remedial lectures; value added courses and training programs for exams beyond college hours.
- Computer laboratories are utilized for conducting online exams, aptitude

tests and MY EXAMO software for practices and useful for training and placement.

- The playground is utilized for conducting various sports and games.

Apart from the available infrastructure,

- The institute has introduced Post Graduate courses in Mechanical Engineering, and Civil Engineering
- New research laboratories have been provided to promote research and development activities.
- The Entrepreneurship development cell has been started to promote entrepreneurship activities.
- The institute have adequate space to introduce new Post Graduate courses in Electronics & Telecommunication Engineering and Computer Engineering
- And also have adequate space to introduce Ph.D. courses in Mechanical Engineering, and Civil Engineering

Table: 4.1.3.1. The investments in last four years in enhancing various infrastructure facilities (amount in Lacs.)

Sr. No.	2016-17		2015-16		2014-15		2013-14	
	A	E	A	E	A	E	A	E
Land	-	-	-	-	-	-	-	-
Library Books, Journals & Periodicals & Lib Equipment	10.70	9.86	12.00	1078.72	18.00	17.13	14.15	11.29
Laboratory Equipment	13.00	12.16	31.00	28.43	44.00	40.99	16.31	13.15
Computer	40.00	43.84	5.00	4.39	3.40	3.31	33.00	32.08
Furniture	2.00	1.86	5.00	1.40	3.00	2.56	7.10	6.73
Software	5.50	6.84	6.30	6.25	2.00	-	2.00	-
Games, Sports & Student Activity	9.20,	8.92	25.00	23.48	36.00	31.16	35.00	29.26
Administrative & Other	956.00	955.34	1236.00	1228.23	855.00	847.55	768.50	696.31
Total	1036.40	1038.84	1317.30	1303.00	961.40	942.73	876.06	788.84

A: Allocated, E: Expenses

For details of budge and utilization refer Annexure 4.1.3

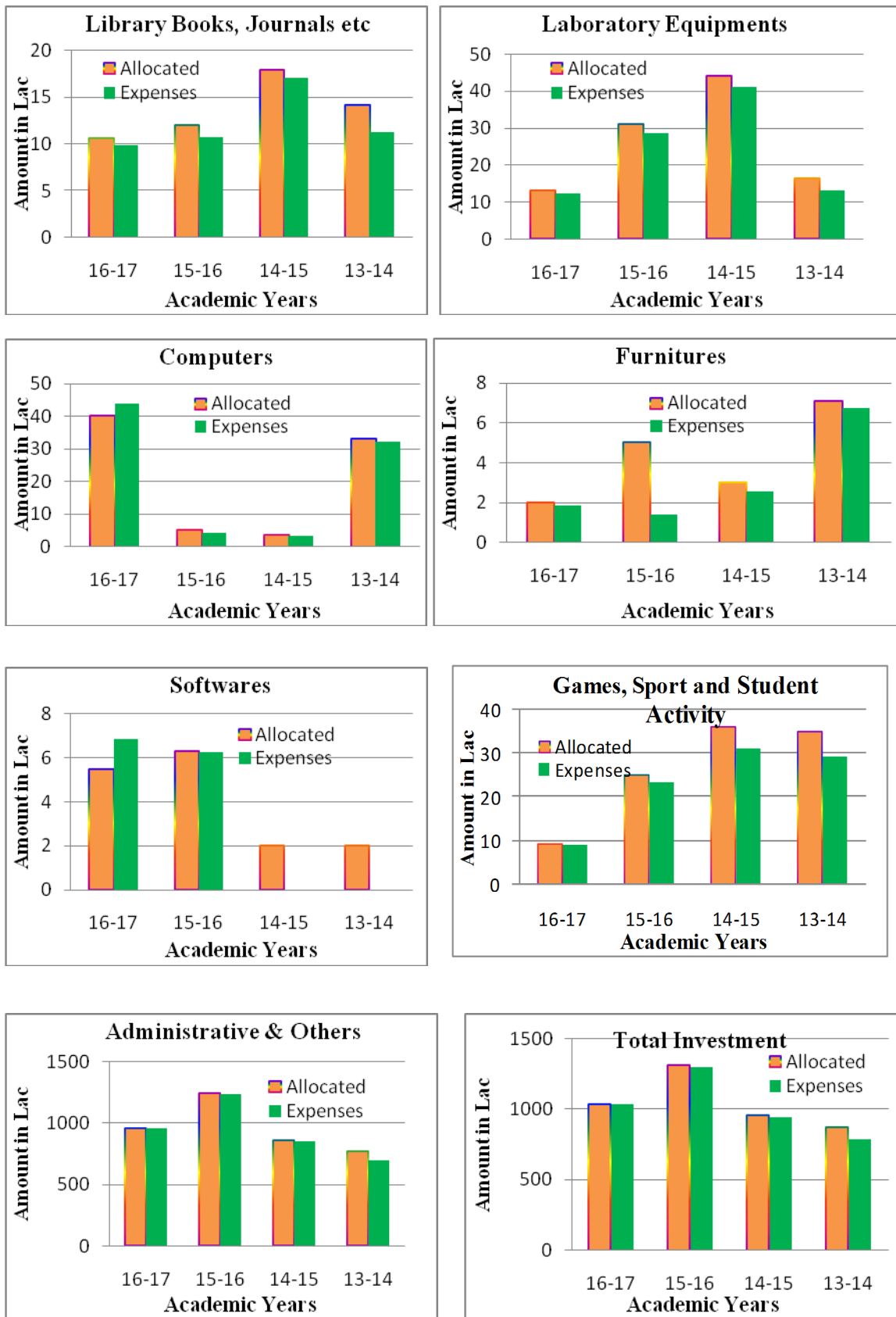


Fig. 4.1.3: Graphical representation of the investments in last four years in enhancing various infrastructure facilities is as follows. (Amount in Lacs.)

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

The institute has the policy that the classrooms and examination halls are to be provided on the ground floor for physically disabled students. Provision of wheel chair is made available. Ramp facility is provided.

4.1.5 Give details on the residential facility and various provisions made within them.

Table: 4.1.5.1. Hostel Details

Hostel Name: - Boys Hostel	No. of Rooms Available	160	Total capacity of Hostel	480
	No. of Rooms Accommodate by Students	140	No. of Students in Hostel	325

* The above table reflects the capacity for complete campus.

- The institute has well-furnished separate hostels for boys.
- Under social cause the institute provides free hostel and mess facility for Chandrpur and Gadchiroli district student
- Hostels have 3-bedded rooms with attached washrooms.
- The basic amenities like bed, table and chair, hot water, ceiling fan, cupboards are provided.
- Rooms are spacious, well ventilated and surrounded with landscape and greenery.
- 24-hrs water supply is available in hostel and for drinking water coolers with aqua guard for water purification are available on each floor.
- Maintenance and cleaning of water coolers and purifiers is carried out regularly through external agencies.
- The central library is open from 8.00 a.m. to 8.00 pm and reading hall is open till midnight.
- For safety against fire accidents, adequate numbers of fire extinguisher are available in the hostel.
- For hot water Electric Geyser Systems is provided to hostel.
- For maintaining healthy environment frequent water testing is done.
- The campus has a central mess facility with seating capacity 400.
- The campus has canteens which are well maintained and provide a wide range of hygienic food.
- The institute has a Guest house for staff members to facilitate any requirement of stay in view of official work or for the stay of the visiting guest.

Recreation facilities

- A playground is available for outdoor games such as throw ball, volley ball, basketball, cricket and football.
- An indoor area is provided for games such as carom board, chess and table tennis.

- A common room with TV sets is provided for recreation.
- The Yoga club has been formed with the objective for students to maintain good health, possess mental and emotional stability, and integrate moral values and to attain a higher level of consciousness.

Medical Facility

- A first aid box is available in case of any accident.
- In case of medical emergency, rectors make arrangement for in campus vehicle or ambulance immediately and such student is referred to STES Urban Health Care Center, Kondhwa or Dr. Pawars' Hospital immediately.

Security

- Separate rectors are appointed for boys hostel
- Security guards (24x7) are available in the college campus as well as in hostels.
- While hostel students leave campus they make entry in the respective registers.
- Entry to the hostel is closed after 9.00 pm for security purpose.

Internet Access:

- The boy's hostel is having internet and Wi-Fi facility.

Hygiene Facilities

- Daily cleaning of floor, washrooms and passages is done by in housekeeping staff
- Dust bins are kept in the corridors at suitable locations and all the waste material is disposed off daily.
- The institute has a water softener and sewage treatment plant/recycling as well.

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

The institute offers excellent medical facilities to staff, students and others in the community. The staff and students can avail the facility at the STESs Urban Health Centre, Kondhwa which is situated 2.5 Km away from this campus for any minor problem and in case of any major problem the staff and students can avail the facility of Dr. Pawar's General Hospital. A vehicle is made available to meet the medical emergencies. The institute has the Students Safety Insurance Policy. This policy is renewed each year. According to this policy, all students studying in the institute are insured. Group Insurance scheme is also provided to all employees.

Following medical Facilities are available:

- | | |
|---|--------------------------------|
| • General Medicine Pediatrics | • IPD |
| • Pulmonary medicine Dermatology | • OPD |
| • Psychiatry | • Clinical material Supportive |
| • Surgery and Allied Specialties | • Services Blood bank |
| • General Surgery | • Physiotherapy |
| • Orthopedics Ophthalmology ENT | • CSSD |
| • Obstetrics and Gynecology Clinical Services | • Nuclear medicine |
| • Casualty Operation Theatre ICU | • Nursing facilities |
| • Pharmacy | • CCL |

4.1.7 Give details of the common facilities on the campus spaces- special units like IQAC, Grievance Redressal unit, Women’s cell, counseling and Career guidance, placement unit, Health centre, canteen,, recreational spaces for staff and students, safe drinking water facility, auditorium etc.

The institute has constituted various committees for the following special units and space is available for the common facilities.

IQAC:

Yes, institute has established IQAC to insure quality education and holistic development & performance of students. Earlier it is known as AMC (Academic monitoring committee). The institute gives utmost importance to assure quality in all processes.

To institutionalize the quality assurance processes IQAC insist on

- Preparation of academic plan and calendar, unit test papers and prelim papers, question bank
- Execution and monitoring of academic plan/activities. Conducting internal assessment tests.
- Collecting feedback from students and alumni & the responses are taken into account and modification is made wherever necessary
- Developing infrastructure to enhance learning environment.
- Effective conduction of student training program (STP) for holistic development of the students.
- Training of the staff to cope up with new technologies: Developing the faculty through FDP’s, induction program.

Grievance Redressal Cell:

- Students can submit their complaints to the institute first in the form of written application. These applications are accepted by the institute and a record is maintained. Acknowledgement is given to the student.
- If student’s complaint is related to institute then it is solved at the institute level within 7 to 10 days.
- The committee hears the grievances if any, conducts an enquiry and submits the report to the higher authorities. A final action is taken by the Honorable President after discussion with the committee.

Anti-Ragging Committee

Anti-Ragging Committee is the Supervisory and Advisory Committee in the institute Campus. This committee works with the objective to Plan Action for Building and Preserving a Culture of Ragging Free Environment in campus.

The Anti-Ragging committee works for checking places like Hostels, Buses, Canteens, Classrooms and other places of student crowd, for any incidences of Ragging, and shall educate the students at large in the campus about Risk of Ragging and related Punishment Provisions.

Woman Anti-Sexual Harassment Committee

Woman Anti-Sexual Harassment Committee takes care of the grievances of girl students and female staff members related to gender discrimination, violence and sexual harassment on the campus. This committee is dedicated to create an

environment on the campus where every female feels safe by providing guidelines for the addressal of grievances related to sexual harassment of female students, teaching and non-teaching women staff of the college. A separate space is provided with adequate furniture arrangement.

Women's Empowerment Cell:

The committee has been constituted with the objective to empower girl students and to enhance understanding of issues related to women. It also provides a platform for women to share their experiences and views regarding their status in society and to suggest ways to empower themselves. This cell facilitates women's empowerment through guest lectures, seminars, awareness programs and welfare activities.

Training and Placement Cell:

The institute has appointed a Training and Placement officer with one faculty from each department as members with the objective that majority of eligible students are placed and coaching the students towards employability.

The Training & Placement Cell prepares budding professionals to be globally effective in their career. The main thrust areas are personality development & proper communication skills. Training is imparted right from the day student enters the institute.

Training and placement office with ample space, furniture, computers, video conferencing for online interviews for students is provided.

The objectives of training and placement cell are

- To equip the students with proper technical skills & imbibe spirit of professionalism.
- To prepare students for the placement as per requirements & expectations of industry.
- To maintain close liaison with reputed industry & corporate to ensure maximum placements.
- To help in securing the consultancy work & industry sponsored projects for staff & students.
- To enter in the campus connect program with leading industries & corporate.
- To create maximum opportunities for the students by identifying emerging trends & establishing close rapport with leading professionals from industry.
- To prepare the students for the placement by organizing personality development & soft skill programs.
- To conduct the foundation programs offered by various industries to give the professional exposure to students & to make them ready hands at the time of joining.

Alumni Association

Trinity Academy of Engineering (TAE) has its Alumni Association & institute provides adequate space to meet alumni

The objectives are

- To have regular interaction with TAE Alumni, for further strengthening the relationships with them and to create good base of alumni for future growth of TAE in terms of creating opportunities for students of TAE.
- It provides a platform for them to share their views and experiences, guide students about placements etc.

Industry Institute Interaction Cell:

The committee has been constituted to enhance industry interaction with students and bridge the gap between theoretical and practical aspects of the curriculum. The objective of this cell is to develop student awareness in job functions in the industry, attitudes to adapt to the industrial environment, proper practical and relevant knowledge, skills and competencies in preparation to becoming self employed. The institute invites entrepreneurs, executive, and policy makers to address students thereby facilitating practical learning. special area is provided for his cell where entrepreneurs, executives can get in touch with students.

Entrepreneurship Development Cell:

The committee has been constituted for promoting specialized knowledge in the field of entrepreneurship development and to nurture a passion for self employment. The objective of this cell is to create awareness, inculcate entrepreneurial spirit and culture among the Engineering graduates and to identify and motivate budding entrepreneurs by conducting programs in entrepreneurship enabling skills.

Research and Development Cell:

With an adequate space and modern facilities the institute have R&D cell. The committee has been constituted to enhance research and development activities and to motivate faculty and students to carry out research work in areas of their interest and generate project proposals to seek grants from various funding agencies. The R& D cell has been active in registering for patents, publications in conferences, peer reviewed journals, organizing conferences, seminars and workshops.

Students Career Guidance and Counseling:

Every department takes care of counseling students as when the need arises. Teacher guardians are appointed for a group of 20 students each. The guardian faculty member discusses with the parents of the wards with respect to attendance, academic performance, discipline and reports to the Head of the department for necessary counseling and suitable action.

Health Centre:

The institute has a health center in college for the students and faculty for any minor health problem. College vehicle is available for any emergency cases and can avail he facility of Dr. Pawar's hospital at Kondhwa.

Recreational Spaces for staff and students:

A common recreation room is provided with TV sets. Indoor games are available for staff and students.

Safe Drinking water facility:

Water coolers are present in the campus, all equipped with aqua guard with RO facility for water purification.

4.2 Library as a Learning Resource

4.2.1 Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/user-friendly?

The library has an advisory committee which comprises of Chairman, Professor-in-charge, and Coordinator members from all departments. The duties of the committee include formulation of policies and strategies for the development of the library services and facilities.

Library Advisory Committee:

Table: 4.2.1.1 Library Advisory Committee

Sr. No.	Name	Designation
01	Dr. Vijay M. Wadhai, Principal	Chairman
02	Mrs. S. V. Parode, Assistant Professor, E & TC	Coordinator
03	Mr. M. B. Togam, Librarian	Member
04	Ms. S. E. Pawar, Assistant Librarian	Member
05	Mr. B. D. Jadhav, Library Assistant	Member
06	Mr. N Chandran ., Assistant Professor, Mech	Member
07	Mr. A. V. Augad Assistant Professor, Civil	Member
08	Ms. S. G. Nandanwar Assistant Professor, Computer	Member
09	Mr. Sharad Diwate BE (Mech.)	Student Member
10	Mr. Ankit Ravi Hiremath BE (Computer)	Student Member

- The Book Exhibition provided a platform for students as well as faculties to directly interact with different publishers
- Students and Staff get a chance of comparing books of different writers published by different publishers.
- Faculty and Students get a opportunity to recommend Books for Library

- Faculty and Students get a opportunity to purchase Variety of Books at Single platform
- Unseen Titles have come to know the students and staff
- MOM is attached in the Annexure 4.2.1 in which the discussion of advisory body in meeting and action taken by institute accordingly.

Significant Initiatives:

- Subscription of journals as per the norms.
- Collection development of the library.
- Automation of the library.
- Allocation and utilization of funds for procurement of books and journals.
- Extension of reading hall timings during examination.
- Additional 3 books issued to meritorious students recommended by HOD and Principal.

4.2.2. Provide details of the following:

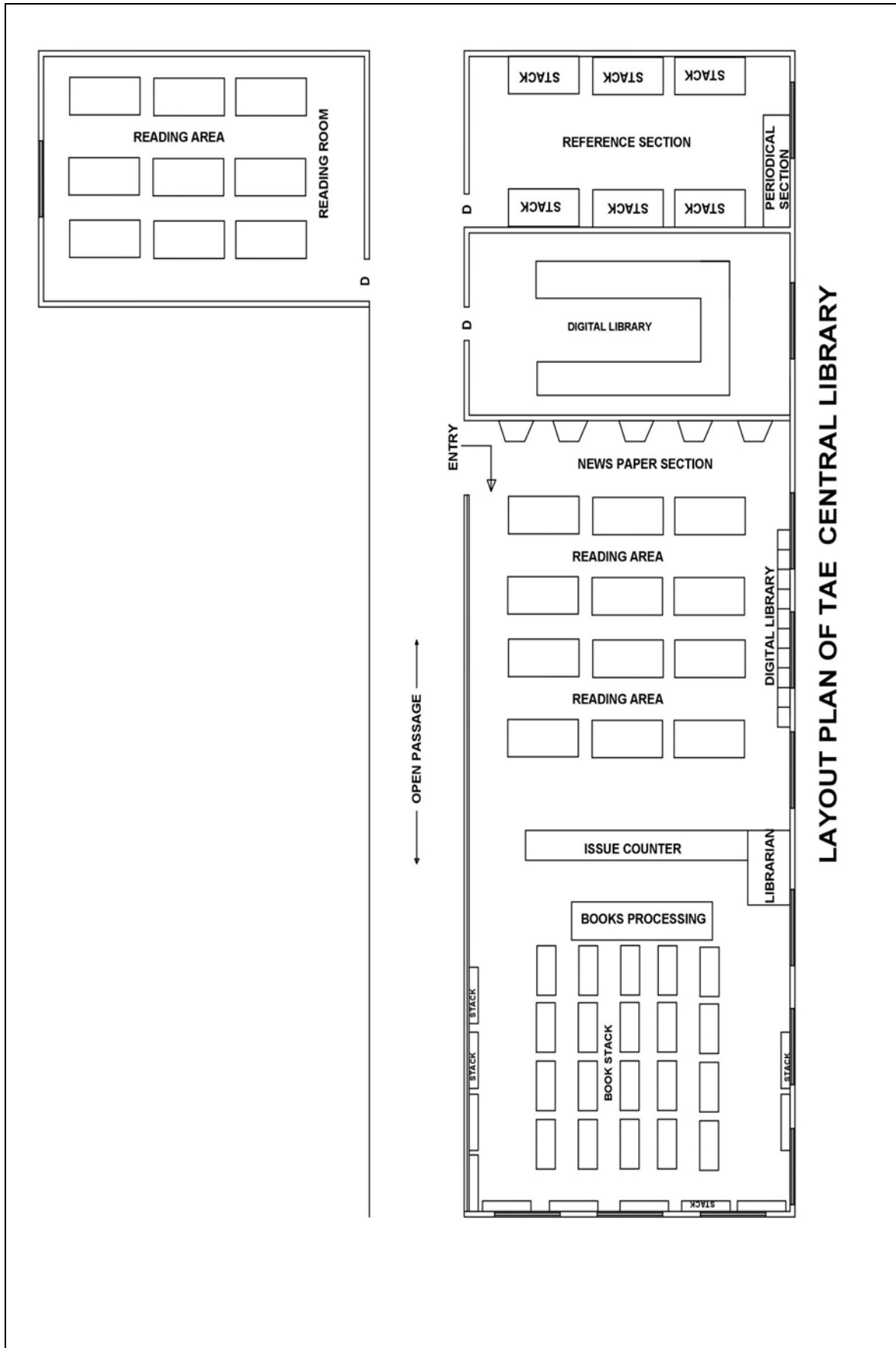
- Total area of the library Sq.Mts.: 584.30
- Total seating capacity: 150
- Working hours Library Open to all users from :Morning 8.00 am To 8.00 pm

Working hours of library as bellow (on working days, on holidays, before examination days during examination days, during vacation)

Table: 4.2.2.1 Timing schedule of library

Sr. No.	Details	Library Timings	Reading Hall Timings
1.	On working days	9.00 a.m to 6.00 p.m.	8.00 a.m to 8.00 p.m.
2.	Before examination days	9.00 a.m to 6.00 p.m.	8.00 a.m to 10.00 p.m.
3.	During examination days	9.00 a.m to 6.00 p.m.	8.00 a.m to 10.00 p.m.
4.	During vacation	9.00 a.m to 6.00 p.m.	8.00 a.m to 8.00 p.m

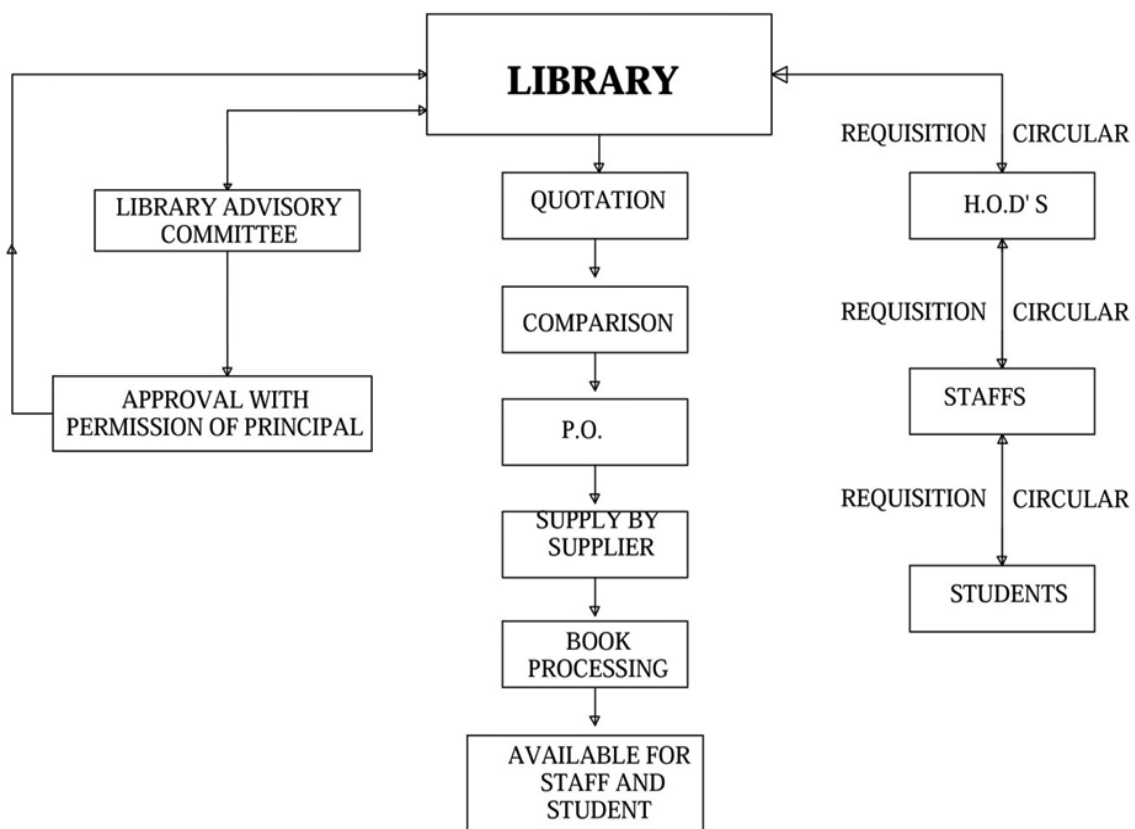
**(Note:-The Library will remain closed on General Holiday, National Gazetted and Local Holidays.)*



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.

At the beginning of the academic year, librarian sends the circular to the HODs for the book requirement related to their respective discipline. Librarian then compiles the requirement. While preparing purchase order library advisory committee checks the availability of the book, usage of book, change of syllabus and the norms are taken into consideration. After procurement of books new arrivals list is displayed on notice board. Library has a collection of 9816 books ASCE & ASME (IEEE, Science Direct) e-journals and (UG 54 + 10 PG) 64 Print Journals. To ensure the use of current titles, print and e-journals and other reading materials, time to time notifications (notice Board) are being sent to staff and students about new arrivals in the library. Different log books have been maintained in different sections of the library which shows the usage of books, journals and e-resources by staff and students.

BOOK PURCHASE PROCESS DIAGRAM



Books, reference book, e-journals, prints journals, other reading materials is purchase regularly every year. As per the budget sanction for library details shown in the following table 4.2.3.1.

Table: 4.2.3.1. Purchase history of Library

Library holding	Year – 1 (2012-13)		Year – 2 (2013-14)		Year – 3 (2014-15)		Year – 4 (2015-16)		Current Year (2016-17)	
	No.	Cost (lacs)	No.	Cost (lacs)	No	Cost (lacs)	No	Cost (lacs)	No	Cost (lacs)
Textbooks	1731	7.70	1312	6.00	539	3.00	629	3.92	1106	6.26
Reference Books	29	0.12	25	0.14	28	0.21	29	0.17	29	0.17
Journals Periodicals	49	0.88	50	1.45	00	00	64	2.26	64	1.79
e-resources	503	14.08	0	0	380	6.77	380	3.69	507	5.00

For more details refer Annexure 4.2.3

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

Following are the details on ICT and other tools:

- OPAC Available
(End users can search the book database through OPAC of Slim 21 Software.)
- Electronic Resource Management package for e-journals Yes
(ASCE, ASME)
- Federated searching tools to search articles in multiple databases Library website No
- In-house/remote access to e-publications through IP Authentication Yes
- Library automation Yes
Library is using Slim21 software for library management.
- Total number of computers for public access 10
- Total numbers of printers for public access No
- Internet band width/ speed 32 mbps
- Institutional Repository No
- Content management system for e-learning No
- Participation in Resource sharing networks/consortia(like Delnet/Inflibnet) No

Provide details on the following items

- Average number of walk-ins 30-40/day.
- Average number of books issued/ returned 30-35/day.
- Ratio of library books to students enrolled 7:1
- Average number of books added during last three years 1592
- Average number of login to OPAC 15/day

- Average number of login to e-resources 22/day
- Number of e-resources downloaded/printed 7/day
- Number of information literacy trainings :01 organized

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

Specialized services provided by library as follows:

- **Reference** : Yes, Library has a separate reference section with rich collection of international editions of reference books, hand books, dictionaries and encyclopedias etc.
- **Reprograph**: Yes
 - Library provides reprography service for photo copying Journal articles, reference material and other reading material for benefit of users.
- **ILL (Inter Library Loan Service)** :Yes
 - Library is having institutional membership of the National Digital Library (NDL).
 - Users can take the benefit of library services of these libraries.
- **Information deployment and notification** : Yes
- Library notices and new arrivals are displayed on notice board.
- **Download** :Yes
 - Subscribed e-journals can be downloaded from digital library and Online
- **Printing** : Yes
 - Printing facility is provided to take printouts of online journal articles and reference material.
- **Reading list/Bibliography compilation** : Yes
 - Available through Online Public Access Catalog (OPAC)
- **In-house/remote access to e-resources** :Yes
 - Digital library is available for online journal access and internet searching. E-journals are accessible from any college laboratory PC as subscription is IP based.
- **User Orientation and awareness** :Yes
 - Induction programs are conducted at the beginning of academic year for the newly admitted students in the college. Regular feedback & requirement taken from students of respective discipline. Current Awareness Service is provided in which list of new arrivals are displayed on notice board.
- **Assistance in searching Databases** :Yes
 - Assistance is provided to the users for searching information related to their project / research work with various sources.
- **INFLIBNET/IUC facilities** : NO
It promotes to R&D and develops necessary facility to create technical position
- **Library Website**
http://www.kjei.edu.in/tae/academics/Degree/library/lib_home.html

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

- Helps students and staff in locating the books on the stack.
- Providing guidance to students and staff to find out books and other references related to their project and research work.
- Yearly book exhibition of popular publications is organized by library
- Assistance in searching and downloading papers related to area of research.
- Provides list of new arrivals & Journals.
- Provides newspaper clippings related to engineering topic.
- Provides soft copy of syllabus and previous year question Papers
- Circulation of new catalogues to the staff.
- Provides bibliographies of engineering subjects.

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

: Yes

For visually / physically challenged person ramp facility is provided. Wheel chair is kept at the main entrance of building and elevator/lift is provided Priority is given to physically challenged person in all library services.

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

:Yes

- Feedback for the library has been introduced by the college about the difficulties faced and suggestions to improve the functioning of the library.
- Feedback form is provided to students and Regular feedback & requirement taken from students of respective discipline.
- Library Advisory Committee(LAC) makes analysis of the feedback and necessary action/improvement of services is done
- The Suggestion box is also provided where the students can drop down their suggestions, grievances and the difficulty face in the library services
- This would help to improve the functions of the library

4.3 IT Infrastructure

4.3.1 Does the College have a comprehensive IT policy addressing standards on IT Service Management, Information Security, Network Security, Risk Management and Software Asset Management?

College has its IT policy. The comprehensive IT policy of the college is to support and facilitate the teaching, evaluation, research and administrative functions of the College through an e-managed environment, providing a wireless, high speed network, secured from intruders, with regular data backup and recovery techniques along with a licensed software and updated highly refined servers for better performance and flexibility.

The college appoints a Systems Administrator for efficient maintenance of computers.

The college IT policy encompasses the following:

- Ensure seamless connectivity to all users in the campus
- Enforce secure and authenticated accessibility
- Support administrative and academic activities of the institution
- Provide accurate and transparent campus management
- Timely back-up and storage system
- Prompt up-gradation of software and hardware

For details of IT policy refer Annexure 4.3.1

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

All the departments are provided with hardware and software as per the requirement. The summary of the facilities are provided below.

Table: 4.3.2.1. Details of IT Infrastructure.

Sr. No.	Item	Quantity
1.	Computers	531
2.	LCD projectors	10
3.	Laptops	2
4.	Server	2
5.	Printers	51
6.	Scanners	4
7.	LAN	Star Topology
8.	Antivirus	100 Users
9.	Plotter	1
10.	UPS (20KVA,10 KVA)	4 = (3+1)
11.	Xerox	2

Table: 4.3.2.2. Department wise details of computers, Printers, Scanners, Projectors.

Sr. No.	Department	Computers	Printers	LCD Projectors	Scanners
1	Administrative Office	14	9	-	1
2	Civil	70	2	2	0
3	Computer	222	20	2	1
4	Digital Library	10	5	-	-
5	E&TC	71	4	2	1
6	FE	6	1	2	-
7	Library	5	5	-	-
8	Mechanical	132	4	2	1
9	Store	1	1	-	-

Table: 4.3.2.3.Computers configuration details.

Sr. No.	Make of computers	Configuration	Quantit
1	Dell opt 380	Core 2 Duo E7500 2.93 GHz, 2 GB, 250 GB.	252
2	Dell opt 390	Core i3-3.3GHz, 2GB RAM, 500GB HDD	100
3	Dell opt 3010	Core i3 3470 3.2 GHz ,8 GB ,500 GB	79
4	Dell Vostro	Intel Core i5-2330M/i5-2430M	100
		Total	531

Computer Student Ratio: UG: 1:4 PG: 1:2

Standalone facility: Few systems are stand alone, which are integral part of experimental setups.

LAN facility: All computer laboratories are provided with LAN facility. Wi-Fi facility is available in the institute as well as in boys hostel with high speed internet connectivity.

Table: 4.3.2.4. Department wise licensed software

Sr. No.	Department	Details of Software
1	Administrative Office	<ul style="list-style-type: none"> Tally 9.0 Multiuser
2	Civil	<ul style="list-style-type: none"> Autocad Stadd-pro Pro-E E-tab Hit-Office MSP Primavera

Sr. No.	Department	Details of Software
3	Computer	<ul style="list-style-type: none"> • Orell Language Lab • MSDN Alliance 7.0 AE • Tally 9.0 Multiuser • Vista Business Upgrade SNGL OLPNL • Windows Vista Starter Edition • Windows Vista Starter Edition • Oracle Log Std one Lic • Windows 7 Starter Edition • Winpro 7 SNGL Upgrd NL Acdmc • Colama Uni. Edition • Microsoft Open License Agreement • Windows Vista Starter Edition • Windows Vista Pro Business Upgrade SNGL OLPNL • Windows XP Pro SP-3 • Windows 8 Pro SNGL Upgrd NL Acdmc • Windows 2003 Server Std Edition • Windows 2008 Server Std Edition • Windows 10 • Symantec • Federo 19/20 • Ubuntu 13/14 • GCC • MySQL • Tomcat • JDK • Open Office • Latex • NASM, FASM • Octave, SciLab (MATLAB) • QT Creator • Eclipse IDE • STAR UML • KiCad (AUTOCAD) • LibGraph (Bison Package) • LibCrafter • Python • Scapy • WireShark • Microsoft .Net • Microsoft Office 2007 Std Edition • Microsoft Office 2010 Std Edition • Microsoft Office 2013 Std Edition • Microsoft Office 2007 Std Edition

Sr. No.	Department	Details of Software
4	Electronics and Telecomm	<ul style="list-style-type: none"> • MATLAB-SOFTWARE • CAD-FECO • Proteus VSM software • Microembedded IDE
5	First Year Engg.	<ul style="list-style-type: none"> • Autocad, • Linux, • JAVA, • C,C++
6	Library	<ul style="list-style-type: none"> • Slim 21 Library Management System
7	Mechanical	<ul style="list-style-type: none"> • AutoCAD 2013(Auto Desk Academic) • CATIA V5 R21 • AutoCAD 2009 • Auto CAD Subscription • CREO 3.0 (Educational Bundle) • Mastercam X9 (Cam Software) • Ansys 16.2 Software

Any other

- Generator backup (500 KVA)
- Institution website: <http://www.kjei.edu.in/tae/>
- Moodle software for online exams and recording attendance.
- E-Exam portal (My Examo)for providing online practice tests and Online Exams
- L3 manageable switch for servers
- UPS backup to ensure constant power supply

For details of IT facility refer Annexure 4.3.2

4.3.3 Detail on the computer and internet facility made available to the faculty and students on the campus and off the campus.

All the classrooms, laboratories, hostels and library of the institute is provided with internet and intranet facility. Every system is protected with a username and password, individual login identities are provided to students and faculty to access the internet facility. Few faculties are provided with laptops and few faculties are provided with computers in their cabins. The computers have been enabled with firewall for restricted access to the websites. All rooms in boys hostel are provided with internet and Wi-Fi facility for students to work on their laptops both in the campus and hostel. All the servers are provided with power backup for uninterrupted service. Resources for conducting online exams are available in the institute and the students can practice for online exams after college hours through Exam e portal (MY EXMO). The information security and network security are ensured through the firewall and to avoid risk in the information, the websites which promote unauthenticated activities are blocked in the firewall.

Internet Service Provider : Aircel (32Mbps), leased line (Reliance Jio)
 Total bandwidth : 32Mbps

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

The institution judiciously plans and implements strategies for IT up gradation as detailed below:

- Enhancement of e-learning and e-transactions facilities.
- Improving intranet communication procedures for official communication among staff members
- Upgrading IT infrastructure for virtual learning environment (VLE) through a series of webinars and online tutorials in collaboration with IIT, Mumbai
- Launching a paperless campus project
- Installing LCD projectors in all class rooms in the UG block and initiation of SMART class rooms
- Setting up advanced multimedia lab with audio–video production capability
- To enhance internet bandwidth from 32 Mbps to 50 Mbps.
- To upgrade learning resources such as library, digital library, e-journals, internet and Wi-Fi facilities, CCTV for academic surveillance.
- New acquisition for additional servers, switches and UPS are being procured regularly as per there requirement.
- Encourage the faculty and students to use open source software's. To Increase computer-student ratio.

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

Budget is allocated every year for the up gradation of software and the maintenance of computers. The budget allocated for procurement, up gradation, deployment and maintenance of the computers and their accessories in the institution during last four years is as follows.

Table: 4.3.5.1. Procurement, up gradation, deployment and maintenance of the computers

Financial Year	Provision in Budget	Utilization	Remark
2016-17	40.00	50.68	Computer/ Software
	1.00	0.78	Maintenance
2015-16	5.00	10.64	Computer/ Software
	0.70	0.26	Maintenance
2014-15	3.40	3.46	Computer/ Software
	0.60	0.46	Maintenance
2013-14	33.00	32.08	Computer/ Software
	0.50	0.46	Maintenance

* Amount is in Lacs.

4.3.6 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 quality of teaching-learning process is enhanced through the utilization of online resources by faculty and students. Details on access to online resources are given below:

- Staff and students can access e-journals, e-books and resources from the library and from internet in the campus
- Dissemination of teaching materials is facilitated through college domain emails.

Besides the following e-resources are made available to faculty members and students for effective teaching-learning process:

- Webinar series – Web conferencing conducted in collaboration with industrial experts on emerging technology
- Language laboratory for learning English.

The students are given projects and assignments wherein they use various web resources. The following e-resources are available:

- LCD projectors and computer systems are provided in classroom with internet access.
- Internet facility is provided to faculty of all departments for the preparation of teaching/learning material.
- The faculty and students can access e-resources available on intranet.
- Boy's hostel is provided with Wi-Fi facility to access e-learning material.
- Students are assigned with projects that require the use of ICT facilities. Faculty delivers their lectures using power point presentations. The faculty takes the help of ICT resources to enrich their lecture presentations/course material and knowledge.
- Online aptitude based tests are conducted by the institute as per the requirement of industry for training, placement and recruitment.
- A database of objective questions of all courses is maintained by the institute for conducting online examinations.
- Students can practice for online examination on Exam e-portal My Examo and Moodle. Online feedback system is taken through Google foarm and ERP system
- NPTEL lectures, videos and web resources are made available for faculty and students to enhance the knowledge.
- Studio facility is provided to generate video lectures.

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 institute allocates sufficient funds for regular maintenance of the entire college facilities as per the discussion taken in the LMC meeting. The institute reviews the requirements regarding building, furniture, laboratory equipments, computers etc before the academic session begins and budget allocation is done taking into consideration the academic needs.

The details of budget allocation during last four years are as follows:

Table: 4.4.1.1 Maintenance detail of campus

Sr. No.	Amount spent for maintenance	Amount spent(in Rupees)			
		2016-17	2015-16	2014-15	2013-14
1	DG Set (Fuel)	0.33	0.500	0.073	0.237
2	Building	2.338	1.719	0.767	0.037
3	Ground Maintenance	---	---	3.500	0.315
4	Computers	0.780	0.260	0.462	0.561
5	Electrical	0.261	0.005	0.023	0.090
6	Furniture& Fixture	3.040	0.020	6.903	0.022
7	Garden	0.010	0.026	---	0.774
8	Lab Equipment	0.188	0.307	0.451	0.106
9	Vehicles	0.203	0.429	0.141	0.057
10	Other Expenses	0.196	0.103	4.716	4.050

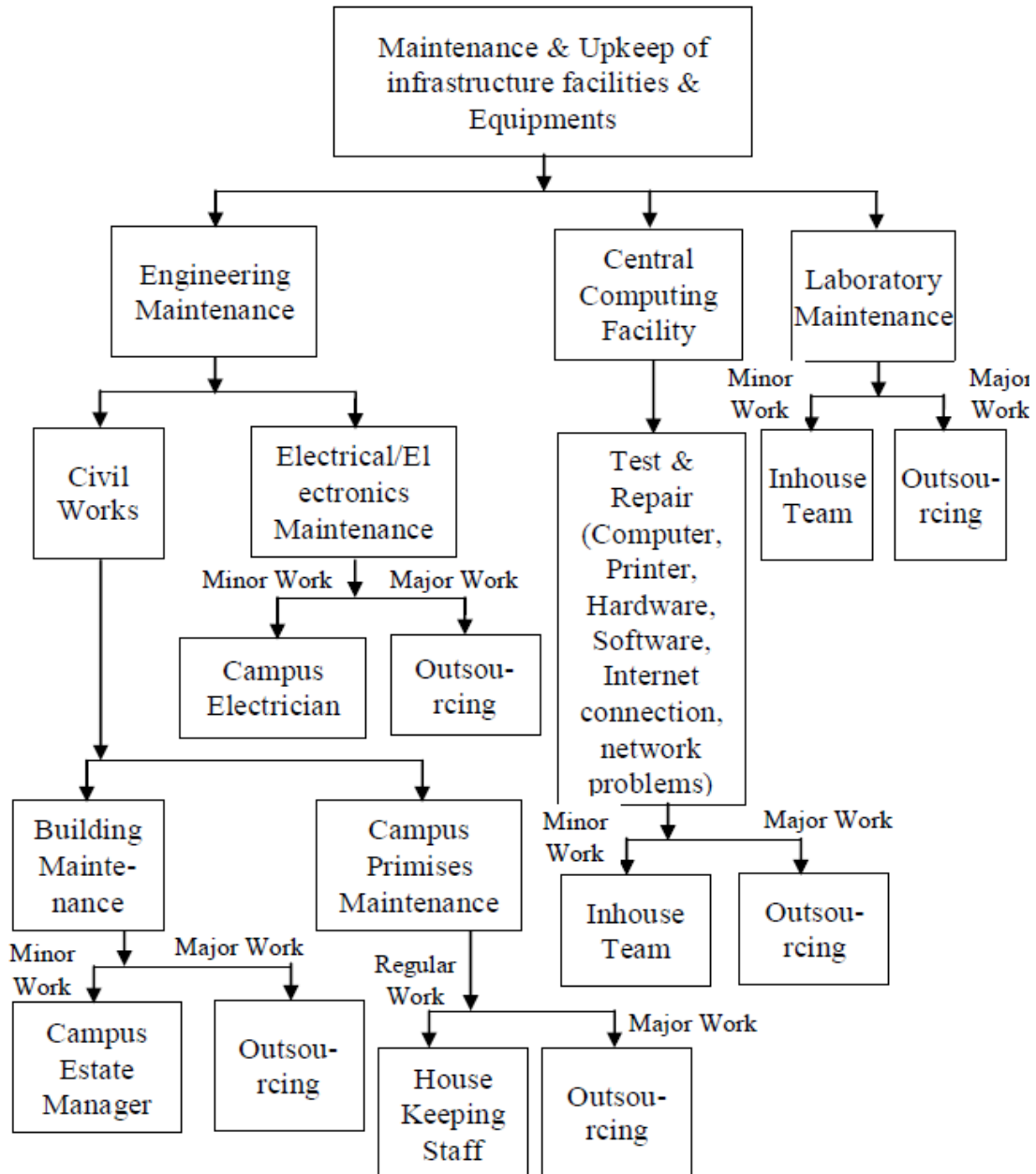
For budget and process refer Annexure 4.4.1

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

The institute has appointed a team of personnel of all kind of maintenance staff on the payroll of the college which is duly supervised by the Registrar.

The institute has appointed housekeeping staff for day to day cleanliness of corridors, washrooms, classrooms, laboratories, hostels and maintenance of the premises. The maintenance of water coolers is carried out by an annual maintenance contract. The institute has appointed Electrician for repair and maintenance of electrical works. Laboratory equipment's are serviced and repaired by the technical assistants of their respective departments for minor

repair or by the concerned manufacturers for major repairs. The maintenance of computing facility is carried out by the system administrator and the technical assistants of the respective departments. For the repair and maintenance of civil works, a requisition slip is submitted by the Head of the Department through the Principal to the Campus Estate manager. Finally periodic checks, reviews and observations by the higher authorities help in upkeep and maintenance of the campus.



Flow Chart: Institutional Mechanism for Functional Maintenance

For detail of maintenance policy refer Annexure 4.4.2

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

The institute has allocated a budget to each department for calibration and precision of laboratory equipment. At the end of the each semester the physical verification of laboratory equipment's is carried out. The instruments which are not working are identified and are repaired by the respective vendors/ service providers so that the instruments are ready before the academic session begins. The day to day maintenance is carried out by the technical staff. The mechanical, electrical, electronics and civil equipment's are taken up for the calibration and precision measurement as and when required by the respective departments.

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

The major steps taken for location, upkeep and maintenance of sensitive equipment's are:

- Generator (500 KVA) is installed in a separate ventilated room and in an organized environment for uninterrupted power supply. The generator set installation room is facilitated with BC and ABC fire extinguisher.
- UPS of 70 KVA is installed in an air conditioned separate room from a dust free environment to ensure constant power supply.
- Transformer (630KVA, 22KV/433V) is installed in the institute.
- Aqua guard water coolers are provided on each floor in the institute and are cleaned periodically.
- The laboratory in charge along with the technical assistant monitor the smooth working of sensitive equipments in their respective laboratories and get them repaired as per the requirement.
- Voltage stabilizers and transformers are installed to control the voltage fluctuations, special electrical earthing is also provided.
- Annual maintenance contracts are executed for the maintenance of UPS and generators.
- Constant water supply is provided in the institute and campus.

4.4.5 Any other relevant information regarding infrastructure and learning resources which the college would like to include.

- An open access language laboratory equipped with audio interactive multimedia is available to hone communication skills.
- A sound proof studio is available to record teaching material.
- Fire extinguishers are installed at prominent locations in the campus and are checked periodically.
- CCTV cameras are in all classrooms, reading room and computer laboratories.
- CCTV monitor is installed in the Principal cabin for online supervision and monitoring of academic activities.
- ATM facility.
- Xerox center and General stores.

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?**

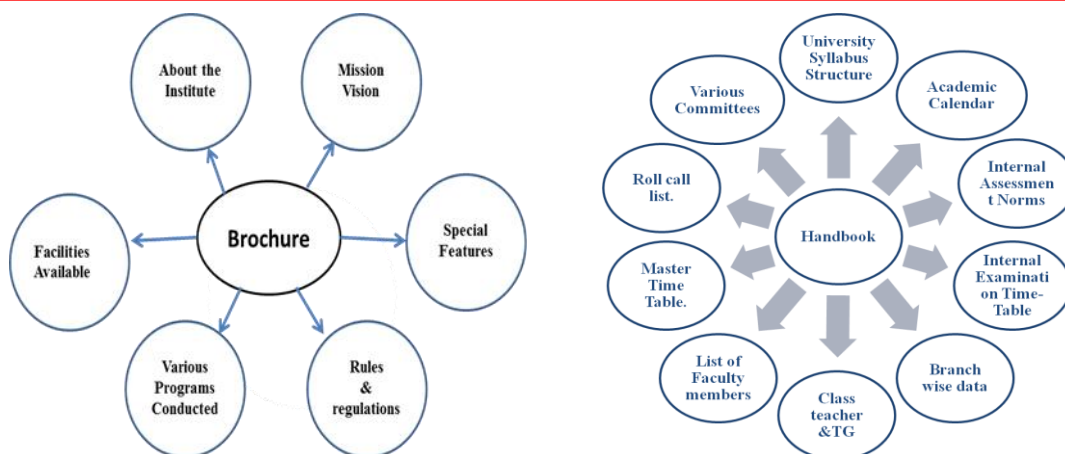
Yes, Institute publishes the prospectus every year at the beginning of the academic year. Prospectus is given to the students along with application form. Handbook published each year is also given to the students at the start of the semester.

The brochure includes:

- About TAE with vision and mission of the institute
- Details of programs offered UG & PG.
- Rules and regulations, Code of conduct
- Hostel facility, infrastructural set up, canteen facility
- Training and placement activities
- Eligibility criteria for admission, student scholarships
- Information about the departments
- Co-curricular and extra-curricular activities conducted in the institution.
- Details of Educational loan scheme
- The Information Boucher is also available online on college website

The Handbook published each year consists of:

- University Syllabus Structure
- Academic Calendar
- Internal Assessment Norms
- Internal Examination Time-Table
- Branch wise: Syllabus, Teaching Plan, Unitwise question Bank, Previous year university question papers.
- List of class teacher & teacher Teacher Gaurdian
- List of Faculty members
- Master Time Table.
- Roll call list.
- Various Committees declared and their activities planned.



Commitment and accountability:

The commitment of all above planned activities reaches students in following ways:

- On first day of college student attend one day induction program with their parents where the complete institute information is been told through the prospectus.
- Hand book is circulated, so as the information regarding academic calendar, University exam pattern and various things related to academics is been declared.
- Various committees formed and activities related to them is been told accordingly.
- All the activities Circular & extra circular are been told to students.

The Faculty at TAE also have a concern to look at the accountability that all the details of Brochure are been received by students and students do collect the Handbook department wise and work accordingly .TAE sees that faculty repossess the status of each and every student and confirm the productiveness through it.

Kindly refer **Annexure 5.1.1**

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 needy students who didn't get any financial assistance by government were given concessions by Honorable President of Mr. Kalyan Jadhav sir as KJEI scholarship on their individual applications.
- The management provides 30 % to 70% of tuition fee concession for selected Students.
- For some special case, the management provides 100% tuition fees concession, free mess and hostel accommodation. Table: 5.1.2.1explains TAE Scholarships disbursed.

Table: 5.1.2.1. Summary of number of Scholarships and free ships Data:

Sr. No.	Year	No of Students	Amount Disbursed (Rs)
1	2013-14	246	1.9 Cr.
2	2014-15	344	1.65 Cr.
3	2015-16	455	2.39 Cr.
4	2016-17	240	1.25 Cr.

Kindly refer **Annexure 5.1.2**

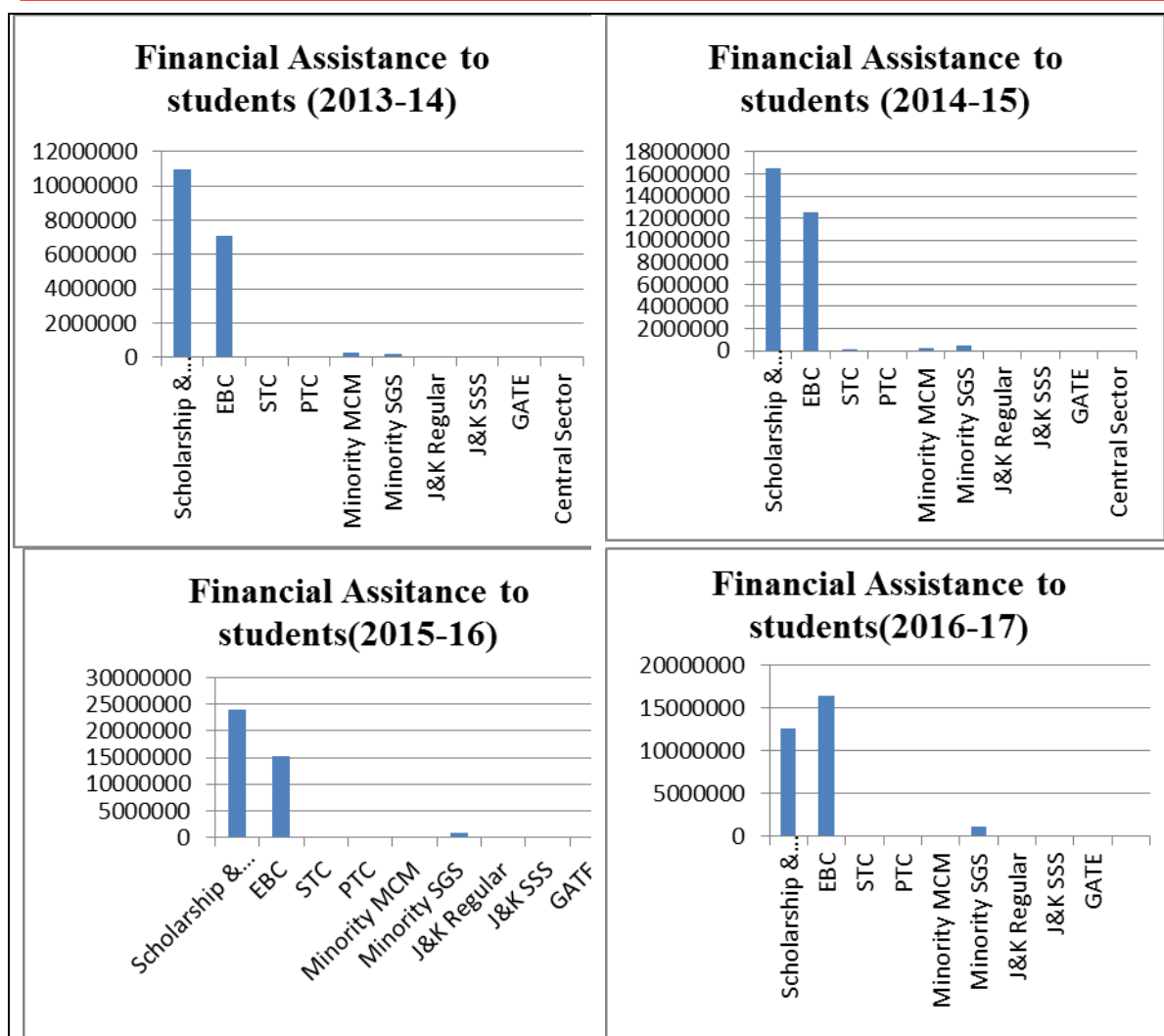
5.1.3 What percentage of students receives financial assistance from state government, Central government and other national agencies?

Details of students receiving financial assistance from various government agencies such as for social welfare, economically backward, minority are given below. Table: 5.1.3.1 shows the Summary percentage of students receives financial assistance by various Agencies in TAE.

Table: 5.1.3.1. Summary percentage of students receiving financial assistance:

Combined all Department									
Sr. No.	Assistance	Academic Year							
		2016-17		2015-16		2014-15		2013-14	
		No of students	Amount	No of students	Amount	No of students	Amount	No of students	Amount
1	Scholarship & Freeship	240	1.25 Cr	455	2.39 Cr	344	1.65 Cr	246	1.09 Cr
2	EBC	452	1.64 Cr	443	1.53 Cr	388	1.25 Cr	240	70.62 Lac
3	STC	4	16 K	0	0	3	12 K	3	12 K
4	PTC	1	4 K	0	0	0	0	1	4 K
5	Minority MCM	4	1 Lac	10	2 Lac	14	2.68 Lac	15	2.91Lac
6	Minority SGS	43	10.75 Lac	34	9 Lac	20	5 Lac	9	2.25 Lac
7	J&K Regular	0	0	0	0	0	0	0	0
8	J&K SSS	0	0	1	1Lac	1	1 Lac	0	0
9	GATE	0	0	0	0	0	0	0	0
10	Central Sector	0	0	0	0	0	0	0	0
11	% of Students	0	0	0	0	0	0	0	0

- The data shown in Table: 5.1.3.1 is been portrait with help of Graph below to know the percentage of students receiving financial assistance at TAE



- Students from open category whose family income is less than Rs. 1 lakh per annum gets 50% scholarship in their fees from State government.
- Students from SC/ST/VJ/NT category get 100% scholarship in their fees from state government.
- OBC/ SBC students get 50% scholarship in their fees from state government.
- J & K migrant’s scholarship is given.
- We even have GATE qualified students given Scholarships for PG studies.

Kindly refer **Annexure 5.1.3**

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

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

The moment the students are identified SC/ST, OBC and economically weaker sections through admission process they are given various support from the college like:

- Support given to them is by giving Soft skills training by Pareneeti Foundation
- TAE supports Financial assistance for add on courses like Employability Skill Development (ESD) program conducted by Zensar Technologies as a CSR activity.

- Economically weaker students are provided with facilities like book bank facility given by the department.
- Scholarship is also available under EBC scheme.
- Earn and Learn Scheme for economically weaker students
- All the support from TAE to these students are by announcing various Scholarships offered by various agencies like: Fair n Lovely Scholarship , Bharatratna Dr. B.R.Ambedkar Swadhar Yojana, Vidya Vetan, Persistent Scholarship, State Govt. Scholarships for Minorities Etc.

b) Physically Disabled students

- Support to them is given by making them easily avail ramps and wheel chairs.
- Special arrangement is made during exams at ground floor.
- As a support extra time is given for examination of theory paper and labs.
- Preferences are given for issue and exchange of books in library.

c) Overseas students

- There are no overseas students who have taken admission in the institute.

d) Students to participate in various competitions/National and International

- Information regarding various national and international presentations, seminars, project competitions, model makings, sports are notified to students through, Notice boards, Websites, Social sites, ERP, Announcement by teachers in class.
- TAE Supports students for participating in competitions like AVISHKAR, national level research conferences.
 - They are continuously boosted up to participate 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.
 - As a result Students have participated in competitions like ACCLIVITY, GRAVITY-17, SPARK-Tech, Techtonic etc.
 - Financial support and sponsorship facility is given to all the teams of students to Participate in various activities ROBOCON, ROBOWAR, etc
 - Students are also motivated by faculty to participate in national level research conferences.
 - To enhance their cultural activities also we motivate their participation in Cultural activities like Purushottam Karandak, Firodiya Karandak, KJ Karandak are well supported by the institute with financial assistance.

e) 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.

- First aid facility 24×7 available in campus.
- Institute vehicle is available for emergency medical service
- Students are covered under Medical / Health insurance, group insurance scheme of SPPU.
- Medical check –up and blood donation camps are arranged in the institute.

f) Organizing coaching classes for competitive exams

- TAE supports students to crack their competitive exams by arranging guest Lectures / Seminars / Workshops of eminent professional institutes for GATE, GRE, CAT, TOEFL etc. for guidance, & preparation by special cell formed under Competitive exam Cell & Higher Education Cell at TAE.
- Institute has signed up MOU with reputed classes in Pune so as to train our students for all types of Competitive exams like VANI institute, GATE Forum, SIEC's institute.
- As a In-House facility, faculty also take special career guidance classes at Institute at department level.
- Institute has even Tied up with expert academies like AAKAR, DIPSTAMBH foundation.
- Periodical guidance from Industry experts is arranged like Dr. Pravin Mundhe (IPS), DCP (Crime Branch), Pune has visited our college for guidance.
- Facility of mock interviews and aptitude tests are also arranged.

g) Skill development (spoken English, computer literacy, etc.):

- Expert lectures on career planning are arranged by the In-House faculty and Industry Experts.
- Facility like Soft skills development activities are undertaken for improving communication skills by agencies like SCOUT, Un-Gap, where in TE BE students are trained in their soft skills and aptitude skills.
- Language laboratory facility is available at TAE so as to increase speaking and listening skills in English of students .
- Students and faculty members are encouraged to use NPTEL learning resources for improving technical & non-technical skills.
- We at TAE provide Technical Certification courses are been conducted department wise on their core subjects like: CAD-Catia, Embedded Linux, Net etc.

h) Support for Slow learners

- Teacher Guardian (TG) scheme is available in each department wherein the TG acts as complete guardian to each student identifying slow learners.
- Meetings are organized with students to understand the personal growth and performance of them .
- As a support to slow learners 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.
- Additional lectures and practical's are conducted to bring them at par with other Students

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

- Corporate social responsibility cell (CSR) & Student Welfare Cell (SWC) in TAE acts as a tie up between the industry and the students growth socially ,various activities are been conducted to ensure that students are exposed to industry at every level of academics. As a result of this exposure various companies have been hiring our students through PARINEETI. Annexure can be seen for company names.

- National level technical symposium KJ YOUTH FEST 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. Like PARI Electronics, UL Automation etc where our students have done their internships.
- 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, few of them are ZENSAR HR Ms.Sonali Kelkar, Persistant HR Mr. Kousthubh Badbade,etc do always visit our institute.
- Industry Institute Interaction Cell (IIC) 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, like: ISTE Student chapter APCOER, Parvati, Pune, DYNAMECH 2017, PVG College of Engineering and Research etc.

j) Publication of student magazines

Innovative ideas of students are boosted up by initiating students magazines ,few of them are listed below:

- In academic year 2014-2015, department of Computer Engineering published magazine named “ Sentoris”.
- In academic year 2014-2015, department of Electronics & Communication Engineering published magazine named “ Sentilla ”.
- In academic year 2016-2017, TAE is publishing a magazine named “ Akshar-Brahma ”.

Kindly refer **Annexure 5.1.4**

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

Entrepreneurial Development Cell EDC is established in TAE to promote entrepreneurship among the youth and to nurture a passion for self-employment. This will open gates for creation of new knowledge-based innovative hi-tech ventures, industries and new breed of technopreneurs and more avenues of employment opportunities thus turning job seekers into job creators and in the process, leading the nation towards industrial excellence and self-reliance.

Efforts made by institute to facilitate ED skill:

- Entrepreneurship awareness program was conducted to promote business skills in students
- EDC has signed an MOU with a consultancy firm “PARINEETI” for soft-skill training.
- MOU is also signed with AASARA Foundation.
- The eminent entrepreneurs shared their success stories with the students and motivated them.

Activities under EDC

- Speaker Series- Lectures and Talks on Entrepreneurship
- Idea Generation workshop

- Business Modeling Workshop
- Startup Idea Workshop
- Program on Financial assistance and Sources of institutional assistance to entrepreneurs
- Conducts entrepreneurship Training program for first year students
- One day workshop on “Basics of entrepreneurship”, for all second year students
- Industrial visits and training on soft skills
- Organizing talk show for students

Table 5.1.5.1 shows the members under EDC established in TAE.

Table 5.1.5.1: Entrepreneurship Development Cell:

Sr. No.	Committee Members	Designation
01	Dr. V. M. Wadhai	Chairman
02	Mrs. Supriya Burgul	ED Cell In charge
03	Mrs. DiptiShetye	Civil Dept. Coordinator
04	Mrs. Shweta Parode	E & TC Dept. Coordinator
05	Mr. R.R. Ranaware	Computer Dept. Coordinator
06	Mr. ShirishKonde	Mechanical Dept. Co-ordinator
07	Mr. ShekarKawade	Student-President
08	Mr. Swapnil Magar	Student-Secretary
09	Mr. IshwarDivekar	B.E Mechanical
10	Mr. Pratik Lohakare	T.E. Mechanical
11	Mr. AjinkyaChoure	B.E Civil
12	Mr. Rahul Gayakwad	T.E. Civil
13	Mr. Mahesh Nikam	B.E. Computers
14	Mr. AsmitaGholap	T.E. Computers
15	Mr. OmkarKelkar	B.E. E& TC
16	Mr. OmkarBhakre	T.E. E& TC
17	Mr. Mahesh Nikam	B.E. Computers

Details of workshops/guest lecturers conducted

Workshops/Guest Lectures conducted under this cell are shown in table 5.1.5.2 below.

Table 5.1.5.2: Few workshops/guest lecturers conducted:

Sr No.	Activity Name	Resource Person, Company/organization	Date
2015-2016			
1	Guest Talk “Scope of Entrepreneurship in Media”	Mr. Prasad Mirasdar	28/11/16
2	“Let's Build Enterprising India”	Mr. Suraj Bhoyar	23/07/16
2014-2015			
1	A Seminar on Entrepreneurship- “Youth in Entrepreneurship”	Mr.Sharad Tandale	8/07/15
2013-2014			
1	Guest Talk “Scope of Entrepreneurship in Mechanical Industries”	Mr. Rajendra Singh Rathod	18/11/14

Impact of all above Efforts

Some of the entrepreneurs from our institute are shown in table 5.1.5.3 below.

Table 5.1.5.3: Some of the entrepreneurs from our institute

Sr. No.	Entrepreneur Student	Company Name
Mechanical		
1	Suyash Navale	Microcheck calibration services
2	Shrikrishna Nivduncha	Fruit Khazana Pvt.Ltd
3	Nilesh Shelke	Rigal Industries
4	Sunny Shah	Rigal Industries
5	Anirudha Nikam	Shriram Broadband services
6	Prashant Raut	Calibre Metric Enterprises.
E&TC Department		
1	Kunal Chetiar	CW Computers
2	Pankaj Walke	CW Computers
3	Rohit Hudke	Hudke Technologicals
4	Akshay Shitole	Hudke Technologicals
5	Jiten Vijay Kumar	Proadence Auto services Pvt Ltd

Sr. No.	Entrepreneur Student	Company Name
Computer		
1	Prathmesh Joshi	RP Automation
2	Sandesh Shewale	Shi Sadguru Entr
3	Prasad Shirke	Rising with US Pvt Ltd
4	Akash Wawge	Chintamani Computers
5	Mahesh Sanap	Sai Tours & Travels
Civil Department		
1	Shitole Vishwaraj	Guru Krupa Engineering
2	Yograj Lohokare	Hari Krupa Builders
3	Akash Mate	Suyash Infra Structure
4	Ojhas Jangda	Pshwanats Buildcon
5	Manav Mulik	Paradise Property Consultancy

Technology Business Incubation (TBI) Cell is established in TAE. The term incubation refers to the process of support and Technology business incubation is the temporary, facilitative support provided to start-up enterprises. Technology transfer is the process of transferring skills, knowledge, methods of manufacturing and facilities among governments, universities and other institutions to ensure that scientific and technological developments are accessible to wider range of users. The Cell formed in TAE is shown in table 5.1.5.4 below

Table 5.1.5.4: Technology Business Incubation Center (TBI) for Institute

Sr. No.	Name of Member	Post/ Designation
1	Dr. Vijay M. Wadhai,	Principal/ Chairman
2	Prof. Snehal Pagay	Chief Coordinator
3	Prof. S.G.Nandanwar	Coordinator
4	Prof. A .Y. Patil	Coordinator
5	Prof. S.V.Parode	Coordinator
6	Prasad B. Karad	Student Members
7	Anuj S.Jakhotia	Student Members
8	Mayur Kashikar	Student Members
9	Adwait S.Khandagde	Student Members
10	Seema Sharma	Student Members
11	Jadhav Diksha Dattatray	Student Members
12	Borde Ashutosh Ajit	Student Members
13	Mulani Javed Latib	Student Members

Sr. No.	Name of Member	Post/ Designation
14	Yogesh Pandit	Student Members
15	Pranav Khandagale	Student Members
16	Kiran Pawar	Student Members
17	Mahesh Wable	Student Members
18	Pratik Ghatage	Student Members
19	Dinesh Chunge	Student Members
20	Pooja Shende	Student Members
21	Priyanka Dende	Student Members

Establishing EDC & TBI cell together are the efforts made by the institution to facilitate entrepreneurial skills among students and give support to students in all aspects.

Kindly refer **Annexure 5.1.5**

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

Institute conduct various extracurricular and co-curricular activities and encourages students to participate in at least one of the activities

The policies of institution to promote participation of students in Sports & Cultural activities are:

- KJ Karandak is established for institutes Sports activity and the Objectives of it are:
 1. To provide sports equipment.
 2. To make awareness regarding sports and health.
 3. To acknowledge the deserve sports person and their performance
- KJ Youth Fest is established for institutes cultural activities and the main objectives of it are:
 1. Exercise leadership in different cultural contexts.
 2. Develop competency in navigating institutional as well as personal level.
 3. Develop an honest and authentic sense of self.
 4. Demonstrate cross cultural understanding and cultural competency.

The strategies of institution to promote participation of students in Sports & Cultural activities are:

- The Institutional strategies include the provision of financial, academic and infrastructural support.
- At the start of the academic year students are called for participation in sports and extracurricular activities.
- Teams are formed according to the selected students.
- Institute participates in inter institutional, state level activities like Purshottam Karandak, Firodia Karandak etc.
- Arrangement of specific time frame for extracurricular activities and sports are

made in the academic calendar itself.

- Provision for sports uniform and material.
- Record of participants is conveyed to the university where students are granted marks for participating in sports at national and international levels.
- Students are felicitated and awarded at the Institute for their remarkable performance in sports or cultural activities.
- Also, departments organize state level technical events like “Robo-war, CAD War etc.

TAE arranges three mega events KJ youth fest includes MAIDAN (Sports), YANTRA (Technical Events), MALHAR (Cultural Events) in which thousands of students participates.

Kindly refer **Annexure 5.1.6**

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/TOEFL/ GMAT / Central /State services, Defense, Civil Services, etc.

The institute has a separate higher education cell for competitive examination. Its students for higher studies and for research. Its main objective is to create awareness about competitive exams among the students and to provide academic facilities to students aspiring for the Civil Services Examinations, GATE, GRE and other such competitive examinations. Students are given tips on choosing right strategies and selecting suitable study material. Aptitude tests and mock tests are arranged for the students.

The activities conducted by the competitive cell are:

- Survey of students appearing for various examinations.
- Establishing a dedicated library with a reading room facility.
- Arranging Guest/Expert Lectures.
- Establishing study circles or clubs for competitive exams.
- Gate coaching conducted by Mechanical and Civil Department.
- Dr. Pravin Mundhe (IPS), DCP (Crime Branch), Pune is one of eminent personality who visited college for guiding our students on UPSC exam.

Table 5.1.7.1 Number of students who have qualified in various competitive exams in the last four years is given below:

Examination	2013-14	2014-15	2015-16	2016-17
GATE	2	1	1	2
CAT	-	-	1	-
GRE/TOEFL	2	1	1	1
Civil services	1	1	2	-
Total students	5	3	5	3

Kindly refer Annexure 5.1.7

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

Table 5.1.8.1 Details of academic, personal, career, psycho-social services

Services	Type of Services	Students benefited
Academic	Guardian/class teacher(TG) scheme to provide guidance for academic	20
Personal	Counseling on emotional, social, mental and spiritual level by TG, Class Teacher, Head of Department	10
Career	Career counseling services are provided by T&P cell, Alumni and Industry experts.	10
Psycho-social	Counseling on emotional, social, mental and spiritual level individual and group counseling by counseling experts	3

Kindly refer **Annexure 5.1.8**

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

Yes, the institute has a structured Mechanical for career guidance and placement of students. T&P cell with the help of supporting cells like EDC, Competitive Exam Cell & Higher Education Cell first recognize the students of their respective interests and then students training and counseling is done. Students are their aptitude and technical training is been conducted by T&P cell for various companies which are expected to visit the campus and their aptitude and technical training is been conducted by T&P cell. Students are also trained for Aptitude, logical reasoning to enable them for placement. Sessions are organized by HR personnel of various companies to make the students aware of current industrial trends and requirements.

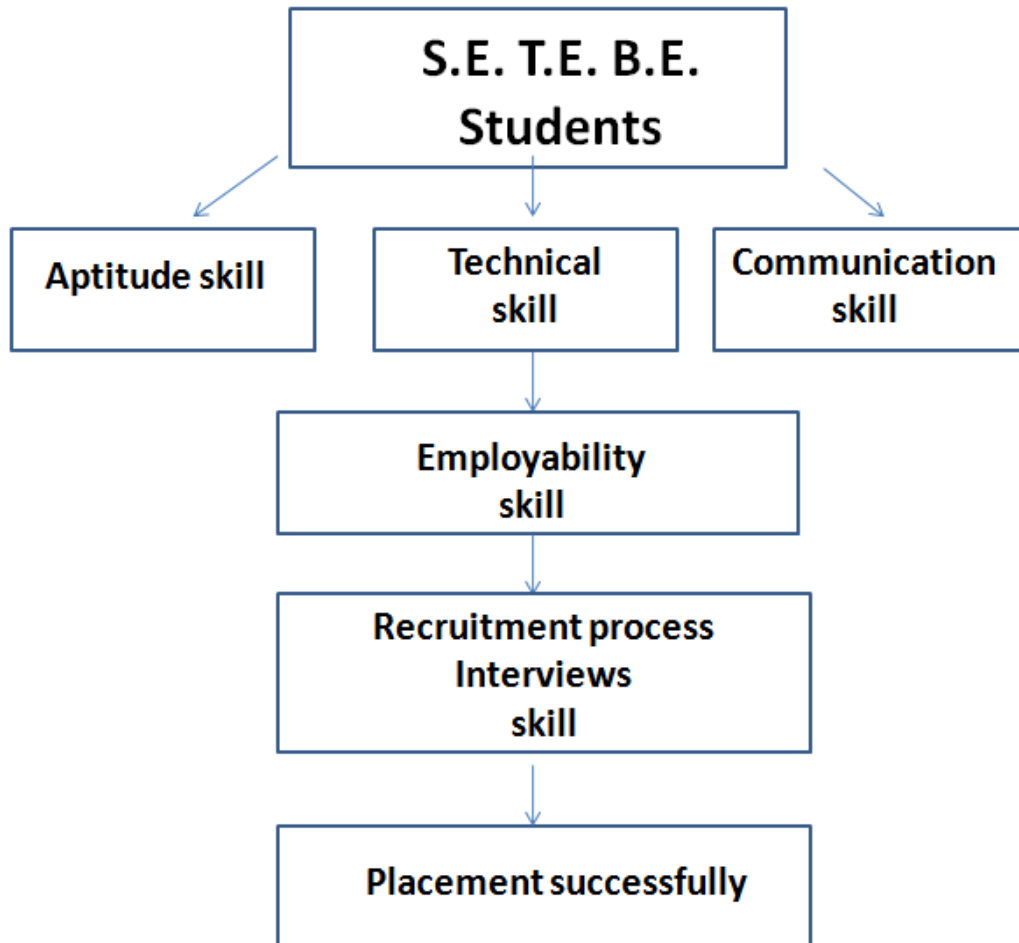


Fig. 5.1.9: Flow chart of training and placement activity

Training and Placement Cell conducts different courses to improve placements:

- SCOUT Pvt. Ltd. –Aptitude training for all Branches
- Un-Gap Pvt. Ltd. – Aptitude & Soft skill Training for all Branches.
- Parineeti Foundation - Aptitude & Soft skill Training for all Branches
- Global Talent Track, initiated by Barclays- Aptitude & Soft skill Training for all Branches
- First Naukari – Training all Branches
- Micro-Embedded Pvt. Ltd. – Technical Training in Embedded for E&TC students
- Indwell Automation Pvt. Ltd.- Technical Training in Embedded for E&TC students
- Zensar ESD Program - Technical Training in VB.Net & Java for Comp students
- I-CAD Pvt. Ltd.- Technical Training in CATIA for Mechanical students
- CADCAM Guru Solutions Pvt. Ltd. - Technical Training in CAD software for Mechanical students
- Q-Spiders Pvt. Ltd.- Technical Training in Software Testing for E&TC, Mechanical, Comp students
- WAHAN Engineering & Electro-Mechanical Pvt. Ltd. - Technical Training in Mechanical, Electrical & Plumbing (MEP) for E&TC, Mechanical, Civil students

Table 5.1.9.1: List of students placed through Campus Placement

Department	Details	Year			
		2013-14	2014-15	2015-16	2016-17
Civil Engineering	No. of students Placed	2	4	5	-
	% of placed students	42	15	6	-
Computer Engineering	No. of students Placed	29	18	18	-
	% of placed students	64	43	45	-
E&TC Engineering.	No. of students Placed	12	26	41	3
	% of placed students	100	72	66	6
Mechanical Engineering	No. of students Placed	30	43	55	3
	% of placed students	42	29	37	1

Table 5.1.9.2: Few industries where TAE students are placed

Name of the Industries as Employers	
Cybage	Surekha Electronics Pvt. Ltd.
Persistent Systems Limited	Q-logic
Infosys	SAJ Test Plant Pvt. Ltd.
Zensar Technologies	TruThread
IBM	VIT Infotech
Tech Mahindra	Vitronics Controls
L&T Infotech	Enertech
Atlas Copco	AGS Tech.
TCS	S.P. Engineers
Polaris	Nanco
Quinnox	IQS Tech
Flextronics	Reddviser
KPIT	Crest Premedia
Capgemini	EVER Electronics
Webtech	MS INTELUX
Market & Market	Ajinkya Electronic Systems
Textronics	Cern System
GS Lab	SS user work
Mphasis	Analyzer CEA

Vertusa Software Ltd	Ognibene India Ltd.
Bitwise Global	Toro Cooling Systems Pvt. Ltd.
Man Diesel	Watershed Org. Trust
Siemens	SGS Technologies Pvt. Ltd.
3DPLM	Surekha Electronics Pvt. Ltd.
Volkswagen	Indiana Conveyers
Cognizant	Accurate
Voltas	Desai Electronics
DANA	Prolifics
KPIT	Dhanda Engineering
Cummins	B.N. software ltd
CORONA	C-Tech
HSBC	ALKA Technologies
Methi Technologies	Infinite Computing Systems Pvt
Tata Communication	Amazon

Table 5.1.9.3: Few industries which visit TAE students for placement



Kindly refer Annexure 5.1.9

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.

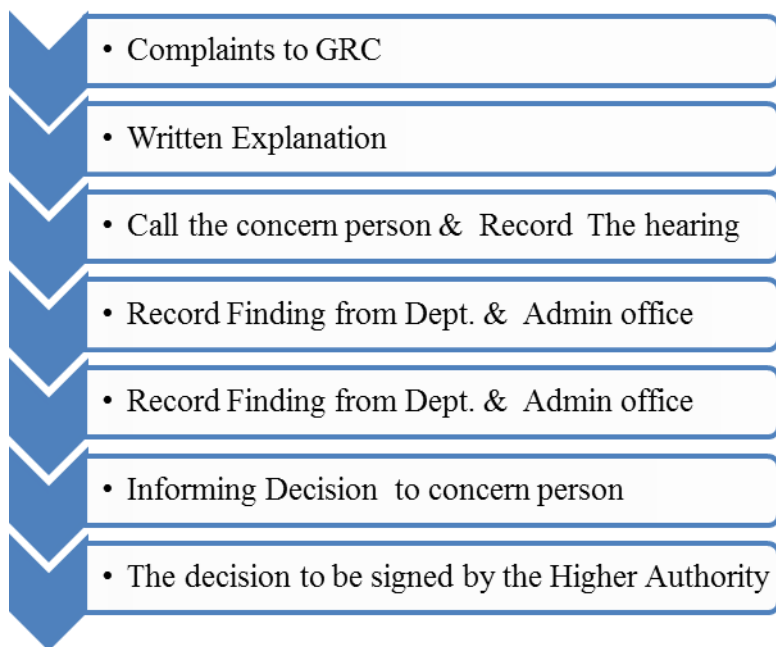
Yes, the college has a Grievance Redressal Cell. A Suggestion Box is placed at a prime location inside the campus for receiving complaints/grievances from students in writing. The box is opened periodically and necessary actions are taken to redress grievances. The personal grievances are handled carefully and sensitively and whenever required, appropriate counseling is also provided by the teachers or the Principal. There is also a

separate register for cleanliness-related complaints, which are attended to promptly. The college is also open to receiving information about the problems and grievances of students through letters and e-mails. The Principal is also receptive to the students who can walk into his office at any time during office hours.

Grievance redressing is done not by a single cell or committee but by the committee or cell concerned with the issue. In the case of admissions, for example, there is a separate grievance committee. So is the case with ragging or sexual harassment. There has been no major grievance in the last four years.

The flow of this cell showing the complete working process in TAE is shown in table 5.1.10.1

Table 5.1.10.1: Grievance Redressal Cell Process



The Grievances committee shall hear, settle and decide grievances as per the law, as far as may be practicable, within three months from the date of filing of complaint.

The college is sensitive enough to meet student’s grievances both in academic and administrative matters.

Kindly refer Annexure 5.1.10

The constitution of the cell is given in Table 5.1.10.2

Table 5.1.10.2: Grievance Redressal Committee

Sr. No.	Name of Member	Post/ Designation
1	Dr. Vijay M. Wadhai,	Principal/ Chairman
2	Prof. Sonali S. Kale	Committee Co-ordinator
3	Prof. Neha Sathe	Expert Member
4	Prof. Kranti Patil	Committee Members
5	Prof. Smita Daterao	Committee Members
6	Prof. Swarupa Aphale	Committee Members
7	Mrs. Neha Kadam	Student Co-ordinator
8	Mrs. Seema Sharma	Student Co-ordinator

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

The institute has established anti-sexual harassment cell to resolve the issues pertaining to sexual harassment. A faculty conversant with law issues pertaining to sexual harassment is also included as an external member of the cell. The cell holds periodic meetings and strives to create awareness amongst faculty, staff and students. Grievances, if any, are thoroughly investigated and efforts are taken to ensure that justice is meted to the victim/complainant. The constitution of the cell is given in Table 5.1.11.1. Please find the annexure attached.

Table 5.1.11.1: Anti-sexual harassment Cell

Sr. No.	Name of Member	Post/ Designation
1	Dr. Vijay M. Wadhai,	Principal/ Chairman
2	Mrs. Neha Sathe	Expert member
3	Prof. Sonali S. Kale	Chief Co-ordinator
4	Prof. Kranti Patil	Co-ordinator
5	Prof. Smita Daterao	Co-ordinator
6	Prof. Swarupa Aphale	Co-ordinator
7	Mrs. Neha Kadam	Student Co-ordinator
8	Mrs. Seema Sharma	Student Co-ordinator

Kindly refer **Annexure 5.1.11**

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?

The institute has established **anti-ragging committee** for the institute and its hostels. CCTV cameras are installed in the campus and hostels to monitor such activities. A suggestion box is available for students to forward their suggestions / complaints. The communication details of the committee members are displayed on the website and at prominent places in the institute. No instance of ragging has been reported in last 4years.

Please go through annexure in accordance with below committee.

Table 5.1.12.1: Anti-ragging committee for Institute

Sr. No.	Name of Member	Post/ Designation
1	Dr. Vijay M. Wadhai,	Principal/ Chairman
2	Prof. P.H. Jadhav	Coordinator
3	Prof. P.V.Desai	Member
4	Prof. K.D.Patil	Member
5	Prof. P.M.Chimkode	Member
6	Prof. S.S.Kale	Member
7	Mr. Shekhar Kawade	Student Co-ordinator
8	Mr. Akshay Orpe	Student Co-ordinator

The institute has also established **Anti-Ragging Squad Committee** for the students. The main aim of all the members of this committee is to observe there is no nuisance occurred in campus . Please go through annexure.

Table 5.1.12.2: Anti-ragging Squad committee for Institute

Sr. No.	Name of Member	Designation
1	Prof.S.S.Mulik	HOD Mech & Dean Academics
2	Prof.SS.Deshmukh	HOD Civil
3	Prof. P.H.Jadhav	Assst Prof.
4	Prof. A.S.Shahapurkar	Assst Prof.

Kindly refer **Annexure 5.1.12**

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

Earn & Learn Scheme:

Earn and learn scheme is implemented on the college level. The registration and approval is in waiting from Board of Student Welfare, SPPU. The main objective of the scheme is to develop a student as a multifaceted personality with academic excellence and a commitment to an egalitarian society. Students are given technical work, official work, library work and sports ground preparation/maintenance work under supervision of the concerned staff. The students have shown keen interest in the work along with their academics.

Bank Loan Services:

In collaboration with the Union bank, the institute assists all the students in opening an account. Bank provides net banking for easy transfers. The bank also provides educational loans.

Book Bank:

Library has implemented two schemes under book bank.

- **Management funded book bank scheme:**
Under this scheme, library provides books to student. 5 Books are issued to meritorious students, which are recommended by HODs & Principal.
- **Social Welfare Scheme**
It is available for reserved category students.
- **KJ's Merit Scholarship**
Needy students based on their credit are given such scholarships.

Kindly refer **Annexure 5.1.13**

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

Yes, the institute has a register Alumni association with registration number in process it was established on 24th February 2017. The name given to our Alumni is “ SmitiGandh”. Although the alumni cell was established now but we had taken alumni meet earlier for our previous pass outs.

Following are the activities carried out by alumni,

- Awarding the best outgoing students with a prize every year
- Sponsoring various prizes for extracurricular events, co- curricular events like student conferences etc.
- Conducting mock interviews and resume writing sessions for enhancing placements to pass outs.
- These people donate books to library
- Arranging guest lectures by alumni members and other prominent people for students on current technical and non-technical topics
- Helping students to get sponsored projects and internships by our alumni.
- These students are called for campus placements of their respective companies.
- They motivate our present students so as to participate in various activities as the importance of it is been told to them.

Kindly refer Annexure 5.1.14

5.2 Student Progression

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

Following table shows the percentage of students progressing to higher education or employment for the last four batches.

Table: 5.2.1.1 Students progressing to higher education or employment

Student Progression	No. of students			
	2016-17	2015-16	2014-15	2013-14
UG to PG				
Civil Engg.	-	03	03	01
Computer Engg.	-	1	2	3
E&TC Engg.	-	5	4	3
Mechanical Engg.	-	4	7	11
Total		10	13	17
Employed (Campus)				
Civil Engg.	-	5	4	2
Computer Engg.	-	4	11	-
E&TC Engg.	3	1	9	1
Mechanical Engg.	3	1	1	1
Total	6	6	21	2
Other than Campus				
Civil Engg.	-	23	16	9
Computer Engg.	-	3	4	14
E&TC Engg.	-	2	6	9
Mechanical Engg.		54	42	28
Total		59	52	51

Department	2016-17	2015-16	2014-15	2013-14
Self – Employment				
Civil Engg.	-	13	3	2
Computer Engg.	-	1	2	-
E&TC Engg.	-	12	4	2
Mechanical Engg.		18	6	8
Total		31	12	10

Kindly refer **Annexure 5.2.1**

5.2.2 Provide details of the programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.

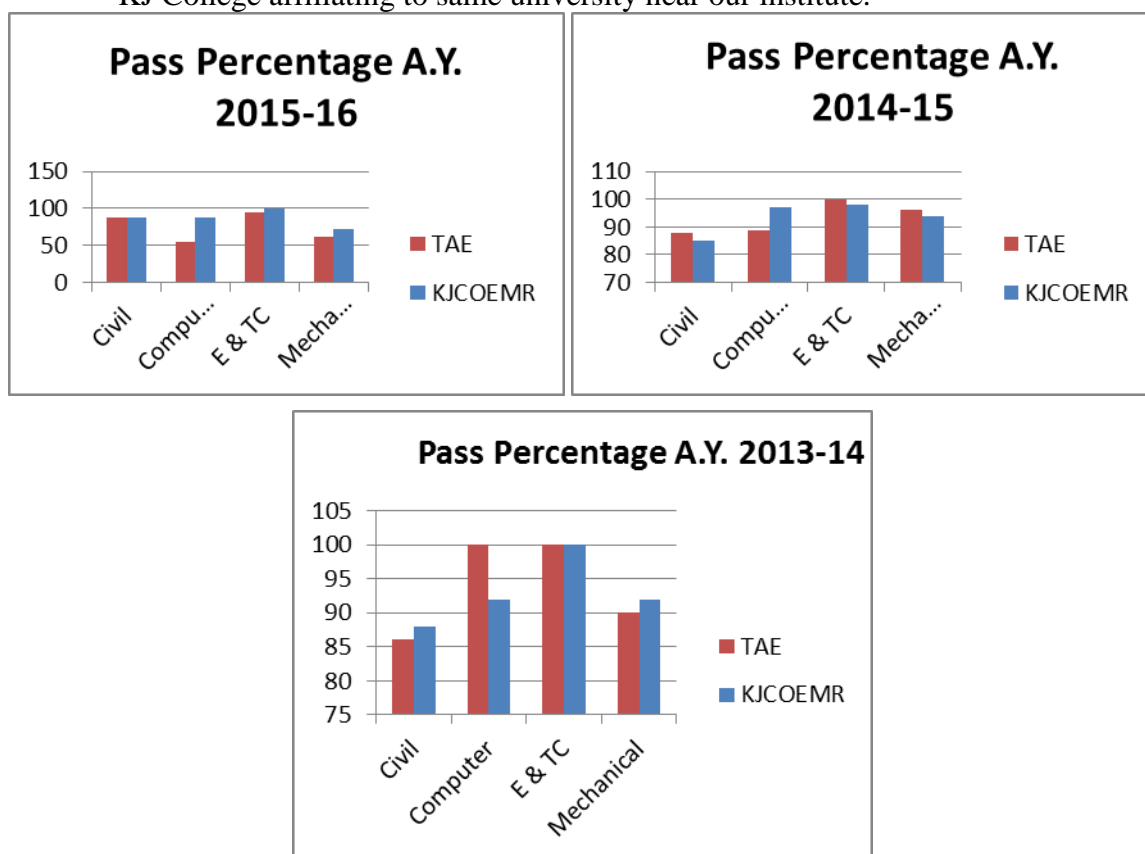
- The programme wise pass percentage and completion rate for the last four years
- Comparison is done for all departments UG and PG.
- Comparison of percentage of passing per branch per year

The programme wise details of the institute in comparison with the performance of previous years for UG are given below:

Table: 5.2.2.1 Programme wise details of the institute in comparison with the performance of previous years (UG)

Department	Number of students	2016-17	2015-16	2014-15	2013-14
Civil Engg.	No. of students appeared	101	76	26	14
	No. of students passed	-	66	23	12
	Percentage of Passing	-	87	88	86
Comp. Engg.	No. of students appeared	57	39	39	18
	No. of students passed	-	33	35	18
	Percentage of Passing	-	54	89	100
E&TC Engg.	No. of students appeared	48	62	36	12
	No. of students passed	-	59	36	12
	Percentage of Passing	-	95	100	100
Mechanical Engg.	No. of students appeared	186	146	92	72
	No. of students passed	-	91	88	65
	Percentage of Passing	-	62	96	90

- The following graph shows TAE UG result analysis in comparison with that of the KJ College affiliating to same university near our institute.



The programme wise details of the institute in comparison with the performance of previous years for PG are given below:

Table: 5.2.2.1 Programme wise details of the institute in comparison with the performance of previous years (PG)

Department	Number of students	2016-17	2015-16
Civil Engg.	No. of students appeared	18	23
	No. of students passed	-	17
	Percentage of Passing		74
Mechanical Engg.	No. of students appeared	12	19
	No. of students passed	-	6
	Percentage of Passing		32

Kindly refer **Annexure 5.2.2**

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

Departments facilitate and counsel students to take up higher studies. Students are promoted for GATE/GRE/TOEFL and other competitive exams, facilitating their progression to higher studies and enhancing employment opportunities. This activity is

held under our Higher Education Cell and Competitive Exam Cell. Various sessions are also provided regarding competitive examinations like GRE, GMAT, GATE and PSU’s etc. and Higher Education for Masters in foreign universities.

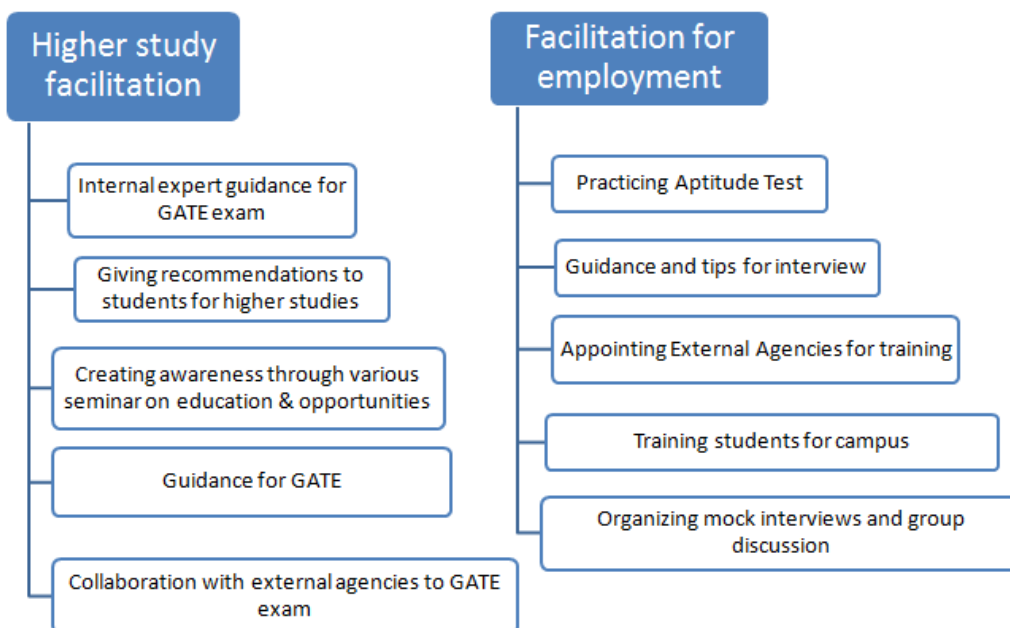
Table 5.1.12.1: Higher Education Cell committee for institute:

Sr. No.	Name of Member	Post/ Designation
1	Dr. Vijay M. Wadhai,	Principal/ Chairman
2	Prof. N.Chandran	Co-ordinator
3	Prof. Snehalata G Nandanwar	Member
4	Prof. Rupali G .Godke	Member
5	Prof. Shirish L. Konde	Member
6	Prof. Deepti D. Kulkarni	Member
7	Mr. Shardul Parab	Student Member

Institutes which visit our campus for educating are:

- SIECs - expertise includes expert guidance on IELTS, TOEFL, SAT, GRE, GMAT
- Monmouth University – MS in Australia, China, England, India, and Zimbabwe
- UPSC civil services –Expert lecture by different experts.
- Vani Institute – Guide our students for GATE
- Gate Forum- Guide our students for GATE
- ACE Academy - Guide our students for GATE

Details of activities for higher study and employment facility:



Towards employment:

The TAE has **Competitive examination cell (CEC)**, which train the students for Competitive examination. It has a structured Mechanical for career guidance for students. Under the guidance of the Principal the Institutes training and placement officer in coordination with Departmental Training and Placement coordinators carry out different activities related to both training and placement.

Table 5.1.12.1: Competitive examination cell (CEC) for institute

Sr. No.	Name of Member	Post/ Designation
1	Dr. Vijay M. Wadhai,	Principal/ Chairman
2	Prof. Shirish L. Konde	Co-ordinator
3	Dr. M. Swamy	Member
4	Prof. S. P. Yadav	Member
5	Prof. Prashit Nayak	Member
6	Prof. D. D. Kulkarni	Member
7	Mr. Atharva Joshi	Student Member

Departmental Training and Placement:

Departmental Training and Placement coordinators carry out different activities related to both training and placement. These include:

- Collection of data and CV's of each student.
- Registrations of students for placement to TPO email ID.
- Arranging for training activities to enhance Aptitude and soft skills, Arranging group discussions and mock interviews,
- Arranging Expert / guest lecturers of Industry personnel
- Arranging Industrial training

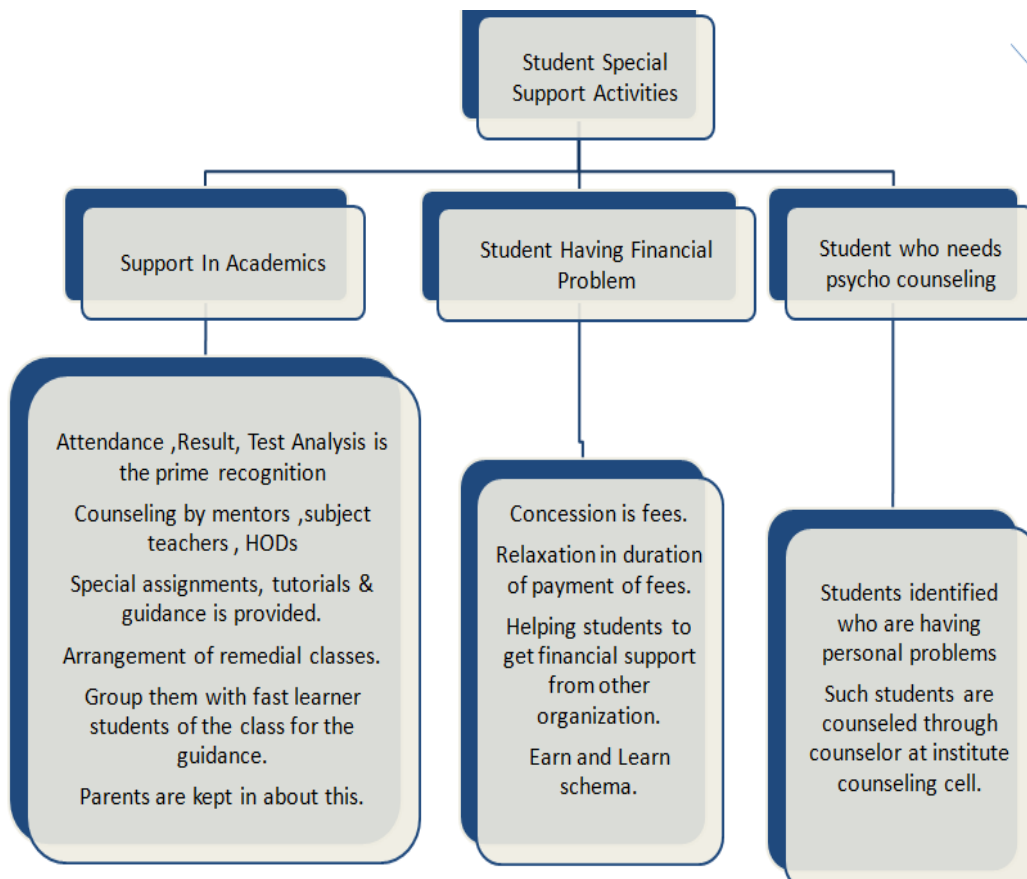
In addition to this, lot of Guest Lectures, workshops, seminars and Value added programmes are organized for the knowledge enhancement of the students to make them industry ready.

Kindly refer **Annexure 5.2.3**

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

- Special support is provided by all departments to students who are academically weak.
- Additional practice sessions and mock tests are conducted for these students. Retests are conducted for the students who fail in internal examination.
- The subject teacher identifies the students who are at risk of failure through internal, TG activity and end semester exam of University.
- These students are given extra assignments and remedial lectures.
- Parents are informed about their poor attendance and performance.

Details of special support policies for failure and dropout students



Kindly refer **Annexure 5.2.4**

5.3 Student Participation

5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

Table 5.3.1.1 shows a generic sports calendar implemented at TAE is given below:

Table 5.3.1.1: a generic sports calendar

Month	Date	Activity	Achievements
July-August	18th July onwards	Selection Trails of different Team Sports	Declaration of Selected Students for Team Sports
September	12th Sept onwards	Selection Trails of different Individual Sports	Declaration of Selected Students for Individual Sports
October - November	-	Reporting and Practicing for various sports	Preparation for different sports events
December	12/12/2016 to 26/12/2016	Inter-Collegiate Pune District Sport Zone Men Cricket Tournament	AIT, Dighi, Pune was winner
	15/12/2016	Pune district Zonal Level, Shrirampur, Ahmednagar	ParitoshUmeshPewekar qualified in Men's Power Lifting (90 kg category)
January	05/01/2017 to 12/01/2017	Annual Sports Festival	Kabaddi Team from Mechanical Department was declared 1st runner up
			PratikshaKadam was 1 st runner up in Badminton Womens Singles
February	2/2/2017 to 3/2/2017	Girls State Level Athletics Tournament, Belhe, Junnar, Pune	ZainabShaikh TAE Polytechnic, Pune secured 1st position Short Put and 1st runner up in Discuss Throw
	17/2/2107	Asvamedh, by AISSMS, Pune	Winner of Men's Kho-kho event
March	27/3/2017 onwards	KJ Karandak	
	29/3/2017	University Physical Exam	

Table 5.3.1.1 shows the list of the number of students participated in different events.

Table 5.3.1.1: List the range of sports, games, cultural and other extracurricular

Sr. No.	Name of Activity	2016-17	2015-16	2014-15	2013-14
1	SAE BAJA	-	-	25	-
2	SUPRA	-	25	-	-
3	Go-Kart	25	-	-	-
4	Cricket	15	15	15	15
5	Football	15	15	15	15
6	Kabbadi	12	12	12	12
7	Firodiya Karandak	42	42	-	-
8	KJ Youth Fest- Cultural	68	70	64	39
9	KJ KARANDAK- Sports	120	110	125	90
10	KJ KARANDAK- Technical	60	56	58	47

Apart from that, various extra-curricular activities are taken by college where number of Student get platform to show their hidden talent.

Kindly refer **Annexure 5.3.1**

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.

Our students actively participated in a large number of Cultural, Technical, Sports, Extracurricular and Co-curricular activities at different levels: University / State / Zonal / National / International and have won awards for the same.

Table 5.3.2.1: Major student achievements in co-curricular, extracurricular and cultural

Sr. No.	Name of Students	Award / Recognition	Organization & Details	Category
Mechanical Engineering Department				
1	Choudhary Poonam	Participated	Singing, Dancing, Firodiya Karandak, 2017	Zonal
2	Siddhant	Participated	Singing, Firodiya Karandak, 2017	Zonal
3	Mali Dayanand	Runner up	Malhar, KJ's Youth Festival, 2017	Zonal
4	Mali Dayanand	Participation	MIT Persona Fest, 2017	Zonal
5	Vaibhav Singh Rajput	Bronze Medal	2 nd TSKA India Invitational National Karate Championship 2017	National

Sr. No.	Name of Students	Award / Recognition	Organization & Details	Category
6	Mane Prithviraj	Second Rank	I.C. Engine & CATIA Workshop , Innovation cell IIT Bombay , RoboKart	International
7	Mane Prithviraj	Participation	I.C. Engine & CATIA Workshop, Innovation cell IIT Bombay , RoboKart	International
8	Mane Prithviraj	Second Rank	CAD WAR Competition , The New Polytechnic , Kolhapur	Zonal
9	Mane Prithviraj	Third Rank	CATIA , Yugandrikruth 2017 , Kolhapur Institute Of Technology College Of Engineering , Kolhapur	Zonal
10	Mane Prithviraj	Participation	ElectriRobo Race , The New Polytechnic , Kolhapur	Zonal
11	Mane Prithviraj	Participation	BRAIN TEASER , KHTMERA 2K15 , Rajarambapu Institute Of Technology , Islampur	Zonal
12	Mane Prithviraj	Participation	LATHE WAR , POWER 2K13 , Nanasaheb Mahadik Polytechnic , Peth	Zonal
13	Mane Prithviraj	Participation	ROBORACE , PHOENIX 2K14 , D.Y.Patil Polytechnic , Talsand	Zonal
14	Mane Prithviraj	Participation	WASTE OF BEST , MECH FEST 2K14, Dhananjay Mahadik Group Of Institute ,Kolhapur	Zonal
15	Mane Prithviraj	Participation	QUIZ UP , Yugandrikruth 2014 Kolhapur Institute Of Technology College Of Engineering , Kolhapur	Zonal
16	Mane Prithviraj	Participation	BREAKDOWN , TechnoZeal 2013 , Kolhapur Institute Of Technology College Of Engineering , Kolhapur	Zonal
17	Mane Prithviraj	Participation	CHARCHA , TechnoZeal 2013, Kolhapur Institute Of Technology College Of Engineering , Kolhapur	Zonal
18	Munot hrushabh	First Rank	Zonal level inter collage (in stat level)	state level
19	Wable Harshad	First prize for group	Fashion show, Sinhgad Karandak 2017	Zonal
20	Wable Harshad	First prize for group	YMBHAV, Fashion show, Symbiosis Law School , Pune	Zonal
21	Vineeth Shetty	First prize for group	YMBHAV, Fashion show, Symbiosis Law School , Pune	Zonal
22	Vineeth Shetty	First Place Winner	Fashion show, Sinhgad Karandak 2017	Zonal
23	Vineeth Shetty	Participation	Fundamental 2017, Fashion show, Symbiosis Institute of Design	Zonal

Sr. No.	Name of Students	Award / Recognition	Organization & Details	Category
24	Wable Harshad	Participation	Fundamental 2017, Fashion show, Symbiosis Institute of Design	Zonal
25	Mali Dayanand Yashwant	Participation	DYNAMECH 2017, PVG College of Engineering and Research	Zonal
26	Sanket N Jadhav	Participation	TIDE 2017, Intercollegiate competition held at CADCAMGURU solutions Pvt. Ltd.	Zonal
27	Chandan Lokhare, Gaurav Nikam Dular Shaikh Huzaif Memon	First Rank	Poster presentation: Mechanical Engineering, KJEI's Gravity 2017	Zonal
28	Omkar Patil	Participation	Click A Story , Sinhgad Karandak , Sinhgad college , Pune	Zonal
29	Shivshankar Patil	Semi-Final (cricket)	Savitribai Phule University (2016-17)	Zonal
30	Akshay Gole	Winner (kho-Kho)	ASWAMEDH EVENT 2K17 ,AISSMS college pune	Zonal
31	Akshay Gole	Semi-final(kho-Kho)	ZEST 2017 College of Engineering Pune	Zonal
32	Akshay Gole	Semi-final (KABBADI)	ZEST 2017 College of Engineering Pune	Zonal
33	Vineeth Shetty	Runner Up	Fashion show, Talentron-2017, Zeal Education Society, Pune	Zonal
34	Bhujbal Pranav	3 rd Prize	TURNAMENT, Mindspark, COEP 2015	Zonal
35	Shaikh Alfaiz	2 nd Prize	MECHTRIX, Mindspark, COEP 2016	Zonal
37	Bhosale Mayur	1 st Prize	Wall magazine, Mindspark, COEP 2015	Zonal
38	Onkar Patil	Runner Up	Contraption, Mindspark, COEP 2016	Zonal
39	Sohan Suryawanshi	Participation	TURNAMENT, Mindspark, COEP 2015	Zonal
40	Sushant More	Participation	TURNAMENT, Mindspark, COEP 2015	Zonal
41	Tushar Mahale	Participation	Robo Racer, Sinhgad Karandak, 2017	Zonal
42	Choudhary Poonam	Participation	Meteor, Sinhgad Karandak, 2016	Zonal
43	Divekar Viraj Ratnakar	Participation	MECHTRIX, Mindspark, COEP 2016	Zonal
44	Digvijay Shinde	First Prize Acting	KJEI's Cultural Events 2015	Zonal

Sr. No.	Name of Students	Award / Recognition	Organization & Details	Category
45	Digvijay Shinde	Mr. KJ	KJEI's Cultural Events 2016	Zonal
46	Digvijay Shinde	First Prize Acting	Talentrion-2016, Zeal Education Society, Pune	Zonal
47	Chandagude Tushar	Participation	TIDE 2017, Intercollegiate competition held at CADCAMGURU solutions Pvt. Ltd.	Zonal
48	Sharad Diwate	First prize	Project Exhibition (Mechanical) KJEI's Yantra' 17	Zonal
49	Aniket Bodhane	Runner up	Project Exhibition (Mechanical) KJEI's Yantra' 17	Zonal
50	Raju Dhage	Participation	Project Exhibition (Mechanical) KJEI's Yantra' 16	Zonal
51	Manohar Buva	Participation	Project Exhibition (Mechanical) KJEI's Yantra' 16	Zonal
52	Pradip Deokate	Participation	Anchoring, Malhar, KJ's Youth Festival, 2017	Zonal
53	Akash Patil	Participation	TechnoQuiz 2016, Sandip Polytechnic, Nashik	Zonal
54	Akash Patil	3 rd prize in Zonal round	Mindwave control robot, SIEM, Nashik	Zonal
55	Abhishek Kadam	Runner up	TURBO, VISION 2017, WCE Sangli.	Zonal
56	Abhishek Kadam	Runner up	Track Mania, Gandharva 2017, VIIT Pune	Zonal
57	Abhishek Kadam	Second rank	Robo Race, ACCLIVITY 2017, PVPIT, Bavdhan	Zonal
58	Abhishek Kadam	Participation	Robo Race, CYNOSURE 2017, BATU Lonere.	Zonal
59	Desai Rahul	2nd position	Kabaddi competition	Zonal
60	Gole Akshay	3rd position	Kabaddi competition	Zonal
61	Kale Adesh satish	4th position	Kabaddi competition	Zonal
62	Jadhav kiran	5th position	Kabaddi competition	Zonal
63	Jagtap Chetan	6th position	Kabaddi competition	Zonal
64	Zende Rahul	7th position	Kabaddi competition	Zonal
65	Patil Manoj	8th position	Kabaddi competition	Zonal
66	Patankar Akshay	9th position	Kabaddi competition	Zonal
67	Chaudhari Swapnil	10th position	Kabaddi competition	Zonal
68	Runwal Pritesh	11th position	Kabaddi competition	Zonal
69	Paritosh Pewekar	Qualified for Zonal	Mens Powerlifting competition	Zonal
70	TAE Kho Kho Team	1st position	Kho Kho, AISSMS, Pune	Zonal

Sr. No.	Name of Students	Award / Recognition	Organization & Details	Category
71	Akash Patil	3 rd prize in Zonal round	Workshop and development of robot, SIEM, Nashik	Zonal
72	Akash Patil	Participation	SAP01 training program, Organised by R solutions	Zonal
73	Akash Patil	Participation	Robo-Race 2016, Shatabdi Institute of Engg, Research, Nashik	Zonal
74	Akash Patil	Participation	Glider making, TRIGGER, PVGCOET, Nashik 2014	Zonal
75	Akash Patil	Participation	Poster competition, Sandeep Institute of Polytechnic	Zonal
76	Abhishek Kadam	Second rank	Robocick, Quark'2017, BITS Pilani, KKBirla, Goa	State level
78	Abhishek Kadam	Participation	Robo Race, DYNAMMECH 2017, PVG College of Engineering and Research	Zonal
79	Abhishek Kadam	First prize	Robo Race, UNITECHFEST'17, Universal college of Engineering Pune	Zonal
80	Shardul Potdar	Merit certificate	National Level Photography Competition, SAM-circuit, Delhi	National
81	Avdhut Sadavarte	Participation	Project presentation, Zeal Education Society, Pune	Zonal
82	Akshay Bendkale	2 nd Prize	Kaladalan Rangoli Competition, KJ Youth Fest'17	Zonal
Computer Engineering Department				
83	Priyanka Shinde	Girls Scholarship	Persistent Foundation 40,000 per year and mentoring support	Zonal
84	Girija Lonkar	1st winner	JETKING Winner in inter college competition	Zonal
85	Soheeb Peerzade	Fresh face of Pune	Times of India Finalist	Zonal
86	Rutuja Gaikwad	Girls Scholarship	Persistent Foundation 5,000 per year and mentoring support	Zonal
Electronics and Telecommunication Department				
87	Nikita Haribhakt	Winner	ISTE Student chapter APCOER, Parvati, Pune	Zonal
88	Rohini Jagtap	Winner	ISTE Student chapter APCOER, Parvati, Pune	Zonal

Sr. No.	Name of Students	Award / Recognition	Organization & Details	Category
89	Priyanka Bayas	Winner	ISTE Student chapter APCOER,Parvati,Pune	Zonal
90	Ujwala raut	Winner	ISTE Student chapter APCOER,Parvati,Pune	Zonal
91	Shubham Ramtirth	Winner	Circuit Desinging & Debagging PVPIT,Pune	Zonal
92	Dinesh Chunge	Runner up	Circuit Desinging & Debagging PVPIT,Pune	Zonal
93	Rahul Yadav	Runner up	Circuit Desinging & Debagging PVPIT,Pune	Zonal
94	Shubham Bijamwar	Runner up	Circuit Desinging & Debagging PVPIT,Pune	Zonal
95	Jiten Vijaykumar	Runner up	Campus2Corporate pro- 2014 SAE, Pune	Zonal
96	Ashish Joshi	Runner up	Campus2Corporate pro- 2014 SAE, Pune	Zonal
97	Anup Tilekar	Runner up	Campus2Corporate pro- 2014 SAE, Pune	Zonal
98	Deshmukh Mrunalini	Runner up	Sinhgad Karandak 2014 – Table Tennis STES	Zonal
99	Gorakhnath	Runner up	Alacrity Code chef AISSMS IOIT, Pune	Zonal
100	Godse Jyoti Bhaupatil	Winner	Alacrity Code chef AISSMS IOIT, Pune	Zonal
101	Sanket Bhagare	Winner	Perception RoboWar VIIT, Pune	Zonal
102	Shinde Akshay Ganesh	Runner up	C- Programming Contest SAE, Pune	Zonal
103	Shinde Gauri Ganeshrao	Runner up	Campus2Corporate pro- 2014 SAE, Pune	Zonal
Civil Engineering Department				
104	Hatte Sadanand	IInd runner up	Vishwanath Sport meet	Zonal
105	Sagar Patil	IInd runner up	Vishwanath Sport meet	Zonal
106	Hanumant Hiwarkar	Ist Prize	KJ Karandak Chess Competition	Zonal
107	Tejashri Velpule	2nd runner up	KJ Karandak Chess Competition	Zonal
108	Prasad Karad	Ist Prize	Malhar Singing	Zonal
109	Gaurav Panchal	2nd runner up	Malhar Singing	Zonal
110	Poonam Pandey	2nd runner up	Malhar Dance	Zonal

Sr. No.	Name of Students	Award / Recognition	Organization & Details	Category
111	Majaz Sheikh	1st runner up	Malhar Dance	Zonal
112	Kaustubh Pawar	Ist Prize	Kaladalan Rangoli	Zonal
113	Prasad Karad	Ist Prize	Malhar	Zonal
114	Sumit Dhage	2nd prize	Counter strike Symbiosis Navsahyadri College	Zonal
115	Sumit Dhage	2nd prize	LAN gaming, Symbiosis Navsahyadri College	Zonal
116	Shubham Shinde	Runner up	KJ Karandak Carrom	Zonal
117	Lukade Haider	Ist Prize	CWPRS QUIZ COMPETITION	Zonal
118	Akshay Dhavale	Ist Prize	CWPRS QUIZ COMPETITION	Zonal
119	Shyam Sunder Verma	Ist Prize	CWPRS QUIZ COMPETITION	Zonal
120	Sachin Hungund	Ist Prize	CWPRS QUIZ COMPETITION	Zonal
121	Kunal P Mane	Ist Prize	CWPRS QUIZ COMPETITION	Zonal
122	Kaustubh Pawar	IInd runner up	Kaladalan Rangoli	Zonal
123	Dipali Chavan	IInd runner up	Kaladalan Rangoli	Zonal
124	Sonam Ladkat	Appreciation	Kaladalan Rangoli	Zonal
125	Poonam Pandey	2nd runner up	Malhar Dance	Zonal
126	Prasad Karad	Appreciation	Kaladalan Poem	Zonal
127	Lukade Haider	2nd runner up	Yantra, Bridge making	Zonal
128	Amol Magar	2nd runner up	Yantra, Bridge making	Zonal
129	Majaz Sheikh	1st runner up	Malhar Dance	Zonal
130	Kaustubh Pawar	IInd runner up	Kaladalan facepainting	Zonal
131	Dipali Chavan	IInd runner up	Kaladalan mehdi	Zonal
132	Avishkar Shinde	Appreciation	kaladalan model making	Zonal
133	Prasad Karad	2nd prize	IBCC Championship, TAE	Zonal
134	Dipali Chavan	Appreciation	Malhar dancing	Zonal
135	Shanabi Sheikh	Appreciation	Malhar anchoring	Zonal
136	Pratik Bhilare	2nd prize	National Level competition in Surveying, SIT Narhe	National
137	Pratik Bhilare	2nd prize	Model Making, Women's College of Engg	Zonal
138	Pratik Bhilare	3rd Prize	Model Making, Bharti Vidyapeeth	Zonal
139	Prasad Karad	1st prize	MIT Karandak AAROHAN singing	Zonal
140	Prasad Karad	1st runner up	Singhad Karandak	Zonal
141	Prasad Karad	1st prize	Malhar	Zonal
142	Atish Kalbhor	1st prize	Cricket championship MAIDAAN	Zonal

Table 5.3.2.2: Students Academic Achievements at University Level

Sr. No.	Academic Year	Name of Student	University Rank	Branch
01	2015-16	Mr. Prasad Karad	1 st	Civil Engg.
02	2013-14	Ms. Minakshi Kakhanki	4 th	Mechanical Engg.

Table 5.3.2.2 Students Achievements branch wise

Sr. No.	Year	Branch	Number of Student
1	2016-17	Civil Engg.	17
2	2015-16	Computer Engg.	05
3	2014-15	E&TC Engg.	16
4	2013-14	Mechanical Engg.	83

Kindly refer Annexure 5.3.2.

5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provision Exit Survey:

Exit survey is taken from the students graduating every year. A set of question are given in the survey form regarding the quality of teaching, placement assistance and their feedback is collected and analyzed. Corrective measures are adopted as per the feedback to improve teaching competencies of the faculty thereby enhancing student learning.

The **Alumni association cell (AAC)**, collects feedback from various stakeholders and uses it improve the process and performance.

Table 5.3.3.1: Alumni association cell (AAC) for institute

Sr. No.	Name of Member	Post/ Designation
1	Dr. Vijay M. Wadhai,	Principal/ Chairman
2	Prof. Gulame M.B	Chief Coordinator
3	Prof. Jadhav S.S	Coordinator
4	Prof. Baitule D.A.	Coordinator
5	Prof. Chimkade P.M.	Coordinator
6	Mr. KelkarOmkar	Student Coordinator
7	Mr. Joshi Atharav	Student Coordinator
8	Mr. BhosaleSuraj	Student Coordinator
9	Mr. KashikarKashikar	Student Coordinator

Employer survey:

Departments obtain feedback from the employer through a structured questionnaire. This is used to obtain information about the performance of employed students which further helps in planning content to be delivered beyond the curriculum.

Few feedback of students of recent passout are as follows:

Table 5.3.3.2: Feedback of alumni about the institute

Name of Student	Branch	Year of Passing	Comments
Amruta Marod	Computer	2014-2015	Four years of college ,couldn't guess how it passed but enjoyed lot in academics ,sports and extra curricular
Kalasagar Sahu	E&TC	2015-2016	We have enjoyed in college with all terms studies ,entertainment KJ youth fest etc

Kindly refer **Annexure 5.3.3**

5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.

Yes, institute involves and encourages students to publish materials like wall magazines, college magazine etc.

- TAE publishes annual magazine
- Newsletters are periodically released by every department that highlight the achievements of the students and faculty members and showcase special activities conducted during the term like Guest Lectures, Training Sessions etc
- Wall magazines are also displayed in some departments.
- Wall magazines also includes achievements of faculty, students, major events conducted by various departments etc
- In academic year 2014-2015, department of Computer Engineering published magazine named “ Sentoris”.
- In academic year 2014-2015, department of Electronics & Communication Engineering published magazine named “ Sentilla ”.
- In academic year 2016-2017, TAE is publishing a magazine named “ Akshar-Brahma ”.

Kindly refer **Annexure 5.3.4**

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

Yes, institute has student council as per the Maharashtra University UGC act 1994 (40/2/B) Students Council is established in year 2013 And It is formulated every year.

All these members are selected / elected by the guidelines given by SPPU. The student's council consists of Principal, one faculty member from college, Student Welfare Officer, NSS Program Officer, Class Representatives (CR/LR) of each class from all departments and one student from extracurricular activities like NSS, Cultural, Sports and Technical activities.

Student is eligible to be, or to continue to be a member of any of student's council, only if he is enrolled as a full time students. The elections of the student members of this council is been conducted every year, as soon as new semester starts.

The council meets at least once in every three months.

Activities:

- Motivate students to participate in technical and soft skill events.
- Organize annual K J Youth Fest.
- 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
- No Funding from government.

Kindly refer Annexure 5.3.5

5.3.6 Give details of various academic and administrative bodies that have student representatives on them organized by students

All organizing committees for seminars, conferences and workshops conducted for students by the institute for this various academic and administrative bodies that have student representatives are as follows:

Table 5.3.6.1: Various Committees formed at institute

Sr. No	Name of Committee	Sr. No	Name of Committee
1	Health Club	16	Research & Development Cell
2	Students Association	17	Professional chapters
3	Entrepreneurship Development Cell(EDC)	17	Student Welfare
4	Sports Club	19	Value Added Programs
5	Cultural Club	20	Internal Quality Assessment committee
6	Students Council	21	Anti-Ragging Committee
7	Social Club	22	Women Anti Sexual Harassment Cell
8	Corporate social responsibility(CSR)	23	Gender Equality
9	Alumni Cell	24	Environmental cell
10	Higher Education Cell	25	National /International Conferences
11	Training & Placement Cell	26	Center Of Excellence

Sr. No	Name of Committee	Sr. No	Name of Committee
12	Competative exams Cell	27	Library Advisory Cell
13	Technology Incubation Cell(TBI)	28	RTI Committee
14	Industry Institute Interaction Cell(IIC)	29	Anti-Ragging squad Committee
15	NSS	30	Magazine Committee

- Students Association consist of:
 - MESA: Mechanical Engineering Students Association
 - ACES: Association of Computer Engineering Students
 - CESA: Association of Civil Engineering
 - ENCORE: Electronics N Communication Organization of Realistic Engineers.
- Students Council: Consist of UR, GS, LR, ALR and CRs
- Professional chapters consists of: IEEE,IETE,IE etc. Professional student chapter promotes the study, application, and advancement of information systems through career enhancement, professional networking, and chapter development.

Kindly refer **Annexure 5.3.6**

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

Network and collaboration with the Alumni:

- Networking is done through social media such as facebook page, registration through Google forms.
- Yearly technical symposium “TRYPTCH” and “K J YOUTH FEST”
- Seminar/Conference/Workshops (Inviting as Judge and participant)
- Interaction with formers faculty member is done through invitation for guest lecture and external examiners etc.

The interactions between the Alumni and the present students give a chance for both the parties to develop positive synergies to enhance growth. The Alumni Association acts an interface between the eminent alumni and the college, creating a strong network that helps in nurturing executives who can thrive in a challenging corporate environment. “**Smritigandh**”is the alumni name of our college TAE.

The Activity flow chart is shown in figure below:

Activities and contributions:

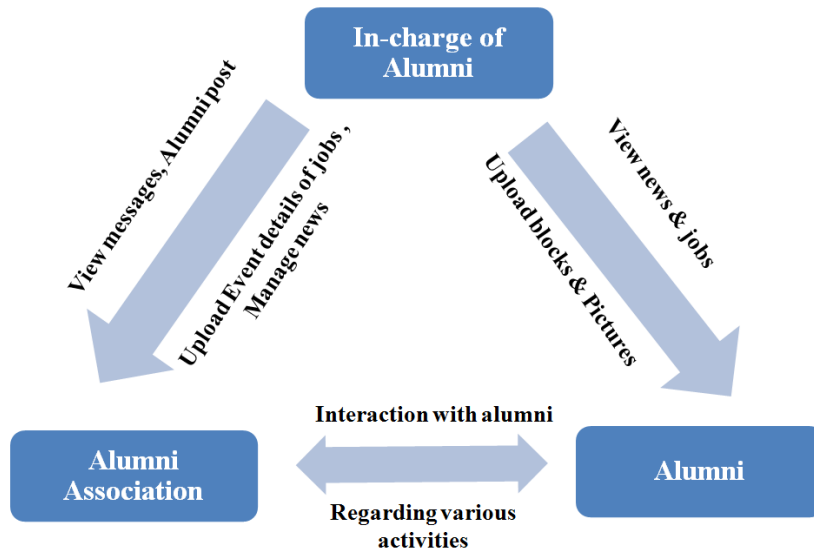
Association conducts meets at Institute level and at Department level. An alumni supports placement activity, Invited as Resource persons on areas of their expertise for Project evaluation, Participation in curriculum Development, Work as Judge for Contests organized at the Institute & arrange visits to their industries.

Interaction with former faculty:

It is done through keeping contact details and calling these faculties for Guest lectures, as a Judge for competitions and inviting them as External Examiner for UG, PG Exams.

Alumni cell activity flow:

The complete alumni cell activity flow can be understood from below diagram. Please find the annexure for more details.



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 and Mission of the institute is futuristic in nature which satisfy the needs of society by providing quality education through leading-edge technology.

Vision of the Institute

To be a premier knowledge center of the nation for socio-economic development.

Mission of the Institute

To provide education that combines rigorous academic with joy of discovery through sustained efforts and dynamic strategies in building innovation, participatory, problem based learning practices and research that leads to capacity building of the students.

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

The KJ's Educational Institutes' has making efforts to become a leader in the technical and higher education field since 2008. This institute, is been governed by this society, also have established certain milestones in the Engineering education. The Institute has ensured its leadership by:

The top management of the Institute comprises of:

- Governing Body (GB)
- Principal
- Dean
- HODS
- Local Managing committee (LMC)
- Faculty as chairpersons of various committees
- Internal Quality Assurance Cell (IQAC)

Table 6.1.2.1: Governing Body

Sr. No.	Name	Designation
1	Shri. Kalyan J. Jadhav Founder President, KJEI	Chairman
2	Mr. Ashish Ramnuklal Kothadiya Vice-President, KJEI	Trust Nominee
3	Mr. Vinod K. Jadhav Treasurer, KJEI	Trust Nominee
4	Mrs. Harshada V. Jadhav Treasurer, KJEI	Trust Nominee
5	Miss. Vibhavari K. Jadhav Treasurer, KJEI	Trust Nominee
6	Dr. H. K. Abhyankar Executive Director, KJEI	Trust Nominee
7	Dr. U. Ramesh Regional Officer & Director, WRO, AICTE, Mumbai (AICTE Nominee)	Member – Ex-Officio
8	Nominee of The Affiliating University (University Nominee)	University Nominee - Member
9	Dr. D. R. Nandanwar Joint Director of Technical Education, Nominee of the State Government	Member – Ex-Officio
10	Dr. Vikrant Vartak (Industrialist from the Region nominated by the State Government)	Member (To be nominated by DTE)
11	Dr. Atul Wadegaonkar, (MKCL) Educationist from the Region nominated by the State Government	Member (To be nominated by DTE)
12	Dr. Shrihari Mandavgane (Tata Motors) Industrialist from the Region nominated by the State Government	Member (To be nominated by DTE)
13	Prof. S. S. Mulik, Head of Mech. Dept. TAE, Pune	Member - Teaching Staff
14	Prof. Sangameshwari Maitri Head of Computer Dept. TAE, Pune	Member - Teaching Staff
15	Dr. Vijay M. Wadhai, Principal, TAE, Pune	Member - Secretary

Table 6. 1. 2. 2. Local Monitoring Committee

Sr.No.	Name	Designation
1	Shri. Kalyan J. Jadhav President, KJEI	Chairman
2	Mr. Ashish Ramniklal Kothadiya Vice - President, KJEI	Member
3	Mr. Vinod K. Jadhav Treasurer, KJEI	Member
4	Miss. Vibhavari K. Jadhav Trustee, KJEI	Member
5	Mrs. Harshada V. Jadhav Trustee, KJEI	Member
6	Dr. H. K. Abhyankar Executive Director, KJEI	Member
7	Prof. S. S. Mulik Mech. Dept. TAE	Member
8	Prof. S. S. Deshmukh Head of Civil. Dept. TAE	Member
9	Prof. Sangameshwari Maitri Head of Computer Dept. TAE	Member
10	Mr. S. S. Dhakne, Registrar, TAE	Non-Teaching - Member
11	Dr. Vijay M. Wadhai, Principal, TAE	Member - Secretary

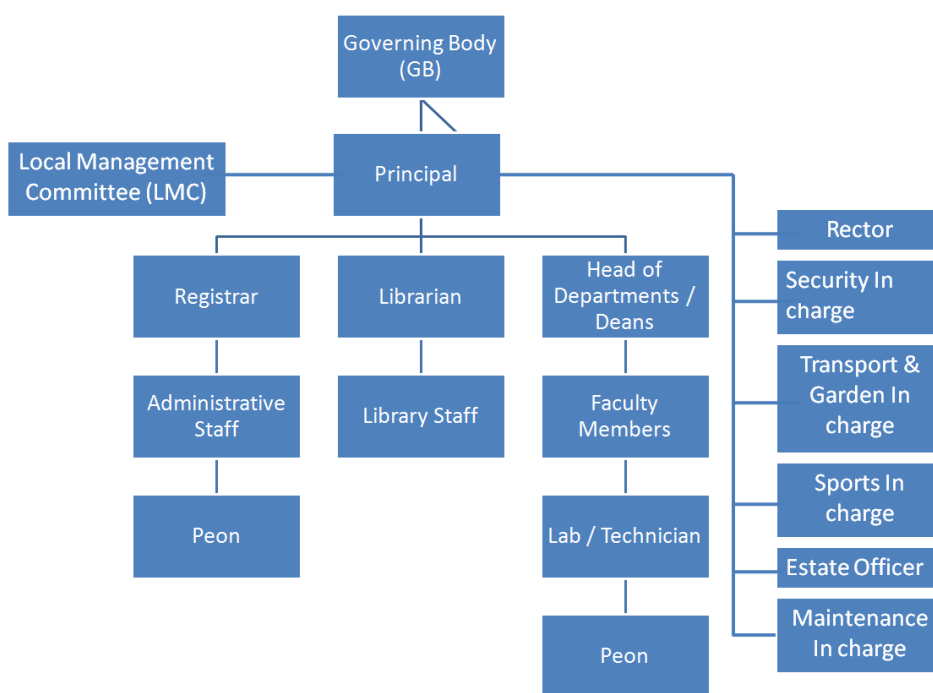


Fig 6.1.2.1 Management Organization Chart

Role of Top Management:

All top management team play significant strategic role in the evolutionary process of transformational initiatives directed towards positioning the Institute in the sphere of top ranking institutes in the city.

Governing Body:

The governing body is unambiguously and collectively responsible for overseeing the institution's activities, determining its future direction and fostering an environment in which the institutional mission is achieved. The body meets twice a year and proceedings of the meetings should be maintained properly. The college is governed by the governing body which is constituted as per AICTE and trust norms.

Its responsibility can be divided into:

- To monitor and evaluate the teaching programs in the college and suggest remedial measures, to improve the academic performance to confirm to the standard of teaching and the progress of studies in the college as laid down by the University.
- To appoint the Principal / Director, the teaching staff on the recommendations of the selection committees constituted under the relevant regulations of the University.
- To monitor faculty deployment and development, placement and industry-institute interaction activities in the institute/college and suggest remedial measures wherever necessary.
- To approve yearly budget and to sanction budgets for major purchases of the institute.
- To accord approval for appointment of teaching and non-teaching staff required for smooth functioning of the academics.

Local Management Committee:

As per the Maharashtra University Act separate Local Management Committee is constituted for the day to day functioning of the college. This committee should meet three to four times a year and proceedings of the meetings should be maintained properly. Members elected or nominated shall have a term of five years. The committee comprises of the Chairman of the management, Secretary of the management, three local members nominated by the management, three teachers elected by the institution, one non-teaching employee and Principal- Member Secretary.

The duties of the local managing committee are:

- Prepare the budget and forward it to the governing body.
- Recommend to the governing body the creation of the new teaching and non-teaching posts.
- Determine the program of instruction and internal evaluation and to discuss the progress of studies in the college.
- Monitor academic function of the college and extracurricular and co-curricular activities. Make recommendations to the management for the improvement of the standard of teaching in the college.
- Formulate proposals of new expenditure not provided for in the college budget if any.

Principal

As a head of the institute, principal should have the vision and provide leadership ability, direction and coordination within, for the growth of the institute by, achieving all quality bench marks, validate academic plans and bridging a strong bond between Institute, Industry and other stake holders.

Academic:

- To monitor and conduct academic activities of the institute under the guidance of the management and assistance of the Deans and Head of Departments.
- To take institute and faculty feedback and accordingly take the remedial actions.
- To plan and take the necessary actions for improvement of college results and academics
- To promote industry institution interaction and research & development activity.

Administration:

- To conduct the periodical meetings of the faculties for effective administration of the college.
- To make the employee and students aware of the rules, policies and procedures lay down by the college and see to it that they are enforced.
- To initiate recruitment of non-teaching staff & teaching staff as per rules lay down by University of Pune.
- To approve vendors for resources as required in the institute.
- To sanction the leave of the staff as per the norms.
- To monitor and update the institute website with complete information about the institute.
- To communicate with University of Pune, Directorate of Technical Education, All India Council for Technical Education and University Grants Commission for Compliance.
- To monitor, manage and evaluate administration of the institution, organize meetings of Governing Body and Local Managing Committees and maintain minutes of the meeting. To execute any other work assigned by the management.

Finance

- To recommend allocation of budget for the departments as requested by the Head of Departments to Governing body.
- To authorize for cash advances for urgent purchases required in the institute.
- To ensure that all financial transactions are conducted as per the norms.

Promotion of co -curricular and extracurricular activities:

To monitor and promote technical and non-technical, co-curricular and extracurricular activities like seminars, workshops, cultural and sports events with assistance of Co-ordinator Students Welfare.

Deans**Dean – Examination/Academic:**

- To execute all Internal Examinations of undergraduates and postgraduate courses and declare their results.
- Preparation of Academic calendar.
- To carry on all work connected with the conduct of University Examinations in accordance with the procedure laid down by the University of Pune.
- To be the custodian of all question papers and examination scripts pertaining to Examinations.
- To monitor Central Assessment Process and is responsible for all matters connected with the conduct of examinations.
- To execute any other work assigned by the Principal and management.

Dean -Post Graduate:

- To carry out admission process of Post Graduate (PG) students of the college.
- To monitor the administration of the Postgraduate programs including the efficient running of the Postgraduate courses in all departments
- To allocate, monitor and ensure in time completion of the PG research projects.
- Provide advice/information to existing students about all aspects of coursework and administration to ensure excellent student support.

Dean – Student Welfare

- To recommend on policies relating to students' welfare (students' experience)
- To monitor and ensure the "One Stop Centre" at Student Welfare Committee level is being implemented effectively
- To recommend on the enhancement of student facilities, students' life and experience during their time at the University
- To focus on all relevant student issues determined by current events and/or by suggestions of committee members
- To review orientation processes and practices of each constituent in order to ensure these programmes meet the needs of all students.
- To work closely with other members of the University to enable the SWC to appropriately function.

Faculty

Faculty at the Institute includes all cadre categories as Professor, Associate Professor, & Assistant Professor. The Duties and responsibilities are as follow:

- To understand the Quality Management Policy and Quality objectives of Trinity Academy of Engineering, Pune.
- To follow all rules and regulations as lay down by the institute which include working time in the institute, signing of the muster, college uniform, leaves updating, submission of tax documents etc.
- To work sincerely to execute all duties towards academics which include planning and conduct of lectures and practical, preparation for the course assigned, conduct of internal exams and to maintain the Course file and personal file in appropriate format. To use innovative teaching aids and adopt innovative teaching –learning methodologies.

- To counsel students and conduct extra lectures/ revision lectures for students requiring help.
- To organize/ coordinate/ attend various seminars/ workshops/ STTP/ training programs.
- To participate proactively in any research and development activities conducted in the department.
- To perform other academic/ administrative duties assigned by Head of the Department /Principal.

6.1.3 What is the involvement of the leadership in ensuring?

The KJ's Educational Institutes' has making efforts to become a leader in the technical and higher education field since 2008. This institute, is been governed by this society, also have established certain milestones in the Engineering education. The Institute has ensured its leadership by

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

- The management trusts in involvement of staff in the process of decision making in institutional functioning.
- Management provides the facilities, qualified human resource, state-of-art infrastructure and financial resources as stated in mission.
- The mission is to entirely develop the excellent technical and behavioral skills in students.
- Encourages the faculty for R & D activities and also guide them to actively involve in realizing the goals and objectives of the Institute for quality education.

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

- The action plans of the management are clearly communicated to all the employees through transparent procedures and delegation of authority to achieve positive results in improving performance of the institution.
- The preparation of action plan is done under the supervision and guidance of the Principal and HODs.
- For smooth conduction of academics, academic calendar, lesson plans etc. are prepared for smooth conduction of academics.
- Various committees like - Academic Monitoring Committee, Timetable Committee, Class Teacher, Teacher Guardians (GFM), Department Placement Facilitator (DPF), Sports Committee, Cultural Committee are formed for implementation of action plan.

Interaction with stakeholders

- The Institute is continuously hooked in taking efforts to maintain communications with its all stakeholders that results in freezing healthy relations.
- Students are the major stake holder is considered as center of all the activities undertaken for their holistic development.
- The students are free to communicate in both direct as well as indirect way with the management. The on-line feedback system, teacher guardian scheme are some of the examples of these type of communications.

- Faculty is empowered with the significant role in decision making control over the work environment and conditions and opportunities to serve in a range of professional roles.
- Parents are encouraged to actively participate in the ward's education through real time feedback of the progress, counseling of the students along with their parents to turn around from a difficult phase.

Proper support for policy and planning through need analysis, research inputs and consultation with the stakeholders

- The institution has the strategy of periodical feedback system, parent-teachers meetings, HOD meeting, Departmental meeting, discussion with alumni and students for sustainable interaction with the stakeholders.
- The Institute administration undertakes to understand the needs of the society through its interactions with university, AICTE and other academic authorities.
- The management fully supports any new plans for the benefits of its stakeholders. It also receives regular feedback from students, parents and alumni to frame plans. Based on the employers feedback about the students placed in the preceding years, the students are given additional training in the areas for improvement as suggested by the business community.`
- HODs at the Institute review the progress for continuous improvement.

Reinforcing the culture of excellence

- To maintain work culture in institute by enhancing the research activities at the center efforts are being taken.
- The Institute always touchstone itself against the best practices.
- It channelizes the procedures and practices with respect to the prevailing external environment and strives to create an atmosphere as Centre for Excellence.

Champion organizational change

- The management is always in favor of adapting flexibility policies to cope up with the national expectations.
- The Institute developer in the field of changes in organizational set up by becoming an outward looking organization with focus on benchmarking against the best.
- To design appropriate strategies, it makes use of performance metrics in terms of pass percentage, placement percentage, and presentation in conferences, journal publication, and accepted proposals.
- These are communicated to the employees so that they execute and accomplish the requirement as per the strategies set.

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?

Effective implementation and improvement of policies set by top management by embracing the following precise strategy and plans at Institute is monitored by various committees like.

- Governing Body (GB)
- Local Management Committee (LMC)
- Academic Monitoring Committee (AMC)
- Internal Quality Assurance Cell (IQAC)
- Library Advisory Committee (LAC)
- Timetable Committee
- Training and Placement Cell
- Student welfare Committee
- Anti-Ragging Committee
- Research & Development Cell
- Examination Cell
- Discipline Monitoring Committee
- Grievances Redressal Committee
- Women's Grievances Redressed
- Sports and Extra-curricular Committee

Functions of these committees are being well monitored and reviewed by conducting the scheduled meeting regularly.

Every committee has its own objectives to be accomplished.

With addition to this the goals and objective to monitor time to time following policies are to be set.

Department Level Monitoring:

The Heads of various departments conduct weekly meetings with the faculty to review actual execution of academic policies. The institute has adopted two level monitoring methods for its daily activities, at execution level and at administrative level. The major agenda of such meetings is to review of the past and planning of the future activities.

Head of the Institution level Monitoring:

Principal conduct administrative meeting of all Heads within every 15 days. The Principal reviews the processes and plans for each department during these meetings. The Local Managing Committee, which has representatives from both teaching and non-teaching staff, meets twice in a year.

Academic Monitoring by Academic Advisory Board:

To record the student progress in theory classes and practical session's instruction delivers on regular basis by committee members. Student's attendance is monitored and corrective actions are taken if required by informing the parents by calling for posting the letters monthly. Students are encouraged to organize and participate in Seminars, Workshops, Conferences, Competitions, Technical Fests, Science Exhibitions and Cultural Programs.

Training and Placement/Entrepreneurship skills development Committee:

All the departments have undertaken responsibility of holistic development of their students. For nurturing the students in all aspects, a Student Training Program has been developed in five modules. The training for development of different skills such as Linguistic skill, Communication skill, Presentation Skill, Soft Skill, Interview facing skill and Personality development in due consideration with Technical expertise are regularly arranged by the Institute. The experts from various fields are invited for delivering the lectures. The placement records of students from all the departments shows success ratio of this policy.

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

- Management always identifies the leadership skills in both faculty and students and accordingly facilitates them by providing the healthy environment.
- The dean academics, Dean Examination, staff representatives, sport secretary, cultural secretary, Class Teachers, Teacher guardians (GFM), etc. are few of the examples of such leaders.
- These leaders are shouldering different important responsibilities that leading us towards the success and the excellence.
- Class Teacher in consultation with the Head of department decide their respective lesson plans, class tests, assignments, projects, industrial visits and guest lectures.
- This enables more individuals to build their own informal authority and demonstrate leadership behavior.
- The Institute has formed various committees and responsibility is given to the members.
- These committees are supported by the top management, to promote academic leadership.

Table 6.1.5.1 few leaders

Sr.No.	Name of Faculty	Department	Responsibility assigned
1	Dr. Vijay M. Wadhai	E&TC	Principal
2	Prof. S. S. Deshmukh	Civil	HOD
3	Prof. S. N. Maitri	Computer	HOD
4	Prof. D. D. Kulkarni	E&TC	HOD
5	Prof. S. S. Mulik	Mechanical	NAAC Coordinator & HOD
6	Prof. Kiran Ghorpade	Civil	PG Coordinator
7	Prof. N. Chandran	Mechanical	PG Coordinator
8	Prof. S. R. Burgul	Mechanical	EDC Cell
9	Prof. M. S. Shewale	Mechanical	R&D Cell
10	Prof.D. A. Jakkan	E&TC	Student Welfare
11	Prof. S.P.Nalawade	Mechanical	IQAC
12	Prof Akash Shrivastav	Mechanical	Industry Institute Interaction Cell (III)

6.1.6 How does the college groom leadership at various levels?

The senior staff members are appointed as conveners of various committees and are given full autonomy in decision making and execution powers. All the staff members are involved in the institute level activities. Various co-curricular and extracurricular activities are regularly conducted through involvement of faculties and students. The college grooms leadership among the faculty members by giving them opportunities to work as heads of various committees involved in academic curricular and co curricular activities at following levels.

Student Level

- Forming the student council as per the guidelines of SPPU.
- Representation of students in various committees.
- Providing opportunities for the students to take active participation in various programs such as seminars, national and international level conferences, all curricular and extra -curricular activities.
- Involving students in organizing or conducting academic and non-academic programs to groom leadership qualities.

Faculty level

- Nominating faculty to various committees at university level.
- Appointing HODs, Deans and members of LMC and GB.
- Nominating Faculty as members and coordinators of various Institute level committees.
- As mentors, planning and execution of several department activities, preparation of budget and purchase effectively.
- As coordinators for preparation of NAAC related documents.
- Organizing different events like Annual Function, Sports Week, Technical events, etc., and other similar functions.

Head of the Department

- They are chair persons of different committees.
- They are empowered to administer departmental teaching, learning, research and aspects of physical and infrastructure resources.
- Monitoring Students' academic and curricular activities.
- Responsible for overall functioning of department.
- Groom faculty and staff members to lead various departmental committees.

Principal

- Member secretary of GB, LMC of the Institute.
- Member of various committees at SPPU.
- Heading academic and administrative activities of the Institute.
- Forms various committees and appoints faculty/staff members as head of such committees for grooming leadership.

Management Level

- GB motivates faculty and staff members by recognizing their contribution.

- The management is always encouraging and supporting the involvement of the faculty in the improvement of the effectiveness and efficiency of the institutional process.
- The management through the Principal involves the faculty members in various activities related to the development of the Institute.

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

The Institute believes in promoting a culture of decentralized governance system with well defined inter-relationships. The major feature of management is decentralization of both academic and administrative powers.

- Adequate and systematized autonomy to all the departments and sections is provided.
- Refining and redefining activities by keeping in view of the deliberations of class committee and associations.
- Organization of several activities by students to enhance the capabilities of students under the guidance of faculty member, improve their event management skills.
- Empowering HOD to distribute work load to faculty, to identify add-on courses, to identify the content beyond syllabus and to organize various faculty and student empowerment programs with the help of faculty and staff of the department.
- The top management has clearly defined a standard procedure for the various academic monitoring processes like the Teacher Guardian Scheme (GFM).
- Allocation of budget on the basis of the proposals received from the department.
- Participation of laboratory technicians in making budget proposals.
- Empowering the faculty member in-charge of a laboratory to devise and implement the necessary plans for effective conduction of the laboratory.

6.1.8 Does the college promote a culture of participative management? If ‘yes’, indicate the levels of participative management.

Yes; the Institute consistently promotes a culture of participative management.

- The Institute follows committee system for implementation of all its decisions and resolutions.
- The committees comprise of faculty members and students.
- LMC and GB have representation from faculty and other stakeholders.
- Deans & HODS take the decisions and implement the action plan.
- The department faculty is involved in implementation of the policies of GB and department.
- Hence at all levels there is participative management.

Table 6.1.8.1 List of committees

Sr. No.	Name of Committee	Programme Coordinator	Chairman
1	Health Club (Yoga)	Prof. SheetalJadhav	Principal
2	Student Association (CESA, MESA etc.)	Prof. Shambhu Kumar	Principal
3	Entrepreneurship Development Cell (EDC)	Prof. S. R. Burgul	Principal
4	Sports Club	Prof. Digambar Matale	Principal
5	Cultural Club	Prof. A. S. Shahpurkar	Principal
6	Student Council	Prof. D. K. Choudhary	Principal
7	Rotract / Social Club	Prof. A. D. Patange	Principal
8	Corporate Social Responsibility Cell	Prof. P. A. Manatkar	Principal
9	Alumni Cell	Prof.M.B.Gulame	Principal
10	Higher Education Cell	Prof. N. Chandran	Principal
11	Training and Placement Cell	Prof. DiptiKulkarni	Principal
12	Competitive Examination Cell (UPSC, MPSC, Gate etc.)	Prof. S. L. Konde	Principal
13	Technology Business Incubation Center (TBI)	Prof. Snehal Pagay	Principal
14	Industry Institute Interaction Cell	Prof. Akash Shrivastav	Principal
15	NSS	Prof. S. S. Kudale	Principal
16	Research and Development Cell	Prof. M. S. Shewale	Principal
17	Professional Chapters (IE, CSI, IETE, ISTE, IEEE, ASME, etc.)	Prof. V. D. Kolate	Principal
18	Institute level programme committee (FDP)	Prof. D. D. Kulkarni	Principal
19	Student Welfare	Prof. D. A. Jakkan	Principal
20	Value Added Programme Committee	Prof. A. B. Mali	Principal
21	Internal Quality Assessment Committee	Prof. S. P. Nalawade	Principal
22	Anti-Ragging Committee	Prof. P. H. Jadhav	Principal

Sr. No.	Name of Committee	Programme Coordinator	Chairman
23	Women anti sexual harassment Committee	Prof.Sonali Kale	Principal
24	Gender Equality	Prof. Trupti Thite	Principal
25	Environmental Club	Prof. G. N. Supe	Principal
26	Examination Cell	Prof.R. R. Ranaware	Dean Academics
27	Time Table Committee	Prof. D. G. Chavan	Principal
28	Discipline Committee	Prof. S. S. Deshmukh	Principal
29	Website Committee	Prof. Chanchal Kedia	Principal
30	Wall Magazine , Student & Faculty Achievement	Prof. V. S. Mulik	Principal
31	Grievance Committee	Prof. M. K. Choudhary	Principal

6.2 Strategy Development and Deployment

6.2.1 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. It is developed by Principal with the help of HOD's of various departments under the guidance of GB. Based on the academic schedule given by the affiliating university, academic calendar is prepared by the Planning Committee. The academic calendar includes the list of pre- planned programs of various departments and examination schedules prepared with the knowledge of HOD's. To ensure development of the Institute, all the planning and execution is monitored regularly.

Strategic Development & Deployment of Perspective Plan:

- To Accredite Institute by NAAC
- To Accredite Program by NBA/ABET
- To establish Research Center of excellence
- Collaboration with Reputed Institutes national and international research organization
- To start more post graduate courses
- Strengthen the ED cell and incubation Activity
- To have more MOU with Industries and MNC
- Establishment of Patent Cell for staff and Students
- To start Technology Commercialization Center for eligibility of TEQUIP
- To set up Consultancy Center
- To get Permanent Affiliation by S P Pune University

Provision of adequate annual budget is the part of the development plan. The aspects to be included in the perspective plan will be drawn from the following committee recommendations with priority.

- Governing Body
- IQAC
- Entrepreneurship Development Cell
- Research & Development Cell
- Local Management Committee
- Head of Department
- Alumni Association

Long Term Goals

- To ensure all round development of students by fostering their academic, co-curricular and extracurricular skills.
- To give the best career opportunities to students by enhancing their employability and entrepreneurship qualities.
- To cultivate a research culture by guiding and encouraging faculty, developing State-of-art research facilities and through collaboration, consultancy and research funding.
- To have an impactful existence of institute within the academic & professional fraternity in the estate and country at large.
- To impart quality education to students in order to prepare them to meet the global challenges.
- To set up research Centre recognized by the affiliating University, SPPU.

Perspective plans of the Institution

- Autonomy.
- Planning to improve number of MoUs with industries, national and international organizations.
- Accreditation with international organizations.
- 100% Student Result.

6.2.3 Describe the internal organizational structure and decision making processes.

The Internal organization structure of Institute for making and implementation of the decisions is as shown below:

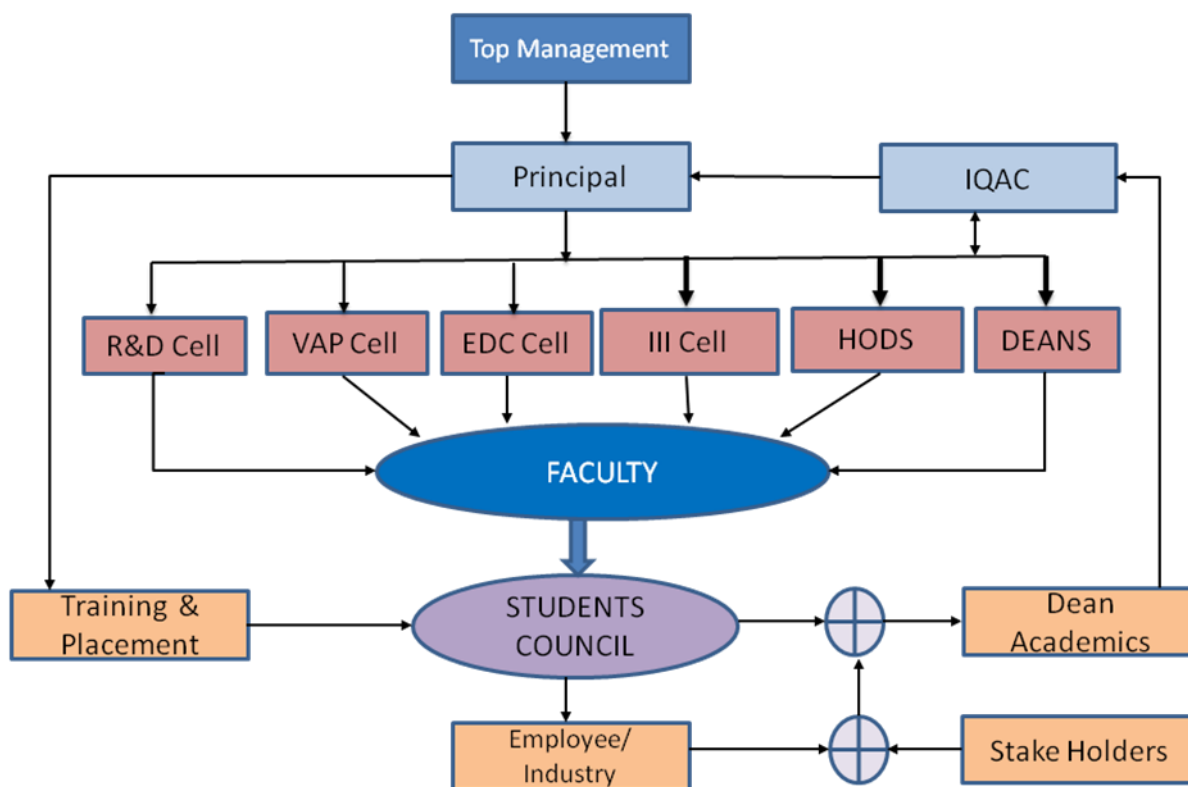


Fig: 6.2.3.1 Internal Organizational Structure

Decision making process:

The periodic interactive meetings at different levels i.e. departmental, intra-departmental, GB, LMC, Parent, Employer, Industry, students, etc., effectively communicates ground reality and facts about execution of plans and policies to all the stake holders. Notifications and feedback forms are also an important tool that keeps the stakeholders informed and get their involvement in monitoring and evaluating action plans. The outcomes of all these efforts help to take proper decisions that lead towards achieving desired goals and objectives. IQAC plays a central role in effective implementation and continuous improvement.

All the departments of this Institute have departmental committees coordinated by faculty members and monitored by Head of the Department to keep a check on academics and effective as well as efficient performance of the department in all aspects.

- Central Academic Monitoring Mechanism evaluates the activities of the departments.
- A regular review of the departments is taken through this mechanism.
- Several committees are formed at institute level for appropriate coordination of the activities. Due departmental representation is ensured in central committees.
- The Local Managing Committee and Governing Body are the final approving bodies.

Table 6.2.3.1. Various committees for Internal Coordinators and Monitoring

Sr. No.	Name of Committee	Programme Coordinator	Chairman
1	Health Club (Yoga)	Prof. Sheetal Jadhav	Principal
2	Student Association (CESA, MESA etc.)	Prof. Shambhu Kumar	Principal
3	Entrepreneurship Development Cell (EDC)	Prof. S. R. Burgul	Principal
4	Sports Club	Prof. Digambar Matale	Principal
5	Cultural Club	Prof. A. S. Shahpurkar	Principal
6	Student Council	Prof. D. K. Choudhary	Principal
7	Rotract / Social Club	Prof. A. D. Patange	Principal
8	Corporate Social Responsibility Cell	Prof. P. A. Manatkar	Principal
9	Alumni Cell	Prof .M. B. Gulame	Principal
10	Higher Education Cell	Prof. N. Chandran	Principal
11	Training and Placement Cell	Prof. Dipti Kulkarni	Principal
12	Competitive Examination Cell (UPSC, MPSC, Gate etc.)	Prof. S. L. Konde	Principal
13	Technology Business Incubation Center (TBI)	Prof. Snehal Pagay	Principal
14	Industry Institute Interaction Cell	Prof. Akash Shrivastav	Principal
15	NSS	Prof. S. S. Kudale	Principal
16	Research and Development Cell	Prof. M. S. Shewale	Principal
17	Professional Chapters (IE, CSI, IETE, ISTE, IEEE, ASME,	Prof. V. D. Kolate	Principal
18	Institute level programme committee (FDP)	Prof. D. D. Kulkarni	Principal
19	Student Welfare	Prof. D. A. Jakkan	Principal
20	Value Added Programme Committee	Prof. A. B. Mali	Principal
21	Internal Quality Assessment Committee	Prof. S. P. Nalawade	Principal

Sr. No.	Name of Committee	Programme Coordinator	Chairman
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23	Women anti sexual harassment Committee	Prof. Sonali Kale	Principal
24	Gender Equality	Prof. Trupti Thite	Principal
25	Environmental Club	Prof. G. N. Supe	Principal
26	Examination Cell	Prof. R. R. Ranaware	Dean Academics
27	Local Managing Committee	Prof. M. N. Chandan	Principal
28	Library Advisory Committee	Prof. Shweta Parode	Principal
29	Time Table Committee	Prof. D. G. Chavan	Principal
30	Discipline Committee	Prof. S. S. Deshmukh	Principal
31	Website Committee	Prof. Chanchal Kedia	Principal
32	Wall Magazine , Student & Faculty Achievement	Prof. V. S. Mulik	Principal
33	Grievance Committee	Prof. M. K. Choudhary	Principal

6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following-

Teaching & Learning

- Teaching Load: The teaching load (minimum) is assigned cadre wise to each faculty as per his /her post and position as follow:
- Emphasis on learner centric approaches.
- Online teaching (video Lecturers) and evaluation, projects, industrial visits, etc.
- Special classes are arranged for aptitude and soft skill for the students.
- Providing E-learning.
- Use of Modern teaching aids such as maps, charts, pointer, PPTs, interactive discussions

Research & Development

The R&D Cell is responsible for assisting the faculties and students in the performance of the Institute's research and development, and academic and research training activities. This includes the development, review and monitoring of achievements under the Research & Development, and those aspects of other university/Institute Plans.

- To motivate students and faculty members towards research and innovation
- To promote research culture in various departments of the institute
- To create centers of Excellence in the area of research and Innovation in all the departments
- Collaboration with industries for mutual benefits
- Identify R&D projects by collaborating with other universities, public and private sector companies
- To work closely with industries to develop products and to improve process/systems or services that will help industry
- To encourage and support student and faculty members to publish research papers in journals of index
- To ensure functioning of R&D cell at the institute through effective monitoring process
- To promote students and faculty members for filing patents and commercialize the product

Community engagement

- Planning for Number of cells like NSS, etc. are formed to undertake extension reach activities
- Institute conducts the community. Few of the community programs conducted are
 - Blood donation Camps
 - Tree plantation
 - Health related camps
- The Institute conducts sensitization and awareness programs against women exploitation and abuse, environment pollution control.etc
- The Institute promotes cultural activities to nurture creative instinct in the students

Human resource management

The Trinity Academy of Engineering Human Resources Policy Manual is designed to provide a clear statement of the Management's Human Resources policy. The policies contained in this manual are in keeping with the values and goals of the Institute. These policies should be used to inform and guide day-to-day human resources decisions. The Management and Principal understand that department heads need guidance in order to effectively recruit hire and promote employees. Since laws concerning employment issues are constantly changing, it is important that our policies are made up to date and department heads are kept abreast of them.

- Faculty improvement programs for enhancement of quality of teachers.
- Well-defined recruitment policy based on merit of the applicants within the general frame-work
- Providing a better teaching-learning environment in the Institute.
- Providing on duty leave to the faculty for attending seminars, symposia, workshops, invited lectures and research oriented activities.

Industry interaction

Institute accomplishes the number of activities and facilitates industry interaction in various ways.

- To formulate policy and facilitate the consultancy work in the institution.
- To encourage Industry Institute Linkages, Collaborative Research programs and

formation of new incubation center.

- To monitor Research projects on periodical basis and effective utilization of grants of research projects and timely completion of these projects.
- To apply for intellectual properties generated from research at college and to market these patents 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?

Review of academic and other activities of the institute is conducted through:

- Regular meetings with various stakeholders (GB, IQAC, LMC etc) once every semester.
- Daily Online filling of data using ERP.
- Monthly reports to management.
- Informal meetings with Management.
- Newsletters highlighting major events, faculty achievements.
- Interaction with industry through HR meets held every year.
- Alumni meetings held every year.
- Formal (Students Council) and informal interactions with students to obtain inputs for any changes required to be taken in policies for attainment of vision and mission.
- Regular meetings with faculty and staff.
- Online feedback from students regarding institute and faculty performance. Appropriate action is taken where improvement is needed.
- Student interactions with Head, course teacher and class teacher who then submit a report formally/informally to the head. A consolidated report of the same is submitted to the Principal for rectifications, if any at the institute level.
- Suggestion boxes placed in each department through which anonymous feedback is obtained. This is used to review and rectify performance of faculty, department and institute.
- Interactions with parents, alumni, industry (through Parent-teacher).

For effective and efficient deployment of the policies and plans defined by the management in order to achieve the goals and objectives, the Principal is continuously ensuring execution process by employing the following tools and measures.

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 always believes in participatory management and hence encourages faculty to involve themselves in all ongoing institutional activities. By assigning various responsibilities to get their active participation and enhance their professional skills. Some of the major steps taken for involving the faculty in institutional processes to achieve the effectiveness and efficiency are.

- Heading various committees at institute as well as department level.

- Empowering individual faculty members through decentralized functioning mechanism.
- Conducting faculty training programs.
- Involving faculty members in financial decisions like preparation of annual budgets.
- Encouraging creative idea generation and implementation through project based learning.
- Appreciating the efforts of the faculty members in terms of awards and recognitions to staff.
- Organizing sports activities, organizing cultural programs.
- Involving faculty members in publication of the magazine, newsletters etc.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

The resolutions made by the management council viz. Governing Body and Local Management committee during the last year i.e. 2014-15 and their corresponding status are as stated below.

The governing body is unambiguously and collectively responsible for overseeing the institution's activities, determining its future direction and fostering an environment in which the institutional mission is achieved. The body meets twice a year and proceedings of the meetings should be maintained properly. The college is governed by the governing body which is constituted as per AICTE and trust norms.

The resolutions passed in the LMC/GB meeting:

- To conform the meets of the last meeting.
- To discuss & approve the annual budget for the year.
- To consider the status report on affiliation /approval of various statutory bodies like AICT/SPPU.
- To discuss the status of proposal made to statutory bodies (AICT/SPPU) for the extension of approval/affiliation for the academic year.
- To consider the academic report of the principal in the respective academic year.
- To discuss & approve the leaves other than casual leaves (CL) to Teaching and Non-Teaching staff.
- To consider the report of principal on the intake capacity, admission to the first year & direct second year engineering, Time table, Distribution of work load to the Teaching staff for the academic year.

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?

Not Applicable. As institute is not eligible for autonomy, because it required 10 years from establishment.

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 work force of the institute is primarily instrumental for the progress of the institute. In an Educational Institute it is the responsibility of the office bearers of the institute to look after the welfare and well-being of its students and employees. Therefore it is necessary to have well defined mechanism to address their complaints if any in the right spirit so as to maintain high moral and get best out of them for the progress of the institute.

Aim of this instruction is to formulate the guidelines and define duties of Grievances Redressal Committee in Trinity Academy of Engineering, Pune. Aim should be on prevention of misconduct rather than controlling through punitive measures.

Objective:

- To ensure effective solution to the student grievances with an impartial and fair approach.
- To make the Redressal process fair, impartial, consistent, with prior warnings and commensurate with gravity of misconduct.
- All actions should be prompt for better Redressal of Grievance.
- Advising the student to respect the right of dignity of one another and show patience whenever any occasion arises.
- Advising all staff to be affectionate to the student and not behave in a vindictive manner towards any of them for any reason.
- Ragging in any form is strictly prohibited in and outside the institution.

Function:

- Redressal of students Grievances.
- To coordinate between Students' and Department to redress the grievances.
-

Duties of the Committee:

The committee will deal with complaints from parents, students and staff members and process them to address the grievances.

The duties are:

Receipt of Complaints: The complaints will be received by member secretary. He will also open the suggestion box once a week preferably on Monday. All the complaints will be filed and put up to the committee.

Meeting of the Committee: The committee will meet, as and when complaints are received.

Action:

- Committee will ask for written explanation/ submission from persons named in the grievance on the respective points/incidents.
- To peruse/securitize written statements.
- Call the complainant as well as the concerned person for hearing if required.
- Record the hearing.
- Peruse all above and relevant records from Departments and Admin office.
- Record the finding.
- Dispose off as per finding and merit of the complaint.
- Inform about decision in writing to the complainant and the concerned persons.
- The decision to be signed by the chairman.
- Appeal from any of the persons involved will be preferred to the president, KJEL.

Grievance addressing mechanism established as per above guidelines will go a long way to minimize the complaints and do justice to the concerned persons. It will also help in mitigating difficulties faced by students, staff and parents of students reduce grievances and create healthy atmosphere. Therefore effective implementation must be ensured.

6.2.10 During the last four years, had there been any instances of court cases filled by and against the institute? Provide details on the issues and decisions of the courts on these?

There is no court case filed against and by institute.

6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If ‘yes’, what was the outcome and response of the institution to such an effort?

Yes; the Institution has a mechanism for analyzing the student feedback on Institutional performances.

- The feedback from the students regarding the faculty, facilities and other entities are taken twice a semester.
- Analysis of this feedback is done.
- Student exit feedback is collected at the end of the course completion.
- Feedback from alumni is collected once in a year.
- These feedbacks help the Principal to improve the Institutional performance in interaction with faculty and HODs which in turn is conveyed to the management.
- Management finally takes proper decision to improve the overall competency of the students.

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 institution takes many efforts to enhancing the faculties by supporting the teaching and non-teaching staff in the work of development.

- By encouraging faculty members to associate with state, national and international professional bodies.
- Reassuring the faculty to interact with the outside world.
- By Motivating faculty to organize state level, national level and international level conferences/seminars/workshops/symposia.
- Encouraging participation of faculty in FDPs, seminars, workshops and conferences.
- Motivating the faculty and staff for arranging industrial training programs/ visits.
- Allowing the non-teaching staff to attend skill development and training programs. Also allowing them to attend courses to improve their educational qualification.
- Arranging training programs for non-teaching staff on office automation, use of open source software etc.

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

- For administrative skill development of faculty Institute organizes corporate training programs.
- Institute organizes training programs for personality development, teaching skill development and social and technical up gradation.
- The Institute deputed the faculty for training organized by other organizations. For example, FDPs & Workshops.
- Institute invites resource persons such as industrialists, researchers and academicians for interactions with the faculty.
- Institute encourages the expert faculty to motivate the less experienced faculty by giving essential inputs, providing training on delivery of lecture, laboratory work and seminar/project guiding.

6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

It is a systematic method of determining the relative value of all jobs content, not on how well an individual performs the work. The staff must complete the 'Self-appraisal form' after the completion of an academic year.

Parameters of Evaluation:

Each employee of the Institute is revaluated in a systematic manner on an annual basis. The Head of the Department leads the performance appraisals which are further reviewed by Principal and the Management. Areas to be evaluated include

- General Appraisal:** Quality of job accuracy, general intelligence, integrity & character, reliability /dependability, punctuality, relation with colleague/students & their parents & fitness to continue in the present position.
- Academic Appraisal:** Areas to evaluate are control over class and discipline, student feedback, proficiency in subject of specialization, initiative to do work and organizing ability.
- Student Feed Back:** Confidential student feedback shall be collected twice in semester and reviewed by the Principal. This will be maintained in Head of the Department/ Principal's office.
- Result Analysis:** Result analysis of subject taught by the faculty.

Performance appraisal system of the faculty

- A self-appraisal is the first step in the appraisal process. Employees are asked to sign appraisal forms.
- The employee's signature does not imply that the Management/ employee agree with the appraisal, but that the employee has seen it.
- The employer can discuss the differences with the Management who will then do an independent analysis of the issue.

- Productivity and activity is the key work while evaluating any employee. It is the responsibility of the employee to ensure that he/ she has had at least one performance during twelve months of service.
- It is to be noted that all performance appraisals are used to provide a positive and developmental assessment of individuals and are not be used as tools of personal vendetta under any circumstances.

Performance appraisal system of the non teaching staff

- Annual assessment for the performance based appraisal system is adopted as per guidelines of Government of Maharashtra. Hence it is ensured that information on multiple activities is appropriately captured. The information includes-
- Part A (Self appraisal): Includes General information and academic background, courses/training programs attended/ notable achievements during the year,
- Part B (Appraisal by reviewing officer(s)): Performance in technical work and administration related activities, co-curricular, extension, professional, development related activities, academic contributions, general conduct and qualities, aptitude.
- Appraisal is reviewed and based on the performance appreciation letters are given by the management.

6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

At the end of each academic year Performance Appraisal Report (PAR) forms are submitted by the staff to the respective HOD. Staff is supposed to fill the details of academic, administrative and research work. HOD certifies the PAR and forwarded to the Principal remark. It is then submitted to Academic monitoring committee (AMC).

AMC reviews the same and gives recommendation/improvements to be followed by staff.

The strengths and weakness of staff is counseled by HOD/Principal/AMC.

Observant scrutiny of appraisal reports helps in analyzing the performance of the faculty/staff.

Outcome:

The best part of the Performance Appraisal System (PAS) is that each faculty becomes aware of the areas of improvements.

Decision:

The score/category obtained in the PAS contributes to the decision about faculty appreciation.

- Promotions are given to the faculty and staff based on their performances.
- Heads of various committees at Institute level are identified.
- Faculty with low score is personally counseled by the Principal along with relevant HOD.

6.3.5 What are the welfare schemes available for teaching and nonteaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

KJEI's provides various schemes and facilities to its employees (teaching and non teaching) which include:

- Faculty is deputed for full time PG and Ph.D. program by paying full salary

- Free medical facility is provided to students, staff and faculty
- PF as per rule
- Festival advance
- Maternity leave
- Medical leave
- Uniforms to class IV staff

Table 6.3.5.1. Welfare Schemes

Sr. No.	Welfare Scheme	% of beneficiary Employee
1	Salary	100%
2	Study Leave/Sabbatical Leave	1 faculty member availed 2 yrs(LWP) study leave
3	On duty Leave	As per need
4	Financial support for hosting programs	100%
5	Deputation for Higher Education	As per need
6	Medical Leave	20 days (full pay 10 days)

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

Academic Support

- Faculty is aided to pursue research and apply for research projects.
- Faculty is aided to attend/present research work in seminars, conferences and workshops.
- Due recognition is given to the faculty for research publication in reputed journals.
- Facilities to boost the qualification
- Generation of resources

Infrastructural Support

- Enriched library with latest books, journals and e-journals, etc.
- Free internet facility.
- Well-equipped laboratories.

Other Support

- State/national/international level seminars/conferences/workshops are conducted for keeping in-tune with latest trends.
- Award/reward system.
- Training is provided to the faculty.

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 Top Management has a well-defined procedure to monitor effective and efficient utilization of available resources for infrastructure, development and teaching learning process. All the major financial transactions are monitored by the Finance Director and approved by the President and Secretary.

Institute has also a well-defined policy for handling the available financial resources. At the start of every financial year the estimated budget from each department is collected. This estimated budget is based on the requirements raised by the individual faculty and staff. The faculty and staff will decide the requirements as per the syllabus in consultation with the Head of the Department. The due consideration is also given while determining this requirement to Research and Development, Training and Placement, Incubation activity, Consultancy activity, etc.

The Local Management Committee approves this estimated budget after rigorous analysis. The LMC on recommendations of the Principal allocates the projected budget under different heads like -

- Research & Development
- Equipments
- Repair & maintenance
- Consumables
- Printing & stationary
- Software
- Furniture & Fixtures
- Training & Placement
- Internet charges
- Library Books
- Journals

Purchase Committee:

The objectives of Purchase committee are:

- After the approval of the budget and allocation of funds from LMC, Purchase committee has to initiate the purchasing process
- According to the department wise availability of funds, the purchasing priority is to be decided in consultation with Head of the Department and Principal.
- Demand of Quotations for the finalized items.
- Comparison and analysis of all the quotations received in consultation with concerned departmental staff.
- Arranging the Demonstration of the items to be purchased
- Conducting negotiation meeting with the supplier.
- Recommending for placing Purchase Order
- After receiving of items/goods, initiating payment process.

The entire process of the Procurement of the material is monitored by the Principal at Institute level and the Finance Department at Society level.

The staff members have to follow the defined purchase procedure as below:

- In the beginning of every academic year, the budget is prepared by various departments and sections in the prescribed format as per the circular issued by the Principal.
- Budget for the departments is prepared by concerned HODs, in consultation with the department laboratory in-charge and other faculty.
- Then it is sent to the Principal. The departmental budgets are discussed by the Principal at HOD's meeting and then sent to director finance and finally to the management for consideration.
- Then it is put up to the GB for final approval.
- While preparing the institutional budget, at first, a provision is made for salaries and allowances.
- Next, a provision is made for administrative and maintenance expenses such as electricity, water, telephone, postage etc.
- Then, while making provisions for the departments, priorities, needs and requirements of various committees and development / up-gradation of department is considered.

Requisition (indent) for the required item/consumables/material should be raised by the staff/lab in charge and submitted to the Head of Department for scrutiny and approval from the Principal.

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

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 was carried on 15th October 2016. There were no major objections in balance sheet assessment.

Table 6.4.1.1: Objective of External Audit and Compliance

Sr No	Particulars of objection in brief	Compliance by the Institute
1	Dr. H. R. Kulkarni has taken office Advance total Rs.20,000/- in Feb, March & May 2016 but not clear on Time	The Advance was Recovered from Salary of Dr. H. R. Kulkarni in June 2016

6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.

Since this institute is unaided and self- finance type. The major source of institutional receipts is from the tuition fees and development fees of students. Budget allocation system for every academic year covering all the departments is in existence. Budgeted expenses are compared with projected revenue and necessary modifications are done as and when required. So far, no situation of deficit has occurred. In case of deficit of financial resources parent trust supports. An authentic audited income and expenditure statement are available for verification with Administration office. There are no major audit objections.

Table 6.4.3.1 the following table shows the summary of accounts for last 4 years.

Details	2016-17 (Rs.in Lakhs)	2015-16 (Rs.in Lakhs)	2014-15 (Rs.in Lakhs)	2013-14 (Rs.in Lakhs)
Income	1038.84	1098.27	835.12	541.92
Expenditure	1250.00	1303.00	942.73	788.84

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

- Savitribai Phule Pune University Research grants Scheme.
- Grants from university for purchasing LCD TV, Printer and Xerox Machine.

Table 6.4.4.1.Details as follows Research Grant scheme for teaching faculties:

Name of Staff	Budget Revised	2016-2017 (1st Install)
Prof. Sharad S.Mulik	66000	36000
Prof. Sandeep P. Nalavade	72000	33000

Table 6.4.4.2.Details as follows Grant Receive:

Sr. No.	Particulars	Amount	Year	Funding University
1	LED TV	1,52,000/-	2014-15	SPPU
2	Digital Copier(Xerox M/C)	75,000/-	2013-14	SPPU
3	Heavy Duty Xerox M/C	1,39,297/-	2013-14	SPPU

6.5 Internal Quality Assurance Cell (IQAC)

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, institute has established IQAC to improve the academic and administrative performance of the institution & to enhance the quality of education and previously it was known as Academic Monitoring Committee (AMC).

Aim & Objective:

Our Quality Policy is aimed at achieving the excellence in Technical Education, by acquiring autonomous status to the institutes with recognition at National level.

Table 6.5.1.1: IQAC Team

Sr. No.	Name of Committee Member	Designation
1	Dr. V. M. Wadhai	Chairman
2	Mr. Akash Shrivastav	Co-ordinator
3	Mr. S. S. Mulik	Member
4	Mr. S. S. Deshmukh	Member
5	Ms. S. N. Maitri	Member
6	Ms. D.D. Kulkarni	Member
7	Mr. A. V. Bhilare	Member
8	Mr. J. V. Khade Irrigation Dept, Delhi	External Member
9	Dr. D. M. Malkhede COEP, Pune	External Member
10	Dr. R. K. Tomar ASET, AUUP, Noida	External Member

IQAC Policy:

- Developing the faculty through FDP's, induction program.
- Optimization and integration of modern methods of teaching and learning.

- Preparation of Academic calendar and plan, Unit test papers and prelim papers, Question bank.
- Conduction of unit tests and prelim exam.
- Collecting feedback from students (twice a semester).
- Suggestions for the faculty to improve teaching learning process (depending upon feedback).
- Developing infrastructure to enhance learning environment.
- The credibility of evaluation procedures.

IQAC will facilitate / contribute:

- To a heightened level of clarity and focus in institutional functioning towards quality enhancement and facilitate internalization of the quality culture NAAC for Quality and Excellence in Higher Education
- To the enhancement and integration among the various activities of the institution and institutionalize many good practices
- To provide a sound basis for decision making to improve institutional functioning
- To act as a change agent in the institution
- To better internal communication.

b. How many decisions of the IQAC have been approved by the management / authorities for implementation and how many of them were actually implemented?

Decisions taken by the IQAC are generally approved by the management with few modifications. Here is the list of few important decisions in last few years

- Collaborations with various industries/organizations.
- Organization of events/workshop.
- Implementation of Academic calendar prepared by Academic monitoring committee (ACM).
- Finalization for panel of eminent visiting professor for addition input as per need.
- Dead stock verification.
- Preparation of next semester lab set up.
- Remedial classes for backlog students.
- Preparation and follow up of research proposal of departments for funding agencies.

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

YES. The IQAC have external members on its committee from academics, industry and alumni. The following significant contributions are made by them –

- Inputs for innovative teaching methods
- Encourage faculty to attend FDP

d. How do students and alumni contribute to the effective functioning of the IQAC?

Responses and opinions of the students on various processes, systems are collected in the following formats-

- Entry level survey

- Library feedback
- Hostel feedback form
- Feedback about non teaching staff / technical staff
- Exit feedback

Students:

- Student's feedback is taken for effective teaching learning methods, based on their feedback, faculties are asked to improve by IQAC.
- Students give their opinions regarding academic and administrative method during Teacher guardian meeting.
- These responses are taken into account and modification is made wherever necessary.

Alumni:

Depending upon the opinions and suggestions received from alumni regarding importance of entrepreneurship in current situation, up gradation of technology, various remedial actions such as conduction of workshops, visiting lectures eg. Aptitude sessions are conducted for students.

e. How does the IQAC communicate and engage staff from different constituents of the institution?

Since a faculty from each Department is the honorable members of the IQAC, each and every decision taken by the IQAC is communicated to the Department through them in regular department meetings. So, each faculty is involved indirectly in functioning 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 operationalisation.

Yes. As our institution is functioning towards the enhancement of quality of education, it has an integrated framework for Quality assurance of the academic and administrative activities as:

To impart quality education, all faculties maintain a course file. This course file content includes syllabus, teaching plan, academic calendar, time table, study material, assignments, question bank, university question papers, model answer paper, previous year result analysis and feedback of students. Internal advisory committee checks this course file at the beginning of the semester and suggestions are given to the respective faculty. The essential contents are circulated to the students. Faculty uses that content for conducting the sessions during that semester.

Feedback from students of individual faculty depending upon various teaching parameters like no problem, audibility, writing, conceptual explanation, communication, interaction, English, presentation is taken. Depending upon students' feedback and feedback from internal advisory committee, IQAC directs the suggestions for improvement of teaching learning process.

After every academic year, staff fills an appraisal form. With HOD's remark, this appraisal form is submitted to IQAC. Depending upon this, IQAC welcome the efforts taken by staff and give suggestion wherever necessary.

IQAC also takes feedback from Stake holders such as Industry, Parents, Alumni, and Experts etc. Our major recruiters convey the gaps present in today's educational system and technologies used in the industries to the training and placement officer (TPO). Those gaps are conveyed by TPO to IQAC.

IQAC give collective report to management based on feedbacks and commends from stake holders. After reviewing the common gaps, for the betterment of student's soft skills, communication skills and interview skills management has started Student Training Program (STP), Management to improve student's technical knowledge, management also arranged various workshops.

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.

Yes. Institution provides training to its staff by arranging various workshops (like Embedded Linux, PLC & SCADA, CAD, MAT LAB), FDP's and training programs (Avance.NET by Zensar).

- Institute sanctions OD for faculty to attend various workshops, training programs which helps to improve their Technical Knowledge.
- Upgrading the skills and knowledge of the staff
- Training the staff about processes.

A few examples of such training programs are

- Training program to improve computer handling skills.
- Training on conducting feedback collection sessions.
- In the department, training for implementation of laboratory work.
- Maintenance and calibration of equipments training.

6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?

Yes. The integrated framework for quality assurance of academic and administrative activities is displayed in the following figure.

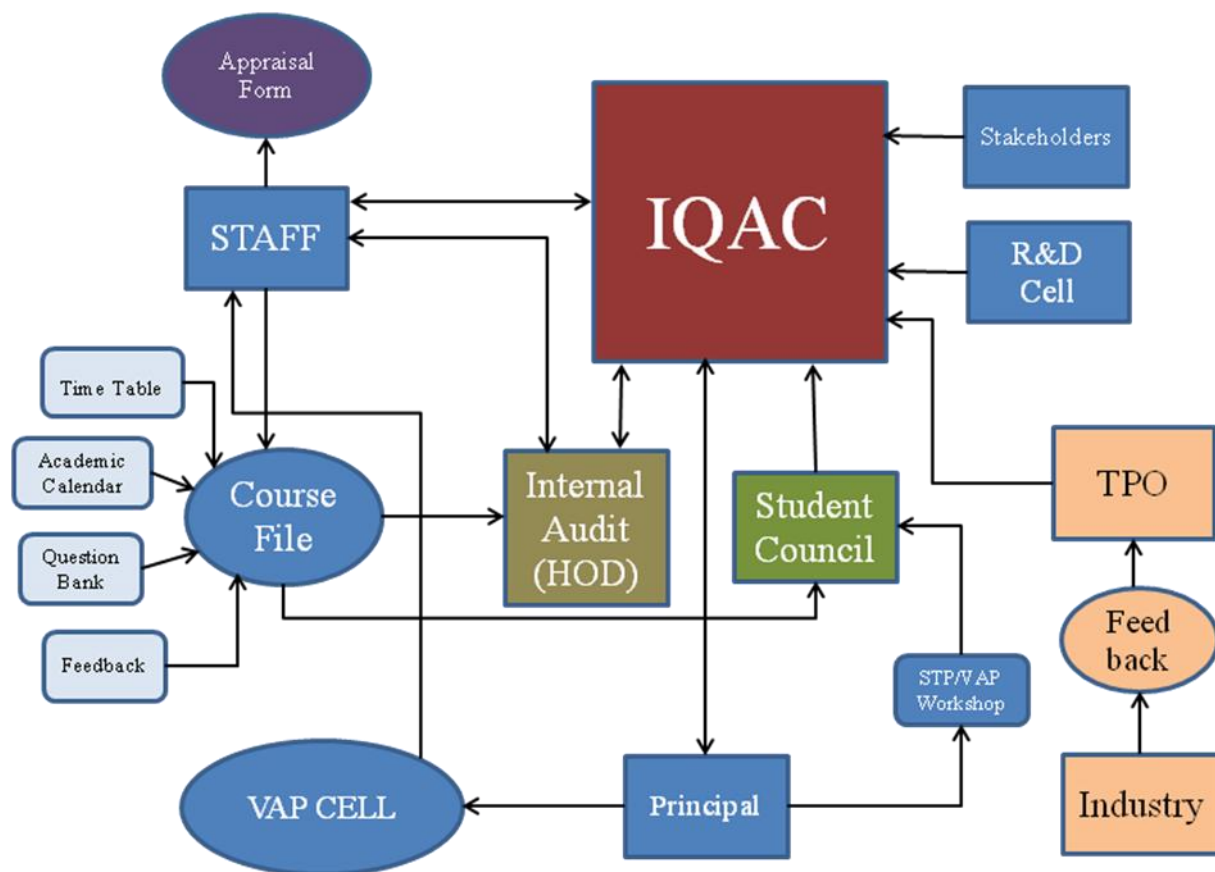


Figure 6.5.4.1: Functioning of IQAC

6.5.5 How is the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

- The guide lines specified by AICTE, DTE and SPPU are followed by the institute.
- Admission to the program is governed as per directions given by Directorate of Technical Education Maharashtra state.
- The infrastructure and staff of each department is as per the norms laid down by AICTE and UGC and is verified by LIC of SPPU.
- The academic activities and processes are planned and implemented as per the guidelines set by these regulatory bodies and IQAC.
- Syllabus implementation and evaluation is done as per the guidelines of the University.
- Workshops, Conferences, STTP, FDP's, competitions are planned and organized by Institute from time to time as a part of quality improvement program.
- Staff members are encouraged to participate and arrange Workshops, Conferences, FDP's, competitions.
- Feedback is taken from students, parents and other stakeholders on quality-related institutional processes from time to time.
- The institute is monitored by SPPU, DTE committees for compliance and suggestions are incorporated

Comments Given by LIC committee:

- Conditional letter for academic year 2016-17 given by SPPU.
- Condition given by the LIC committee in LIC report.

- UPC batteries are required to replace immediately before coming online examination.
- LCD projectors need to be increase.
- Appropriate supporting staff/lab assistant/Technical Assistant/system Analyst should be appoint since no of labs are more in numbers.

Table 6.5.5.1: Compliance report for 2016-17 as shown below given as reference:

Sr.No.	Committee Members	Remarks given by committee	Actions taken by the Institute
2016-17			
Local Inquiry Committee 27 Apr. 2016			
1	Prof. Dr. Deshpande Arvind V. Chairman (LIC) Prof. Danao Sanjay P. (Member) Prof. Awari U. R. (Member)	Eligible Principal is appointed but needs University approval immediately.	Roaster verification is in process
2		6 th pay, Gratuity, P.F (as per revised norms), should be implemented to all eligible faculties with latest D.A. (119%).	Institute has implemented 6 th pay to all eligible faculties with 113% D.A. P.F. with new rate is deducted and deposited to their account regularly
3		No. of faculty should be increased as per norms and approved by University Selection Committee, Cadre Ratio needs to be maintained.	Roaster verification by University is in process
4		UPS batteries are required to replace immediately before coming online examination.	UPS Batteries are purchased and replaced. The supporting documents are attached herewith
5		LCD projectors need to be increased.	Institute has purchased LCD Projectors. The supporting documents are attached herewith.
6		Appropriate supporting staff /Lab Asst. / Tech. Asstt./ System Analyst should be appointed since No. of labs are more in numbers.	Institute has recruited supporting staff like Lab Asstt. / Technical Asstt. Appointment orders, Joining Reports are

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?

To enhance & sustain the quality of education, institution has very systematic mechanism to continuously review the teaching learning process.

Structure

- GB, LMC, Principal, IQAC, HODs, committee in-charges, student representatives from the structure to review teaching-learning process. Periodical meetings conducted by the principal help in review of the working of the college.
- Weekly departmental meetings by the HODs are conducted to review the progress and performance of the department.
- If there are minor problems they are solved at the departmental level.

Methodology

- Academic calendar is prepared in the beginning of the year.
- The Institute time table and allotment of the classroom is done by the time table committee and a master time table is prepared.
- To improve Teacher interaction GFM scheme implementation is to done.
- Checking of Teaching plan by HOD.
- Collection of all unit test papers, prelim papers by HOD.
- Supervising the conduction of daily lectures and timetable.
- Supervising of course file, teaching plan twice a semester.
- For smooth conduction of lectures, leave is sanctioned to the faculty after making an alternate adjustment.
- Conduction of Unit tests.
- Taking feedback from students (twice a semester).
- Monthly review of syllabus coverage.
- Conduction of Teacher- Parents meets.
- Monitoring of attendance and calls are made by teacher guardians to the defaulters.

Outcome

- GFM scheme has creates peaceful atmosphere for better understanding between teachers and students.
- Weekly Meeting from HOD helps to 100% coverage of syllabus to be fulfilling the needs of slow learners and advanced learners.

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

Any other relevant information regarding Governance, Leadership and Management which the college would like to include.

- Vision, Mission, Quality Assurance policies are displayed on the website of the institution.
- Vision and Mission statements are displayed on boards at prominent places in campus.
- Vision, Mission and quality assurance mechanisms are illustrated in the information brochure.
- During alumni meeting, quality assurance policies and outcomes are communicated to the alumni and industry.
- Everything is displayed on Website.

Quality Assurance mechanisms and outcomes are informed to all stakeholders during students induction program, students mentoring sessions, parents meetings, alumni meetings Principal's address at seminars / conferences/ interactive sessions with stakeholders etc.

CRITERION VII: INNOVATION AND BEST PRACTICES**7.1 Environment Consciousness****7.1.1 Does the College conduct a Green Audit of its campus?**

Yes, The College conducts the green audit of its campus & facilities.

- The college has lavish greenery spanned over 110 acres of land. The trees are well maintained. The college has a separate greenery maintenance cell for better housekeeping. All the environmental aspects duly taken care by these cells. The college campus is kept clean and green. A separate greenery maintenance supervisor is available to up keep the greenery.
- There is a separate provision for collection of solid waste from various sources. Dustbins marked with “Keep Clean Be Green” have been provided at many places for solid waste collection.
- All the possible efforts are taken to make college campus eco-friendly. In front of the building, a very good lawn has been maintained. Good vegetation covering college maintains the temperature lower by 2 to 30C within campus when compared to temperature outside campus. (refer annexure 7.1.1)

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

The following initiatives have been taken by the Institute to make the campus eco-friendly.

Efficient use of Electrical Energy:-

- Program of electricity awareness at the institute level to spread awareness about efficient use of electricity.
- Energy audit of college as well as campus has been planned.
- While designing the buildings, the care has been taken to fetch maximum benefit from natural resources, like wind, sunlight to reduce consumption of electricity.
- Energy conservation display boards have been placed in each & every classroom & labs.
- The Institute celebrates 14th December as “Energy saving is energy generation” day on account National Conservation Day.
- All the laboratories are equipped with single point power controller for efficient use of electricity.
- Due to greenery at campus, air circulation is very good. This demands very few rooms only with air conditioning. (refer annexure 7.1.2)

Use of Renewable Energy

- For use of renewable energy following measures have been taken:
- Solar PV: Solar PV is installed on terrace of building. Grid tied Solar PV is used for the power of 8 KW. Total cost is approximately Rs. 6,50,000/- (refer annexure 7.1.2)

Efforts for Carbon Credit:

- To ensure a healthy environment in the coming decades, determination of greenhouse gas emissions is the need of every human being. Greenhouse gases can be emitted through transport, land clearance, production and consumption of food, fuels, manufactured goods, materials, wood, roads, buildings, and services. Carbon audit measures the total greenhouse gas emission caused by every individual, organization & event or product.
- The major contaminant causing air pollution is carbon dioxide. As carbon dioxide is a colorless and odorless gas, it is hard to determine its concentration. Carbon dioxide emission level is increasing day by day and reaching higher levels every day.
- Carbon credit is done for KJEI Campus Pune, Maharashtra as there is an incremental growth of residential projects and also stone crushers have been observed. After the determination of the carbon footprints for the area, it will be easy to plan the periodic development of the area so that neither growth rate will be hampered nor the existing carbon levels will rise. It will also be helpful to manage the energy being consumed by every individual and their activities. (refer annexure 7.1.2)

Water Management

- The institute is having Sewage Treatment Plant (STP). The water purified is used for gardening and flush. Its construction cost is 21 lacs with the capacity of 450 cubic meter / day.
- Water Treatment Plant (WTP) is also in working condition with type reverse osmosis having capacity of 3000 LPH of total cost Rs. 5,25,000/- (refer annexure 7.1)

Plantation

- Approximately 40 % area of campus is covered with plant & lawns. Regular maintenance of plants is carried out.
- To increase the greenery in campus plantation is done/organized by student associations like CESA (Civil Engineering Student Association), ACES (Association of Computer Engineering Students), MESA (Mechanical Engineering Students Association), and NSS (National Service Scheme). (refer annexure 7.1.2)

Hazardous Waste Management:

Paper waste is regularly sold to outside agency. The answer sheets are shredded and sold to licensed purchaser. College does not produce much of hazardous waste .If any such waste is found, it is destroyed under strict human supervision. There is no hazardous waste generated in college except in laboratories like Chemistry. Adequate exhaust provisions are made in these laboratories to drive out acid fumes. (refer annexure 7.1.2)

E- Waste Management

"E-waste" is a popular, informal name for electronic products nearing the end of their "useful life". E-wastes are considered dangerous, as certain components of some electronic products contain materials that are hazardous, depending on their condition and density. The hazardous content of these materials pose a threat to human health and environment. (refer annexure 7.1.2)

7.2 Innovations

7.2.1 Give details of innovations introduced during the last four year which have created a positive impact on the functioning of the college

Use of ERP in Administrative work:

- A full-fledged and independent ERP has been developed in house and most of the administrative work is undertaken using this software.
- The software is extremely beneficial for the administrative office, staff as well as students. All the data related to office, faculty and students is uploaded and available in the software.
- Most of the work such as leave management of staff, annual appraisals, faculty feedback etc. is done using ERP which increases the efficiency of human resources, reduces the paper work and which achieves 3E's (Environmental, Economical, & Efficient).
- The Training and placement activities such as student registrations for various companies, eligibility criteria's, student profiles, etc. are executed using ERP.
- Following are some of the features of ERP:
 - Staff Profiles with complete details
 - On duty worksheets
 - Work Load
 - Annual Appraisal of Staff members
 - Student Feedback
 - Service book
 - Leave Application
- Google groups :
Faster, effective and paperless communication with staff is facilitated through Google groups. Assignments, surveys, student information regarding seminars and project topics, electives etc. are shared updated through Google forms.(Refer annexure 7.2.1)
- WhatsApp Group: Staff and students are communicated through different whatsapp groups.

“Project Based Learning” Program:

- Institute organizes Project Based Learning (PBL) program for encouraging students.
- In this program, groups are formed among the students for doing the projects of their respective branch the best projects are awarded with prizes (Refer annexure 7.2.1)

Aksharbrahma:

- Every week, The Institute displays institute level wall magazine called “Aksharbrahma” which comes with perfect fusion of science literature and arts.
- The Magazine is divided into various sections covering articles on technical, literature, fine arts, etc. written by the students and faculties as well as the interviews of eminent personalities.
- The Wall Magazine provides a platform for students to exhibit their talents like writing, paintings, photography etc. (Refer annexure 7.2.1)

Research lab equipped NPTEL Videos:

- For enhancing the research activities, research lab is available in the college. Every lab is equipped with advanced instruments & software required for the same.
- In every lab computers are provided with internet connection.
- NPTEL videos and other technical video lectures are downloaded and made available to the students in research lab. (Refer annexure 7.2.1)

Model Based Learning:

- Model based learning program (MBLP) has been organized by Civil department for third year Civil Engineering students for the subject Structural Design – I.
- Subjects like Geology, Engineering Graphics, Applied Thermodynamics, Integrated Circuits, and Basic Mechanical Engineering etc. are taught using various models (Refer annexure 7.2.1)

Classrooms with Information and Communication Technology (ICT) facility:

- The institute is equipped with smart classrooms having facilities like digital projectors for presentations, audio visuals etc.
- All the labs are connected with servers of respective department by Local Area Network (LAN) where faculty members can access their presentations, videos etc. Repository of the teaching materials like presentations, videos etc. are also available on the servers of the institute.
- Internet facility is available in all Computer labs to utilize web resources for teaching learning. (Refer annexure 7.2.1)

Student Training Programs

- Student Training Program (STP) is incorporated into the curriculum to help prepare and evaluate the students in technical and non-technical skills.
- As a part of STP, subject wise, all lectures are conducted by faculty members. This is a LAN based resource to help students learn and revisit concepts discussed in the class
- The training provided is based on the need of the students to enhance the employability opportunity and higher education in India as well as abroad.
- STP program is spread over 7 semesters and is designed to provide training and practice on soft skills, technical fundamentals, value added components, quantitative aptitude logical reasoning, group discussion and interview preparation (Refer annexure 7.2.1)

7.3 Best Practices

7.3.1 Elaborate on any two best practices as per the annexed format (see page.) which have contributed to the achievement of the Institutional objectives and/or contributed to the quality improvement of the core activities of the College.

Best Practice No.1

Title of the practice: Teacher Guardian Scheme

Goal: Continuous monitoring of academic performance of students including their attendances and performance in internal exams.

The practice:

- The institute has a “Teacher Guardian (TG)” scheme for all First, Second, Third and Final Year students. Under this scheme, one faculty is appointed for every 20-25 students as their Teacher Guardian.
- The role of the faculty as Teacher Guardian is to continuously monitor the academic performance of 20-25 students such as daily attendance of the lectures and practicals, reporting the absentism of the students to their parents telephonically, monitoring their performance in internal examinations and conducting meetings with them regularly to discuss and address their academic as well personal problems.
- The details of the above work are maintained in a booklet by the respective Teacher guardian.

Context:

- Parents are regularly informed about the performance of their ward by his TG and thus they are also involved in this process.
- Teacher Guardian takes the problems faced by the students like poor academic performance, problems related to infrastructural facilities, and even personal problems also discussed to bring solution on that.
- The Teacher Guardian acknowledges and addresses these problems to motivate and guide the students. Knowing the student personally and communicating with him/her like a guardian develops a personal connect between the TG and student which is the main goal of this program. This in turn develops a sense of confidence, support and security in the students and they come strong to face the academic challenges.
- All these activities undertaken by the TG’s like call records to the parents, TG meetings, minutes of the meetings, student performance etc. are recorded in a booklet which is maintained by each and every Teacher Guardian. (Refer annexure 7.3.1)

Problems Faced and Resources Required:

- The problems encountered are as follows:
- Impart sense of guardianship in the faculties for increased effectiveness of the “Teacher Guardian” scheme.
- Adequate time is not available during college hours for conducting meet but this was overcome by conducting meeting after college hours.
- Initially the students were wavering to speak about the problems then TG made them speak out by talking with them in informal way.

Evidence of Success:

- Many of the problems faced by the students have come up in the TG meetings and they have been addressed by the faculty members.
- Problems like need of fans and tube lights in new class room in Civil department, etc. came up in the TG meetings and subsequently, these facilities were provided to the students.
- Students had difficulty in understanding the teaching of some staff members. The concerned staff members were counseled by the HoD and improvement was observed.
- At the time of examination period students wanted to use library beyond college hours so library was open from 08:00 am to 08:00 pm.

Best Practice No.2

Title of the practice: Academic Monitoring Committee (AMC) later converted to Internal Quality Assessment Cell (IQAC)

Goal: The goal of this scheme is monitoring of academics in each semester.

The practice:

- IQAC consists of Principal, Academic Dean and all Heads of department.
- This committee ensures for the better education quality to students.
- This committee suggests the key points to faculties for carrying out better teaching and learning process.
- This gives assurance to students about excellent service from management.

Context:

- Finalization of academic calendar by committee.
- Preparation, assessment and improvement of course files are carried out in each semester for all courses.
- Subject choice slip is collected from faculties and subjects allotted as per their preferences and experience
- Internal examinations are conducted for improvement and results are displayed in next week of the examination and assessed by IQAC.
- On the first day of semester IQAC provides a handbook which consists of academic calendar, internal assessment norms, internal examination time table, teaching plans, Syllabus structure, Syllabus, unit wise question bank, Internal Examination Question papers of Set A and Set B, roll call list, time tables, class teacher and teacher guardian contact list to every student in SE, TE and BE.
- Continuous assessment of lectures and practical is monitored.
- Percentage completion of syllabus for theory and practical performed is assessed by IQAC and extra lecture taken by faculties for slow students.
- During semester teacher guardian scheme is also verified by IQAC and Parents are regularly informed about the performance in internal examination marks and their monthly attendance.
- The term work mark based on internal assessment norms are displayed before end of the semester and transparency is maintained amongst teacher student and parents. (Refer annexure 7.3.2)

Problems Faced and Resources Required:

- Because of some extracurricular and co curricular activities we have to provide extra efforts on teaching learning process.
- Because of miscellaneous holidays the scheduled academics needs to be postponed sometimes.

Evidence of Success:

- Teaching and learning process is strongly implemented throughout the semester.
- Teacher performance improves due to continuous review by IQAC.
- As IQAC displays the term work marks according to internal assessment norms which is given to students on the first day, the students are aware about their term work mark and also know how to improve the term work marks based on performance.

Best Practice No.3**Title of the practice:**

Student Training Program (STP) and Value added Programs (VAP)

Goals:

- The student training program makes the student's placement ready or ready to go entrepreneurship.
- It is one of the important objectives of the institute to develop the students get placed in good companies in their field of specialization. Thus the college carries on activities like practicing aptitude, group discussion, general knowledge, current affairs, etc.
- The aim of the program is to enhance the quality of the students by empowering them with all required skills to make them globally competent.
- The objectives of the STP are to:
 - Enhance the employability.
 - Prepare students for entrepreneurship.
 - Prepare students for higher education in India and abroad.

The practice:

- **Aptitude Enhancement:** aptitude tests are of paramount importance to prospective job seekers in today's competitive job market. employers use aptitude tests to distinguish between candidates and a poor score on a numerical or verbal reasoning aptitude tests could be the difference between getting an interview or not.
- **General knowledge:** general knowledge contributes to personal enrichment, and a better understanding of the world as a whole.
- **Awareness about current affairs:** current affairs refer to the important incidents that have occurred and hold social importance in the world. The important role of current affairs can be evident with the various eligibility criteria adopted by the job sector, where individuals are hired based on their knowledge of their surroundings.
- **Developing domain knowledge:** domain knowledge is the basis of the job the students will be acquiring in the organization. Strong foundation in domain knowledge is a stepping stone to further learning.
- **Technical skills:** many companies today hire employees by looking at their computer literacy. If you know how to operate Microsoft tools then it is a plus because many companies today use software in their computers.
- All the activities of the student training program are conducted by faculty who has their expertise in respective areas.
- Personal and Career Goal Setting, Behavioral Skills, Public Speaking, Presentation Skills, Resume Writing, Listening Skills, Group Discussions, Report Writing, Letter/ Application Writing, Listening Skills Session Reading Skills Session, Writing Skills Session, Speaking Skills Session, Signal Processing , Programming Language, Electronic Circuit Design, Embedded System, Group Discussion ,Personal Interview, Assembly and disassembly of Mechanical system like I/C engine and M/C Tool System, Skills in varies processes involve in mechanical system like RAC equipment, Hydraulic Pneumatic system these programs have been conducted by various department. (Refer annexure 7.3.3)

Context:

- The aim of "Student Training Program" is to improve the employability level of students by enhancement of technical and soft skills so that they can serve the industry better.

- The overall skill development of students is the heart of the program. In second year itself, students are trained in soft skills and communication skills which are vital from employability point of view. STP is conducted in Final year of the course.
- Following VAP has been conducted

Sr. No.	Name of Programme
Department of Mechanical Engineering	
1	MATLAB
2	MASTERCAM Workshop
3	ANSYS Workshop
4	Introduction to FFT Analyzers and Challenges
5	Course on Fundamentals of Engineering Graphics
6	Course on Material Science and Mechanical
7	Course on Energy Audit
8	Course on Advanced stress analysis
9	Course on FEA
10	Challenges and opportunities of CFD
11	Course on Program development in Numerical
12	Advances of Mechatronics
13	Course on Product Design and Development
14	Advances in mechatronics
15	Course on Advanced Mechanical Vibrations
16	Course on FEM
17	Course on Analysis and Synthesis of Mechanisms
Sr. No.	Name of Programme
18	Automation studio
19	Recent trends in Refrigeration and Air
20	Workshop on Confidence, Concentration &
Department of E&TC Engineering	
1	EDA Tools PROTEUS Software.
2	Embedded Linux Development Tools
3	Hands on Training on Embedded Processors
4	CCNA Course
5	Automation Course
Department of Computer Engineering	
1	Zensar Employability Skills Development
2	Aptitude Training
3	Hadoop Workshop
4	Soft Skills Training
5	Routing and Network management
6	Android workshop
Department of Civil Engineering	
1	Basic of AutoCAD
2	AutoCAD workshop
3	Hit Office

Problems Faced and Resources Required:

- Since a large number of activities are planned any student missing any activity leads to loss of marks in that activity. It becomes very difficult to re-conduct the activity again.
- The VAP is required to be conducted in parallel with regular academics. Therefore, extra sessions from industry experts are normally arranged. 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.
- 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.

Evidence of Success:

- It is observed that with regular practice the students get better understanding of various activities being carried out. There is seen a steady rise in scores amongst all the students. Also it has reflected in review from the company panels coming for interview. Students get better placements in terms of profile and package.

Best Practice No.4

Title of the practice: Faculty Appreciation Scheme.

Goal: The purpose of Faculty Appreciation is to acknowledge the sustained and dedicated efforts of the faculty.

The practice:

- Appreciation letters are given to the faculties.
- Faculties having 100% subject result is appreciated by giving appreciation letters.
- Faculties involved in important institutional activities are appreciated under this practice. (Refer annexure 7.3.4)

Context:

- This practice encourages the faculty to work for the institute.
- It also helps in improving relation between faculty and management.
- Faculty appreciation can play a role in helping teachers to develop strategies for gaining confidence and taking active control of their work situation, both individually and collectively.

Problems Faced and Resources Required:

Sometimes students do not give accurate feedback that may affect the degree of appreciation of any particular faculty.

Evidence of Success:

- Faculties inculcate himself/herself in improving self-performance.
- Faculties get motivation and participate in all institutional activities.

Best Practice No. 5

Title of the practice:Employability Skill Development Programme (ESD) by Zensar Technologies.

Goal:

- TAE with Zensar Technologies and Zensar Foundation run Employability Skills Development (ESD) Program for training of fresh graduates towards better readiness for the IT industry, at no cost to the student.

The practice:

- The Employability Skills Development (ESD) Programme aims to address a pertinent concern of the Industry and fresh engineering graduates today.
- Engineering graduates who lack skills required for the jobs that are available to them need to be furnished and are to be given good technical and soft skill knowledge.
- Hence ESD is being implemented from the year 2014-15 in TAE with maximum number of students getting trained in their sessions and then placement activity also continues once the students are been trained.
- The objectives of the Zensar- ESD program are to:
 - Enhance the employability of the students.
 - Prepare students strongly in Personality & Technical capacity
 - Increase Placement ratio.

Context:

- Integration with curriculum: Training incorporated into the curriculum to help students for preparation and self - evaluation in technical and soft skills.
- Lecture Plan: As a part of ESD, subject wise, all lectures are taught by expert faculty from Zensar Technologies. This is a LAN based resource to help the students to learn and revisit the concepts discussed in class and Lab.
- Expert faculty: A good blend of class room and hands on training provided by expert faculty.
- Zensar assessment: Training need and outcome assessed using Assessment by Trainers during training, a test preferred by Zensar corporate Experts.
- The Practice: The duration of ESD is 230 hours that spread over 3 semesters. It is to be undertaken by the student from the start of the second semester of 3rd Year of engineering to second semester of Final Year. The details of the program are explained in Zensar Calendar Table 7.3.5.1.

Table 7.3.5.1- Zensar Technologies - Employability Skill

Development Program -Calendar for TAE

Sr. No.	Activity	Duration	Calendar Dates	Syllabus	Remarks
1	Initial Selection	1 Day	JAN / Feb Each Yr.	Aptitude Test & G D	Presentation
2	Soft Skill Training	5 Days [30 Hrs.]	Feb March Each Year	Communica tion Skills	Saturday, Sunday
3	Technical Training	14 Days [100 hrs.]	1 st June to 15 the June	Java, Dot Net , SQL	Vacation Time
4	Final Interview	1 Day	September each Year	All Training content	
5	Offer Letter	NA	October Each Year	NA	
6	Advanced Technical Training	14 Days	1 st Dec to 15 th Dec	Advanced Java, Dot Net	Vacation Time
7	Joining in ZENSAR		September		

Problems Encountered and Resources Required:

- The ESD is required to be conducted in parallel with regular academics on Saturdays and
- Sundays too. Therefore, extra sessions from industry experts are normally arranged on weekends in the month of Feb/March. Convincing the students to attend such sessions is really a challenging task. Industry experts and corporate trainers are available only on weekends.
- However, it is necessary to give ESD inputs to the students to cope up with industrial requirements and make them ready for placement. Introduction of ESD have solved majority of these problems with Free of Cost 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 ESD are as follows: □
 - Budgetary requirement for Expenses on Trainers Hospitality
 - Classroom with LCD and multimedia facility
 - Software for Java SQL and Dot Net
 - Internet facility to conduct Online Tests
 - IT infrastructure for hands on training.
 - Library with necessary e-resources, journals, and books.

Evidence of success:

Implementation of ESD has shown remarkable effect on placement activity. Also, students are able to crack professional examinations conducted by other industries too. This unique activity is appreciated by industries and alumni. K J Campus 3 institutes have given Highest Number of Placements in Pune University at Zensar with any Other Group of Institutes in PUNE shown in table 7.3.5.2.

Table 7.3.5.2- ESD by Zensar technologies records

Sr. No.	Academic Year	Training no. of students TAE	Interview shortlisted	TAE placed	KJEI placed
1	2014-15	20	12	3	19
2	2015-16	05	02	0	21
3	2016-17	17	05	0	16
Total				03	56

Best Practice No. 6**Title of the practice:****A. Technology Business Incubation Center (TBI)****Goal:**

- To work towards National Development through conception and advancement in technology driven startups.
- To create awareness about Technology Incubation and Commercialization of R & D products and processes.
- The main objective is to facilitate and achieve successful business ventures by innovative entrepreneurs leading in creation of jobs and wealth.
- To create incubatees with a potential to create jobs, vitalize society, commercialize novel technologies, and reinforce local and national economies.

The practice:

- TBI Center assists existing incubates by way of specialized services.
- TBI nurtures the development of technology based and knowledge driven companies helping them to survive and grow during the start up period.
- Any individual or a group of persons having conceived a process or product which is at the beginning of technology cycle can become an entrepreneur/incubate. It is expected that such process or product, algorithm for software, design of hardware etc are knowledge based and original.

Context:

- The success of TBI depends on how the incubators are designed and managed.
- A decent infrastructure coupled with an integrated package of business support services at moderate costs offered by a TBI enables the tenant companies to start up their venture at comparatively lower initial investment.

Problems Encountered and Resources Required:

- the scarcity of trained managers and need for operating systems
- inadequate support services
- the inadequacy for finance for incubators
- the need for promotion of the incubation modality through success stories

Evidence of success:

- Various studies report the survival rate of incubates are around 70-80%..

B. Entrepreneurship Development Cell (EDC):**Goal:**

- The aim of EDC is to promote entrepreneurship among the youth and to nurture a passion for self-employment.

The practice:

- This cell organizes Entrepreneurship Awareness camps.
- It also organizes Entrepreneurship Development Programs.
- It conducts Soft skill and hard skill development program for the benefit of Students.
- It organizes guest lectures, Seminars, etc. for promotion and growth of Science & Technology based entrepreneurship.
- It arranges interaction with entrepreneurs and creates a mentorship scheme for student entrepreneurs.

Context:

- Provides the students the understanding that they themselves can create a business and give them the tools to carry out this entrepreneurial desire.

Problems Encountered and Resources Required:

- In India, parents and teachers expect their students to score high in the exam (rather than acquiring the quality knowledge) and thus the education becomes a rat race.
- Problems solving skills are one of the most important things that are required when students complete their studies and look for jobs to earn money and build up their career.
- Ensure that Entrepreneurs have access to the Right Skill
- Government Support: Both the Central and State Governments should take more interest in promoting the growth of entrepreneurship.

Evidence of success:

- To inculcate the entrepreneurial culture into their minds.

DEPARTMENT OF CIVIL ENGINEERING

1. **Name of the Department:** : Civil Engineering
2. **Year of Establishment :** 2010-2011
3. **Names of Programmes / Course offered:** Bachelor of Civil Engineering, Master of Engineering (Construction Management)
4. **Names of interdisciplinary courses and the departments / units involved:**
Department is taking support for following subjects from other department:

Sr. No.	Class	Interdisciplinary Courses	Departments
1	FE	Engineering Mathematics I	Department of Engineering Science
2	FE	Engineering Mathematics II	Department of Engineering Science
3	FE	Engineering Physics	Department of Engineering Science
4	FE	Engineering Chemistry	Department of Engineering Science
5	FE	Basic Electrical Engineering	Electronics and Telecommunications
6	FE	Basic Electronics Engineering	Electronics and Telecommunications
7	FE	Fundamental Programming Languages I	Computer Engineering
8	FE	Fundamental Programming Languages II	Computer Engineering
9	FE	Basic Mechanical Engineering	Mechanical Engineering
10	FE	Engineering Graphics	Mechanical Engineering
11	SE	Engineering Mathematics III	Department of Engineering Science

5. **Annual / Semester choice based credit system (Programme wise):**

UG:

- Credit system is being proposed from 2015-2016 by SPPU, Pune.
- Annual based results are declared although Semester based Examination system is in place as prescribed by SPPU, Pune.

PG:

- Choice Based Credit system

6. Participation of the department in the courses offered by other departments:

Department is imparting following interdepartmental courses

Sr. No.	Class	Courses	Departments
1	FE	Basic CivilEngineering	Department of EngineeringScience
2	FE	EngineeringMechanics	Department of EngineeringScience

7. Courses in collaboration with other universities, industries, foreign institutions: NIL**8. Details of courses / programmes discontinued (if any) with reasons: Nil****9. Number of teaching posts:**

Title	Sanctioned	Filled
Professors	04	00
Associate Professors	07	01
Asst. Professors	21	20

10. Faculty Profile with name, Qualification, Designation, Specialization, (D. Sc/D. Litt. /Ph. D./M. Phil.etc.)

Q: Qualification, D: Designation, S: Specialization, Exp.: Experience

Sr. No.	Name	Q	D	S	Exp.
1	Prof. Satish S. Deshmukh	M.E, PhD pursuing	Asso. Prof.& HOD	Hydraulics Engineering	23
2	Mr. Sachin S. Kudale	M.E.	Assistant Professor	Structural Engineering	7
3	Mrs. Smita K. Daterao	M.E	Assistant Professor	Building Sciences and Technology	7.5
4	Ms. Shraddha Sharma	M.Tech.	Assistant Professor	Structural Engineering	4
5	Mr. Deepak K. Chaudhari	M.E.	Lecturer	Construction Management	9
6	Mr. Gajanan N. Supe	M.E.	Assistant Professor	Environmental Engineering	4.5
7	Ms. Dipti R. Shetye	M.E.	Assistant Professor	Construction Management	2.5

Sr. No.	Name	Q	D	S	Exp.
8	Mr. Suraj C. Tandale	M.E.	Assistant Professor	Construction Management	5
9	Mrs. Rupali B. Ghodke	M.E.	Assistant Professor	Structural Engineering	5
10	Mr. Pravin A. Manatkar	M.E.	Assistant Professor	Structural Engineering	4
11	Mr. Prasanna V. Joshi	M.E.	Assistant Professor	Construction Management	1
12	Mr. Kiran H. Ghorpade	M.E.	Assistant Professor	Construction Management	4
13	Ms. Snehal Pagay	M.E.	Assistant Professor	Construction Management	1
14	Mr. Mahesh C. Swami	Ph.D	Assistant Professor	Geology	9
15	Mrs. Sarika S. Kale	M.E.	Assistant Professor	Structural Engineering	9.5
16	Mrs. Pooja M. Chimkode	M.Tech.	Assistant Professor	Water & Land Management	1.5
17	Mrs. Shradha N. Behede	M.E.	Assistant Professor	Environmental Engineering	4.5
18	Mr. Ankur A. Burade	M.Tech.	Assistant Professor	Environmental Engineering	1.5
19	Mr. Vaibhav A. Augad	M.Tech.	Assistant Professor	Environmental & Water Resource	1
20	Mr. Mayur. S. Jain	M. Tech Ph. D. pursuing	Assistant Professor	Environmental Engineering	3
21	Ms. Rohini. C. Kale	M. Tech Ph. D. pursuing	Assistant Professor	Geotechnical engineering	3

11. List of senior visiting faculty:

Total no. of visiting faculty = 07

Sr. No.	Eminent Academician and Industry persons	Designation	Institute / Industry
1	Mr. Vikas Patil	Adjunct Faculty	Managing Director, Savi Infrastructure & Properties Ltd.
2	Mr. Manojkumar Sonawane	Adjunct Faculty	Planning Engineer, Larsen & Toubro Construction Ltd.

Sr. No.	Eminent Academician and Industry persons	Designation	Institute / Industry
3	Mr. Vikas Mhase Shivaji	Adjunct Faculty	Assistant Manager, Bhattad Group, Mumbai
4	Mr. Ajit Kshirsagar	Adjunct Faculty	Planning Engineer, Alfaraa group, Mumbai
5	Ms. Arti Khandelwal	Adjunct Faculty	Assistant Engineer- Grp A, Maharashtra Water resources Department
6	Mr. Ashok Pilgunde	Adjunct Faculty	Director, Ashok Constructions
7	Dr. Shilpa Patil	Adjunct Faculty	Associate Professor, VIIT

12. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty: NIL

13. Student –Teacher Ratio: 17.23:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Total – 06

Title	Sanctioned	Filled
Laboratory Assistant	04	02
Laboratory Attendant	03	03
Peon	03	02

15. Qualifications of teaching faculty with DSc / D.Litt / PhD. / MPhil /PG:

Ph.D: 01, Ph. D. pursuing: 03, PG: 17

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:

Our faculty has published research papers in reputed National and International Journals.

National Journal	14	Monographs	NIL
International Journal	25	Chapters	NIL
National Conference	07	Books	02
International Conference	02	Overall Citations	NIL

20. Areas of consultancy and income generated: NIL**21. Faculty as members in**

a) National Committees b) International Committees c) Editorial Boards: NIL

Sr. No.	Name of faculty	National Committee	Designation
1	Prof. S. S. Deshmukh	Jalyukta Shivar Abhiyan	Coordinator
2	Prof. S. S. Kudale	Jalyukta Shivar Abhiyan	Member
3	Prof. B. D. Wabhitkar	Jalyukta Shivar Abhiyan	Member
4	Prof. R. V. Vyawahare	Jalyukta Shivar Abhiyan	Member

b) International Committee: Nil

c) Editorial Boards:

Total number of faculty as members in editorial board: NIL

22. Student Projects:

a) Percentage of students who have done in-house projects including their departmental Programme: 100 %

Sr. No	Year	No of in-house projects	% of in house projects
1	2016-17	19	100
2	2015-16	15	100
3	2014-15	6	100
4	2013-14	3	100

b) Percentage of students who have placed for projects in organizations outside the institution i.e. in Research laboratories / Industry / other agencies:

No projects have been done outside the institute.

23. Awards / Recognitions received by faculty and students:**a) Awards / Recognitions received by faculty of the department:**

Total number of Awards / Recognitions received by faculty of the department: 01

b) Awards / Recognitions received by students of the department:

Total number of Awards / Recognitions received by students of the department: 39

Year	2016-2017	2015-2016	2014-2015	2013-2014
No of prizes won	18	11	6	4

24. List of eminent academicians and scientists / visitors to the department:

Total number of eminent academician and scientists/visitor to department: 10

Sr. No.	Name of academician/ scientist/ visitor	Designation	Organization	Details
1	Mr. R. V. Vyawahare	Scientist	NEERI	Career counseling
2	Mr. R. R. Rathod	AE I	Washim	MPSC Exam Guidance
3	Mr. Sagar Kolapkar	Transportation Planning Engineer	Pune Municipal Corporation	Expert Lecture
4	Mr. Vikas Patil	Managing Director	Savi Infrastructure & Properties Ltd.	Adjunct Professor
5	Mr. Manojkumar Sonawane	Planning Engineer	Larsen & Toubro Construction Ltd.	Adjunct Professor
6	Mr. Vikas Mhase Shivaji	Assistant Manager	Bhattad Group, Mumbai	Adjunct Professor
7	Mr. Ajit Kshirsagar	Planning Engineer	Alfaraa group, Mumbai	Adjunct Professor
8	Ms. Arti Khandelwal	Assistant Engineer-Group A	Maharashtra Water resources Department	Adjunct Professor
9	Mr. Ashok Pilgunde	Director	Ashok Constructions	Adjunct Professor
10	Dr. Shilpa Patil	Associate Professor	VIIT	Adjunct Professor

**25. Seminars / Conferences / Workshops organized and the source of funding
National & International:**

Sr. No.	Workshop/Seminar	Name of the event
1	Two day workshop	IBCC- Bridge design championship
2	Two day workshop	Tall Building Design Workshop
3	One day seminar	Opticon
4	Two day workshop	Green Buildings
5	One day workshop	GIS & GPS Applications in Civil Engineering
6	One day workshop	FEM: Introduction & Applications

Year	National	International Conference
2013-14	1) National Conference of Advanced Technologies in Engineering 23rd- 24th February 2014	-
2014-15	1) 2nd National Conference of Advanced Technologies in Engineering 20th- 21th February 2015 2) Recent Advancements in Engineering & Applications 13th – 14th March 2015	-
2015-2016	1) National conference on Signal Processing, computer modeling, structural and Mechatronics 11th to 12th March 2016 2) National Conference on Renewable Energy and Sustainable Development 11th – 12th January 2016	International Conference on Design, Manufacturing and Mechatronics (ICDMM 2015) 10th -11th February 2016

Year	National	International Conference
2016-2017	1) 2nd National conference on Signal Processing, computer modeling, structural and Mechatronics 15th to 16th March 2017 2) National conference on Electronics Communication and Computing 2017 24th to 25th February 2017	Fourth International Conference on Energy Systems and Developments 2017 Feb 20th to 24th February 2017

26. Student Profile programmes / course wise:

a) Bachelor of Civil Engineering

Year	Selected (Admitted)	Enrolled		Pass Percentage
		Male	Female	
2016-17	156	132	24	NA
2015-16	137	129	8	86.5
2014-15	161	150	11	88
2013-14	66	57	9	78

b) Master of Civil Engineering

Year	Selected (Admitted)	Enrolled		Pass Percentage
		Male	Female	
2016-17	16	13	3	NA
2015-16	24	17	7	70.83
2014-15	24	19	5	100
2013-14	-	-	-	-

27. Diversity of Students:

UG:

Year	% of students from the same state	% of students from other states	% of students from abroad
2016-17	100	0	0
2015-16	99.993	0.007	0
2014-15	99.975	0.025	0
2013-14	99.7	0.03	0

PG:

Year	% of students from the same state	% of students from other states	% of students from abroad
2016-17	100	0	0
2015-16	100	0	0
2014-15	100	0	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil Services, Defense services, etc.?

Sr. No.	Competitive Examinations	No of students passed			
		2016-2017	2015-2016	2014-2015	2013-2014
1	GRE/TOEFL	1	0	0	1

29. Students Progression:

Student progression	No. of students			
	2016-2017	2015-2016	2014-2015	2013-2014
UG to PG	NA	3	3	1
PG to M.Phil	NA	NIL	NIL	NIL
PG to Ph.D	NA	NIL	NIL	NIL
Ph.D to Post-Doctoral	NA	NIL	NIL	NIL

Student progression	No of students			
	2016-2017	2015-2016	2014-2015	2013-2014
Employed in Campus selection	NA	5	4	2
Employed Other than campus recruitment	NA	23	16	9
Entrepreneurship / Self-employment	NA	13	3	2

30. Details of Infrastructural facilities:

Sr. No.	Infrastructural facility	Details of Item	Number
1	Library	Books	492
2	Internet facility for staff and students	Computers	70
		Internet facility and Bandwidth	32 Mbps
3	Classrooms	Classrooms	8
		Drawing hall	1
4	Seminar Hall	Seminar Hall	1
5	Laboratories	UG	16
		Post Graduate	1
		Research	1
6	Tutorial Room	UG	2
		PG	1

Sr. No.	Name of the Lab
1	Basic Civil Engineering
2	Engineering Mechanics
3	Computer Lab
4	Engineering Geology

Sr. No.	Name of the Lab
5	Geotechnical Engineering
6	Surveying
7	Advanced Surveying
8	Environmental Engineering -I
9	Transportation Engineering
10	Concrete Technology
11	Strength Of Materials
12	Fluid Mechanics -I
13	Fluid Mechanics -II
14	Environmental Engineering -II
15	CAD Lab
16	PG Research Lab
17	Drawing Hall

31. Number of students receiving financial assistance from college, university, government or other agencies:

Sr. No.	Details of financial assistance	Academic year/ No of students			
		2016-2017	2015-2016	2014-2015	2013-2014
1	Scholarship & Freeship	79	102	66	24
2	EBC	145	121	87	47
3	STC	2	-	1	-
4	Minority(MCM)	-	7	7	7
5	Minority (SGS)	14	17	8	3

32. Details on student's enrichment programmes (special lectures / workshops / seminars) with external experts:

Total no. of Guest lecture conducted in the Department: 66

Total no. of Training program conducted in the Department: 7

Total no. of workshop conducted in the Department: 03

Sr. No.	Academic Year	No of Special Lecture	No of Workshop	No of Seminar Social
1	2016-2017	9	02	3
2	2015-2016	22	01	2
3	2014-2015	16	01	2
4	2013-2014	19	01	1

33. Teaching methods adopted to improve students' learning:

Along with traditional teaching number of innovative and interactive methods is adopted by the faculty to improve students' learning. To name a few-

- Traditional method (Chalk and talk)
- Expert lectures for enriching the latest updates regarding subjects
- Seminars by students
- Models, Prototypes
- Presentations using LCD projector
- Animations to visualize process
- Industrial visits arranged for students
- Exhibition visits
- NPTEL video lectures for Students
- Theory Assignments- unit based
- Power point presentation
- Guest lecture
- Use of internet applications
- Group discussions
- Internal exams
- Mock practical/oral exam

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Sr. No.	Activity	Details of seminars, guest lectures, workshops under Institutional Social Responsibility
1	Health Club (Yoga)	Yoga Session
2	Student Association(CESA)	Blood donation camp at the institute
		Pranayama Rahasya- Yoga awareness
		Tree plantation drive at college campus
		Environmental awareness Programme
		Farewell for B.E. Students
3	Entrepreneurship Development Cell (EDC)	Scope of Entrepreneurship in Media
4	Sports Club	Inter departmental Sports under KJ YOUTH FEST
5	Cultural Club	MALHAR

Sr. No.	Activity	Details of seminars, guest lectures, workshops under Institutional Social Responsibility
6	Rotract / Social Club	Inauguration ceremony of Value Education club, Power of Habit
7	Corporate Social Responsibility Cell	Traffic Awareness and Road Safety on Road
8	Student Welfare	PARINEETI Training Centre for underprivileged students
9	Anti-Ragging Committee, Women anti sexual harassment Committee,	Awareness of Anti-Ragging Act, Women Empowerment and Gender Equality
10	Environmental Club	Inauguration of Environment club

35. SWOC analysis:

❖ Strength

- Affiliation to Savitribai Phule Pune University.
- Establishment of Research lab and Centre of Excellence.
- Qualified and Experienced faculty.
- Course files of all Civil Engineering subjects.
- Handbooks containing information about department, curriculum, notes, question papers, timetables for SE, TE, BE.
- Teacher-Guardian activity for students
- Interactions with parents through messages, callings, meetings.
- Conduction of Guest lectures, seminars, competitions related to academics and non-academics for students.
- State -of-the-art Infrastructure and well equipped laboratories.
- Workshop with well-equipped facilities.
- Enriched library with books, journals, e-sources.
- Patents applied.
- Effective teaching learning process.
- Seminar hall, tutorial rooms, Common rooms for boys, girls.
- Large playground.
- Well-furnished classrooms.
- Internet facilities for staff and students.

❖ Weakness

- Research and consultancy.
- Improvement in communication skill among students from rural background.
- Placement in Core Company.
- Lack of international student interactions.

❖ Opportunities

- Organizing various entrepreneurship seminars.
- Providing quality engineering education.
- Opportunity of interactions with various eminent personalities.
- Center of Excellence.

❖ Challenges

- Collaborations with foreign universities, IITs and NITs.
- Tough competition for employability.
- Students with diverse background.

❖ Future Plan

- Industrial based research project for UG/PG/Ph.D.
- Employment oriented certification courses; considering industrial requirement.
- Enhancement in Training & Placement activities.
- Industrial training to students and faculties.
- Need based courses in association with industry and institutes.
- Innovative Research, Publications and Patents
- Upgrading laboratory facilities to promote research.

DEPARTMENT OF COMPUTER ENGINEERING

1. **Name of the Department :** Computer Engineering
2. **Year of Establishment :** 2010-2011
3. **Names of Programmes / Course offered:** Bachelor of Computer Engineering
4. **Names of interdisciplinary courses and the departments / units involved:**
Department is taking support for following subjects from other department:

Sr. No.	Class	Interdisciplinary Courses	Departments
1	SE	Microprocessor Interfacing Techniques	Electronics and Telecommunications
2	SE	Engineering Mathematics III	Department of Engineering Science
3	TE	Digital Signal Processing	Electronics and Telecommunications

5. **Annual / Semester choice based credit system (Programme wise):**

UG:

- Credit system is being proposed from 2015-2016 by SPPU, Pune.
- Annual based results are declared although Semester based Examination system is in place as prescribed by SPPU, Pune.

6. **Participation of the department in the courses offered by other departments:**

Department is imparting for interdepartmental courses

Sr. No.	Class	Courses	Departments
1	FE	Fundamental of Programming Languages I	Department of Engineering Science
2	FE	Fundamental of Programming Languages II	Department of Engineering Science
3	SE	Object Oriented Programming	Electronics and Telecommunications
4	SE	Data Structure	Electronics and Telecommunications

7. Courses in collaboration with other universities, industries, foreign institutions.

Sr. No.	Particular	Universities/industries/ foreign institutions	Duration
1	Personality Development & Aptitude Training	Parineeti Foundations	2016 - 17
2	Programming Skills	Sunbeam	2016 - 17
3	Zensar ESD Program	Zensar	2016 - 17
4	Summer school training	Persistent	2016 - 17
5	Personality development training	Ungap Academy	2016 - 17
6	Masters in Abroad Universities	SIEC Education Pvt.LTD	2016 - 17
7	Masters in Abroad Universities	Monmouth University	2016 - 17
8	Guidance for GATE & Competitive exam.	Vani Institute	2016 - 17
9	CCNA course	Ghatge Academy of Science	2015 - 16
10	Automation Course	Ampro automation	2015 - 16
11	Personality Development & Aptitude Training	SCOUT Academy	2015 - 16
12	Guidance for GATE & Competitive exam.	Vani Institute	2015 - 16
13	Guidance for GATE & Competitive exam.	GATE Forum	2014 - 15
14	Personality Development & Aptitude Training	SCOUT Academy	2014 - 15
15	Industrial Training	BSNL,Kolhapur	2015 - 16
16	CCNA course	Aptech Computer Eucation	2014 - 15
17	FDP of soft skills, Revised syllabus	SPP University, Pune	2014 - 15
18	Guidance for GATE & Competitive exam.	GATE Forum	2014 - 15
19	CCNA course	Aptech Computer Eucation	2013 - 14
20	Guidance for GATE & Competitive exam.	GATE Forum	2013 - 14
21	Personality Development & Aptitude Training	SCOUT Academy	2013 - 14

8. Details of courses / programmes discontinued (if any) with reasons: Nil

9. Number of teaching posts:

Title	Sanctioned	Filled
Professors	1	0
Associate Professors	3	0
Asst. Professors	12	14

10. Faculty Profile with name, Qualification, Designation, Specialization, (D. Sc/D. Litt. /Ph. D./M. Phil.etc.)

Q: Qualification, D: Designation, S: Specialization, Exp.: Experience

Sr. No.	Name	Q	D	S	Exp.
1	Ms. Sangameshwari N Maitri	M.E	Asst. Prof. & HOD	Database Management System	15
2	Ms. Asma S Inamdar	M.E	Asst. Prof	Micro-controller and Micro-processor	9
3	Mr. Sandeep P Yadav	M.E	Asst. Prof	Database Management System	4
4	Ms. Sonali S Kale	M.E	Asst. Prof	Cloud Computing	9.5
5	Mrs. Chanchal P Kedia	M.E	Asst. Prof	Wireless Sensor Networks	9.5
6	Ms. Snehalata G Nandanwar	M.E	Asst. Prof	Computer Networks	9
7	Ms. Sheetal S Jadhav	M.E	Asst. Prof	Data Mining and Information Retrieval	3.5
8	Mrs. Pratima R Patil	M.E	Asst. Prof	Data Mining	6
9	Mr. Rupesh R. Ranawre	M.E	Asst. Prof	IOT, Genetic Algorithm	9
10	Ms. Jadhav Vidya Dajiba	M.E	Asst. Prof	Data Mining	1
11	Mr. Gode Chandrashekhar Santoshrao	M.E	Asst. Prof	Computer	1
12	Ms. Adhav Pratima N.	M.E	Asst. Prof	Computer	1
13	Mr. Raskar Rahul B.	M.E	Asst. Prof	Computer	1
14	Mr. Mohorkar Abhijit Vittal	M.E	Asst. Prof	Computer	1

11. List of senior visiting faculty:

Total no. of visiting faculty = 05

Sr. No.	Eminent Academician and Industry persons	Designation
1	Yogini Gholap	Senior Software Engineer
2	Amit Kulkarni	Adjunct Professor
3	Sonal Mehta	Senior Software Engineer
4	SahaniBhavana	Adjunct Professor
5	Patil Amitkumar A.	Adjunct Professor

12. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty: NIL**13. Student –Teacher Ratio: 8.92:1****14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:**

Total – 06

Title	Sanctioned	Filled
Technical Assistant	01	01
Laboratory Attendant	02	01
Peon	02	02

15. Qualifications of teaching faculty with DSc / D.Litt / PhD. / MPhil /PG:

PG: 14

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

a)	National	:	Nil
b)	International	:	Nil

17. Departmental projects funded by DST – FIST; UGC, DBT, ICSSR, etc. and total grants received: NIL**18. Research Centre / facility recognized by the University: NIL**

19. Publications:

Our faculty has published research papers in reputed National and International journals.

a) Publication Total:

Sr. No.	Faculty Name	Conferences		Journal Publications		Total
		N	I	N	I	
1	Ms. Sangameshwari Maitri	1	0	0	0	1
2	Ms. AsmaInamdar	2	1	0	0	3
3	Mr. SandeepYadav	0	0	0	0	0
4	Ms. Sonali Kale	3	1	0	1	5
5	Mrs. Chanchal Kedia	1	0	0	2	3
6	Ms.SnehalataNandanwar	1	0	0	0	1
7	Ms.Sheetal Jadhav	1	0	0	3	4
8	Mrs. Pratima Patil	1	0	0	2	3
9	Mr. Rupesh R. Ranawre	0	0	0	0	0
10	Ms. Jadhav VidyaDajiba	0	0	0	0	0
11	Mr. GodeChandrashekharSantos hrao	0	0	0	0	0
12	Ms. AdhavPratima N.	0	0	0	0	0
13	Mr. Raskar Rahul B.	0	0	0	0	0
14	Mr. MohorkarAbhijitVittal	0	0	0	0	0
TOTAL						20

b) Number of papers published in peer reviewed journals (National /International) by faculty and students:

Sr. No.	Year	Journal Publications		Total
		National	International	
1	2013-14	0	0	0
2	2014-15	0	0	0
3	2015-16	10	0	10
4	2016-17	15	0	15
TOTAL				25

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 their departmental Programme: 88%

Sr. No	Year	No of in-house projects	% of in-house projects
1	2013-14	9	69%
2	2014-15	10	91%
3	2015-16	9	90%
4	2016-17	14	93%

b) Percentage of students who have placed for projects in organizations outside the institution i.e. in Research laboratories / Industry / other agencies: 12%

Sr. No.	Year	No of projects in collaboration	(%)
1	2013-14	4	31%
2	2014-15	1	9%
3	2015-16	1	10%
4	2016-17	1	7%

23. Awards / Recognitions received by faculty and students:

a) Awards / Recognitions received by faculty of the department:

Total number of Awards / Recognitions received by faculty of the department: 01

Sr. No	Name of Faculty	Award / Recognition	Year	Organization	Details
1.	Prof. Sonali S. Kale	University 1 st topper(M.E.)	2013	STES, SKN COE, Pune	8.1 CGPA

b) Awards / Recognitions received by students of the department:

Total number of Awards / Recognitions received by students of the department: 02

Sr. No.	Name of student	Award	Organization	Details
1.	Priyanka Shinde	Girls Scholarship	Persistent Foundation	40,000 per year and mentoring support
2.	GirijaLonkar	JETKING Competition 1st winner	JETKING	Winner in inter college competition
3.	SoheebPeerzade	Fresh face of Pune	Times of India	Finalist
4	RutujaGaikwad	Girls Scholarship	Persistent Foundation	5,000 per year and mentoring support

24. List of eminent academicians and scientists / visitors to the department:

Total number of eminent academician and scientists/visitor to department:

Sr. No.	Name of Academician/ Scientist/ Visitor	Designation	Organization	Details
1	NoorinLakhani	Free lancer	NIL	Advanced dot net trainer
2	Ankita Mali	Soft skill trainer	SEED Infotech	Soft skill training
3	Amit Patil	Sr. software engineer	Synechron lim.	Software engineering lecture
4	GirishBharambe	Aptitude trainer	Dnyantirth Academy	Aptitude training
5	Vikrant vartak	Director	Senate Business Centre	R&D
6	Dr. Harold D'costa	Pune advisor	Intelligent Quotient Security	R&D
7	Dr. AbhayJere	Chief Scientist	R&D Persistent, Associate Vice President Persistent	Hackathon Event for smart India
8	SonaliKelkar	HR, Manager	Zensar Technologies	Monitoring ESD Programs

25. Seminars / Conferences / Workshops organized and the source of funding
National & International Conferences:

Year	National	International Conference
2013-14	1) National Conference of Advanced Technologies in Engineering 23rd- 24th February 2014	-
2014-15	1) 2nd National Conference of Advanced Technologies in Engineering 20th- 21th February 2015 2) Recent Advancements in Engineering & Applications 13th – 14th March 2015	-
2015-2016	1) National conference on Signal Processing, computer modeling, structural and Mechatronics 11th to 12th March 2016 2) National Conference on Renewable Energy and Sustainable Development 11th – 12th January 2016	International Conference on Design, Manufacturing and Mechatronics (ICDMM 2015) 10th -11th February 2016
2016-2017	1) 2nd National conference on Signal Processing, computer modeling, structural and Mechatronics 15th to 16th March 2017 2) National conference on Electronics Communication and Computing 2017 24th to 25th February 2017	Fourth International Conference on Energy Systems and Developments 2017 Feb 20th to 24th February 2017

Workshops and Guest lectures organized:

Sr. No.	Seminar/ workshop	Name of the event	Funding agency
1	Workshop	Routing and Network Management	Self-Funding
2	Workshop	Faculty development Program	Self-Funding
2	Guest Lecture	Aptitude	Self-Funding
3	Guest Lecture	R U JOB READY	Self-Funding
4	Guest Lecture	Microprocessor and Interfacing Techniques	Self-Funding
5	Workshop	HADOOP Technology	Self-Funding

Sr. No.	Seminar/workshop	Name of the event	Funding agency
6	Workshop	Positive attitude	Self-Funding
7	Workshop	Stress management	Self-Funding
8	Workshop	Yoga	Self-Funding
9	Guest Lecture	Data structure	Self-Funding
10	Guest Lecture	Computer networks	Self-Funding
11	Guest Lecture	Cyber security	Self-Funding
12	Guest Lecture	JETKING	Self-Funding

26. Student Profile Programme / Course wise:

a) Bachelor of Computer Engineering

Year	Selected (Admitted)	Enrolled		Pass Percentage
		Male	Female	
2016-2017	41	28	13	-
2015-2016	54	40	24	64%
2014-2015	75	45	30	95%
2013-2014	51	37	14	85%

27. Diversity of Students

Year	% of Students from the same state	% of Students from other states	% of Students from abroad
2016-2017	100%	0%	NIL
2015-2016	93%	7%	NIL
2014-2015	93%	7%	NIL
2013-2014	98%	2%	NIL

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil Services, Defense services, etc.?

Sr. No.	Competitive Examinations	No of students passed			
		2016-2017	2015-2016	2014-2015	2013-2014
1	Civil Services	-	-	-	1
2	GRE	-	-	-	1
3	IELTS	-	1	-	-

29. Students Progression:

Student progression	Against % admitted			
	2016-2017	2015-2016	2014-2015	2013-2014
UG to PG	0	1	2	3
Employed in Campus selection	-	4	11	-
Employed Other than campus recruitment	-	13	5	27
Entrepreneurship / Self – employment	-	1	2	2

30. Details of Infrastructural facilities:

Sr. No.	Infrastructural facility	Details of Item	Number
1	Library	Books	509
		Volumes	1897
		Journals	6
		Journal In softcopy	-
		CDs	-
2	Internet facility for staff and students	Computers with internet facility	219
		Bandwidth	32 Mbps

Sr. No.	Infrastructural facility	Details of Item	Number
3	Classrooms	Classrooms	3
4	Seminar Hall	Seminar Hall	1
5	Laboratories	Under Graduate	3
		Post Graduate	0
		Research	1
6	Tutorial Room	UG	1

Sr. No.	Name of the Lab
1	Digital Electronics/Microprocessor
2	Data Structure/Object Oriented
3	Programming/Operating System
4	Programming Lab-I/III
5	Programming Lab-II/IV
6	Network/Software
7	Project Lab-I/II
8	Computer Lab- I/ II

31. Number of students receiving financial assistance from college, university, government or other agencies:

Sr. No.	Details of financial Assistance	Academic year/ No of students			
		2016-2017	2015-2016	2014-2015	2013-2014
1	Scholarship & Freeship	34	58	53	54
2	EBC	34	43	45	31
3	STC	-	-	-	-
4	PTC	-	-	-	-

Sr. No.	Details of financial Assistance	Academic year/ No of students			
		2016-2017	2015-2016	2014-2015	2013-2014
5	Minority (MCM)	1	-	-	1
6	Minority (SGS)	-	5	1	1
7	J&K (Regular)	NIL	NIL	NIL	NIL
8	J&K (SSS)	NIL	NIL	NIL	NIL
9	GATE	NA	NA	NA	NA
10	Central Sector	NIL	NIL	NIL	NIL

32. Details on students enrichment programmes (special lectures / workshops / seminars) with external experts:

Total no. of Guest lecture conducted in the Department: 11

Total no. of Training program conducted in the Department: 13

Total no. of workshop conducted in the Department: 11

Sr. No.	Academic Year	Competition	Special Lecture	Workshop	Seminar Social
1	2016-2017	1	4	5	4
2	2015-2016	-	2	3	2
3	2014-2015	-	4	3	4
4	2013-2014	-	1	2	1

33. Teaching methods adopted to improve students' learning:

- Traditional method (Chalk and talk)
- Expert lectures for enriching the latest updates regarding subjects
- Seminars by students
- Models, Prototypes
- Presentations using LCD projector
- Animations to visualize process
- Industrial visits arranged for students
- Exhibition visits
- NPTEL video lectures for Students
- Theory Assignments- unit based
- Power point presentation
- Guest lecture
- Use of internet applications
- Group discussions
- Internal exams
- Mock practical/oral exam

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Sr. No	Activity	Details of seminars, guest lectures, workshops under Institutional Social Responsibility
1	Health Club (Yoga)	Yoga Session
2	Student Association (ACES)	Enhancing Technical Skill
		Blood Donation Camp
		Workshop on Skill Development
		Fire Fighter Demo
		Farewell for B.E. Students
3	Entrepreneurship Development Cell (EDC)	Scope of Entrepreneurship in Media
4	Sports Club	Inter departmental Sports under KJ YOUTH FEST
5	Cultural Club	MALHAR
7	Rotaract / Social Club	Inauguration ceremony of Value Education club, Power of Habit
8	Corporate Social Responsibility Cell	Traffic Awareness and Road Safety on Road
11	Student Welfare	PARINEETI Training Centre for underprivileged students
13	Anti-Ragging Committee, Women anti sexual harassment Committee,	Awareness of Anti-Ragging Act, Women Empowerment and Gender Equality
16	Environmental Club	Inauguration of Environment club

35. SWOC analysis:

❖ Strength

- Experienced faculty and staff.
- State of art Infrastructure and well equipped laboratories.
- Industrial training exposure to faculties and students during vacation.
- MOUs with Industries.
- Faculty with wide industrial background.
- Effective teaching learning process.

❖ Weakness

- Research and consultancy.
- Communication skills of the students.

- Placement in Core Company.
- ❖ **Opportunities**
 - Industrial globalization.
 - Academic autonomy.
 - Center of Excellence.
- ❖ **Challenges**
 - Collaborations with foreign universities, IITs and NITs.
 - Students with diverse background.
 - Tough competition for employability.
- ❖ **Future Plan**
 - Industrial based research project taken for UG
 - Employment oriented certification courses; considering industrial requirement.
 - Enhancement in Training & Placement activities.
 - Establish Center of excellence in Computer Engineering.
 - Need based courses in association with industry and institutes.
 - Innovative Research, Publications and Patents
 - Upgrading laboratory facilities to promote research.

DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING

1. **Name of the department:** : Electronics & Telecommunication Engineering
2. **Year of establishment :** 2010-2011
3. **Names of program/course offered:** Bachelor of Electronics & Telecommunication Engineering
4. **Names of interdisciplinary courses and the Departments / units involved:**
Department is taking support for following subjects from other department:

Sr. No.	Class	Interdisciplinary Courses	Departments
1	SE	Engineering Mathematics III Object Oriented Programming Data Structure And Algorithms	Engineering Sciences Computer Engineering Computer Engineering

5. **Annual / Semester choice based credit system (program wise).**

UG:

- Credit system is being proposed from 2015-2016 by SPPU, Pune.
- Annual based results are declared although Semester based Examination system is in place as prescribed by SPPU, Pune.

6. **Participation of the department in the courses offered by other departments:**

Department is imparting for interdepartmental courses

Sr. No.	Class	Courses	Departments
1	FE	Basic Electronics Engg	Engineering Sciences
2	FE	Basic Electrical Engg	Engineering Sciences
3	SE	Electronics & Electrical Engg	Mechanical Engineering
4	TE	Mechatronics	Mechanical Engineering
5	TE	Digital Signal Processing	Computer Engineering

7. **Courses in collaboration with other universities, industries, foreign institutions.**

No. of courses in collaboration with other organizations are: 10

Sr. No.	Particular	Universities/industries/ foreign institutions	Duration
1	Personality Development & Aptitude Training	Parineeti Foundations	2016 - 17
2	Personality development training	Ungap Academy	2016 - 17
3	Automation Course	MAGNETIC Home Auto.Pvt.Ltd.	2016 - 17
4	Masters in Abroad Universities	SIEC Education Pvt.LTD	2016 - 17
5	Masters in Abroad Universities	Monmouth University	2016 - 17
6	Guidance for GATE & Competitive exam.	Vani Institute	2016 - 17
7	CCNA course	Ghatge Academy of Science	2015 - 16
8	Automation Course	Ampro automation	2015 - 16
9	Personality Development & Aptitude Training	SCOUT Academy	2015 - 16
10	Guidance for GATE & Competitive exam.	Vani Institute	2015 - 16
11	Guidance for GATE & Competitive exam.	GATE Forum	2014 - 15
12	Personality Development & Aptitude Training	SCOUT Academy	2014 - 15
13	Industrial Training	BSNL,Kolhapur	2015 - 16
14	CCNA course	Aptech Computer Eucation	2014 - 15
15	FDP of soft skills, revised syllabus	SPP University, Pune	2014 - 15
16	Guidance for GATE & Competitive exam.	GATE Forum	2014 - 15
17	CCNA course	Aptech Computer Eucation	2013 - 14
18	Guidance for GATE & Competitive exam.	GATE Forum	2013 - 14
19	Personality Development & Aptitude Training	SCOUT Academy	2013 - 14

8. Details of courses / program discontinued (if any) with reasons: Nil

9. Number of teaching posts:

Title	Sanctioned	Filled
Professors	03	01
Associate Professors	06	00
Asst. Professors	23	10

**10. Faculty Profile with name, qualification, designation, specialization,
Q: Qualification, D: Designation, S: Specialization, Exp.: Experience**

Sr. No.	Name	Q	D	S	Exp.
1	Prof. Wadhai V. M.	PhD	Professor	Embedded & VLSI	29
2	Prof. Kulkarni D. D.	ME	Asst. Prof.	Embedded & VLSI	9
3	Prof. Patil K. D.	ME	Asst. Prof.	Microwave	5
4	Prof. Parode S. V.	ME	Asst. Prof.	Embedded & VLSI	6
5	Prof. Gulame M. B.	ME	Asst. Prof.	Signal Processing	5
6	Prof. Thite T. G.	ME	Asst. Prof.	Digital System	3
7	Prof. Jakkan D. A.	ME	Asst. Prof.	Embedded Systems	9
8	Prof. Ansari R. S.	ME	Asst. Prof.	Control System	29
9	Prof. Kiran Davakhar	ME	Asst. Prof.	Signal Processing	6
10	Prof. Salave V. B.	ME	Asst. Prof.	Electronics	1
11	Prof. Shahare P. D.	ME	Asst. Prof.	Electronics	1

11. List of senior visiting faculty:

Total no. of visiting faculty = 04

Sr. No.	Eminent Academician and Industry persons	Designation	Institute / Industry
1	Yogesh Satpute	Adjunct Prof.	Wolters Kluwer
2	Dhananjay Wayakar	Adjunct Prof.	HCL Technology Ltd.
3	Amol Shinde	Adjunct Prof.	Cisco Systems
4	Dr. Mishra Vivekanand	Adjunct Prof.	-
5	Hirshikesh Kanjalkar	Adjunct Prof.	Kirloskar Chillers Pvt. Ltd., Indian Chiller Manufacturer.

12. Percentage of lectures delivered and practical classes handled (program wise) by temporary faculty: NIL

13. Student –Teacher Ratio: 8.09:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Title	Sanctioned	Filled
Laboratory Assistant	03	01
Technical Assistant	03	01
Peon	04	02

15. Qualifications of teaching faculty with DSc / D.Litt / PhD. / MPhil /PG:

SR	Name	Q	D	S	Exp
1	Prof. Wadhai V. M.	PhD	Professor	Embedded & VLSI	29

16. Number of faculty with ongoing projects from

a) National b) International funding agencies and grants received:

a)	National	:	Nil
b)	International	:	Nil

17. Departmental projects funded by DST – FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre / facility recognized by the University: Nil

19. Publications:

Our faculty has published research papers in reputed National and International journals.

a) Publication Total:

a) National: 52

b) International: 185

Sr. No.	Name of Faculty	Publications
1	Prof. Wadhai V. M.	190
2	Prof. Kulkarni D. D.	5
3	Prof. Patil K. D.	2
4	Prof. Parode S. V.	5

Sr. No.	Name of Faculty	Publications
5	Prof. Gulame M. B.	2
6	Prof. Thite T. G.	1
7	Prof. Jakkan D. A.	14
8	Prof. Ansari R. S.	15
9	Prof. Kiran Davakhar	01
10	Prof. Salave V. B.	0
11	Prof. Shahare P. D.	0
Total Number of Publications		237

b) Number of papers published in peer reviewed journals (National /International) by faculty and students:

Number of papers published in peer reviewed journals National: 01

Number of papers published in peer reviewed journals International: 90

Sr. No.	Name of Faculty	Total number of publications	
		National	International
1	Prof. Wadhai V. M.	01	90

c) Number of publications listed in International Database (For e.g.: Web of Science, Scopus, And Humanities International Complete, Dare Database – International Social Sciences Directory, EBSCO host, etc.):

IEEE	Springer	ACM	Harvard University	Elsevier	Others
13	9	1	1	5	157

d) Monographs, Chapters in book authored, Books edited, Books published:
04

20. Areas of consultancy and income generated:

No. of area of consultancy:04

Sr. No.	Name of faculty	Consultancy	Work Duration	Income (Rs)
1	Prof. Wadhai V. M.	Parellelminds ,Pune	Since 4 years	50000/-
		Opulunt Technology ,Pune	Since 2 years	30000/-
		TalentMAT , Pune	Since 1 years	In process
		E&G Education , Nashik	Since 2 years	In process
2	Prof. Jakkan D. A.	Brainaic ip solutions	Since 3 years	15000/-

21. Faculty as members in

a) National Committees b) International Committees c) Editorial Boards

Membership of academic/ administrative bodies/ Committees:

a) National Committees

Sr. No.	Name of faculty	National Committee	Designation
1	Prof. Wadhai V. M.	IJERIA	Member of Advisory body
		IJMRAE	Member of Advisory body
		Aakar Foundation, Nagpur	Advisor
		Deesha Education Foundations	Advisor
		Deepstambha Foundation	Advisor
		Abhalmaya Oldage Home	Advisor
		Prayas-sevankur	Advisor
		Rotary Club of Pune Sinhgad road	Member
		Cellular Minds, Pune	CEO
C-DAC	Director		

b) International Committee:

Sr. No.	Name of faculty	National Committee	Designation
1	Prof. Wadhai V. M.	MIEEE	Member
		MIETE	Member
		LMISTE	Life Member
		Member Convergence group, GISFI India	Member
		Institute of Engineers	Member

c) Editorial Boards:

Total number of faculty as members in editorial board: 01

Sr. No.	Name of faculty	Editorial board
1	Prof. Wadhai V. M.	AICTE
		DTE
		UGC
		LIC
		Assessment, Audit & Review of NBA and NAAC Processes

22. Student Projects:**a) Percentage of students who have done in-house projects including their departmental Programme: 20 %**

Sr. No.	Year	No of in-house projects	%
1	2016-17	12	80
2	2015-16	07	37
3	2014-2015	10	77
4	2013-2014	04	100

- b) Percentage of students who have placed for projects in organizations outside the institution i.e. in Research laboratories / Industry / other agencies: 10%

Sr. No.	Year	No of projects in collaboration	(%)
1	2016-2017	03	20
2	2015-2016	12	63
3	2014-2015	03	23
4	2013-2014	-	00

23. Awards / Recognitions received by faculty and students:

a) Awards / Recognitions received by faculty of the department:

Total number of Awards / Recognitions received by faculty of the department: 16

b) Awards / Recognitions received by students of the department:

Total number of Awards / Recognitions received by students of the department: 17

24. List of eminent academicians and scientists / visitors to the department:

Total number of eminent academician and scientists/visitor to department: 07

Sr.No.	Name of the visitor	Designation & Organization	Purpose of visit
1	Prof. Ramjee Prasad	Director , CTIF, HQ, Alborg University , Denmark	Educate on 5G communication
2	Mr. Tomio Isogai	Director, COO of Indian Region , Sharp India Ltd. Managing	Higher education in Japan
3	Dr. Abhay Jere	Chief Scientist, R&D Persistent, Associate Vice President Persistent	Hackathon Event for smart India
4	Dr. Aditya S Abhayankar	Professor & Dean, Department of Technology , SPPU, Pune - 411007	Guest lecture
5	Dr. M.B. Kokare	Associate Professor & Coordinator, Centre of Excellence in Signal And Image Processing , SGGS , Nanded	Educate on signal & image processing
6	Dr. Munir Sayyad	GM, Reliance Gio Communication Ltd , Mumbai	Guest Lecture on wireless technology
7	Dr. Sanjay Moghe	CEO , RFIC SolutionsINC SM Wireless SolutionsPvt. Ltd ,Nagpur	Educate on Wireless network and VLSI

**25. Seminars / Conferences / Workshops organized and the source of funding
National and International:**

Year	National	International Conference
2013-14	1) National Conference of Advanced Technologies in Engineering 23rd- 24th February 2014	-
2014-15	1) 2nd National Conference of Advanced Technologies in Engineering 20th- 21th February 2015 2) Recent Advancements in Engineering & Applications 13th – 14th March 2015	-
2015-2016	1) National conference on Signal Processing, computer modeling, structural and Mechatronics 11th to 12th March 2016 2) National Conference on Renewable Energy and Sustainable Development 11th – 12th January 2016	International Conference on Design, Manufacturing and Mechatronics (ICDMM 2015) 10th -11th February 2016
2016-2017	1) 2nd National conference on Signal Processing, computer modeling, structural and Mechatronics 15th to 16th March 2017 2) National conference on Electronics Communication and Computing 2017 24th to 25th February 2017	Fourth International Conference on Energy Systems and Developments 2017 Feb 20th to 24th February 2017

Sr. No.	Seminar/ conference/ workshop	Funding agency	Year
1	MATLAB & Lab VIEW	TAE	2013 – 14
2	Antenna Design and Signal Processing Techniques	TAE	2013 - 14
3	EDA Tools – PROTEUS Software	TAE	2014 - 15
4	Embedded Linux, Development Tools	TAE	2014 - 15

Sr. No.	Seminar/ conference/ workshop	Funding agency	Year
5	Currents trends and future in Renewable Energy	TAE	2015 - 16
6	Hands on training was conducted on Embedded Processors	TAE	2015 - 16
7	PLC & SCADA	TAE	2015 - 16
8	Embedded Linux	TAE	2016 – 17
9	Arm cortex	TAE	2016 - 17
10	RF Antenna Design	TAE	2016 - 17

**26. Student Profile course wise:
Bachelor of E&TC Engineering**

Year	Applications received	Enrolled		Gross total	BE Pass Percentage
		Male	Female		
2016-2017	As the admission process is governed by DTE	03	07	10	-
2015-2016		20	10	30	95.16%
2014-2015		48	26	74	100%
2013-2014		26	20	46	100%

27. Diversity of Students

UG:

Year	% of students from the samestate	% of students from other states	% of students from abroad
2016-2017	97%	3%	-
2015-2016	100%	-	-
2014-2015	100%	-	-
2013-2014	100%	-	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil Services, Defense services, etc.?

Sr. No.	Competitive	No of students passed			
		2016-2017	2015-2016	2014-2015	2013-2014
1	NET, SET	-	-	-	-
2	GATE	-	-	-	-
3	Defense services	-	-	-	-
4	Civil Services	-	02	01	-
5	CAT	-	01	-	-

29. Students Progression:

Student progression	Against % admitted			
	2016-2017	2015-2016	2014-2015	2013-2014
UG to PG	NIL	05	04	03
Employed in Campus selection	03	01	09	01
Employed Other than campus recruitment	Nil	02	06	09
Entrepreneurship / Self – employment	Nil	12	04	02

30. Details of Infrastructural facilities:

Sr. No.	Infrastructural facility	Details of Item	Number
1	Central Library	Books	581
		Volumes	2229
		Journals	12
		Journal In softcopy	11
		CDs	200

Sr. No.	Infrastructural facility	Details of Item	Number
2	Internet facility for staff and students	Computers	70
		Internet facility and Bandwidth	32Mbps
3	Classrooms	Classrooms	03
4	Seminar Hall	Seminar Hall	01
5	Laboratories	UG	11
6	Tutorial Room	UG	01

Sr. No.	Name of the Lab
1	Communication Laboratory
2	Advanced Communication Laboratory
3	Digital Laboratory
4	Project Laboratory
5	EDC Laboratory
6	Microcontroller Laboratory
7	NPL Laboratory
8	Software Laboratory
9	VLSI Laboratory
10	Basic Electronics Laboratory
11	Basic Electrical Laboratory

31. Number of students receiving financial assistance from college, university, government or other agencies:

Sr. No.	Details of financial assistance	Academic year/ No of students			
		2016-2017	2015-2016	2014-2015	2013-2014
1	Scholarship & Free ship	08	42	44	37
2	EBC	26	34	45	29

Sr. No.	Details of financial assistance	Academic year/ No of students			
		2016-2017	2015-2016	2014-2015	2013-2014
3	STC	-	-	-	-
4	PTC	-	-	-	-
5	Minority (MCM)	-	01	01	-
6	Minority (SGS)	-	02	02	02

32. Details on student's enrichment programs (special lectures / workshops / seminars) with external experts:

Total no. of Guest lecture conducted in the Department: 46

Total no. of Training program conducted in the Department: 10

Total no. of workshop conducted in the Department: 06

Total no. of competitions conducted in the Department: 08

Sr. No	Academic Year	Competitions	Special Lecture	Workshops	Seminars
1	2016-2017	02	15	03	5
2	2015-2016	01	8	03	2
3	2014-2015	03	9	02	1
4	2013-2014	02	14	02	1

33. Teaching methods adopted to improve students' learning:

Along with traditional teaching number of innovative and interactive methods is adopted by the faculty to improve students' learning. To name a few-

- Traditional method (Chalk and talk)
- Expert lectures for enriching the latest updates regarding subjects
- Seminars by students
- Models, Prototypes
- Presentations using LCD projector
- Animations to visualize process
- Industrial visits arranged for students
- Exhibition visits
- NPTEL video lectures for Students
- Theory Assignments- unit based
- Power point presentation
- Guest lecture
- Use of internet applications
- Group discussions
- Internal exams
- Mock practical/oral exam

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Sr. No	Activity	Details of seminars, guest lectures, workshops under Institutional Social Responsibility
1	Health Club (Yoga)	Yoga Session
2	Student Association(ENCORE)	Enhancing Technical Skill
		Blood Donation Camp
		Youth day
		Stress management
		Farewell for B.E. Students
3	Entrepreneurship Development Cell (EDC)	Scope of Entrepreneurship in Media
4	Sports Club	Inter departmental Sports under KJ YOUTH FEST
5	Cultural Club	MALHAR
6	Rotract / Social Club	Inauguration ceremony of Value Education club, Power of Habit
7	Corporate Social Responsibility Cell	Traffic Awareness and Road Safety on Road
8	Student Welfare	PARINEETI Training Centre for underprivileged students
9	Anti-Ragging Committee, Women anti sexual harassment Committee,	Awareness of Anti-Ragging Act, Women Empowerment and Gender Equality
10	Environmental Club	Inauguration of Environment club

35. SWOC analysis of the department and Future plans

❖ Strength

- Well qualified, dedicated and dynamic faculty
- Dedicated and supporting non-teaching staff
- Well-equipped laboratory, departmental library and ICT facility
- Very good involvement of faculty and students in extracurricular activity
- Post graduate program
- Professional development and communication improvement programs for student

- Good industrial relationship
- Academic Results

❖ Weakness

- Constancy work
- Deficiency in certain outcomes like communication skills from students

❖ Opportunities

- Alumina interaction for student development
- Industry oriented training
- Soft skill training for students

❖ Challenges

- 100% placement
- Up gradation of students as per industrial requirements
- Project development for social cause
- External funding for research

❖ Future Plans

- To increase consultancy work.
- To have 30% doctorate faculty.
- Centre of excellence.

DEPARTMENT OF MECHANICAL ENGINEERING

1. **Name of the Department:** Mechanical Engineering
2. **Year of Establishment:** 2010
3. **Names of programmes/course offered:**
Bachelor of Engineering
Master of Engineering (Design Engineering)
4. **Names of interdisciplinary courses and the departments / units involved:**
Department is taking support for following subjects from other department: 13

Sr. No.	Class	Interdisciplinary Courses	Departments Involved
1.	FE	Engineering Mathematics I	Department of Engineering Science
2.	FE	Engineering Mathematics II	Department of Engineering Science
3.	FE	Engineering Physics	Department of Engineering Science
4.	FE	Engineering Chemistry	Department of Engineering Science
5.	FE	Basic Electrical Engineering	Department of Engineering Science
6.	FE	Basic Electronics Engineering	Electronics and Telecommunications
7.	FE	Fundamental Programming Languages I	Computer Engineering
8.	FE	Fundamental Programming Languages II	Computer Engineering
9.	FE	Basic Civil & Environment Engineering	Civil Engineering
10.	FE	Engineering Mechanics	Civil Engineering
11.	SE	Engineering Mathematics III	Department of Engineering Science
12.	SE	Electrical & Electronics Engineering	Electronics and Telecommunications
13.	ME	Advanced Mathematics	Applied Science

5. Annual / Semester choice based credit system (Programme wise):**Under Graduate Programme:**

- Credit system is being proposed from 2015-2016 by SPPU, Pune.
- Annual based results are declared although Semester based Examination system is in place as prescribed by SPPU, Pune.

Post Graduate Programme: Choice Based Credit system Course 2013

6. Participation of the department in the courses offered by other departments:

Department is imparting for interdepartmental courses:

Sr. No.	Class	Courses	Departments
1.	FE (II semester)	Basic Mechanical Engineering	Computer Engineering, Electronics & Telecommunication, Civil Engineering
2.	FE (I semester)	Engineering Graphics I	Computer Engineering, Electronics & Telecommunication, Civil Engineering
3.	FE (II semester)	Engineering Graphics II	Computer Engineering, Electronics & Telecommunication, Civil Engineering

7. Courses in collaboration with other universities, industries, foreign institutions.

No. of courses in collaboration with other organizations are: 16

Sr. No.	Particular	Industries/Institutions Name of Guest
1	MATLAB and ANSYS workshop	College of Engineering Pune
		Dr. D N Malkhede,
2	MATLAB workshop	Sinhgad Academy of Engineering, Kondhwa.
		Dr. S. P. Deshmukh
3	MASTERCAM workshop	Onwards Technologies
		Mr. SumedhRamteke
4	ANSYS workshop	ANSYS, Inc. Pune
		Mr. Kavidas Mate, Mr. Kailas

Sr. No.	Particular	Industries/Institutions Name of Guest
5	Course on FFT analyzers	Lead Acoustic Engineer at Henkel Adhesives Technologies India Pvt. Ltd, Prof. Aniket S Koli
6	Course on fundamentals of Engineering Graphics	SKN College of Engineering, Pune
		Prof. Milind Mali
7	Course on Material Science and Mechanical Behavior of Materials	Sinhgad Academy of Engineering, Kondhwa.
		Prof. A. V. Bhosale,
8	Course on Energy Audit	Sinhgad Academy of Engineering, Kondhwa.
		Prof. S. P. Deshmukh
9	Course on Advanced stress analysis	Vishwakarma Institute of Information Technology, Pune
		Prof. A. R. Deshpande,
10	Course on Computational Fluid Dynamics	Irrigation Dept, Govt. of Maharashtra
		Mr. J V Khade
11	Course on Programs with Aurdino boards	Sinhgad Academy of Engineering, Kondhwa.
		Dr. S. P. Deshmukh
12	Workshop on Automation and IOT technologies	Sphier Unified Solutions Private Limited
		Mr. ShivamKhole
13	Workshop on Automation studio	Famic Technologies, Pune Miss. JayashreeHarak
14	Workshop on designing Refrigeration and Air Conditioning systems at Dar-Al-Handsaw	Dar-Al-Handsaw Ishwari P Chandekar
15	Course on Product Design and Development	Mr. R B Shinde, Mahindra Truck & Bus Division.
16	Course on Unconventional Machining Processes at Micro-system engineering lab	College of Engineering Pune Dr. S. S. Bhavikatti

8. Details of courses / programmes discontinued (if any) with reasons:

Nil

9. Number of teaching posts:

Title	Sanctioned	Filled
Professors	06	00
Associate Professors	12	01
Asst. Professors	42	37

10. Faculty Profile with name, qualification, designation, specialization:**Q: Qualification, D: Designation, Exp.: Experience**

Sr. No.	Name	Designation	Qualification	Exp.
1	Mr. S. S. Mulik	HOD Asso. Prof.	Ph. D.(Pursuing)	23
2	Mr. N.P. Chandran	P.G. Coordinator/ Asst. Prof.	M.E.(Manufacturing)	42
3	Mr. V.D. Kolate	U.G.Coordinator/ Asst. Prof.	M.E. (Design Engg.)	5
4	Mr. S. C. Kulkarni	Asst. Prof.	M.Tech (Production)	13
5	Mr. A. B. Mali	F.E. Coordinator/ Asst. Prof.	M.E. (Design Engg.)	6
6	Mr. S. P. Nalavade	Asst. Prof.	Ph. D.(Pursuing)	15
7	Mr. Shambhu Kumar	Asst. Prof.	M.E. (Heat Power)	7
8	Mr. M. K. Choudhari	Asst. Prof.	Ph. D.(Pursuing)	5
9	Mr. K.M. Kulkarni	Asst. Prof.	M.E. (Design Engg.)	4
10	Miss. S. S. Aphale	Asst. Prof.	M.E. (Heat Power)	3
11	Mr. S. L. Konde	Asst. Prof.	M.Tech (Thermal)	4
12	Mr. D. G. Chavan	Asst. Prof.	M.Tech (Thermal)	4
13	Mr. M. M. Moog	Asst. Prof.	Ph. D.(Pursuing)	17
14	Mr. P. H. Jadhav	Asst. Prof.	Ph. D.(Pursuing)	6
15	Mr. A.S. Shahapurkar	Asst. Prof.	M.E. (Design Engg.)	3

Sr. No.	Name	Designation	Qualification	Exp.
16	Mrs. J. K. Tambe	Asst. Prof.	M.E. (Design Engg.)	7
17	Miss. K.A. Katake	Asst. Prof.	M.E. (Design Engg.)	3
18	Mr. M.A. Bhandare	Asst. Prof.	M.Tech (CAD/CAM Auto)	2
19	Mr. M. N. Chandan	Asst. Prof.	M.Tech (Ind.Auto&Robo)	4
20	Mr. D. A. Baitule	Asst. Prof.	M.E. (Heat Power)	2
21	Mr. M.S. Shewale	Asst. Prof.	M.E. (Design Engg.)	3
22	Mr. D.B.Dukale	Asst. Prof.	M.Tech. (Machine Design)	2
23	Mrs.S.R. Burgul	Asst. Prof.	M.E. (Design Engg.)	8
24	Mr. V.D.Sapkale	Asst. Prof.	M.Tech. (Thermal)	1
25	Mr. SumitBhanariya	Asst. Prof.	M.Tech. (Thermal)	1
26	Mr. G. E.Patil	Asst. Prof.	M.Tech(CAD/CAM)	2
27	Mr. D. D. Kumbhakarna	Asst. Prof.	M.E. (Design Engg.)	4
28	Mrs. P.V. Desai	Asst. Prof.	M.Tech. (Energy Tech)	5
29	Mr. U. S. Kaur	Asst. Prof.	M.E. (Design Engg.)	2
30	Mr. A.D. Patange	Asst. Prof.	M.E. Pursuing (Design Engg.)	1
31	Mrs. S.G. Kale	Asst. Prof.	M.E. Pursuing (Design Engg.)	1
32	Miss. A.Y. Patil	Asst. Prof.	M.Tech. (Heat Power)	1
33	Mr. N.R. Patil	Asst. Prof.	M.Tech(CAD/CAM)	1
34	Mr. AkashShrivastava	Asst. Prof.	Ph. D.(Pursuing)	9
35	Mr. V.P. Talekar	Asst. Prof.	M.E. (Design)	1
36	Mr. Nayak P. A.	Asst. Prof.	M.Tech (Production)	1
37	Mr. N. H. Kulkarni	Asst. Prof.	M.E. (Thermal Engg)	1
38	Mr. Y. P. Fatangade	Asst. Prof.	M.Tech (Metallurgy)	2

11. List of senior visiting faculty:

Sr. No.	Eminent Academician and Industry persons	Designation	Institute / Industry
1	Prof. GawandeRatnakarRupesh	Adjunct Prof.	Associate Professor, BSCOE
2	KanchanArvind Kulkarni	Adjunct Prof.	Regional Head, ICICI Bank
3	Mr. Rajeev Baburao Shinde	Adjunct Prof.	Manager, Mahindra Truck & Bus Division
4	Mr. Prashant Vasant Shewale	Adjunct Prof.	Architect, Symantec Software India Pvt. Ltd
5	Mr. YashodhanVrdhman Patil	Adjunct Prof.	Owner, Koshal Engineering Works
6	Mr. Tushar A. Kulkarni	Adjunct Prof.	Director, Dezitech Engineering Pvt. Ltd
7	Mr. Jayant Vishnu Khade	Adjunct Prof.	Ex. Engineer, Irrigation Dept., Govt. of Maharashtra
8	Mr. PramodDurgule	Adjunct Prof.	Programme Manager, Tata Technologies
9	Mr. VinayBhimrao Kale	Adjunct Prof.	AGM-Supplier Quality, Borgward Automotive India Pvt.
10	Dr. A. P. Wadegaonkar	Adjunct Prof.	Senior General Manager, OASIS Business Development
11	Dr. ShrihariMandaogane	Adjunct Prof.	Head of Advance Manufacturing, TATA Motors

12. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty: No temporary faculty recruited in the department**13. Student –Teacher Ratio:** 15.23:1**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:**

Title	Sanctioned	Filled
Laboratory Assistant	06	01
Laboratory Attendant	06	04
Workshop Instructor	04	04
Peon	04	03

15. Qualification of teaching faculty with D.Sc., D.Litt., PhD, M.Phill, PG:

PhD (Pursuing): 6, PG: 32.

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

a)	National	:	02	1.38 lakhs
b)	International	:	Nil	Nil

Details of National Projects:**Project 1:**

Name of the Project: Modeling, System Identification & Experimental Investigation of Double Parallelogram Flexural Manipulator for High Speed and High Precision Scanning.

Year : 2016-18

Name of Faculty:

Principal Investigator: S. S. Mulik

Co-Principal Investigator: M. S. Shewale

Funding agency: BCUD SPPU, Pune.

Grants received: Rs.66,000/-

Project 2:

Name of the Project: Experimental investigation of flow divider type inserts on heat transfer and fluid flow in forced convection

Year : 2016-18

Name of Faculty:

Principal Investigator: Mr. S. P. Nalawade

Funding agency: BCUD SPPU, Pune.

Grants received: Rs.72,000/-

17. Departmental projects funded by DST – FIST; UGC, DBT, ICSSR, etc. and total grants received:

Till date department has received total 02 number of Scheme and total grants: Rs.1.38 Lac

Project 1:

Name of the Project: Modeling, System Identification & Experimental Investigation of Double Parallelogram Flexural Manipulator for High Speed and High Precision Scanning

Year : 2016-18

Name of Faculty:

Principal Investigator: S. S. Mulik

Co-Principal Investigator: M. S. Shewale

Funding agency: BCUD SPPU, Pune

Grants received: Rs.66,000/-

Project 2:

Name of the Project: Experimental investigation of flow divider type inserts on heat transfer and fluid flow in forced convection

Year : 2016-18

Name of Faculty:

Principal Investigator: Mr. S. P. Nalawade

Funding agency: BCUD SPPU, Pune

Grants received: Rs.72,000/-

18. Research Centre / facility recognized by the University:

Department is recognized as a research Centre by the SPPU: Nil

19. Publications:

Our faculty has published research papers in reputed National and International journals.

Publication Total:

a) National: **44**

b) International: **50**

c) Patents: **3**

Name of the faculty	National	International	Total
Prof. S. S. Mulik	6	9	15
Prof. N. P. Chandran	1	2	3
Prof. V.D. Kolate	0	3	3
Prof. A. B. Mali	2	0	2
Prof. S. P. Nalavade	0	0	0
Prof. Shambhu Kumar	8	2	10
Prof. M. K. Choudhari	2	5	7
Prof. K.M. Kulkarni	1	0	1
Prof. S. S. Aphale	1	0	1
Prof. S. L. Konde	2	0	2
Prof. D. G. Chavan	1	0	1
Prof. M. M. Moog	2	0	2
Prof. P. H. Jadhav	3	1	4
Prof. A.S. Shahapurkar	1	0	1
Prof. Miss. K.A. Katake	0	2	2

Name of the faculty	National	International	Total
Prof. M.A. Bhandare	1	2	3
Prof. M. N. Chandan	0	0	0
Prof. D. A. Baitule	0	2	2
Prof. M. S. Shewale	4	9	13
Prof D. B. Dukale	1	1	2
Prof. Mrs. S. R. Burgul	0	1	1
Prof. V. D. Sapkale	1	1	2
Prof. Sumit Bhanariya	0	0	0
Prof. G. E. Patil	1	1	2
Prof. D. D. Kumbhakarna	2	3	5
Prof. P. V. Desai	0	2	2
Prof. A. D. Patange	1	1	2
Prof. S.G. Kale	1	0	1
Prof. A. Y. Patil	1	0	1
Prof. N. R. Patil	1	0	1
Prof. Akash Shrivastava	0	2	2
Prof. V.P. Talekar	0	1	1
	44	50	94

b) Number of papers published in peer reviewed journals (National /International) by faculty and students:

Number of papers published in peer reviewed journals National: 04

Number of papers published in peer reviewed journals International: 05

Sr. No.	Name of Faculty	Total number of publications	
		National	International
1	Mahesh Shewale	2	3
2	Sharad Mulik	2	2

c) Number of publications listed in International Database (For e.g.: Web of Science, Scopus, And Humanities International Complete, Dare Database – International Social Sciences Directory, EBSCO host, etc.):

Web of Science: 2

Scopus: 5

d) Monographs, Chapters in book authored, Books edited, Books published:
Nil

20. Areas of consultancy and income generated:

Sr. No.	Name of faculty	Consultancy	Details
1	Mr. Mahesh S. Shewale	IoT Mechatronics Technologies Pvt. Ltd.	Technological support regarding sensors, actuators, operations using IoT.

21. Faculty as members in

a) National Committees b) International Committees c) Editorial Boards

Membership of academic/ administrative bodies/ Committees:

Sr. No.	Name of faculty	National Committee	Designation
1	Mulik S S	Member of LIC SPPU Pune, Syllabus finalization committee member, SPPU Pune, (Subjects: Computer Oriented Numerical Methods, Mechatronics, Theory of Machines, Dynamics of Machineries), Reviewer Springer International Journal, Chairman of subject Mechatronics in SPPU Pune, PG teacher approved at SPPU Pune	Member
2	Nalavade S P	Member of LIC SPPU Pune, Syllabus finalization committee member, SPPU Pune, (Subjects: Thermodynamics, Power Plant Engineering, Refrigeration and Air Condition), PG (Heat Power Engineering) teacher approved at SPPU Pune	Member
3	Shrivastav Akash	Member of International Association of Engineers	Member
4	Moog M M	Syllabus finalization committee member, SPPU Pune, Paper setter for subject Operations Research	Member

c) Editorial Boards:

Total number of faculty as members in editorial board: 02

Sr. No.	Name of faculty	Editorial board	Duration
1	Sharad Mulik	Working as Reviewer for Springer International Journal	2016 (till date)
2	Sharad Mulik	Working as Reviewer for STM Publication	2016 (till date)
3	Mahesh Shewale	Working as Reviewer for Journal of experimental & applied mechanics, STM publications	2016 (till date)

22. Student Projects:**a) Percentage of students who have done in-house projects including interdepartmental / Programme:**

Sr. No.	Year	No of in-house projects	%
1	2016-17	45	92
2	2015-16	43	90
3	2014-2015	22	96
4	2013-2014	17	94

b) Percentage of students who have placed for projects in organizations outside the institution i.e. in Research laboratories / Industry / other agencies:

Sr. No.	Year	No of projects in collaboration	(%)
1	2016-2017	03	8
2	2015-2016	06	10
3	2014-2015	01	4
4	2013-2014	01	6

23. Awards / Recognitions received by faculty and students:**a) Awards / Recognitions received by faculty of the department:**

Total number of Awards / Recognitions received by faculty of the department: 12

b) Awards / Recognitions received by students of the department:

Total number of Awards / Recognitions received by students of the department: 82

24. List of eminent academicians and scientists / visitors to the department:

Total number of eminent academician and scientists/visitor to department: 14

Sr. No.	Eminent Academician and Industry persons	Designation	Institute / Industry
1	Dr. S. P. Deshmukh	Professor	Sinhgad Academy of Engineering Kondhwa
2	Prof. A. V. Bhosale	Assistant Professor	Sinhgad Academy of Engineering Kondhwa
3	Prof. A. R. Deshpande	Assistant Professor	Vishwakarma Institute of Information Technology, Pune
4	Prof. Gawande R. R.	Adjunct Prof.	Associate Professor, BSCOE
5	Kulkarni K. A.	Adjunct Prof.	Regional Head, ICICI Bank
6	Mr. R. B. Shinde	Adjunct Prof.	Manager, Mahindra Trucks
7	Mr. P.V. Shewale	Adjunct Prof.	Automation Architect, Symantec Software India Pvt. Ltd
8	Mr. Y. V. Patil	Adjunct Prof.	Owner, Koshal Engineering Works
9	Mr. Tushar A. Kulkarni	Adjunct Prof.	Director, Dezitech Engineering Pvt. Ltd
10	Mr. J. V. Khade	Adjunct Prof.	Ex. Engineer, Irrigation Dept., Govt. of Maharashtra
11	Mr. PramodDurgule	Adjunct Prof.	Programme Manager, Tata Technologies
12	Mr. V. B. Kale	Adjunct Prof.	AGM-Supplier Quality, Borgward Automotive India Pvt. Ltd
13	Dr. A. P. Wadegaonkar	Adjunct Prof.	Senior General Manager, OASIS Business Development
14	Dr. ShrihariMandaogane	Adjunct Prof.	Head of Advance Manufacturing, TATA Motors

25. Seminars / Conferences / Workshops organized and the source of funding

National & International:

Year	National	International Conference
2013-14	1) National Conference of Advanced Technologies in Engineering 23rd- 24th February 2014	-
2014-15	1) 2nd National Conference of Advanced Technologies in Engineering 20th- 21th February 2015 2) Recent Advancements in Engineering & Applications 13th – 14th March 2015	-
2015-16	1) National conference on Signal Processing, computer modeling, structural and Mechatronics 11th to 12th March 2016 2) National Conference on Renewable Energy and Sustainable Development 11th – 12th January 2016	International Conference on Design, Manufacturing and Mechatronics (ICDMM 2015) 10th -11th February 2016
2016-2017	1) 2nd National conference on Signal Processing, computer modeling, structural and Mechatronics 15th to 16th March 2017 2) National conference on Electronics Communication and Computing 2017 24th to 25th February 2017	Fourth International Conference on Energy Systems and Developments 2017 Feb 20th to 24th feb 2017

26. Student Profile programmes/ course wise:**a) Bachelor of Mechanical Engineering**

Admission Year	Details	Enrolled For FE		Enrolled For DSE		Pass Percentage
		Male	Female	Male	Female	BE
2016-17	As per DTE	22	1	230	5	Pursuing
2015-16		52	1	207	1	63.32
2014-15		73	4	190	1	95.65
2013-14		104	0	80	0	97.18

b) Master of Mechanical Engineering

Admission Year	Details	Enrolled		Pass Percentage
		Male	Female	
2016-17	As per DTE	3	1	Pursuing
2015-16		15	2	31.57
2014-15		23	1	NA
2013-14		NA	NA	NA

27. Diversity of Students:

Name of the Course	Number of students from the same state		Number of students from other States	
	UG			
	FE	DSE	FE	DSE
2016-2017	21	235	02	NIL
2015-2016	48	208	05	NIL
2014-2015	69	191	08	NIL
2013-2014	99	80	05	NIL
	PG			
2016-2017	4		NIL	
2015-2016	17		NIL	
2014-2015	24		NIL	
2013-2014	NIL		NIL	

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil Services, Defense services, etc.?

Sr. No.	Examinations	No of students passed
1	GATE	11
2	CAT	02
3	GRE	02

29. Students Progression:

Student progression	No of student			
	2016-17	2015-16	2014-15	2013-14
UG to PG	NIL	04	07	11
Employed in Campus selection	05	01	01	01
Employed other than campus recruitment	NIL	54	42	28
Entrepreneurship / Self – employment	NIL	18	6	8

30. Details of Infrastructural facilities:

Sr. No.	Infrastructural facility	Details of Item	Number
1	Library	Titles	657
		Volumes	3112
		Journals	24
2	Internet facility for staff and students	Computers	132
		Internet facility and Bandwidth	32Mbps
3	Classrooms	Classrooms	14
		Drawing hall	02
4	Seminar Hall	Seminar Hall	01
5	Laboratories	Under Graduate	17
		Post Graduate	02
		Research	01
6	Tutorial Room	UG/PG	02

Sr. No.	Name of Laboratory
1	Basic Mechanical Engineering
2	CAD/CAM I
3	CAD/CAM II
4	CAD/ CAM III (PG)

Sr. No.	Name of Laboratory
5	Language Lab
6	Drawing Hall
7	Dynamics of Machinery Lab
8	Heat & Mass Transfer
9	Hydraulics & Pneumatics
10	Internal Combustion Engine
11	Mechatronics
12	Metallurgy / Material Science
13	Metrology & Quality Control
14	Project / P. G. Research Lab
15	Refrigeration & Air Conditioning
16	Theory of Machines I & II
17	Thermodynamics
18	Turbo-machinery
19	Workshop/Machine Shop

31. Number of students receiving financial assistance from college, university, government or other agencies:

Scholarship	Agency	No. of students those have received Financial Assistance			
		2013-14	2014-15	2015-16	2016-17
Scholarship	State Govt.	80	122	178	79
Free ship	State Govt.	51	59	75	40
STC	State Govt.	3	2	-	2
PTC	State Govt.	1	-	-	1
Minority (MCM)	Central Govt.	07	06	01	1
Minority (SGS)	State Govt.	03	09	10	23

32. Details on student's enrichment programmes (special lectures / workshops / seminars) with external experts:

Total no. of special lectures conducted in the Department: **60**

Total no. of Training program conducted in the Department: **12**

Total no. of seminars conducted in the Department: **15**

Sr. No.	Academic Year	Special Lecture	Training program	Seminar
1	2016-2017	22	03	04
2	2015-2016	21	04	05
3	2014-2015	11	03	04
4	2013-2014	06	02	02

33. Teaching methods adopted to improve students' learning:

Along with traditional teaching number of innovative and interactive methods is adopted by the faculty to improve students' learning. To name a few-

- Traditional method (Chalk and talk)
- Expert lectures for enriching the latest updates regarding subjects
- Seminars by students
- Models, Prototypes
- Presentations using LCD projector
- Animations to visualize process
- Industrial visits arranged for students
- Exhibition visits
- NPTEL video lectures for Students
- Theory Assignments- unit based
- Power point presentation
- Guest lecture
- Use of internet applications
- Group discussions
- Internal exams
- Mock practical/oral exam

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Various activities arranged by different clubs are listed herewith.

Health Club, Student Association (MESA), Entrepreneurship Development Cell (EDC), Sports Club, Corporate Social Responsibility Cell, Student Welfare, Anti-Ragging Committee, Women anti sexual harassment Committee, Environmental Club are some of them.

Sr. No	Activity	Details of seminars, guest lectures, workshops under Institutional Social Responsibility
1	Health Club (Yoga)	Yoga Session
2	Student Association (MESA)	Enhancing Technical Skill
		Blood Donation Camp
		Workshop on Skill Development
		Fire Fighter Demo
		Farewell for B.E. Students
3	Entrepreneurship Development Cell (EDC)	Scope of Entrepreneurship in Media
4	Sports Club	Inter departmental Sports under KJ YOUTH FEST
5	Cultural Club	MALHAR
7	Rotaract / Social Club	Inauguration ceremony of Value Education club, Power of Habit
8	Corporate Social Responsibility Cell	Traffic Awareness and Road Safety on Road
11	Student Welfare	PARINEETI Training Centre for underprivileged students
13	Anti-Ragging Committee, Women anti sexual harassment Committee,	Awareness of Anti-Ragging Act, Women Empowerment and Gender Equality
16	Environmental Club	Inauguration of Environment club

35. SWOC analysis:

❖ Strength

- Affiliation to Savitribai Phule Pune University.
- Establishment of Research lab and Centre of Excellence.
- Qualified and Experienced faculty.
- Course files of all Mechanical Engineering subjects.
- Handbooks containing information about department, curriculum, notes, question papers, timetables for SE, TE, BE.
- Teacher-Guardian activity for students
- Interactions with parents through messages, callings, meetings.
- Conduction of Guest lectures, seminars, competitions related to academics and non-academics for students.
- State -of-the-art Infrastructure and well equipped laboratories.

- Workshop with well-equipped facilities.
 - Enriched library with books, journals, e-sources.
 - Patents applied.
 - Effective teaching learning process.
 - Seminar hall, tutorial rooms, Common rooms for boys, girls.
 - Large playground.
 - Well-furnished classrooms.
 - Internet facilities for staff and students.
- ❖ **Weakness**
- Research and consultancy.
 - Improvement in communication skill among students from rural background.
 - Placement in Core Company.
 - Lack of international student interactions.
- ❖ **Opportunities**
- Organizing various entrepreneurship seminars.
 - Providing quality engineering education.
 - Opportunity of interactions with various eminent personalities.
 - Center of Excellence
- ❖ **Challenges**
- Collaborations with foreign universities, IITs and NITs.
 - Tough competition for employability.
 - Students with diverse background.
- ❖ **Future Plan**
- Industrial based research project for UG/PG/Ph.D.
 - Employment oriented certification courses; considering industrial requirement.
 - Enhancement in Training & Placement activities.
 - Industrial training to students and faculties.
 - Need based courses in association with industry and institutes.
 - Innovative Research, Publications and Patents
 - Upgrading laboratory facilities to promote research.

DEPARTMENT OF ENGINEERING SCIENCES

1. **Name of the Department:** Department of Engineering Science
2. **Year of Establishment:** 2010-2011
3. **Names of Programmes/Course offered:** Department of Engineering Science runs First Year (F.E.) of all four undergraduate programs
 Bachelor of Civil Engineering
 Bachelor of Computer Engineering
 Bachelor of Electronics & Telecommunication Engineering
 Bachelor of Mechanical Engineering

Name of Programme	Year of Establishment
UG Programme (240)	2010-2011
UG Programme (Additional 60) Total (300)	2011-2012
UG Programme (Additional 60) Total (360)	2013-2014

4. **Names of interdisciplinary courses and the Departments / units involved:**
 Department is taking support for following subjects from other department:

Sr. No.	Class	Interdisciplinary Courses	Departments Involved
1.	FE	Basic Electronics Engineering	Electronics & Telecommunication Engineering
2.	FE	Fundamental of Programming Languages I	Computer Engineering
3.	FE	Fundamental of Programming Languages II	
4.	FE	Basic Civil & Environmental Engineering	Civil Engineering
5.	FE	Engineering Mechanics	
6.	FE	Basic Mechanical Engineering	Mechanical Engineering
7.	FE	Engineering Graphics I	
8.	FE	Engineering Graphics II	
9.	FE	Workshop Practice	

5. Annual / Semester choice based credit system (Programme wise).**Under Graduate Programme:** Semester Pattern

- Credit system is Implemented for F. E. from 2015-2016 by SPPU, Pune.

6. Participation of the department in the courses offered by other departments:

Department is imparting for interdepartmental courses:

Sr. No.	Class	Courses	Departments
1.	SE (I semester)	Engineering Mathematics - III	Mechanical Engineering
			Civil Engineering
2.	SE (II semester)	Engineering Mathematics - III	Computer Engineering
			Electronics & Telecommunication Engineering
3.	SE (II semester)	Electrical and Electronics Engineering	Mechanical Engineering

7. Courses in collaboration with other universities, industries, foreign institutions, etc.: NA**8. Details of courses / programmes discontinued (if any) with reasons: Nil.****9. Number of teaching posts:**

Title	Posts
Professors	00
Associate Professors	00
Asst. Professors	09

10. Faculty Profile with name, qualification, designation, specialization:

(Considering teaching faculty of Engineering Mathematics, Engineering Physics, Engineering Chemistry & Basic Electrical Engineering)

Sr. No.	Name	Designation	Qualification	Exp.
1	Mr. H.G. Haloli	Asst. Prof.	M.Sc.(Mathematics), B.Ed, M.Phil, Ph.D.	14
2	Mr. A.V. Bhilare	Asst. Prof.	M.Sc.(Chemistry), NET	7

Sr. No.	Name	Designation	Qualification	Exp.
3	Mr. B.G.Dabhade	Asst. Prof.	M.E. (Machine and drives)	6
4	Mr. S. D. Mahajan	Asst. Prof.	M.E.(Power Systems)	2
5	Mrs. V.S. Mulik	Asst. Prof.	M.Sc.(Physics), B.Ed	15
6	Ms. S.M. Doiphode	Asst. Prof.	M.Sc.(Chemistry), SET	10
7	Mr.D.G. Matale	Asst. Prof.	M.Sc.(Mathematics)	2
8	Ms. B.D. Rewale	Asst. Prof.	M.Sc.(Mathematics)	2
9	Mrs.R.S. Desai	Asst. Prof.	BBA, MBA (HR & Marketing)	2

11. List of senior visiting faculty:

Total no. of visiting faculty = 05

Sr. No.	Eminent Academician and Industry persons	Designation	Institute / Industry
1	Prof. Handore Mahendra	Asst. Prof.	Subject Expert, SPPU
2	Prof. Phale Ankush	Asst. Prof.	Subject Expert, SPPU
3	Mr.ohit Sinha	Co-owner	E= MC ² Academy
4	Prof. Chavan Asmita	Adjunct Prof.	Istituto Italiano di Technologia
5	Prof. Sameer Joshi	Adjunct Prof.	Ph.D.Scholar, University of Bastoe

12. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty: No temporary faculty recruited in the department

13. Student –Teacher Ratio:7.77:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Title	Sanctioned	Filled
Laboratory Assistant	01	01
Support staff	02	02

15. Qualifications of teaching faculty with D. Sc / D.Litt/ Ph.D/ MPhil / PG.**Qualification No of Teaching Faculty:**

Title	Count
Ph.D.	01
PG (M.E/M.Tech/M.Sc.)	08

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

a) National	Nil
b) International	Nil

17. Departmental projects funded by DST – FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil**18. Research Centre / facility recognized by the University: Nil****19. Publications:**

Our faculty has published research papers in reputed National and International journals.

Publication Total:

a) National: 00

b) International: 13

c) Patents: Nil

Total number of publications and conferences are listed herewith.

Name of the faculty	National	International	Total
Mr. H.G. Haloli	00	10	10
Mr. B.G.Dabhade	00	02	02
Mr. S. D. Mahajan	00	01	01
Total	00	13	13

b) Number of papers published in peer reviewed journals (National /International) by faculty and students:

Number of papers published in peer reviewed journals National: Nil

Number of papers published in peer reviewed journals International: 03

Sr. No.	Name of Faculty	Total number of publications	
		National	International
1	Dr. H.G. Haloli	0	3

c) Number of publications listed in International Database (For e.g.: Web of Science, Scopus, And Humanities International Complete, Dare Database – International Social Sciences Directory, EBSCO host, etc):

Web of Science: **10**

Scopus: **03**

d) Monographs, Chapters in book authored, Books edited, Books published: Nil

20. Areas of consultancy and income generated: Nil

21. Faculty as members in a) National Committees b) International Committees c) Editorial Boards

a) National Committees : Nil

b) International Committee: Nil

c) Editorial Boards : Nil

22. Student Projects:

a) Percentage of students who have done in-house projects including interdepartmental/ Programme: NA

b) Percentage of students who have placed for projects in organizations outside the institution i.e. in Research laboratories / Industry / other agencies: NA

23. Awards / Recognitions received by faculty and students:

a) Awards / Recognitions/ Appreciations received by faculty of the department:

Total number of Awards / Recognitions received by faculty of the department: 17

b) Awards / Recognitions/ Appreciations received by students of the department:

Total number of Awards / Recognitions received by students of the department: 05

24. List of eminent academicians and scientists / visitors to the department:

Total number of eminent academician and scientists/visitor to department: 04

Sr. No.	Eminent Academician and Industry persons	Designation	Institute / Industry
1	Dr. Ashok Ghatol	Ex. Chancellor BATU University	Mentoring of Faculty
2	Dr. Hemant Abhyankar	Executive Director, KJEI	FDP Program

25. Seminars / Conferences / Workshops organized and the source of funding

a) National: Nil

b) International: (if any): Nil

26. Student Profile programmes/ course wise:

Name of Course/ Programme	Year	Details	Enrolled For FE	
			Male	Female
FE All Branches	2016-17	As the admission process is governed by DTE. The rules and regulations are followed in the admission process	62	08
	2015-16		94	17
	2014-15		139	21
	2013-14		141	19

27. Diversity of Students:

Name of the Course	Number of students from the same state	Number of students from other States
FE		
2016-2017	67	03
2015-2016	99	12
2014-2015	140	20
2013-2014	152	08

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil Services, Defense services, etc.? : NA

29. Students Progression: NA

30. Details of Infrastructural facilities:

Sr. No.	Infrastructural facility	Details of Item	Number
1	Library	Titles	710
		Volumes	851
		Journals	-

Sr. No.	Infrastructural facility	Details of Item	Number
2	Internet facility for staff and students	Computers	30
		Internet facility and Bandwidth	32 Mbps
3	Classrooms	Classrooms	06
		Drawing Hall	01
4	Laboratories	FE(All)	02
5	Tutorial Room	FE	02

Sr. No.	Name of Laboratory
1	Engineering Physics
2	Engineering Chemistry

31. Number of students receiving financial assistance from college, university, government or other agencies:

Types of Scholarship	Agency	No. of students those have received Financial Assistance			
		2013-14	2014-15	2015-16	2016-17
Scholarship	State Govt.	12	24	28	12
Free ship	State Govt.	6	9	11	6
STC	State Govt.	-	-	-	-
PTC	State Govt.	-	-	-	-
Minority (MCM)	Central Govt.	6	4	4	-
Minority (SGS)	State Govt.	1	1	3	1

32. Details on student's enrichment programmes (special lectures / workshops / seminars) with external experts:

Total no. of Special/Guest lectures conducted in the Department: **08**

Total no. of Training program conducted in the Department: **04**

Sr. No.	Academic Year	Special Lecture	Training program
1	2016-2017	3	1
2	2015-2016	2	1
3	2014-2015	2	1
4	2013-2014	1	1

33. Teaching methods adopted to improve students' learning:

Along with traditional teaching number of innovative and interactive methods is adopted by the faculty to improve students' learning. To name a few-

- Traditional method (Chalk and talk)
- Expert lectures for enriching the latest updates regarding subjects
- Brain storming
- Video lectures from experts
- Guest lecture
- Model
- Assignments
- Presentations using LCD projector
- Animations to visualize process
- Power point presentation
- NPTEL video lectures for Students
- Use of internet applications
- Group discussions
- Self-study
- Tests

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Students participate in various activities arranged by different clubs at college level are listed herewith.

Health Club, Student Association (MESA), Entrepreneurship Development Cell (EDC), Sports Club, Corporate Social Responsibility Cell, Student Welfare, Anti-Ragging Committee, Women anti sexual harassment Committee, Environmental Club are some of them.

Sr. No	Activity	Details of seminars, guest lectures, workshops under Institutional Social Responsibility
1	Health Club (Yoga)	Yoga Session
2	SportsClub	Inter departmental Sports under KJ YOUTH FEST
3	Cultural Club	MALHAR

Sr. No	Activity	Details of seminars, guest lectures, workshops under Institutional Social Responsibility
4	Rotaract / Social Club	Inauguration ceremony of Value Education club, Power of Habit
5	Corporate Social Responsibility Cell	Traffic Awareness and Road Safety on Road
6	Anti-Ragging Committee, Women anti sexual harassment Committee,	Awareness of Anti-Ragging Act, Women Empowerment and Gender Equality
7	Environmental Club	Inauguration of Environment club
8	National Festival celebration	Republic and Independence day

35. SWOC analysis:

❖ Strength

- Permanent affiliation to Savitribai Phule Pune University.
- Qualified and Experienced faculty.
- Course files of all FE subjects.
- Subject notes, Question papers, Question banks are provided as per Curriculum.
- Teacher-Guardian activity for students
- Interactions with parents through messages, callings, meetings.
- Conduction of Guest lectures, competitions related to academics and non-academics for students.
- Well-equipped laboratories.
- Enriched library with books, journals, e-sources.
- Effective teaching learning process.
- Seminar hall, tutorial rooms, Common rooms for boys, girls.
- Large playgrounds.
- Internet facilities for staff and students.

❖ Weakness

- Research and consultancy.
- Improvement in communication skill among students from rural background.
- Lack of international student interactions.

❖ Opportunities

- Organizing various entrepreneurship seminars.
- Providing quality engineering education.
- Opportunity of interactions with various eminent personalities.
- Academic autonomy.

- Creation of Greed for Technical Excellence

- ❖ **Challenges**
 - Students with diverse background.
 - Fill up the gap between existing and advanced knowledge.
 - Understanding students of new generation to fit into engineering education

- ❖ **Future Plan.**
 - Upgrading laboratory facilities to promote research.
 - Research based teaching and learning.
 - Maximum faculty in department with research aptitude.



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/1-2808437350/2016/EOA/Corrigendum-1

Date: 10-Jun-2016

Corrigendum

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

Sub: Extension of approval for the academic year 2016-17.

Ref: Application of the Institution for Extension of Approval for the Year 2016-17

EOA Issued on	F.No. Western/1-2808437350/2016/EOA	05-Apr-2016
EOA Printed on	F.No. Western/1-2808437350/2016/EOA	10-Jun-2016
Corrigendum 1	F.No. Western/1-2808437350/2016/EOA/Corrigendum-1	10-Jun-2016

Sir/Madam,

In partial modification of the letter F.No. Western/1-2808437350/2016/EOA and 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	1-2808437350
Name of the Institute	TRINITY ACADEMY OF ENGINEERING, PUNE	Permanent Id	1-3450001
Name of the Society/Trust	KJ'S EDUCATIONAL INSTITUTES	Institute Address	S.NO.25 & 27,AT-PISOLI,POST-YEWALEWADI,NEAR BOPDEVGHAT,TAL-HAVELI,PUNE., PUNE, PUNE, Maharashtra, 411048
Institute Type	Unaided - Private	Society/Trust Address	408/10,2ND FLOOR,PURANDAR COMPLEX,MUKUNDNAGAR,INDUSTRIAL ESTATE,PUNE-37.,PUNE,PUNE,Maharashtra,411037

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

Application Number: 1-2808437350
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2016
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Page 1 of 4
Letter Printed On:24 November



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To conduct following courses with the intake indicated below for the academic year 2016-17*

Application Id: 1-2808437350			Course	Affiliating Body	Intake 2015-16	Intake Approved for 2016-17	NRI Approval status	PIO / FN / Gulf quota Approval status	Foreign Collaboration/Twinning Program Approval status*	
Program	Shift	Level		Full/Part Time						
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	CONSTRUCTION MANAGEMENT	FULL TIME	University of Pune, Pune	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DESIGN ENGINEERING	FULL TIME	University of Pune, Pune	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UG 2nd Yr DIRECT	CIVIL ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UG 2nd Yr DIRECT	MECHANICAL ENGINEERING	FULL TIME	University of Pune, Pune	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	University of Pune, Pune	60	60	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	MECHANICAL ENGINEERING	FULL TIME	University of Pune, Pune	120	120	NA	NA	NA

Application Number: 1-2808437350
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GY		TE								
ENGINEERING AND TECHNOLOGY	2nd Shift	DIPL OMA	CIVIL ENGINEERING	FULL TIME	Maharashtra State Board of Technical Education, Mumbai	60	0#	NA	NA	NA
ENGINEERING AND TECHNOLOGY	2nd Shift	DIPL OMA	MECHANICAL ENGINEERING	FULL TIME	Maharashtra State Board of Technical Education, Mumbai	120	0#	NA	NA	NA

Punitive Action against the Institute

*Corrigendum for- 1. Closure of Course under punitive action

The above mentioned approval is subject to the condition that TRINITY ACADEMY OF ENGINEERING, PUNE 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.

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

Prof. Alok Prakash Mittal
Member Secretary, 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 Principal / Director,**
TRINITY ACADEMY OF ENGINEERING, PUNE
S.NO.25 & 27, AT-PISOLI, POST-YEWALEWADI, NEAR BOPDEVGHAT, TAL-HAVELI, PUNE.,
PUNE, PUNE,
Maharashtra, 411048
- The Secretary / Chairman,**

Application Number: 1-2808437350
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2016
Printed By : an883387

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Letter Printed On: 24 November



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KJ'S EDUCATIONAL INSTITUTES
408/10,2ND FLOOR,PURANDAR COMPLEX,MUKUNDNAGAR,INDUSTRIAL ESTATE,PUNE-37.,
PUNE,PUNE,
Maharashtra,411037

5. **Guard File(AICTE)**



All India Council for Technical Education

(A Statutory body under Ministry of HRD, Govt. of India)

Nelson Mandela Marg/Vasant Kunj, New Delhi-110067
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

F.No. Western/1-3322484049/2017/EOA

Date: 10-Apr-2017

To,

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

Sub: Extension of approval for the academic year 2017-18

Ref: Application of the Institution for Extension of approval for the academic year 2017-18

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2016 notified by the Council vide notification number F.No.AB/AICTE/REG/2016 dated 30/11/2016 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Permanent Id	1-3450001	Application Id	1-3322484049
Name of the Institute	TRINITY ACADEMY OF ENGINEERING, PUNE	Institute Address	S.NO.25 & 27,AT-PISOLI,POST-YEWALEWADI,NEAR BOPDEVGHAT,TAL-HAVELI,PUNE.,PUNE,PUNE, Maharashtra, 411048
Name of the Society/Trust	KJ'S EDUCATIONAL INSTITUTES	Society/Trust Address	408/10,2ND FLOOR,PURANDAR COMPLEX,MUKUNDNAGAR,INDUSTRIAL ESTATE,PUNE-37,PUNE,PUNE,Maharashtra,411037
Institute Type	Unaided - Private	Region	Western

Opted for change from Women to Co-ed and Vice versa	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved and Vice versa	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable
Opted for Conversion from degree to diploma	No	Opted for Conversion from diploma to degree	No	Conversion (degree to diploma or vice-versa) Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2017-18

Application Id: 1-3322484049			Course	Full/Part Time	Affiliating Body	Intake Approved for 2016-17	Intake Approved for 2017-18	NRI Approval status	PIO / FN / Gulf quota/ OCI/ Approval status	Foreign Collaboration/Twinning Program Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	CONSTRUCTION MANAGEMENT	FULL TIME	University of Pune, Pune	24	24	NA	NA	NA

Application Number: 1-3322484049
Note: This is a Computer generated Report.No signature is required.

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All India Council for Technical Education

(A Statutory body under Ministry of HRD, Govt. of India)

Nelson Mandela Marg/Vasant Kunj, New Delhi-110067
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-india.org

GY		TE								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DESIGN ENGINEERING	FULL TIME	University of Pune, Pune	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UG 2nd Yr DIRECT	CIVIL ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UG 2nd Yr DIRECT	MECHANICAL ENGINEERING	FULL TIME	University of Pune, Pune	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	University of Pune, Pune	60	60	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	MECHANICAL ENGINEERING	FULL TIME	University of Pune, Pune	120	120	NA	NA	NA

The above mentioned approval is subject to the condition that

TRINITY ACADEMY OF ENGINEERING, PUNE

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.

Course(s) Applied for Closure by the Institute for the AY 2017-18:

Application Id: 1-3322484049			Name of the Course	Full/Part Time	Affiliating Body	Course Closure Status
Program	Shift	Level				

Application Number: 1-3322484049

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ENGINEERING AND TECHNOLOGY	2nd Shift	DIPLOMA	CIVIL ENGINEERING : (Last Approved Intake 0)	FULL TIME	Maharashtra State Board of Technical Education, Mumbai	Approved
ENGINEERING AND TECHNOLOGY	2nd Shift	DIPLOMA	MECHANICAL ENGINEERING : (Last Approved Intake 0)	FULL TIME	Maharashtra State Board of Technical Education, Mumbai	Approved

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

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

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

Prof. A.P Mittal
Member Secretary, 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
- The Principal / Director,**
TRINITY ACADEMY OF ENGINEERING, PUNE
S.NO.25 & 27, AT-PISOLI, POST-YEWALEWADI, NEAR BOPDEVGHAT, TAL-HAVELI, PUNE.,
PUNE, PUNE,
Maharashtra, 411048
- The Secretary / Chairman,**
KJ'S EDUCATIONAL INSTITUTES
408/10, 2ND FLOOR, PURANDAR COMPLEX, MUKUNDNAGAR, INDUSTRIAL ESTATE, PUNE-37.,
PUNE, PUNE,
Maharashtra, 411037
- Guard File(AICTE)**

Note: ** - Approval letter copy will not be communicated through post/email. However, provision is made in the portal for

Application Number: 1-3322484049
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downloading Approval letter through Authorized login credentials allotted to concerned DTE/Registrar.

Application Number: 1-3322484049
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Letter Printed On: 13 April 2017

दूरध्वनी क्रमांक :
०२०-२५६९१२३३
२५६०१२५७
२५६०१२५८
२५६०१२५९



15120102

सावित्रीबाई फुले पुणे विद्यापीठ
(पूर्वीचे पुणे विद्यापीठ)



शैक्षणिक विभाग
गणेशखिंड, पुणे-४११००७.
टेलिग्राफ : 'युनिपुणे'
फॅक्स : ०२०-२५६९१२३३
वेबसाइट : www.unipune.ac.in
इ-मेल : dyracademic@unipune.ac.in

संदर्भ क्र.: CA/724

दि.: 01/04/2016

प्रति,
मा. प्राचार्य,
केजेस एजुकेशनल इन्स्टिट्यूट के.जे एड्युकेशनल
इन्स्टिट्यूटचे, टिनिटी अकॅडेमी ऑफ इंजीनीरिंग पता:
सर्वे नं २५ व २७ बोपदेव घाटाजवळ, कोंडवा-सासवड रोड
पुणे ता.: हवेली(महानगर पालिका हद्द वगळून) जि:
पुणे

विषय:- शैक्षणिक वर्ष २०१६-२०१७, या वर्षाकरिता सलगनीकरणाचे नूतनीकरण

महोदय,

वरील विषयासंदर्भात विद्यापीठ अधिकार मंडळाने घेतलेल्या निर्णयानुसार आपणास कळविण्यात येते की, आपल्या महाविद्यालयास शैक्षणिक वर्ष २०१६-२०१७, या वर्षाकरिता खालील रकान्यात नमूद केलेल्या अभ्यासक्रमांच्या सलगनीकरणाच्या नूतनीकरणास / नैसर्गिकवादीस अखिल भारतीय तंत्रशिक्षण परिषद, नवी दिल्ली व तंत्रशिक्षण संचालनालय, महाराष्ट्र शासन यांचे अभ्यासक्रम व प्रवेश क्षमता मान्यतेच्या अधीन राहून तसेच अहवालातील अटी व शर्तीची पूर्तता विद्यापीठाचे हे पत्र निर्गमित झाल्याच्या तारखेपासून एक महिन्यांच्या आत पूर्ण करण्याच्या अटीवर परवानगी देण्यात येत आहे .

प्रती वर्षी मा. संचालक तंत्रशिक्षण मुंबई यांना ज्या महाविद्यालयांनी संलग्नकरणाच्या सर्व अटी पूर्ण केलेल्या आहेत व कोणत्याही अटी शिवाय ज्या महाविद्यालयांना विद्यापीठाने शैक्षणिक वर्ष २०१६-२०१७ साठी ज्या अभ्यासक्रमांना संलग्नकरण देण्यात आलेले आहे , अशाच महाविद्यालयांची अभ्यासक्रम निहाय माहिती मा. संचालक तंत्रशिक्षण, मुंबई यांना सादर केली जाईल सबब सर्व महाविद्यालयांनी आपले पडताळणी अहवाल उपरोक्त नमूद कालावधी पूर्वी विद्यापीठात जमा होतील याची काळजी घ्यावी.

अनु. क्र.	अभ्यासक्रमाचा तपशील	विद्यार्थी संख्या	प्रथमपाळी/द्वितीय पाळी	संलग्नकरणाचा प्रकार
1	एम.इ. (मेकॅनिकल डिझाइन)	24	2016-2017 : - वर्ष प्रथम व द्वितीय- Div No.1.,	नूतनीकरण
2	एम.इ. (सिविल) कन्स्ट्रक्शन मॅनेजमेंट	24	2016-2017 : - वर्ष प्रथम व द्वितीय- Div No.1.,	नूतनीकरण
3	बी.ई. (इलेक्ट्रॉनिक्स अँड टेलिकम्यूनिकेशन)	120	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,- वर्ष पहिले ते चौथे- Div No.2.,	नूतनीकरण
4	बी.ई. (कॉम्प्यूटर)	60	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1.,	नूतनीकरण

Trinity Academy of Engineering
Inward No. 182
Inward Date. 4/04/2016

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3/21/2016 12:26:41 PM

5	बी.ई. (मेकॅनिकल)	240	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,- वर्ष पहिले ते तिसरे- Div No.4,- वर्ष व्दितिय ते चतुर्थ- थेट दुसरे वर्ष Div No. 2,- वर्ष व्दितिय ते चतुर्थ- थेट दुसरे वर्ष Div No. 3.,	नूतनीकरण
6	बी.ई. (सिविल)	120	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,- वर्ष व्दितिय व तृतीय- थेट दुसरे वर्ष Div No. 2.,	नूतनीकरण
7	बी.ई. (मेकॅनिकल)	240	2016-2017 : - वर्ष चौथे- Div No. 4.,	नैसर्गिकवाढ
8	बी.ई. (सिविल)	120	2016-2017 : - वर्ष चौथे- थेट दुसरे वर्ष Div No. 2.,	नैसर्गिकवाढ

कळावे,

सोबत : अहवाल

आपला,

for
31/03/2016

उपकुलसचिव
शैक्षणिक

Savitribai Phule Pune University

(Formerly University of Pune)

Telephone Nos. :

020 – 25691233

25601258

25601259

25601257



ACADEMIC SECTION

Ganeshkhind, Pune – 411007, INDIA

Telegraph : 'UNIPUNE'

Fax : 020-25691233

Website : www.unipune.ac.in

E-mail : dyracademic@unipune.ac.in

Ref. No. : CA/275

Date : 27/03/2017

TO WHOMSOEVER IT MAY CONCERN

This is to certify that K J's Educational Institutes Trinity Academy of Engineering, S. No. 25 & 27, Near Khadi Machine Chowk, Dist – Pune 411 048 is affiliated to the Savitribai Phule Pune University, since 2010 (PU/PN/Engg/408/2010) and the following courses are taught in the said college as per approval.

Courses	Duration of the Course	Affiliation (Permanent / Temporary)	Validity Period
Under Graduate			
Electronics and Telecommunication Engineering	4 Year	Temporary	Upto 2016-17
Computer Engineering	4 Year	Temporary	Upto 2016-17
Mechanical Engineering	4 Year	Temporary	Upto 2016-17
Mechanical Engineering (Direct Second Year)	3 Year	Temporary	Upto 2016-17
Civil Engineering	4 Year	Temporary	Upto 2016-17
Civil Engineering (Direct Second Year)	3Year	Temporary	Upto 2016-17
Post Graduate			
Mechanical Engineering (Design)	2 Year	Temporary	Upto 2016-17
Civil Engineering (Construction Management)	2 Year	Temporary	Upto 2016-17

The said certificate is issued as per the request application received from the Principal of the college Ref. No. टीएई/साफुपुवि/२०१६-१७/२७५५, dated 25/03/2017 so as to submit it to the National Assessment and Accreditation Council (NAAC), Banglore.

Dy. Registrar
(Academic Section)



KJ's EDUCATIONAL INSTITUTES,

TRINITY ACADEMY OF ENGINEERING

Approved by AICTE, Government of Maharashtra & Affiliated to Savitribai Phule Pune University

Dr. Vijay M. Wadhai
Ph.D. (Electronics & Telecom), MIEEE, LMISTE, MIE
Principal

Shri Kalyan. J. Jadhav
M. Com (Hons.)
Founder President

Ref. No: KJEI/TAE/NAAC/2016-17/ 2761

Date: 27th March 2017

DECLARATION BY THE HEAD OF INSTITUTION

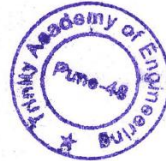
I certify that the information declared in a Self-Study report (SSR) is true to the best of my knowledge.

This SSR is prepared by the institution by the internal discussion and no part of 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. Vijay M. Wadhai
PRINCIPAL

Place: Pune
Date: 27th March 2017



• **Campus** : S. No.25 & 27, Near Khadi Machine Chowk, Kondhwa Annexe, Pune - 411048. Telefax:(020) 26934422, 69739009
Email : principaltae@kjei.edu.in web : www.kjsedu.com

• **Head Office** : 408/10,2 nd floor, "Purandar Complex" Mukundnagar Industrial Estate, Pune-411 030
Tel. (020) 24269100, 24267100, Telefax:(020) 24264379



KJ's EDUCATIONAL INSTITUTES,

TRINITY ACADEMY OF ENGINEERING

Approved by AICTE, Government of Maharashtra & Affiliated to Savitribai Phule Pune University

Dr. Vijay M. Wadhai
Ph.D. (Electronics & Telecom), MIEEE, LMISTE, MIE
Principal

Shri Kalyan. J. Jadhav
M. Com (Hons.)
Founder President

Certificate of Compliance

This is to certify that, **K.J's Educational Institute, Trinity Academy of Engineering, Pune** fulfils all norms

1. Stipulated by the affiliating University and /or
2. Regulatory Council/Body (Such as UGC, NCTE, AICTE, MCI, DCI, BCI,etc) and
3. The affiliation and recognition (if applicable) is valid as on date

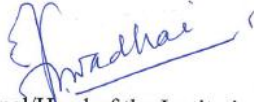
In case the affiliation/recognition is conditional, then a detailed enclosure with regard to compliance of conditions by the institution will be sent.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.

Date : 17/04/2017

Place : Pune


Principal/Head of the Institution
(Dr.Vijay M. Wadhai)



• **Campus** : S. No.25 & 27, Near Khadi Machine Chowk, Kondhwa Annexe, Pune - 411048. Telefax:(020) 26934422, 69739009
Email : principaltae@kjei.edu.in web : www.kjsedu.com

• **Head Office** : 408/10,2 nd floor, "Purandar Complex" Mukundnagar Industrial Estate, Pune-411 030
Tel. (020) 24269100, 24267100, Telefax:(020) 24264379

KJ's Educational Institutes

TRINITY ACADEMY OF ENGINEERING

(Affiliated to Savitribai Phule Pune University, Pune and recognized by AICTE, Delhi)



Sr. No. 25 & 27, Kondhawa Saswad Road,
Nr. Khadi Machine Chowk, Pune – 411048
Maharashtra (India)

Tel. No: 020-69739009, 020- 65799009

Email: printae@kjei.edu.in, homtae@kjei.edu.in

Website: www.kjei.edu.in/tae