



# **Self-Study Report (SSR)**



**For the Accreditation of**

**Vidya Pratishthan's  
Kamalnayan Bajaj Institute of Engineering & Technology, Baramati  
(Formerly, Vidya Pratishthan's College of Engineering, Baramati)**



**Submitted to**

**National Assessment and Accreditation Council ,  
Bengaluru**

**March 2017**

## **Vision**

To achieve excellence in technical education through continuous and collaborative efforts of stakeholders

## **Mission:**

- To provide students with comprehensive knowledge of fundamentals of engineering.
- To nurture moral values and professional skills with consistent efforts.
- To foster relationship with other leading Institutes of learning, research and industries to facilitate the development of stakeholders.
- To develop centers of excellence to meet the need of industries.

## **Objectives:**

- To make available Quality Technical Education facilities to every student admitted to the College and expedite the development of all round personality of the students.
- To provide industrial training / internship and a project-based learning to most of the students in each branch of engineering.
- To provide incentives and boost to encourage staff and students to actively involve in research-innovative projects in collaboration with industry and various funding agencies like BARC, CSIR, AICTE, DST, BRNS, MNRE etc.

- To upsurge number of students progressing for higher education within four years of graduation.
- To increase faculty members with Ph.D. qualification.
- To increase publications in peer reviewed high quality international journals.
- To invite more and more number of experts from industry for collaboration and promote Industry-Institute Interaction through Industry Institute Interaction Cell (IIIC).
- To encourage consultancy and testing and respond to the needs of the immediate neighbourhood.

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## ABBREVIATIONS

AICTE	All India Council for Technical Education
AY	Academic Year
BCUD	Board of College & University Development
BE	Bachelor of Engineering
BoS/BOS	Board of Studies
CAP	Centralized Admission Process
CDEEP	Center for Distance Engineering Education Programme
CSI	Computer Society of India
CEP	Continuing Education Programme
DRDO	Defence Research & Development Organization
DST	Department of Science & Technology
DTE	Directorate of Technical Education
FDP	Faculty Development Programmes
FOSSEE	Free & Open Source Software for Education
GATE	Graduate Aptitude Test in Engineering
GRE	Graduate Record Examination
HoD/HOD	Head of Department
ICT	Information & Communication Technology
IE	Institute of Engineers
IEEE	Institute of Electrical & Electronics Engineers
ISTE	Indian Society for Technical Education
IIIC	Industry Institute Interaction Cell
ICC	Internal Complaint Committee
IPR	Intellectual Property Rights
IQAC	Internal Quality Assurance Cell
LOI	Letter of Intent
ME	Master of Engineering
MODROBS	Modernization and Removal of Obsolescence
MoU/MOU	Memorandum of Understanding
MSEDCL	Maharashtra State Electricity Distribution Company Limited
NGO	Non-Governmental Organization
NMEICT	National Mission of Education through Information and Communication Technology
NPTEL	National Programme for Technology Enhanced Learning
NSS	National Service Scheme
NT	Nomadic Tribes
OBC	Other Backward Class
OPAC	Online Public Access Catalogue

PEO	Program Educational Objectives
PG	Post Graduate
Ph.D.	Doctor of Philosophy
PO	Performance Outcome
QIP	Quality Improvement Programme
RPS	Research Promotion Scheme
SBC	Special Backward Class
SC	Scheduled Caste
SPPU	Savitribai Phule Pune University
ST	Scheduled Tribes
STTP	Short Term Training Program
TOEFL	Test of English as a Foreign Language
TPO	Training and Placement Officer
UG	Under Graduate
UGC	University Grants Commission
ISSN	International Standard Serial Number
ISBN	International Standard Book Number
CO	Course Outcomes
VP	Vidya Pratishthan
VPKBIET	Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering and Technology
RO	Reverse Osmosis
PF	Provident Fund
EPFO	Employees' Provident Fund Organization
QEEE	Quality Enhancement in Engineering Education
IIT	Indian Institute of Technology
NIT	National Institute of Technology
IASc	Indian Academy of Sciences
Deptt	Department
IT	Information Technology
Mech	Mechanical Engineering
Comp	Computer Engineering
E&TC	Electronics and Telecommunication Engineering
DELNET	Developing Library Network
CICS	Centre for International Cooperation in Science

# 1. Preface

In India, Technical & Professional courses are growing at a rapid pace. The growth in quantity has to be harmonized with the developments on quality front. National Assessment and Accreditation Council (NAAC) has the objectives to facilitate the improvement of quality through accreditation, bring more transparency in the accreditation process. By imbibing and adhering to the cherished values and beliefs of VPKBIET, I am sure that VP's Kamalnayan Bajaj Institute of Engineering & Technology will certainly reach greater heights in the field of technical education, in the years to come. 16 years ago, we embarked on a journey to become one of the leading engineering Institutes in the State of Maharashtra with the motto to provide quality education at the affordable cost. Today we have the distinction of being amongst the best Engineering Colleges in the State of Maharashtra, and especially in the Savitribai Phule Pune University, Pune. In keeping with the rich tradition of imparting quality education at the affordable cost, Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering and Technology, VPKBIET, formerly known as Vidya Pratishthan's College of Engineering, VPCOE, was founded in the year 2000. Since then VPKBIET has endeavoured to produce globally competent budding engineers shining with technical excellence and it provides students with the privileges of unparalleled exposure to the global world. The infrastructure of the institution is excellent with the state-of-the-art laboratories, digital library, Wi-Fi campus, well-furnished hostels for boys and girls, to mention a few. As an Engineering Institute, we have always fostered a culture of innovativeness and inventiveness among our students. We firmly believe that, it is this ability which makes the transformation of a student into professional who is ready to take on bigger responsibilities and excel in the global engineering world.

The Institute is well set for the FIRST Cycle Accreditation by NAAC and we look forward for the visit of NAAC Peer Team. In view of this, it is our pleasure to submit our Self Study Report (SSR) to the NAAC, Bengaluru. The very fact that the SSR of this quality has been brought out with the concerted efforts of faculty and staff, itself speaks volumes of their involvement, commitment and an ambition to excel in whatever they do. I take this opportunity to congratulate and thank the Management, the members of Steering Committee and the Internal Quality Assurance Cell (IQAC) for sharing the responsibility of drafting the SSR. I also thank all administrative sections and academic departments of the Institute for the best of their services to the stakeholders.

**Dr. M. G. Devamane**

Principal

## 2. Executive Summary

Vidya Pratishthan is a name fondly synonymous with education in all its myriad forms and academic aspects. Right since its inception in 1972, the Institution has majestically scaled the ladder of success with profundity that aptly reflects its commitment to accord educational facilities to all sections of society. Duly realizing the absolute necessity of providing class education to the kith and kin of farmers, labourers and villagers, Vidya Pratishthan took it upon itself the needbased endeavour of making education accessible to the poor and the deserving. Backed by the illustrious visionary, Hon. Shri Sharadchandra Pawar and indomitable leader, Hon. Shri Ajitdada Pawar with experienced guidance by the members of the Management Committee; the Pratishthan ushered in an era of imparting general as well as Technical Education through the Institutions, which are captained by illustrious personalities in their respective fields.

With a sprawling campus of 165 acres, the Pratishthan houses 25 Institutions, where more than 23,000 students are nurtured daily to turn them into the dearest citizens of the nation and sought after persons to the world of Knowledge. The dry, desolate and rocky landmass once upon a time has been turned into an artistically carved out landscape that creates just the right aura and decor of the Academia.

Keeping this track of nourishing the stakeholders from rural background with profound Professional Education, Vidya Pratishthan's College of Engineering started its inception in year 2000.

The Institute strives to work in order to attain its main belief "The future of India lies in her children, and the future of India's children lies in Education".

Criteria-wise documentation has been made for NAAC accreditation. The seven criteria as per the NAAC format are presented explaining the core functions and activities of the Institute.

### Criterion I: Curricular Aspects

Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering & Technology is a self-financing Institute affiliated to Savitribai Phule Pune University (SPPU, Pune). The Institute follows the curriculum designed by respective Board of Studies. The Program Objectives (POs) and Course Outcomes (COs) are prepared by faculty for effective delivery of respective course. The students are given a choice to choose elective subjects in final year. The academic calendar is strictly followed by every department, which is prepared on the basis of calendar circulated by Savitribai Phule Pune University. The academic progress of student is monitored by Faculty Mentor by keeping records of student progress in academic, co-curricular and extra-curricular activities. All students are encouraged to take up academic projects in collaboration with industries. The student feedback is taken at the end of every semester to assess the quality of teaching-learning and corrective measures are taken by the faculty based on the feedback. The Institute also

has a formal mechanism to obtain feedback from other stakeholders like final year students, alumni, parents etc.

Few senior faculty members are holding the portfolio of Subject Chairman for UG and PG courses of various departments. The Institute encourages the faculty to undergo fellowship programs offered by IASc and various IITs, internship at industry during vacation period. The Institute strives to support students for industrial training programs and fellowship programs like UG Fellowship Program exclusively offered for undergraduate students from various disciplines. The Institute promotes effective industry-Institute interaction through Industry Institute Interaction Cell (IIIC).

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

All the departments of the Institute make an effort to enrich the curriculum in the form of content beyond syllabus and enhance the experiences of the students by coping with the rapidly changing technological innovations in industry. In addition, the departments conduct industrial visits, site visits, sponsored projects, various technical events and Student Training Programs on regular basis.

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

The admission of students to the Institute is in accordance with SPPU, Pune, Maharashtra State Government (DTE) and AICTE rules. The students are admitted through Centralized Admission Program (CAP) of Directorate of Technical Education, Mumbai. The centralized admission process ensures the diversity of student admissions to the Institute. The Institute has well qualified faculty with good retention ratio. It always tries to achieve excellence in teaching – learning by introducing new methods to enhance the employability and academic results. The staff and students are made aware on issues such as gender, inclusion, environment by means of activities like Anti-ragging committee, Internal Complaint Committee (Women Grievance Cell for Sexual Harassment), Grievances Redressal Cell, Mentor Scheme, Activities by Student Social Clubs like Prerana – for promoting the social values among the students, National Service Scheme (NSS) and others.

All the departments of the Institute prepare the academic calendar for the entire semester to improve the quality of teaching-learning. The faculty members prepare their teaching plan based on curriculum prescribed by the university. The departments of the Institute encourage the use of ICT based teaching. The Institute motivates the scientific temper, critical thinking and creativity of students by organizing National and International conferences, workshops, seminars, and Technical events like “VERISMO”, “Sthapatya” etc...

The Institute has established Internal Quality Assurance Committee (IQAC) to monitor the quality of teaching-learning process. It has a well-established policies and mechanisms to boost the teachers by giving study leave for course work, thesis writing and financial assistance for attending FDP, STTP and conferences. The Institute ensures the effective

implementation of evaluation transformations of university in the form of online examinations, in semester and end semester examination and project based seminars.

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

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

Institute has a Research and development (R & D) committee which plays a crucial role of promoting the research and development within the Institute. The faculty and students from the Institute have carried out more than 40 research projects with a grant amount of Rs. 1.15 Crores received from various funding agencies till now. The Faculty strives for research paper publications in peer reviewed journals. A total of 175 research publications have been made by the faculty and students in reputed national and international journals during the last four years. The Institute also supports research projects by providing the financial assistance to the students as per the requirement of project wherever it is necessary.

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

The Institute has well established procedures for consultancy activities. Both monetary and non-monetary benefits are extended to the faculty for utilizing their efforts towards consultancy assignments. A total of 10 consultancy projects have been carried out by the faculty by generating an amount of more than Rs. 14 Lakhs.

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

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

The basic infrastructure required for teaching-learning is available in all departments and it is in line with the norms of AICTE. It includes class rooms, laboratories, seminar halls, auditorium, departmental library and others. The infrastructural facilities are being added from time to time to keep in pace with the requirements of increased intake. Some of the class rooms from each department are equipped with LCD projectors. CCTV facility is available at important locations of the building. In addition, several other facilities are also



available for extra-curricular activities like Cricket Ground, Playground, Indoor Games, Open Gymnasium, Cultural Activities, Newspapers, Community Centre, Cafeterias, Medical Store, General Stores and Clinic at a walkable distance. The Institute has sufficient hostel facility available in the campus for both boys and girls. There are 3 boys' hostels with a capacity of 575 and 2 girl's hostel having capacity of 540 with three and four beds capacity. All the rooms are provided with a bed, mattress, pillow, table, chair and cupboard. All the departments of the Institute have adequate computing facility both in terms of hardware and software. All the computer systems available are with latest configuration with licensed software installed. 60 Mbps dedicated Internet Leased Line Connectivity from Tata Teleservices Maharashtra Ltd is available in all departments. This secure internet facility is provided to all departmental students, faculties and laboratories using Cyberoam CR-300i which is tightly integrated with features like Application Visibility and Control, VPN (IPSec & SSL VPN), Intrusion Prevention System, Web Filtering, Bandwidth Management, Anti-Virus & Anti-Spyware, Anti-Spam, and Multiple Link. In addition, Wi-Fi facility is made available in the campus 24 × 7.

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

The Institute facilitates all the scholarships offered by both the State and Central Government. All the eligible students admitted in reserved category, students from economical weaker sections of the society are receiving financial assistance from State Government. The Institute arranges extra lectures for lately admitted direct second year students. Special preference is given for students from distant locations and outside Maharashtra for on-campus hostel accommodation.

Expert lectures by industrialists and experienced professionals to develop entrepreneurial skills among the students are arranged on regular basis by various departments. Some of the students of this Institute have already made progress in starting their own startup companies after their graduation.

The Institute motivates the students to go for higher studies and research work. Many students from the Institute are appearing for GATE and other related examination for PG programs in India and abroad. This number is continuously growing from the last few years. The Institute has a centralized Training and Placement cell. It has a structured mechanism to make the students employable and also help them to choose the career of their interest. The cell is headed by the chairman with an Institute level training and placement officer who co-ordinates with various department level faculty coordinators for its activities. Many companies visit the campus every year for the campus placement. The average passing percentage and completion rate of students during the last four years is continuously growing. The passing percentage of the Institute as compared to other Institutes in the surrounding colleges in the region is always higher. The Institute has a Student Grievance Redressal Cell comprising of Principal, Faculty members and student representatives. The students' personal and academic grievances are taken care of by the Mentor, Class Teacher and the higher authorities, if needed. It also has anti-ragging committee comprising of Principal, senior faculty members and student representatives. Institute also has an alumni association which contributes actively to the growth of the institution. The Institute organizes annual cultural event "Nabhangam" during which all the

cultural events are organized by the students under the supervision of faculty. Various technical events & sports events are also organized as a part of “Nabhangan”. In addition, students are encouraged to participate in various national and international level events in cultural, sports and technical activities. Several students from our Institute have received appreciations by winning the events in all these activities at State, University & National levels.

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

Institute targets at all-round development of students and teachers by imparting education and other initiatives to strategically meet the development goals of the Institute. Institute has constituted Governing Body and Academic Committee as per the rules and guidelines of Government of Maharashtra and SPPU, Pune. The head of the institution administers all the activities and plays a leading role in governance and management of the institution. The Institute provides various platforms for faculty to develop leadership skills at department, Institute by giving them various portfolios. The policies for institution growth in terms of academic, administrative and financial matters are decided by the Governing Body. The management has given freedom to the Principal, Head of Departments and faculty for the overall progress and development of the Institute in terms of academic and administrative matters. The functioning of the Institute is at different levels such as student, faculty, Heads of the Department, Vice-principal and Principal.

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

The Institute conducts an alumni survey of the passout students which is executed by the respective departments. The survey addresses the important issues like acceptability of students by industry and Institutes of national & international importance for higher education and variety of research activities. The Institute has a feedback mechanism through which feedback about the Institute, faculties and followed practices is taken on regular basis from students and parents. The Institute provides many welfare schemes like Group Insurance Scheme, PF, Gratuity, Maternity leave, extended maternity leave, uniform for security guards and non-teaching staff, provision for qualification improvement and staff quarters for both teaching and non-teaching staff.

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

The management of the Institute is always proactive in introducing new methods for enhancing the governance and leadership among faculty, staff and students. The Institute

organizes need based motivational training programs for faculty and staff. The HoDs are given academic and administrative freedom in smooth functioning and development of the department. The management encourages the faculty to carry out the research and consultancy activities. It has provided a well-defined guidelines for the distribution of income generated through various research and consultancy programs. The management motivates the faculty and staff to attend various workshops/ seminars/conferences by way of partial reimbursement of the expenses. The Institute aims to achieve the center of excellence in academic research in selected areas of engineering by motivating all the faculty to pursue Ph.D Programs.

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

Institute adopts environment friendly practices and takes necessary actions such as – energy conservation, rain water harvesting, waste management, sewage water recycling, use of solar energy and LED lamps etc. Institute conducts a green audit on periodic basis. Moreover, initiatives are taken by the faculty, staff and the students, through various projects periodically, by supervising the existing status of few of the aspects under audit concept, like: maintenance of the existing trees and locating places for planting new trees. The charm of the campus is because of lush green surroundings, utility of natural topography. The variety of flora and fauna is the peculiar trend of landscapes at any of the campuses under Vidya Pratishthan. Same is the trend seen at our Institute. The Institute tries to save each unit of energy on the campus by making optimum use of available energy. The use of solar energy for heating the water at student hostels, structure of the building to acquire maximum possible sun light are few of the aspects promoted at our campus.

Some of the important best practices followed by the Institute are – regular industrial visits by the students, encouraging student internship at industry during vacation, involvement of experts from industry in guest lectures, monitoring students through mentorship scheme, special classes for academically weaker and lateral entry students, introduction of NSS, use of ICT and NPTEL lecture notes in class rooms, NPTEL Local Chapter, a dedicated server:LocalGuru for storage and streaming of NPTEL video lectures, introduction of spoken tutorial project of IIT Bombay etc.

The Institute also encourages development of various models from Scrap at departmental levels. These models are beneficial for understanding fundamentals of engineering subjects and can be used in day to day practices.

## **SWOC Analysis of the Institute:**

### **Strengths:**

- Well defined Teaching and learning processes and its execution to keep learning on toes.
- Qualified and dedicated faculties who are always in front to upgrade their knowledge and skills.
- Lab facilities with and state of the art infrastructure to motivate students for lifelong learning.
- Integrated co-curricular and extracurricular activities for comprehensive development of the students.
- Contributing to Girls education by providing technical education to girls students

### **Weaknesses:**

- Strengthening of research & consultancy.
- Improving of student placements.

### **Opportunities:**

- To deliver industry relevant courses and center of excellence by collaborating with higher learning Institutes.
- To strengthen entrepreneurship development.
- To establish center for applied research to address the rural challenges through technology development.

### **Challenges:**

- To frame Career Profiling of admitted students to offer choice based career.
- To use university roadmap to achieve the benchmarks required by industry and society.
- To become self-sustainable and proceed towards autonomy.

### 3. Profile of the college:

#### 1. Name of the college:

Name	Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering & Technology, Baramati
Address	Vidyanagari, Bhigwan Road, Baramati, Dist. Pune
City	Baramati, Pin : 413 133 State : Maharashtra
Website	www.vpkbiet.org

#### 2. For Communication:

Designation	Name	Telephone	Mobile	Email id
Principal	Dr. M.G. Devamane	02112-239500	7875128787	principal.vpkbiet@vidyapratishthan.com
Vice-Principal	Dr. S.B. Lande	02112-239511	8149793995	landeed@yahoo.com
Steering Committee Coordinator	Dr. N.K. Sahuji	02112-239545	9823864464	sahujink@gmail.com

#### 3. Status of the institution:

Affiliated College  
Constituent College  
Any other (specify)

✓
-
-

#### 4. Type of institution:

a) By Gender

i) For Men

ii) For Women

iii) Co-education

-
-
✓

b) By Shift

i) Regular

ii) Day

iii) Evening

✓
-
-

#### 5. Is it recognized minority institution?

Yes

No

-
✓

Religious Minority Institution Certificate No. NA

## 6. Sources of funding

Government	Self-financing	✓
Grant-in-aid	Any other	-

7. a. Date of establishment of the college: 21/06/2000  
 b. University to which the college is affiliated:  
**Savitribai Phule Pune University, Pune**  
 c. Details of UGC recognition:

Under section	Date, Month & Year
i) 2 (f)	Nil
ii) 12 (B)	Nil

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

Under Section / Clause	Recognition/Statutory / Regulatory Body	Day, Month & Year (dd-mm-yyyy)	Validity	Remarks
i.	First AICTE Approval Letter	21-06-2000	AY 2000-2001	Approval renewed annually by submitting required documents
	AICTE Letter Regarding Extension of Approval for AY 2017-2018	25-04-2016	AY 2016-2017	
ii.	DTE, Mumbai	10-10-2000	Since 2000	----
iii.	Savitribai Phule Pune University, Pune	25-05-2016	AY 2016-2017	Approval renewed annually by submitting required documents

\*Enclosure: Recognition/Approval letters

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

Yes ☐ No ☒

9. Is the college recognized?

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



Yes ☐ No ☒

If yes, date of recognition: NA

b. for its performance by any other governmental agency?

Yes ☐ No ☒

If yes, Name of the agency: NA

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

Location	Rural
Campus area	1,18,694.3 Sq.mts.
Built up area	54,227.68 Sq.mts.

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

Auditorium & seminar hall infrastructural facilities	Yes Available Total 05 Halls are available
Sports facilities: ▪ Play Ground	Yes Available ▪ A full-fledged sports ground on 10 acres Sports Complex ▪ Space for outdoor games such as cricket, kho-kho, basketball, volleyball, football, kabaddi etc. Courts for indoor games such as badminton, table tennis etc.
▪ Swimming Pool	Not Available
▪ Gymnasium	Yes Available for boys and girls separately
Hostel	
Boys Hostel	✓
i) Number of hostels	03
ii) Number of inmates	575
iii) Facilities	Dining hall, T.V. & recreation hall, solar hot water system, mess, rector quarter & guest house
Girls Hostels	✓

i) Number of hostels	02
ii) Number of inmates	540
iii) Facilities	Dining hall, T.V. & recreation hall, solar hot water system, gymnasium, mess, rector quarter
Cafeteria	✓
Health centre	✓
First aid Emergency care facility	<ul style="list-style-type: none"> <li>▪ All departments</li> <li>▪ Available with Rui Government Rural Hospital, Rui, Baramati</li> </ul>
Health centre	Yes
Qualified doctor: Part-time	Yes
Facilities like banking, post office, book shops	Pune District Corporation bank with ATM, post box and a student consumer store
Biological waste disposal	Yes
Generator or other facility	Generator (Kirloskar company 380 KVA)
Solid waste management	Yes
Waste water management	Yes
Water harvesting	Yes

**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	Under-Graduate	Computer Engineering	4 Years	10+2	English	60	62
		Information Technology	4 Years	10+2	English	60	59
		Electronics & Telecommunication Engineering	4 Years	10+2	English	120	101
		Mechanical Engineering	4 Years	10+2	English	60	57
		Civil Engineering	4 Years	10+2	English	60	58

		Electrical Engineering	4 Years	10+2	English	60	57
2	Post-Graduate	Computer Engineering	2 Years	BE	English	18	8
		Electronics (Digital Systems)	2 Years	BE	English	18	3
		Energy Engineering	2 Years	BE	English	18	3
		Design Engineering	2 Years	BE	English	18	0
		Structural Engineering	2 Years	BE	English	18	9
3	Integrated Programmes PG	NA					
	Ph.D.						
	M.Phil.						
	Ph.D						
	Certificate courses						
	UG Diploma						
	PG Diploma						

**13. Does the college offer self-financed Programmes?**

Yes ☐ No ☒

If yes, how many: NA

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

Yes ☒ No ☐ Numbers

2 PG Programs viz...  
a. M.E. (Design Engg.)  
b. M.E. (Structural Engg.)

**15. List the departments:**

Faculty	Dept	UG	PG	Ph.D/ M.Phil.
Any Other	Engineering	Computer Engineering	Computer Engineering	NIL
		Information Technology	-----	
		Electronics & Telecommunication Engineering	Electronics (Digital Systems)	
		Mechanical Engineering	1.Design Engineering 2.Energy Engineering	
		Civil Engineering	Structural Engineering	
		Electrical Engineering	-----	

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

a) Annual system : --

b) Semester system: B.E.: 06 M.E.: 05

**17. Number of programmes with**

a) Choice based Credit system : Nil

b) Inter/Multidisciplinary Approach : Nil

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

**18. Does the college offer UG and/or PG programmes in Teacher Education?**Yes ☐ No ☒**19. Does the college offer UG or PG programme in Physical Education?**Yes ☐ No ☒**20. Number of teaching and non-teaching positions in the Institution.**

Position	Teaching Faculty						Non-teaching staff		Technical Staff	
	Professor		Associate Professor		Assistant Professor					
	M	F	M	F	M	F	M	F	M	F
Sanctioned by Govt.	14		32		84		02		-	-
• <i>Recruited</i>	06	00	02	00	72	25	01	00		
• <i>Yet to be recruited</i>	08		30		00		01			
Sanctioned by Management	---		---		---		37		27	
• <i>Recruited</i>	--	--	--	--	--	--	37		27	
• <i>Yet to be recruited</i>							00		00	

\*M-Male \*F-Female

**21. Qualifications of the teaching staff.**

Highest qualification	Professor		Associate professor		Assist. professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers :							
Ph.D.	05	00	01	00	02	01	09
M.Phil.	00	00	00	00	00	00	00
PG	00	00	00	00	50	15	65
NET/SLET	00	00	00	00	02	01	03
Temporary Teachers :							
Ph.D.	01	00	01	00	03	00	05
M.Phil.	00	00	00	00	00	00	00
PG	00	00	00	00	15	08	23
NET / SET	00	00	00	00	00	00	00

**22. Number of Visiting Faculty /Guest Faculty engaged with the College: 30****23. Furnish the number of the students admitted to the college during the last five academic years:**

Category	2011-12		2012-13		2013-14		2014-15		2015-16	
	M	F	M	F	M	F	M	F	M	F
SC	32	22	38	31	31	33	37	27	31	28
ST	01	03	04	00	02	02	04	00	03	00
OBC	65	38	66	61	60	48	60	60	64	47
NT	37	30	31	35	43	29	47	38	36	33
EBC	00	00	00	00	00	00	02	01	00	00
Open	170	119	183	123	140	113	146	123	148	120
SBC	04	06	04	07	04	05	03	09	02	08
Total	309	218	326	257	280	230	299	258	284	236

M - Male; F – Female

**24. Details on student enrollment during the current academic year:**

Type of students	UG	PG	Ph.D.	Total
Students from the same state where the college is located	600	023	--	623
Students from other states of India	003	--	--	003
<b>Total</b>	623	023	--	626

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

<b>2014-15</b>	UG	5.56	PG	00
<b>2015-16</b>	UG	4.03	PG	00

**26. Unit Cost of Education: (Average 2012-13 to 2015-16)**

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

(a) Including the salary component **Rs. 68,884/-**

(b) Excluding the salary component **Rs. 27,832/-**

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

Yes ☐ No ☒

If yes,

a) Is it a registered centre for offering distance education programmes of another University?

Yes ☐ No ☒

b) Name of the University, which has granted such registration  
NA

c) Number of programmes offered:  
NA

d) Programmes carry the recognition of the Distance Education Council.

Yes ☐ No ☒

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

Sr.No.	Programme Level	Name of the programme	Teacher-Student Ratio
1	Under Graduate	Computer Engineering	1:18
		Information Technology	1:18
		Electronics & Telecommunication Engineering	1:18
		Mechanical Engineering	1:18
		Civil Engineering	1:18
		Electrical Engineering	1:18
2	Post Graduate	Computer Engineering	1:18



	Electronics (Digital Systems)	1:18
	Energy Engineering	1:18
	Design Engineering	1:18
	Structural Engineering	1:18

**29.** Is the college applying for:

Accreditation : Cycle 1 ☒ Cycle 2 ☐ Cycle 3 ☐ Cycle 4 ☐

**30.** Date of accreditation\*

*(Certificates in Annexes V and VI)*

NA

**31.** Number of working days during the last academic year: **287 Days**

**32.** Number of teaching days during the last academic year: **196 Days**

**33.** Date of establishment of IQAC: **05/07/2016**

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

NA

**35.** Any other relevant data (not covered above) the college would like to include.

- ISO 9001:2008 Certified Engineering College
- Awards and recognitions at University and State levels
- Conducting spoken tutorials in collaboration with IIT Bombay, Mumbai
- Memorandum of Understandings (MoUs) signed with International & National Universities, Industries etc.
- Value-added courses/industrial trainings for faculty & students
- Research Project Grants from BCUD, SPPU, Pune
- Faculty selection for Research Fellowship Programmes by Indian Academy of Sciences, Bengaluru and IIT Delhi
- MOU with College of Engineering, Pune

## **4. Criteria Wise Inputs**

## CRITERION I: CURRICULAR ASPECTS

### 1.1 Curriculum Planning and Implementation

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

##### Vision

To achieve excellence in technical education through continuous and collaborative efforts of stakeholders.

##### Mission

- To provide students with comprehensive knowledge of fundamentals of engineering.
- To nurture moral values and professional skills with consistent efforts.
- To foster relationship with other leading Institutes of learning, research and industries to facilitate the development of stakeholders.
- To develop centers of excellence to meet the need of industries.

##### Objectives:

- **Effective and efficient teaching learning process:** - To ensure delivery of 100% syllabus to students by various means like course plan and facilitating e-resources with the target to achieve maximum university results.
- **Quality improvement of faculty:** - For this training roster is prepared at the beginning of July term ensuring that one faculty from each department is sent for updation of skills/higher education/ per academic year.
- **Encouraging creativity, critical thinking, and discipline:** - This is achieved by organizing one of the workshop/ seminar/study tour per academic year for students and maintaining their attendance 75%.
- **Personality development programs:** - To conduct programs on communication skills, mind mapping techniques, expert lecture guidance etc. for students, each organized per year.
- **Improving Placement of Students:** - Serious attempts are made to increase the employability of the students and also to increase number of eligible students for employments.
- **Co-curricular development of students:** - This is achieved by sending at least 5 students from every department to technical competitions like paper presentation or project competitions.
- **Extracurricular development** is achieved by conducting annual gathering and sending students from each department to extracurricular competitions like “FIRODIA” or “PURUSHOTTAM” or debate competitions.
- **Eco-friendly campus:** - Maintaining greenery in and around the campus, ensuring energy audit and green audit inhouse also by taking measure like

restricting entry of student's vehicles inside college campus to reduce the noise level to 50 db.

- **To remain accountable** for teaching, research and consultancy through self-evaluation and continuous improvement.

#### **Communication to stakeholders**

- The vision, mission and objectives of the institution are communicated to the students, teacher, staff and other stakeholders by various ways.
- The vision and mission declarations are displayed on Institute website, at various locations of college such as Principal's office, Head of Department cabins, library, training and placement cell, seminar halls etc.
- These are published regularly in the Institute prospectus, e-Newsletters
- It is communicated to freshers of UG and PG through the orientation program.

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

The institution has develops and practices its general action plan for effective implementation of the curriculum through the internally defined processes. The institution follows the curriculum recommended by affiliating university, Savitribai Phule Pune University (SPPU, Pune). The semester planning is done in advance, through the departmental meeting by floating the curriculum to the faculty. The choice of 2 to 3 subjects is taken from every faculty. The subjects are allotted on the basis of the priority of the faculty from the choice given, area of specialization, qualification, number of times the subject taught and experience. The students are also informed in advance about curriculum and academic calender.

- Academic calender is prepared to include centralized internal test schedule, university examination schedule and the department and institution level activities like association, professional society, Alumni chapters, workshop, guest lecture, conference, symposium etc. In each semester, courses are allotted to faculty according to area of specialization and skill matrix of the faculty
- Time table for the entire semester is prepared to indicate specific class and laboratory hours.
- Every faculty prepares course plan for the subject handled in line with the university syllabus.
- Faculty prepares extensive lecture notes to cater to university prescribed text and references.
- Laboratory manuals are prepared so that students can refer at practicals and correlate with theory.
- Student's attendance for individual course has been monitored through attendance sheet, log books and monthly attendance record.
- Periodical tests are conducted for both theory and practical courses before commencement of university examination.

- Class committee meeting and course monitoring meetings are conducted to monitor the progress of theory and laboratory courses in line with lecture plans.
- The slow learners are identified based on their test performance and class room interactions, extra support is provided to them through additional input by conducting extra classes.
- The department conducts guest lectures, seminars, workshops through students associations.
- Performances of the students are regularly communicated to their parents. Course files are maintained by all the faculty members for the subjects handled which contain all the documents necessary for the implementation of the action plan. A content of the course file is ensured with the following.

#### **Subject details**

- University code, teaching Scheme, examination scheme.
- Last 3 years result of the subject.
- Faculty profile.
- Syllabus copy, practical list.
- Text and Reference book list, list of books in Library.
- Specify outcomes of the course.
- Individual time table.
- Course plan and attendance sheet.
- Continuous assessment record, lab manual.

#### **Study material**

- Subject notes
- Power point presentation, NPTEL-video lectures
- Question bank
- Assignments
- Class test Question Papers
- Remedial actions based on test results.

#### **Innovative practices**

- Supportive content beyond syllabus Teaching methodologies/pedagogies (quiz, games, group discussions, seminars, etc.)
- Research papers, relevant articles from journals, conference, and case study
- Activities carried out for self-learning (e.g. seminars, video lectures, web based tutorials, etc.)

**Academic Calender : Academic Year 2016-17**

### Semester-I

Mon	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M							
JUN			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
JULY					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
AUG	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
SEP					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
OCT					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
NOV	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						

## Commencement of Sem-I

Commencement of School	
15-Jun-16	Commencement of Term : S.E./T.E./B.E.
18-Jul-16	Commencement of term : M.E. II Year
1-Aug-16	Commencement of Term : F.E.
10-Aug-16	Commencement of term : M.E. I Year
27-Oct-16	Conclusion of First Term : S.E./T.E./B.E. Year
22-Nov-16	Conclusion of First Term : M.E. II Year
6-Oct-16	Conclusion of Teaching : S.E./T.E./B.E.
7-Nov-16	Conclusion of Teaching : M.E. II Year
27-Oct-16	Conclusion of First Term : S.E./T.E./B.E. Year
10-Nov-16	Conclusion of First Term : F.E.

### University Examination

Activity	Year	From	To
In-Semester Examination	TE/ BE	09-Aug-16	13-Aug-16
Practical/Oral/Proj Examination	SE/ TE/ BE	13-Oct-16	27-Oct-16
Practical Examination	ME -II Year	15-Nov-16	22-Nov-16
Theory Examination	SE/ TE/ BE	04-Nov-16	30-Nov-16

## Holidays

Date	Holiday
6-Jul-16	Eid
15-Aug-16	Independence Day
5-Sep-16	Ganesh Chaturthi
11-Oct-16	Dasara
31-Oct-16	Diwali
5-Nov-16	Diwali
14-Nov-16	Guru Nanak Jayanti

## Workshop

Dept	Workshop Title	From	To
E&TC	Basics of Antenna and hands on CST Microwave Studio	27-Aug-16	27-Aug-16
Civil	Water Management by experts (Dr. Avinash S. Garudkar)	1-Sep-16	3-Sep-16
Comp	HADOOP	16-Sep-16	17-Sep-16
Comp	STIP on Machine Learning	1-Sep-16	3-Sep-16

Dept	Industrial Visit	From	To
E&TC	Solar Power Plant A/P-Shirshuphal,	29-Jul-16	30-Jul-16
Mech	Industrial Visit	8-Aug-16	11-Aug-16
Civil	Site Visit TE- FM Subject-Nira-Deoghar dam	2-Sep-16	3-Sep-16
Civil	Site Visit SE- BTM Subject- Construction site-Baram	19-Sep-16	19-Sep-16

Dept	Department Events	From	To
Mech	Inaugural Function Of SAE	18-Jul-16	20-Jul-16
Mech	Elysium-2016	1-Aug-16	1-Aug-16
Comp	CESA	2-Sep-16	3-Sep-16
Civil	Teacher's Day	6-Sep-16	6-Sep-16
Civil	Engineers Day	15-Sep-16	15-Sep-16
IT	Verismo 2016- Regional level technical symposium(CSI)	1-Oct-16	1-Oct-16

Dept	Guest Lecture./ Training	From	To
Civil	Hydraulics	25-Jul-16	30-Jul-16
Mech	By Mr. Shailesh Patil (SE & TE Student)	16-Jul-16	16-Jul-16
IT	Expert Talk by Mr. Ramdas Mane , Mr. Chetan Shetty	1-Aug-16	1-Aug-16
Mech	By Mr. Mhendale (BE Student)	6-Aug-16	6-Aug-16
FE	Competitive Exams by Mr. Dattatraya Shinde	8-Aug-16	8-Aug-16
Mech	By Mr. Bhalrao Vikrant (SE & TE Student)	13-Aug-16	13-Aug-16
IT	Dr. Aditya Abhyankar on Machine Learning	16-Aug-16	16-Aug-16
Comp	Audit Course	12-Sep-16	12-Sep-16
FE	Mathematics for Budding Engineers by Prof. Inder K. Rana	16-Sep-16	16-Sep-16
Civil	Autocad training	26-Sep-16	30-Sep-16
Civil	STAAD - PRO Training	Every Saturday and Sunday	

## Academic Calendar 2016-17



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

- The Institute is affiliated to the Savitribai Phule Pune University (SPPU, Pune), University make available the curriculum and syllabi for various programs.
- Pune University conducts faculty development training programs (FDTP) every year on various subjects to enhance the knowledge level of the faculty.
- Centre for faculty development at Pune University, has developed e-learning materials, which is available in the university web page for access by all.
- The institution encourages the faculty to participate in the workshop, seminar, and conference at national and international level to cope up with current requirement of technology and industry.
- All departments are provided with LCD projectors to deliver effective lectures with practical examples and application through pictures and technical videos provided by NPTEL.
- The Institute library provides text and reference books and other reference material like journals, magazines, teaching models and software to enable the faculty to ensure effective delivery of curriculum. Digital libraries, e-learning facilities are provided to all the faculty members of the Institute which help them in effective teaching. Wi-Fi and internet facility is available in the campus.
- Various e-Journals access is available.
- Faculties are encouraged to become members in professional bodies to receive newsletter, journals, invitations to professional meets and latest advancement in engineering.

### Qualification up-gradation

Institute sponsors faculty members to enroll for Ph.D. programs at higher learning Institutes.

Qualification up-gradation

Name of Faculty	Name of Institute	Nature of Support
Mr.P.R. Shinde	Lawrence Technological University, Southfield, USA	Full Sponsorship
Mr.A.H.Kolekar	IIT Bombay	
Mr.P.R.Chitragar	NIT Suratkal	
Mr.S.M.Bhosle	Michigan Technological University, Houghton, USA	

### **R and D Initiatives**

Institute has formed R&D committee to monitor and address issues of research and development. R&D committee communicates and follows up submission deadlines of proposal and schedule of workshop/seminar/conferences at premier Institutes. It also monitors the execution of research by evaluating the quality, design desirability, propriety and administrative feasibility of all research projects and applications for grants.

#### **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.**

- Faculty prepares course plans for each subjects according to university syllabus. The course plans incorporate all points to be discussed based on expected course outcome.
- The Institute promotes teachers for training programs; for various subjects during winter and summer vacation in which the faculty receives training through lectures and guidelines from subject experts.
- The faculty takes care of academically weak students by conducting remedial classes and sparing extra time for such students after daily academic schedule. For the late admitted direct second year students, extra classes are arranged.
- The institution provides sufficient teaching aid (LCD projectors, video and audio conference room,) for effective curriculum delivery. Institute motivates faculty and students for online certification courses like NPTEL and QEEE.
- In addition to regular classes, the college also arranges guest lecturers by inviting experts from various industries to share their knowledge with the students.
- The students are provided with facilities like book bank from central library at nominal cost.
- Institute made the NPTEL video streaming server set up for accessing the offline NPTEL video lectures of various IITs. Access path for video lectures is as below. <http://172.16.80.102/LocalGuru>.

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

##### **Industry**

- The industry Institute interaction cell (IIIC) is established to promote interaction with industry and faculties of various department.
- Training and placement arranges different activities for students to bridge the gap between academia and industries.
- Interaction with alumni from different industries are arranged.

- Industrial visit and in-plant training for students and faculties also provide network with outside technical world.

### Research Bodies

- In the Institute almost all departments are associated with research bodies like IEEE, SAE, ISTE, CSI etc.
- Researchers from IITs, NITs and other Institutes are regularly invited to the Institute for interaction with students and faculties to motivate them for research in their areas.

### University

- Faculties participate in various FDP, syllabus implementation workshop, syllabus reframing meetings arranged by university for effective delivery of the curriculum.
- Faculties contribute in university examination work like paper setting, paper assessment, practical examination, project evaluation etc.
- BCUD funded research projects are carried out at Institute.

#### 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.)

-Staff regularly attends the curriculum development workshops and makes suggestions as per the feedback received from stakeholders.

Curriculum development workshops

Sr.No	Year	Faculty	Workshop
1	2015-16	Mr.Deepak Sonawane	STTP on understanding application of Mathematics in engineering discipline.
2		Mrs.Gouri Bhoite	
3		Mr.S.Y.Tawre	Faculty development programme on teaching methodology for Engineering Graphics.
4		Mr.K.M.Jadhav	Meeting on syllabus implementation for the subject- Refrigeration & Air conditioning of BE-Mechanical- Engineering- 2012 Course
5		Mr.S.E.Zarekar	One day workshop on syllabus implementation for the subject Dynamics of

			Machinery of B.E.- Mechanical Engineering
6		Mr.R.H.Ambole	Faculty development program on computer laboratory-I, a subject of BE-Comp. Engineering.
7		Mr.A.S.Bankar	Faculty orientation workshop for the subject -VLSI Design and Technology / VLSI Design of BE- E& TC
8		Mr.D.Kushnure	Faculty orientation workshop for the subject -Software Defined Radio of BE- E& TC
9		Mr.D.M.Padulakar	FDP on Embedded Operating System
10	2013-14	Mr.K.M.Jadhav	Syllabus implementation workshop for the subject- Heat Transfer of TE Mechanical Engineering.
11		Mrs.S.S.Kulakarni	Syllabus implementation workshop for the subject- Metrology & Quality Control of TE Mechanical engineering.

**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, Institute is affiliated by Savitribai Phule Pune University (SPPU, Pune) and follows curriculum given by university.

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

- Sessional tests and preliminary examinations are conducted and the results are analyzed to assess the level of understanding of the students.
- University examination results are analyzed for performance in each subject, performance of the faculty and comparative results over the years.
- Emphasis is given to the courses in which students having consistent poor performance in examination by arranging extra teaching hours.
- Regular feedback from students is obtained and analyzed. It helps to identify the subjects which need attention. Changes are made to improve the satisfaction level of the students.

## 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.

- Along with the academics affiliated to Savitribai Phule Pune University (SPPU, Pune). Institute also offers extra courses which can bridge the gap between university curriculum and industry.
- The institution organizes skill development and value added courses to develop the student to suit industrial needs, to enhance the employability skills, equip them with technical skills under industry-academia interactions.
- The syllabus and the curriculum for such courses are developed by faculty members under the supervision of senior faculty members.

#### Extra courses

Department	Name of the course/workshop	Duration	Remarks
Electronics and Telecommunication Engineering	Embedded system-PICK the PIC	1 Week	Certificate issued by Institute
	Embedded system microcontroller		
Electrical Engineering	PLC SCADA	3 Days	Certificate issued by IIT,Bombay
Civil Engineering	STAAD PRO	1 Week	Certificate issued by Institute
	Auto-Cad	1 Week	
	Hit-office	5 Days	
Information Technology Engineering	Workshop on database management system	Two week	Certificate issued by IIT,Bombay
	Workshop on open source blender	1 Day	
	Spoken tutorial workshop on Latex	1 Day	
Computer Engineering	ANROID workshop	2 Days	Certificate issued in association with IIT, Roorkee

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

No, Institute doesn't offer any dual degree programs

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

**-Range of core/elective options offered by the university and those opted by the college.**

**-Choice based credit system and range of subject options**

**-Courses offered in modular form**

**-Credit transfer and accumulation facility**

**-Lateral and vertical mobility within and across programs and courses, enrichment courses**

- **Range of elective options offered by the university and those opted by the college**

To develop generic attributes relevant to a career for the students, the Savitribai Phule Pune University, (SPPU, Pune) offers core subjects that are mandatory along with a wide range of electives, from which the college offers two to four elective subjects for the final year students, based on the prospects to acquire knowledge and have a potential for benefitting academic development culminating into a career of their choice. The total number of electives provided as per university curricula in the 11 programs conducted by the Institute, are 192. Out of these, the Institute offers 40 elective courses across various programs.

- **Choice based credit system and range of subject options:**

Institute follows the curriculum designed by Savitribai Phule Pune University (SPPU, Pune). University has offered only semester based credit system with effect from 2014-15.

- **Courses offered in modular form: No**

- **Credit transfer and accumulation facility:**

As Institute is affiliated to Savitribai Phule Pune University (SPPU, Pune) and follows academic structure given by university, credit transfer and accumulation facility is not offered.

- **Lateral and vertical mobility within and across programs and courses:**

Students are allowed to change branch from first year to second year also students can change their college with same credit and as per norms laid down by university and Directorate of Technical Education, Maharashtra, UG and PG students are permitted to move across various disciplines for their project work or research.

- **Enrichment courses:**

This facilitates to bridge the curriculum and professional gap enabling the student to be technically equipped for a career in engineering. It also enable the students to progress higher studies and to become holistic engineering professionals.

The institution offers training and placement preparatory programs such as quantitative aptitude, logical reasoning, soft skills, mock interviews, leadership programs, group discussions, public speaking, industry specific training programs, foreign language training to improve their interpersonal skills.

Guest lecturers, workshops, seminars, project contests are conducted during academic years.

The Institute offers following enrichment courses:

- Personality development
- Robotics workshop
- Motivational lectures
- Software training
- GATE preparation
- Managerial skill development program
- Aptitude development program
- MATLAB training
- C programming
- Workshop on Latex

Most of the programs are running under NPTEL and QEEE program, and initiatives of IITs and IIC.

**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.**

Yes, institution offers self-financed programs.

Students are admitted as per state Government norms and the details of which are available at [www.dte.org.in](http://www.dte.org.in).

- Institution follows the Savitribai Phule Pune University (SPPU, Pune) curriculum. The details are available at <http://www.unipune.ac.in>
- The institution collects fees from the students as prescribed by the Government of Maharashtra and Shikshan Shulka Samiti. However fee structure is different for UG and PG. Details are available on [www.sssamiti.org](http://www.sssamiti.org).
- The institution follows the prescribed norms of AICTE /Savitribai Phule Pune University (SPPU, Pune) for recruiting the faculty and to fix their remunerations. ([www.ugc.nic.in](http://www.ugc.nic.in) and [www.aicte-india.org](http://www.aicte-india.org) )
- The salary structure offered to the staff is as per UGC and AICTE norms.
- Institute offers various engineering degree programs as list below.

## Engineering degree programs

Program	Branch
UG	1.Computer Engineering 2.Civil Engineering 3.Electrical Engineering 4.Information Technology Engineering 5.Electronics and Telecommunication 6.Mechanical Engineering
PG	1.Digital Systems 2.Computer Engineering 3. Structural Engineering 4. Design Engineering 5. Energy Engineering

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

To prepare the students to compete in a challenging market, various skill oriented programs are organized in Institute, by providing facility for special trainings and advanced certification courses in the college premises. Apart from the curriculum, Institute offered the following skill oriented programs. A few programs are conducted in association with IIT'S

- Summer internship programs
- Foreign language training
- NPTEL/QEEE courses.
- Guest lectures from industrial persons.
- QIP workshops

These programs are beneficial to student and staff.

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

-No

## **1.3. Curriculum Enrichment**

**1.3.1. Describe the efforts made by the institution to supplement the university’s curriculum to ensure that the academic programs and Institution’s goals and objectives are integrated?**

- The Institute follows the curriculum designed by respective board of studies in consultation with various stakeholders.



- Faculties make an effort to enrich the curriculum by incorporating content beyond the syllabus during lectures and practicals
- Institute is promoting faculties for participating in various syllabus framing meetings and implementation workshops arranged by the university.
- Institute is sponsoring the faculties for pursuing their higher studies like Ph.D. from IITs, NITs and international technological universities.
- Institute is supporting the faculties for attending the national and international conferences.
- Institute motivates the student for participating and attending technical events organized by other Institutes.
- Institute has signed MoU with premier Institutes.
- Eminent persons from industries and reputed institutions are invited to give special lecture on recent trend in technologies.
- To enhance the learning experience of the students, NPTEL videos, reputed national and international journals and Internet access are provided in the campus.
- Technical activities are arranged under different clubs of student council.

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

The following efforts are made by the Institution to enrich and organize curriculum with need of dynamic employment

- Students are encouraged to do interdisciplinary projects as well as projects in collaboration with industries.
- The Institute encourages the faculty to undergo internship at industry during vacation and encourages participating in FDP, STTP CEP, QIP, seminars and workshops organized by different Institutes and industries for effectively executing the curriculum and improving teaching practices.
- The Institute promotes effective industry-Institute interaction through Industry Institute Interaction Cell (IIIC). Students are encouraged for industry internship programs during vacation.
- The departments of the Institute offers several courses to serve the purpose of 'value addition' for students and faculties, apart from the curriculum of SPPU like training programs on ANSYS, STAADPRO, Embedded System, Latex etc.
- Industrial visits are arranged for the students and faculties to core companies.
- The research element is enhanced by encouraging the students to participate in platforms like international and national conferences, research workshops.
- Institute facilitates interaction with the industry persons with the help of professional bodies like MCCA, IEEE, and SAEINDIA.etc.

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

The institution makes efforts to train the students to integrate cross cutting issues by the following ways.

**Gender Issues:**

- Internal Complaint committee is established to look after the grievances of females in campus. It conducts review meetings periodically to resolve such issues.
- Institute organizes Women's Day to increase social awareness among the students and faculties in the Institute.
- A student grievance cell exists in Institute to address gender issues. Students conducts session on Girl Child education, Women empowerment through higher education under social activity.

**Climate Change:**

- The Institute is situated in a lush green campus and efforts are taken for its maintenance for reducing the adverse climatic changes due to pollution.
- The Institute is cultivating the culture of paperless communication.

**Environmental Education:**

- Institute has standard practices for disposal of waste and water recycling.
- Utilization of rough pages for printing
- Institute celebrates World Environment Day and No Pollution Day.
- Organization of environment safety related programs at nearby rural villages through the student body like NSS.

**Human Rights:**

- Earn and learn Scheme is implemented for the selective economically backward students.
- Scholarship schemes from Government of Maharashtra, India are implemented as per the norms.
- Institute initiated NSS, Grievance cell, Anti ragging activity, cell against women sexual harassment

**ICT**

- Class rooms are equipped with LCD and Internet for effective handling of subjects with animation, audio and video visuals.
- Wi Fi connectivity and Internet center is available in campus.
- NPTEL video lectures are used to enrich student fundamentals.
- Language lab is used to improve communication skill.

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

**-Moral and ethical values**

**-Employable and life skills**

**-Better career options**

**-Community orientation**

The Institute offers various training programs/social activities to ensure holistic development of students under following categories.

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

- 'Art of Living YES+' course is conducted for students regularly.
- Orientation and Yoga programs are conducted for all interested students.
- Awareness programs and alumni interaction programs are conducted.
- Observance of Days of National Importance
- Seminars on cyber security and ethical hacking
- Awareness program on road safety.

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

<b>Sr No</b>	<b>Year</b>	<b>Course /Guest lecture</b>	<b>Resource Person</b>	<b>Duration</b>
1	2015-16	Yoga day	Mr.N.V.Nitve	1 Day
2	2015-16	Art of living –YES +	Mr.N.V Nitve	3 Day
3		Art of happiness	Shri Gourang Das	1 Day
4		Women's day Program on Women Empowerment (Empowerment through education)	Dr. Anuradha Ganesh	1 Day
5	2014-15	Our social responsibilities	Mr. Shailjakant Misra	1 Day
6		Art of living –YES +	Mr.N.V.Nitve	3 Day
7	2013-14	Crash testing of vehicles and safety devices	Mr. V.Gogate	1 day
8		Industrial safety training	Mr.Shekhar Kate	1 Day
9		Art of living –YES +	Mr.N.V.Nitve	3 Day
10	2012-13	Art of living –YES +, Advance & part I	Mr.N.V.Nitve	3 Days

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

- Various value added courses, personality development program are offered by institution to increase the employability of students.
- Continuous efforts are taken through lecture series and orientation programs by T& P cell and faculty coordinators.
- Feedback from recruiters and alumni is incorporated to improve employability and life skills.

**Better career options**

- The institution has separate training and placement cell to provide various programmes for the benefit of the students, exposure to appear in competitive examinations is facilitated.
- Conduction of expert talks for MPSC and UPSC public services.
- MoUs for improving technical skills of students.

**Better career options**

Sr. No	Year	Activities/Workshops	Speaker / Expert
1	2015-16	Entrepreneurship and youth development	Mr. D. S. Kulkarni -Founder and Chairman DSKDL, Pune
2		GATE: Preparation and opportunities	Mr.A.V. Prasad, GATE-Forum, Hyderabad
3		Higher education in US and internship placements	Mr.Laxman Iyer
4		GRE / TOEFL /SAT/GMAT preparation	The Chopras, Pune
5		GATE: Preparation and opportunities	Mr.Rohit Sinha, IIT Kanpur
6	2014-15	Quality management system	Mr. Atul Thodge, Piaggio Vehicles Pvt Ltd, Baramati,
7		Guest lecture on depression	Ms.Manasi Ksirsagar, Pune
8		Campus to corporate (Etiquette and Values)	Mr. Dhwan Kiran, Pune
9		Stress management with respect to exams & staying in hostel.	Prof. Vilaskumar Deshmukh, Nashik
10		Opportunities in oil , gas/power sector and EPC companies working Culture	Mr.Mehstri
11		SSB preparation	Mr.Sandeep Yadav
12		Career paths in software industries	Mr. Rajesh Vartak
13		Career in Indian army	Maj. Gen. (Rtd) Pranab Chakrobarty Registrar, Vidya Pratishthan, Baramati
14	2013-14	Bharat Sanchar Nigam Ltd. advance level training programme.	Mr.Sanjay Dhande, RTTC, Pune

15		Basic communication skills	Mrs.Pallavi Zutshi
16		Communication course by Patshala	Coordinator- Mrs.Pallavi Justi
17	2013-14	Group discussion and mock interview for BE students	Mr.Vivek Bhapkar
18		Aptitude session for BE	Mrs.Pallavi Zustshi

**Community orientation:** The Institution initiates to conduct many programs such as:

- Social awareness programs and welfare services such as medical checkup.
- Organizing and participating in blood donation camps
- Establishment of NSS and its service to the society.

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

Institution is affiliated to the Savitribai Phule Pune University (SPPU, Pune) has limited flexibility in changing the curriculum. The Institute interacts regularly with the stakeholders such as parents, students, alumni and faculties on various aspects like curriculum, academic developments, and infrastructure and support facilities etc., some of the events enriching the curriculum are given below.

Feedbacks from faculty members collected before the syllabus revision meetings and suggestions has been discussed with subject experts and BoS members during the syllabus implementation/revision meeting, to incorporate the same in the university curriculum.

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

- Through feedback and corrective action
- Through peer review sessions
- Academic monitoring and student counseling
- Alumni interaction

## **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?**

Institution is affiliated to the Savitribai Phule Pune University, Pune and follows the syllabus prescribed by the university. Many faculties from Institute are taking part in syllabus structuring and content finalizing as a subject experts and subject chairman at university level.

**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, to enrich the curriculum, the feedback from various stakeholders like faculty and industry experts has been taken with a formal system. The parent feedback form is used to know their views about Institute, infrastructure, and professional expectations.

The suggestions received from various emeritus and curriculums of various premier Institutes are considered for development of curriculum. All these feedbacks are conferred during the syllabus implementation meetings with Board of Studies to incorporate in the university curriculum.

**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?)**

**New program introduced**

<b>Sr.No.</b>	<b>Name of the Courses</b>	<b>Year of Starting</b>	<b>Rationale for starting</b>
1	ME(Mechanical-Design Engineering)	2012	To cater the need of industry and to initiate the R&D activity.
2	ME(Mechanical-Energy Engineering)	2012	

**1.4.4 Any other relevant information regarding curricular aspects which the college would like to include.**  
No.

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

### **2.1. Student Enrollment and Profile**

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

##### **Publicity:**

- The Institute is part of centralized admission process (CAP) of Directorate of Technical Education (DTE), Government of Maharashtra.
- Every academic year after result of 12<sup>th</sup> and required engineering entrance test admission notification is published by DTE in leading national and regional language news papers.
- Same notification is also published on DTE website and link of the notification is made available on college website for student and parent reference.
- Institute advertises detailed course wise information in leading and regional daily news papers.
- Every year during admission process Institute forms admission and enquiry cell which helps students and parents to clear their admission related queries.

##### **Transparency:**

- Out of total admissions 80% seats are filled by DTE through centralized admission process and 20% seats are filled by Institute under Institute level quota. The process is entirely online and open to all stake holders for observation.
- Interested and eligible students have to fill online application form on DTE admission portal through Application Form Receiving Center (ARC).
- ARC verifies all original documents of the students which help DTE to confirm the student eligibility such as required marks and caste related documents.
- After document verification round, provisional merit list is displayed on DTE admission portal.
- Separate time is given for the students to clear their grievances if any.
- After clearing all kinds of grievances DTE displays final merit list of the students.
- Eligible students have to fill online option forms through their assigned logins.
- All admission rounds and entire admission process is strictly as per inter-se merit.
- For Institute level admissions, applications are invited from students by giving advertise in newspapers, application forms are also available on college website from where student can download the form and send via post or courier. Separate merit list of received applications will get prepared as per DTE guidelines and get displayed on college notice board. All seats are filled as per guideline and directives of DTE.
- Admission to ME and direct second year students are also controlled and

monitored by DTE.

- Institute follows the norms and directives given by DTE, Government of Maharashtra State related to all kind of admission process.
- The process is totally controlled by government it ensures transparency in admission process.

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

- Institute follows all the admission process and eligibility criteria as per the directives given by Directorate of technical education, Government of Maharashtra State. The entire process is well documented in the brochure published by DTE.
- Out of 100% first year (UG) seats, 65% seats are filled through common entrance tests like CET/JEE/Composite score as per the eligibility criteria given by Maharashtra State.
- 15% seats are filled through All India Engineering Entrance examination (AIEEE).
- 20% seats are filled by Institute under Institute level seats by the students who satisfies the minimum eligibility criteria given by Directorate of technical education and as per merit list.
- Direct second year (DSE) seats are filled on the basis of final year diploma score.
- PG seats are filled on the basis of score in the national level graduate aptitude test for engineers (GATE).

**Following table gives the details of first year undergraduate admission status:**

**First year undergraduate admission status**

Academic Year	CET/JEE Seats (65%)		AIEEE (15%)	Institute Level Seats (20 %)
	CET	JEE		
2015-16	NA	253	54	62
2014-15	NA	273	62	64
2013-14	272	NA	60	72
2012-13	273	NA	61	86



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

Minimum and maximum marks for First Year admission of all disciplines from academic year 2012-13 to 2016-17 is given below.

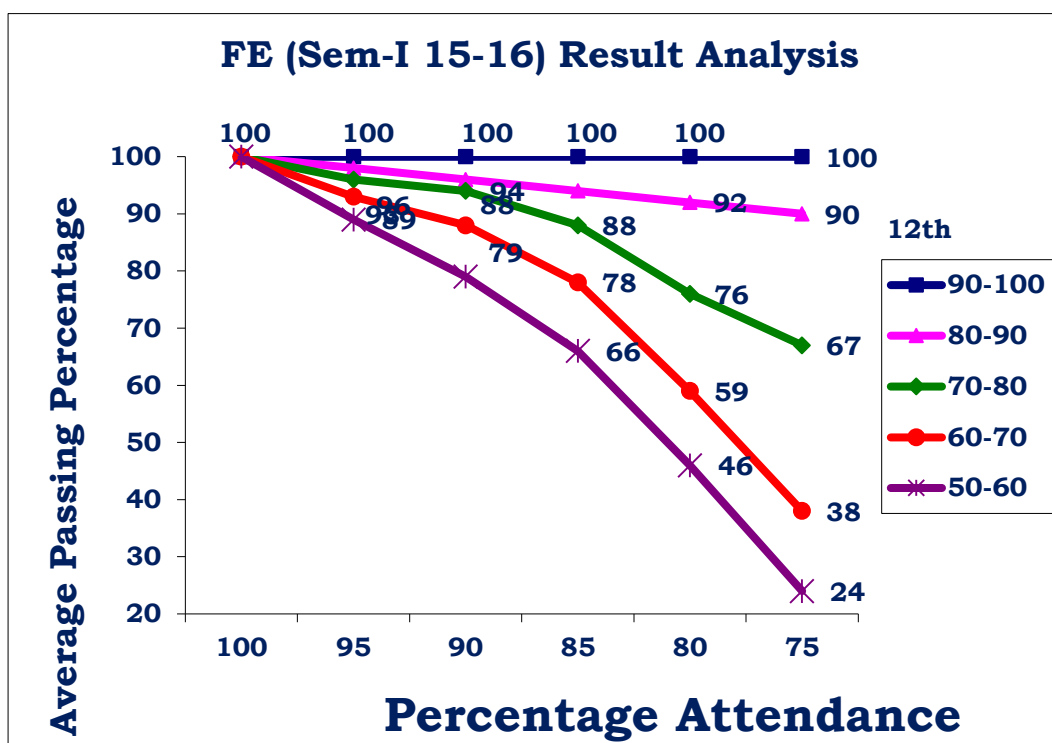
**Min and Max., marks required for first year admission**

<b>Academic Year</b>		<b>Civil Engg.</b>	<b>Comp Engg</b>	<b>Info. Tech.</b>	<b>Electrical Engg.</b>	<b>E&amp;TC Engg.</b>	<b>Mech. Engg.</b>
2015-16	Min Marks	32	24	6	24	-12	38
	Max Marks	71	79	52	70	54	78
2014-15	Min Marks	38	10	04	29	19	46
	Max Marks	78	77	55	62	63	79
2013-14	Min Marks	70	70	54	63	58	94
	Max Marks	119	123	97	119	113	136
2012-13	Min Marks	69	85	68	78	90	100
	Max Marks	119	114	106	126	132	143

(Minimum and maximum marks are worked out for open category students admitted through centralized admission process after last round. Marks are given as per the eligibility criteria given by DTE time to time for that particular academic year i.e. for 2012-13 and 2013-14 on the basis of MHT-CET of that year, for 2014-15 and 2015-16 on the basis of JEE score.)

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

- Yes
- Admission process is entirely governed by Directorate of technical education, Government of Maharashtra State, Institute follows all the directives and rules given by concerned authority time to time.
- Every year during and after admission process Institute make analysis of the quality of input students in terms of PCM/CET/JEE/AIEE cut-off marks.
- Outcomes: This helps to understand the efforts to be taken on weak student's right from beginning.
- Institute takes care of following factors to improve the quality of input- After the result of each semester we analyze the performance of students based on their class room attendance, passing percentage in university examination and these criteria are evaluated on range of students having their XII<sup>th</sup> PCM marks category from higher segment to lower segment.



FE Result Analysis

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

**commitment to diversity and inclusion**

- ❖ **SC/ST**
- ❖ **OBC**
- ❖ **Women**
- ❖ **Differently abled**
- ❖ **Economically weaker sections**
- ❖ **Minority community**
- ❖ **Any other**
  - Since the admissions process is monitored and governed by government, Institute follows all kind of rules and regulations related to reservation policies given by concerned authority.
  - Institute follows the 50% reservation of total sanctioned intake as- SC-13%, ST-7%, NT-11 %, OBC-19% also Women 33% in all categories.
  - Five percent (5%) seats of sanctioned intake are available for economically weaker students under Tuition Fee Waiver Scheme (TFWS) in all under graduate courses. These seats are over and above the sanctioned intake.
  - For Jammu and Kashmir Migrant Candidature there is special quota and these admissions are as per Prime Minister's Special Scholarship Scheme (PMSSS). These seats are over and above the sanctioned intake.
  - Three percent (3%) seats of total sanctioned intake are reserved and filled by Candidates with Disability.

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

**Details for various programmes offered by the institution during the last four years are given below:**

**UG:**

**Programmes offered by Institute (UG)**

<b>Branch</b>	<b>2012-13</b>			<b>2013-14</b>			<b>2014-15</b>			<b>2015-16</b>		
	Int.	Adm.	DR	Int.	Adm.	DR	Int.	Adm.	DR	Int.	Adm.	DR
Civil Engg.	60	60	100	60	60	100	60	59	98.33	60	60	100
Comp Engg	60	60	100	60	60	100	60	59	98.33	60	60	100
Electrical Engg.	60	60	100	60	57	95	60	55	91.66	60	60	100
Info.Tech.	60	60	100	60	55	91.66	60	50	83.33	60	52	86.67
E&TC Engg.	120	120	100	120	111	92.5	120	111	92.5	120	83	69.17
Mech. Engg.	60	60	100	60	59	98.33	60	60	100	60	60	100

**Int. =Total Intake, Adm. = Total number of admitted students, DR= Demand Ratio**

(Adm. / Int. \*100)

PG:

Programmes offered by Institute (PG)

Branch	2012-13			2013-14			2014-15			2015-16		
	Int.	Adm.	DR	Int.	Adm.	DR	Int.	Adm.	DR	Int.	Adm.	DR
Comp Engg	18	18	100	18	18	100	18	15	83.33	18	9	50.00
Electronics (Digital System)	18	18	100	18	18	100	18	17	94.44	18	11	61.11
Mechanical (Energy Engg)	18	8	44.44	18	2	11.11	18	2	11.11	18	1	5.56
Mechanical (Design Engg)	18	15	83.33	18	14	77.78	18	10	55.56	18	7	38.89
Civil (Structural Engg)	18	18	100	18	12	66.67	18	13	72.22	18	14	77.78

**Reasons for increase/decrease in the admission are as follows:**

- National and global employment scenario is main factor for variations in the admissions.
- Institute locates in rural place and students mostly prefer the Institutes located in urban areas.
- State wise total number of seats available for under graduate admissions may vary every year due to establishment of new Institutes.
- Major changes in the entire admission process time to time.
- Rural background affect in the admission.

**Action initiated for improvement in admission:**

- Counseling of students before and during admission process.
- Providing effective placement activities.
- Publishes brochure of Institute mentioning the facilities and achievements.
- Newspaper advertisement.

**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?**

As per the needs of differently-abled students Institute caters to the students. Care is being taken in the following manner.

- Provision of ramp and lift are made for physically handicap students.
- Special arrangements are made for such students as per their needs like providing writer etc. As per government reservations the admissions of differently-abled

/physically handicap (PH) students are made. Institute follows all government policies to cater their needs.

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

**Yes.**

On the basis of CET/JEE score and PCM marks of students, the Institute gets the idea about the quality of students. On that basis following activities are carried out in the Institute--

- Every year, Institute organizes induction programme for first year students and their parents to make them aware about infrastructure, facilities and activities conducted in this Institute. Principal and head of first year give presentations on daily practices and curricular and co-curricular activities are conducted in Institute.
- Major students are from rural areas hence soft skills training programs are organized for them.
- First lecture of each subject is planned and carried out as introductory lecture to understand basic and fundamental of subject.
- Head of department conducts orientation programme for second year students before beginning of the semester.

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

The Institute organizes the following activities for students.

- Guest lectures are arranged from industry experts and researchers to enrich students' knowledge.
- Remedial lectures are conducted for academically weak students.
- Industrial visits are arranged to enhance their practical knowledge.
- Technical events, Workshops and Training Programs are arranged in each branch to develop students' technical skills.
- The Institute motivates students to involve in e-learning courses such as edX and NPTEL.
- Coaching classes are arranged for preparation of GATE.
- Under Training and Placement Cell training programs are conducted to develop their personality and communication skills.
- Extra time table is arranged for DSE (Direct second year students) by all departments.
- Extra lectures are conducted for direct second year students to cover prerequisites of subject like Engineering Mathematics-III.

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

There are no gender and religion discrimination in any policies for students and staff.

- Women Empowerment cell / Internal complaint committee works to redress issues of lady staff and girl students.
- Health check-up activity is conducted for lady staff and girl students under IEEE (WIE).
- ‘Vidyarthini Arogya Prabhodhan’ program is conducted on nutrition diet and stress management for girl students and ladies staff under Savitribai Phule Pune University.
- Programs like tree plantation and No-vehicle-day are organized by students’ social clubs.
- Women’s day is celebrated in Institute and guest lectures are arranged on women empowerment under IEEE WIE chapter.
- Cleanliness drive is conducted by NSS in campus.
- Institute organize special training programme on ethics, moral values through Yes+ programme for student and staff.

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

On the basis of classroom test performance, online examination performance, internal examination performance, academic performance and active participation in various activities advanced learners are identified. Following are the responses.

- Motivate them to take part in summer/and winter training programmes,
- Encourage them to participate in symposia, workshops and seminars in respective areas.
- Arrange expert lectures /guest lectures on recent trends and live projects.
- Motivate them to learn through online courses like edx, NPTEL.
- Institute encourages them for undergoing internship in industry.
- Provide opportunities to participate in various activities in state and national levels to represent the Institute.
- Encourage students for leading professional associations.
- Motivate and guide students to appear for various competitive examinations like GATE, GRE and TOFFEL.
- Motivate students to appear for Srinivas Ramanujan Mathematical Competition (SRMC) organized by ISTE and Mathematical Olympiad organized by IIT Bombay.
- Motivate them to pursue higher education and research.
- Felicitate Institute rankers in university examination.

#### **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)?**

On the basis of attendance of students, result analysis of internal tests and university examinations, and response of student in classroom Institute identify students at risk of drop out. Head of department conducts meeting regularly with class-teachers to identify these kinds of students.

Institute monitor attendance of students and prepare list of defaulter at end of month, communicate to parents by sending SMS, letter to reduce drop outs.

Class teacher monitor attendance, if students remains absents take follow up of absent students by phone call to students or parents.

**Following corrective actions are taken by Institute:**

**For slow learners:**

- From result analysis of internal examination, list of weak students is shortlisted, after discussing with them extra lectures are arranged for difficult subjects.
- Head of department, faculty counsels students as well as parents regarding improvement.
- As per students demand some topics taught separately.

**For Economically weaker/ physically challenged/ disadvantaged sections of society:**

- Fee concession is given to needy students from 'Pawar Charitable Trust'.
- Provide facility to pay fees in installment if they demand.
- TFWS scholarship is provided for economically weaker students.
- Free book-bank facility is available for SC/ST category students.
- Special attention is given towards physically challenged students.

## 2.3 Teaching-Learning Process

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

Academic year starts as per academic calender designed by Savitribai Phule Pune University. Typical plan of department consist of teaching, learning and evaluation. Plan of teaching /learning:

- Before the commencement of semester, committee at the Institute level prepares academic calender by considering university academic calender. This academic calender includes scheme of curricular and co-curricular activity, tests, tentative online and In-semester university examinations, list of holidays etc. and it is displayed on notice board for student reference.
- Required faculty for each course is assigned by the concerned Head of Department and Principal.
- Timetable coordination committee prepares all timetables and displays them on notice board before commencement of semester.
- Heads of Departments monitor the academic progress by arranging periodic meeting.
- Faculty members are assigned the responsibilities of class-teacher, mentor and examination coordinator at the beginning of semester.
- Each faculty prepares course plans and gets them approved by HoD.

- Record of all lectures/practical sessions delivered as per time table as well as progress of delivery course plan is monitored by HoD.  
Evaluation Blue print:  
Performance of student is continuously evaluated through unit tests, practical assignments, unit tests and tutorials.
- As a part of continuous evaluation process, term work marks given to students are based on overall attendance, marks of unit tests, practical performance and timely submission of assignments.
- The marking scheme of term work is notified to all students at the beginning of semester.
- By continuous assessment process of students, weak students and sharp students are identified. Counseling of weak students is done to improve their performance in consultation with their parents.

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

IQAC monitors all the academics, students' feedback and overall teaching-learning process.

**IQAC monitors the following measures-**

- Checking of course file, theory and practical attendance and all other relevant academic documents on the regular basis.
- Students' feedback is taken and analysis is conveyed to staff for their improvement.
- Mentor is assigned for each group of students for their overall development.
- Faculty members are motivated to keep their knowledge and skills updated. They are also motivated to pursue their higher studies and research.

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

To make learning student-centric, students and faculty are motivated through different activities for better teaching-learning.

- NPTEL/ QEEE/ PPTs / Charts / animated/ Technical video clips are used. (10020 NPTEL video lectures are available).
- Unit-wise assignments and questions banks (descriptive and objective) are given to students for better teaching and learning.
- Arranging guest lecturers of expert faculty, industry persons by each department.
- Library is well-equipped with books, magazines, journals and e-books.
- Providing library facility, book bank facility, reading hall, language laboratory for self- learning.
- Collaboration with professional bodies like IEEE, ISTE, etc.
- Students are motivated to participate in technical events like code war, model making, poster presentation, debate competition, power point presentation, quiz competition etc.



- Organization and participation in seminars, workshops and conferences, poster presentation etc.
- Students are motivated to participate in co-curricular and extra-curricular activities to develop student all-round personality.

#### 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?**

Departments conduct following activities among students to nurture and transform them into life-long learners and innovations.

- Institute organizes state and national level workshops, conferences and seminars.
- Institute always give supports to participate in different project competition like Avishkar, Techfest.
- Institute organizing inter-college activities like Code War, Model Making, Poster Presentation and Debate Competition.
- Students are encouraged by arranging expert lecture of scientists, eminent personality from industry and academics to share their experiences and different types of practices followed by industry.
- Students are motivated through professional bodies like CSI, IEEE, ISTE, IETE and awarded for good performance in Academics, curricular, co-curricular and extracurricular activities.
- Every year ISTE organizes Srinivasa Ramanujan Mathematical Competitions for students and staff, in the same 12 students has received National Level Rank and 04 students have received Zonal Level Rank.

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

- The Institute has licensed software Solid Edge V20, Pro-E Wildfire University plus site License, Intel cad 6.6 Pro educational bundle, Mastercam X9, Ansys Academic in mechanical department.
- Oracle 9i, IBM Rational Suite Enterprises, Windows Small Business Server Essentials 2011 in Computer and IT department.
- Xilinx 8.2, Micro-Cap 8, IE3D Super Structure Designer Software, Opti-system Ver 2013, VLSI Design Software, Orcad in Electronics and Telecommunication Engineering.
- GRAM ++ GIS Version 2.0, Super Civil CD, S S F, Q T Y, ROAD, Super Real Valuation, Steel 2007, R C F, 2 D Fram Analysis, Road Estimate, R A F T, Site Control, Super Rate Analysis (12), STAAD pro Software in Civil department.

- PSIM, ETAP, PLC SCADA in Electrical department, Tell Me More in Language laboratory.
- At present IT department is using Moodle software for conducting mock online examinations. Use of Moodle is helping both students and teachers in resource and knowledge sharing. We have planned to implement it for all other departments.

### **E-Learning: Resources from national program on Technology Enhanced Learning (NPTEL):**

We have made the NPTEL video streaming server setup for accessing the OFF line (Local Area Network) respective branch subjects' NPTEL video lectures of various IIT's to college staff and students. Institute has IIT Bombay remote center and remote center ID is 1024.

Institute has conducted 22 workshop under NME-ICT sponsored by MHRD. Govt. of India.

NPTEL offline streaming video lectures is made available: <http://172.16.80.102/LocalGuru> Faculties and students access the NPTEL video lectures from server we have provided unique login Credentials to individual faculties and common login credentials to students.

### **Mobile Education:**

Department of computer engineering has organize android workshop for computer engineering students.

Department of Information Technology has organize online test for students on Google form / Moodle.

### **Massive Open Online course:**

Massive open online courses are accessible in the college campus and faculty and students take this facility of online lectures of eminent personality of different organization.

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

A large number of activities are continuously carried out in Institute to expose advanced level of knowledge and skills.

The advanced level of exposure is carried out by doing following activities.

- Faculty and students are motivated to present their work in national and international seminars, workshops and conferences.
- Faculty is motivated for higher studies and courses.
- Arranges lectures of eminent personality from recognized Institutes like IITs, NITs etc. and industrial persons.
- Industrial training is imparted to faculty members.
- Students are motivated to complete Internship programmes in industry.
- Faculty are encouraged for participation in FDP to improve overall

performance of teacher

**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?**

Students admitted to Institute come mostly from rural areas. These students face many problems starting from home sickness, communication and understanding the professional course like engineering. To guide and support their academic, personal, and psycho-social problems following processes are adopted.

- The Institute has class-teacher scheme. The class-teacher guides and advises students on academic matters, solves students' personal problems and convey the academic performance and attendance to parents.
- Mentors are appointed for every 15 students to monitor the attendance of students regularly, bring to the notice of respective class-teacher and HOD about the excessive absentee, issues related to academic performance, physical, and mental status and any other personal problems are discussed and corrective measures are suggested.
- Training and placement department looks after career guidance, personality development programs and skills demanded by the corporate world.
- In addition to the above, Principal and HODs counsel students from time to time about career guidance, competitive examinations and the corporate world.
- Institute organizes yoga classes, art of living courses and meditation programs for students.

In last four years number of students benefited in yoga classes is as follows.

**Yoga Classes**

Sr. No	Year	No. of students
1	2015-16	102
2	2014-15	38
3	2013-14	75
4	2012-13	35

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

The faculty members of the Institute are encouraged to adopt new different innovative teaching methodologies to enrich knowledge of student community. Faculties have full freedom to use various teaching approaches to ensure the effective teaching and learning outcomes. To ensure the effective teaching and learning outcomes faculty members adopt the following approaches.

- Video lectures, PPTs, tutorials, assignments, lecture notes and other relevant study material are made available on web portal and given access to students.

- To increase the interest of students in subject faculty members use various practices such as role-play, quiz puzzles, animation, live presentation on various practical setups and model making.
- Institute organizes training programs for the improvement of teachers.
- Faculty members are encouraged and sponsored to attend national and international conferences, technical programs and higher studies.
- Faculty members use various online resources such as NPTEL and edx lectures for teaching- learning.

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

- Library gets the requirement of books from teaching faculties at the beginning of each semester. This requirement is given by considering the university syllabus for their subject.
- Faculties recommend titles and number of copies (volumes) considering the nature of book (textbook / reference book) with publication details and number of students studying.
- Same process is followed for procuring printed and online journals at the beginning of calender year.
- AICTE guidelines are followed by library for fixing the quantity to be procured.
- The librarian gets the approval to procure such books from principal. Books/journals are procured in the library and made accessible to library users after completing technical process like classification using Dewey Decimal Classification (DDC) Scheme & creating database for library management SLIM software.
- Library gives open access to all users. Users search the required book at OPAC (Online Public Access Catalogue) linked to college website in and out of college campus. Through this user gets the idea of location of books in library.
- Books are issued to users through fully automated library circulation system.
- At present UG faculty gets 10 books, PG faculty gets 15 books for one semester and students get 3 books for 10 days.
- Along with this, book bank facility is provided to students on first come first serve basis. A set of three books is issued for one semester to a student.
- To fulfill the immediate requirement of faculty and students for books departmental library facility is also made in college.

### Library is having following collection

Library collection

Books	Titles	Volumes
	10324	28522

Printed Journal	72
E-Journal	275 (with back files since 2000)
CD's	2286

- Printed journals are accessed in library and issued for seven days for faculty members.
- Online journals are made accessible in all over college campus by giving link to college website.
- Library has also institutional membership of Developing Library Network (DELNET) and Automotive Research Association of India, Pune. Both support for interlibrary loan for the documents not available in library for the purpose of teaching learning process.
- Access to National Program for technology enhanced Learning (NPTEL), Quality Enhancement in Engineering Education (QEEE) and National Digital Library (NDL) is given through link to college website.

**Apart from these, library provides following services to users:**

- Reference section: To support teaching learning process as the reference books are more specific in terms of content.
- Reading rooms are provided with proper seating arrangement, fans, tubes and ventilation facilities.
- Reprographic services: If users wish to make photocopy of question papers, articles or any other study material, the reprographic service is provided.
- Newspaper section: Besides syllabus, newspapers provide information about current happenings all over the world. This makes readers to think about social, economic and environmental issues.
- Wi-Fi enabled campus wherein the students can access information from any place in college.
- Old question papers of midterm tests and final university examinations in all the subjects are made available to the students in the library.
- Project completed by students are available in library in hard copy.

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

**Yes, Following are the challenges:**

- The academic plans recommended by Savitribai Phule Pune University to affiliating colleges include continuous evaluation of students as in-semester and online examinations make the academic schedule very challenging.

- The Institute organizes extra and co-curricular activities, value-added training programs for overall development of students. Thus faculty members find it challenging to complete the curriculum within the planned time frame.
- The level and pace of understanding of students also matters for completing the curriculum within the time-frame.
- Direct second year admitted students miss their academics almost for two months and lag behind other students due to late admission process. Hence it is challenging task for the faculty members to complete the academic activities of these students within the regular plans.
- Final year students missing their academic sessions due to training and placement activities.

**Efforts to overcome the challenges:**

- Faculty members and departments make course plans, academic calender that take care of various activities, events, examination schedule and give sufficient time-frame to complete the curriculum within the planned time.
- By allocating extra teaching hours for certain courses in time table, conducting extra classes / practical sessions on Sunday and holidays.
- Faculty members arrange remedial classes for academically weak students.
- For direct second year and final year students teachers arrange extra lectures as per the requirement and convenience. Their missed portion is also covered.

**2.3.11. How does the Institute monitor and evaluate the quality of teaching and learning?**

The following ways are adopted in the Institute to monitor and evaluate the quality of teaching and learning.

- The Institute has the academic monitoring system to monitor the quality of teaching-learning.
- Head of the Department monitors and maintains academic activities and correlates it with course plans, academic calender and resources such as course file and class delivery.
- Each semester the Institute takes feedback from students about the teaching of each faculty and counseling is provided by higher authority for their improvement.
- Course file of individual faculty containing study material, assignments is evaluated by respective Heads of Departments.
- Class tests, preliminary examinations, mock online tests, assignments, viva are conducted at regular interval to evaluate the technical knowledge gained by students in particular subjects.
- Institute evaluates the teaching-learning processes by comparing result with the University result, monitoring participation of students in curricular and co-curricular activities, quality of published papers, projects and number of students placed.

## 2.4 Teacher Quality

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

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

Information of Human Resource							
Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
D.Sc./D.Litt.	0	0	0	0	0	0	0
Ph.D.	6	0	2	0	5	1	14
M.Phil	0	0	0	0	0	0	0
PG	0	0	0	0	67	24	91
Temporary Teachers							
D.Sc./D.Litt.	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0
Part-time Teachers							
D.Sc./D.Litt.	0	0	0	0	0	0	0
Ph.D.	16	1	3	0	0	0	20
M.Phil.	0	0	0	0	0	0	0
PG	0	0	0	0	5	1	6

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

- Each candidate is appropriately assessed in regard to technical knowledge, competence and skill sets followed by demo lectures during local selection.
- Recruitment of faculty is done as per the AICTE norms. During UGC interviews, the process in brief for Faculty selection through UGC is stated below–
  - i) The Institute submits total requirement of the faculty to university and accordingly university allocates number of vacancies for various categories as per the roster approved by Government.
  - ii) The Institute publishes recruitment advertisement in prominent Marathi and English newspapers and also make available on the Website.
  - iii) Applications are scrutinized and Call letters are sent to the candidates accordingly.
  - iv) Interviews of the candidates are carried out by the panel nominated by the University.
  - v) Selection is done according to the selection list given by the panel by following all the reservation norms and the roster.

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

- Sponsorship for Research Program (Ph. D.)-Sponsorship is provided to the faculty to ensure his/her admission to Ph. D. program, leaves are sanctioned to carry out their coursework and progress seminars from time to time
- The faculty members are also encouraged to attend FDP/SDP/STTP/Conference /Workshop etc. Financial assistance is also provided.
- Ideal working conditions, pollution free, healthy working environment in the campus with latest amenities resulting into excellent work ambiance.
- Leaves and vacation are given as per government rules and regulations particularly maternity leave for lady staff.
- Implementation of appropriate pay scales as per AICTE norms
- Implementation of updated dearness allowance from time to time
- Provision of provident fund, staff welfare through group insurance, gratuity etc.
- Provision of staff quarters for the faculty.
- School education for the family members of employees on campus.
- Financial assistance to staff in joining membership of professional bodies.

**2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programs/ modern areas (emerging areas) of study**



**being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.**

Followings are some endeavors in that direction.

- Teachers training programs are organized before the beginning of each semester. Efforts are taken to improve the teaching methodologies.
- Experts from academia and industry, adjunct professors are invited to deliver expert talks, seminar series on the emerging areas.
- Apart from the curriculum, experts in various fields are invited to inspire the budding engineers in the Institute.
- Conferences and workshops are organized for enrichment of faculty about the latest inventions in their subjects of interest. All the above information is percolated among the students community.
- Standard reference and text books are procured as per the demand of the faculty.
- The faculty is encouraged to apply for funding from various organizations such as AICTE and BCUD of Savitribai Phule Pune University.
- The faculty is promoted to get associated with industries of their areas of interest.
- Every semester, our faculty registers for online courses run by NPTEL and edx.
- Our Institute has signed MoUs with renowned national and international technical institutions for exchange of faculty.

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

The Institute is very keen and aware of the needs for enhancement in the quality of technical and continuous up-gradation of teachers. Following types of programs are organized by the departments and Institute.

- Faculty Development Programs (FDP)
- Short-Term Training Programs (STTP)
- Faculty Orientation Workshops (FOW)
- Train The Trainers (TTT)
- Teacher's Advancement Programs (TAP)
- Administrative Skills Development Programs for Principal and Heads
- National Conferences
- Technical Webinars
- Industrial Training

##### **a)Nomination to staff development programs**

**Staff development programs**

<b>Academic Staff Development Programs</b>	<b>Number of faculty nominated</b>
Refresher courses	18
HRD programs	21
Orientation programs	10
Staff training conducted by the university	47
Staff training conducted by other institutions	33
Summer /winter schools, workshops etc.	85

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

- Teaching learning methods/approaches
- Handling new curriculum
- Content/knowledge management
- Selection, development and use of enrichment materials
- Assessment
- Cross cutting issues
- Audio Visual Aids/multimedia
- OER's
- Teaching learning material development, selection and use

**Details of the workshops/training programs conducted****Workshop/training programs conducted**

<b>Sr. No.</b>	<b>Name of the activity</b>	<b>Department</b>	<b>Academic Year</b>	<b>Sponsoring Agency / Self sponsored</b>
1	Four Week AICTE Approved FDP on Use of ICT in Education for Online & Blended Learning	Computer Engineering	2015-16	MHRD, India
2	Business Analytics and Intelligence	Computer Engineering	2015-16	Self-sponsored

3	Advanced Algorithms	Computer Engineering	2015-16	BCUD, Pune
4	Workshop on Environmental Studies	Civil Engineering	2015-16	NMEICT, MHRD
5	VERISMO 2015	Information Technology	2015-16	CSI Pune and Mumbai Chapter Self-Sponsored
6	ISTE Workshops on: Technical Communication	Information Technology	2015-16	MHRD Govt. of India
7	Introduction to Audio Visual Techniques and Carrier Opportunities in AV	Information Technology	2015-16	CSI
8	Graph Theory and its Applications	Information Technology	2015-16	BCUD SPPU, Pune
9	Biomass Gasification as Renewable energy source	Mechanical Engineering	2015-16	Self-sponsored
10	Embedded Systems: PICK d PIC	Electronics & Telecommunication	2015-16	Self-sponsored
11	Basics of Antenna and IE3D EM simulation software	Electronics & Telecommunication	2015-16	Self-sponsored
12	Two Day Workshop on Basics of Antenna Design and Hands on CST Microwave Studio	Electronics & Telecommunication	2015-16	Self-sponsored
13	Embedded Systems : PIC Microcontroller workshop	Electronics & Telecommunication	2015-16	Self-sponsored
14	ISTE Workshop on Introduction to Design of Algorithms	Computer Engineering	2014-15	MHRD, India
15	Three days workshop on Seismic Design, Evaluation, Retrofitting and Optimization of	Civil Engineering	2014-15	Self-sponsored

	Multi – Storied Buildings			
16	Software Engineering	Computer Engineering	2014-15	Self-sponsored
17	Two day workshop Critical Issues in Nuclear Technology on 16th and 17th January 2015	Mechanical Engineering	2014-15	SPPU, Pune
18	ISTE workshop on Fluid Mechanics by IIT Kharagpur	Mechanical Engineering	2014-15	MHRD, Govt. of India
19	Two week ISTE Short Term Training Programme (STTP) on Pedagogy for Effective use of ICT in Engineering Education	Electronics & Telecommunication	2014-15	NMEICT, MHRD Govt. of India
20	Two Week ISTE Workshop on Control System under the NMEICT, MHRD Govt. of India conducted by IIT Kharagpur at VPCOE, Baramati	Electronics & Telecommunication	2014-15	NMEICT, MHRD Govt. of India
21	Workshop on National Programme on Technology Enhanced Learning (NPTEL)	Electronics & Telecommunication	2014-15	IIT Bombay
22	Workshop on Research Methodology	Electronics & Telecommunication	2014-15	Self-sponsored
23	Two Week ISTE workshop on Engineering Mechanics	Civil Engineering	2013-14	NMEICT, MHRD
24	ISTE Workshops on: Cyber Security	Information Technology	2013-14	MHRD Govt. of India

25	ISTE Workshops on: Computer Networking	Information Technology	2013-14	MHRD Govt. of India
26	ISTE Workshops on: Computer Programming	Information Technology	2013-14	MHRD Govt. of India
27	Two Week ISTE Workshop Engineering Mechanics by IIT Bombay Through ICT,	Mechanical Engineering	2013-14	MHRD, Govt. of India
28	Two-Week ISTE Workshop On Engineering Thermodynamics Conducted by IIT Bombay	Mechanical Engineering	2013-14	MHRD, Govt. of India
29	Two week ISTE Workshop on Signals & Systems	Electronics & Telecommunication	2013-14	NMEICT, MHRD Govt. of India
30	Two week workshop on Analog Electronics	Electronics & Telecommunication	2013-14	NMEICT, MHRD Govt. of India
31	Workshop on Programmable System-on-chip(PSOC)	Electronics & Telecommunication	2013-14	Self-sponsored
32	Two day short term course on Research Methodology	Electronics & Telecommunication	2013-14	Self-sponsored
33	ISTE Workshop on Database Management Systems	Computer Engineering	2012-13	MHRD, India
34	Two week ISTE Workshop on Introduction to Research Methodologies Conducted by IIT Bombay Through ICT	Mechanical Engineering	2012-13	MHRD, Govt. of India
35	Two week ISTE Workshop on Computational Fluid	Mechanical Engineering	2012-13	MHRD, Govt. of India

	Dynamics Conducted by IIT Bombay Through ICT			
36	Two day ISTE Workshop on Research Methods in Educational Technology	Electronics & Telecommunication	2012-13	NME-ICT, MHRD Govt. of India
37	Two day ISTE workshop on Aakash for Education	Electronics & Telecommunication	2012-13	NME-ICT, MHRD Govt. of India

### c) Percentage of faculty

- \* invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies
- \* participated in external Workshops / Seminars / Conferences recognized by national/ international professional bodies
- \* presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies.

Following table shows number of papers presented in Workshops/Seminars/ Conferences conducted or organized by professional agencies.

Conferences conducted or organized by professional agencies

	Invited as Resource Person in Workshops / Seminar / Conferences	Participated in Workshops / Seminar / Conferences	Presented paper in Workshops / Seminar / Conferences
%	11.4	87.6	63.8

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

**Teaching experience in other national institutions and specialized programs industrial engagement**

<b>Name of Teacher</b>	<b>Year</b>	<b>Reason</b>	<b>Type of Support</b>
Prof. N K Sahuji	2014-15	World Congress of Engineering-2014 , London UK [Session Chair and Paper Presented]	Rs59000/- toward Full registration charges of conference and 50% of travel expenditure given
Prof. A P Hiwarekar	2014-15	World Congress of Engineering-2014 , London UK [Two Papers Presented]	58,000/ (toward Full registration charges of conference and 50 % of travel expenditure given
Mr. P R Chitrakar	2012-15	Ph.D. at NIT Suratkal	Paid Leave
Mr. S M Bhosle	2012-15	Ph.D. at Michigan Technological University, USA	Paid Leave

- Institute provides financial assistance to teachers for their research work to purchase equipments, software, e-sources, library books etc.
- Institute strives to get support from industry, national or international bodies in terms of internship for students.
- Institute has tie-up with Michigan Technological University, USA, IITs and College of Engineering, Pune where selected faculty members get an opportunity to pursue Ph. D. with sponsorship.
- The Institute is flexible towards the teaching workload to facilitate the faculty by giving study leave to complete their coursework, research work and thesis writing.
- Faculty is motivated to learn through online courses run by NPTEL and edx.
- On duty leave is granted to faculty for attending the national/international conferences/seminars/workshops, faculty development programs organized by other institutions.
- Institute encourages faculty to get funds for research projects from funding agencies like BCUD (SPPU), AICTE and DST.
- Institute organizes conferences, FDPs, summer and winter schools, IIT remote workshops for the faculty.

**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.**

- Dr. S. B. Deosarkar (The then Principal of the formerly VPCoE, Baramati) was honoured with the Award of Eminent Educationist for his constructive work in the field of Engineering education by the Indus Foundation (a recognized US based institution) in the Indo-Global Education Summit held in Pune during Nov 2013. At the same time, The Indus Foundation honored the formerly Vidya Pratishthan's College of Engineering of Baramati with the Award for Educational Excellence. The Indus Foundation bestows these honors only after doing a thorough survey of colleges, their students and parents, staff members and evaluating other factors concerning the society.

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

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

The feedback of teachers from students is taken at the end of each semester. After its analysis, Principal and Heads of the Department take review of the evaluation. If there are any suggestions from students, the concerned teacher is made aware for further remedial action ultimately resulting in improving the quality of teaching-learning process. Counseling of the teachers is done by the senior colleagues for the future betterment.

## **2.5 Evaluation Process and Reforms**

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

- Circulars and Notices from the University (SPPU) regarding evaluation process, examination pattern, syllabus, weightage of marks for the topics and examination schedules are displayed in time on the notice boards and also communicated to the students in classrooms.
- At the commencement of the academic year an orientation programme is conducted along with the Principal's address for First Year Engineering students accompanied by their parents to make them aware of the evaluation pattern from FE to BE. They are also informed about the importance of other examinations like GATE, TOEFL and GRE for the engineering students.
- Regular common and departmental meetings are held to convey the important circulars/notices of the University to all the Faculty of the institution.
- Continuous assessment evaluation of students is followed and the Term-work marking scheme is displayed on the notice boards.



## 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?

Following are the reforms:

- The college has appointed College Examination Officer (CEO) who is university approved faculty to monitor and control all the university examination related work in the college.
- In 2012 pattern, online examination system was introduced for the first time for FE and SE classes along with one end-semester theory examination.
- In 2015, the University has also introduced credit system pattern for UG courses starting from the FE students.
- The university has introduced offline in-semester and end-semester examinations for TE and BE classes.
- For PG (ME) courses the university has introduced choice-based credit system in the year 2013-14.

University introduced choice-based credit system

Class	In Semester		End Semester
	Phase I (Online) Exam	Phase II (Online) Exam	Theory exam
FE	25 marks	25 marks	50 marks
SE	25 marks	25 marks	
	Offline Exam (Theory)		Theory exam
TE	30 marks		70 marks
BE	30 marks		70 marks
PG	50 marks		50 marks

- Almost all the academic activities like appointment of examiners, applications for convocation, filling of marks are completed online.
- The faculty performance evaluation was introduced by the university in the form of Academic Performance Indicator (API) and Self-Appraisal for career development and promotions.

**Various evaluation reforms initiated by the institution are as follows:**

- Conducting internal tests based on multiple choice questions as well as theory questions. This enables the students with writing practice which is required for final university examination.
- A preliminary examination is also conducted at the end of the semester as per university pattern.
- Internal Term-Work marks are allotted on the basis of internal test performance, classroom and laboratory attendance and lab performance.

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

- The University has an organized procedure of online evaluation, offline evaluation, rechecking, re-evaluation and photocopying of the written answer sheets and the college assist students in that regard.
- The College Examination Officer (CEO) along with his team prepares the examination charts for all the online and theory written examinations in the examination office/cell. In-semester and End-semester examinations are conducted as per the University schedule. Internal faculties are assigned senior and junior supervisor/invigilation duties for smooth conduction of the examinations. A CCTV camera is fixed in the examination office for monitoring the examination work. All the examination related timetables are displayed on the notice boards and college website.
- Any changes in the reforms or schedule made by the university are communicated to the faculty and students through notice boards, central television display and college website. The copy of the university circular is also conveyed to the respective heads of departments to inform all their faculty and students.
- Masking of papers and central assessment of In-semester written examination is completed at the Institute level for impartial assessment.
- The institution also makes all the efforts to effectively implement the evaluation reforms adopted by the institution itself.
- Respective heads of the departments take all the measures to monitor and implement the evaluation reforms. The notices are conveyed to the coordinating faculty through regular meetings for timely implementation of the reforms.
- University provides date of online examinations. However by looking at the availability of laboratories and convenience of students, time-table of online examination is arranged.

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

**Formative assessment** is a continuous monitoring of students' learning during the complete course /Semester. Feedbacks given by the students are used to modify teaching-learning activities for improving their performances. Following University and Institution approaches are executed--

- Two internal tests and one preliminary examination per semester.
- In-Semester Online (Phase I and II) examinations for FE and SE, theory written examinations for TE and BE.
- Continuous regular assessment of practical work through journal checking and questionnaires.
- Mock Oral /practical examinations.
- Assignments – timely submission of solutions for questions/problems are given in classrooms or tutorial sessions.
- Industrial visits and timely submission of detailed visit reports.
- Organising and participating in Inter-college events like project/model/paper/poster presentations, workshops, seminars, and training programmes.
- Extracurricular activities like sports and cultural activities organized by the students and coordinated by the faculty to exhibit their ability and to maintain good health.
- The students' social groups like “Prerna” and “Sparsh” have initiated programmes like tree plantation in schools, visits to orphanages, street plays etc. Evaluation through these approaches helps to identify the needs and necessary actions to be taken for the improvement of the students' learning and to boost their confidence.

Summative assessment is evaluated at the end of the course/Semester.

The university through the institution performs the following summative evaluation -

- End-semester theory written examinations.
- Oral / Practical examinations.
- Seminar and project presentations.
- The institution felicitates the toppers/rankers of various examinations and also displays the list of the same on the notice boards and college website.
- Detailed overall and subject-wise result analysis is prepared and the data along with the graph is displayed on the college website.

The positive impacts observed are improvement in students' performances, reliability, attendance, integrity and discipline.

### 2.5.5

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

- **The institution shows complete transparency in internal assessment for term-work of the students.**  
The assessment pattern is elaborated to the students at the beginning of the semester to maintain lucidity.
- **The weightages are assigned to the following aspects of the students-**
- Classroom and laboratory attendance records- A monthly attendance record of the students is displayed on the notice boards (FE to BE) at the end of every month and their parents are informed about the same through SMS. Students having

short of attendance are called by the heads of respective departments and are counseled.

- Assessed internal test answer sheets are shown to the students and their signature is taken on the same or on the mark list. Marks obtained by students in all the subjects are displayed on the notice board.
- The Term-work marks scored by students are also displayed on the notice boards and their grievances are attended in time before online filling of marks.
- Weightage is also given for timely checking of laboratory journal completion work and assignments.
- Final year projects of each department are continuously evaluated and inputs are given to students to overcome the weaknesses for improvement.

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

Programme outcomes based on the student's learning are predefined as per the graduate attributes adapted by the NBA.

- **Following are the graduate attributes of the institution:**  
The college carries certain desirable attributes while imparting teaching and ensuring effective learning.  
At the end of the engineering course the student is expected to be equipped with technical, functional, basic, ethical and managerial competencies.
- **Engineering Knowledge:** Ability of the student to apply knowledge of mathematics, science and engineering fundamentals for solving complex engineering problems. Sound knowledge of current issues in technologies related to respective branches of engineering.
- **Problem analysis:** Ability to apply knowledge gained to analyse the problems and reaching to the conclusion with a potential solution.
- **Design and development of solutions:** Ability to design convincing solutions for complex engineering problems to meet the desired needs. The approach must be realistic in consideration with environment, ethics, public health and safety, finance and manufacturability.
- **Investigation of complex problems:** Ability to design and conduct experiments and adopt new research methodologies to examine and interpret data.
- **Modern tool usage:** Ability to identify and handle the current engineering issues by using modern techniques and tools.
- **Ethics:** Every profession has its own ethical principles. Ability to take responsibilities and follow the norms of engineering practices.
- **Engineer and the society:** Ability to apply engineering knowledge and to assess the issues to meet the needs of the society. As a responsible citizen, the student must have consideration for societal aspects like health and safety, legality, cultural, economical and environment.

- **Environment and sustainability:** Ability to understand the impacts of the engineering practices on the environment and to adopt the methodologies/techniques that facilitates sustainable development.
- **Individual and Teamwork:** Ability to work as an efficient individual and as a member/leader of various teams in multidisciplinary settings.
- **Communication:** Ability to communicate effectively on the complex engineering activities with the engineering community and the society. To be able to understand and write effective reports, design documentation and make effective presentations of the projects.
- **Lifelong learning:** Ability to have interest in learning new technologies and implementing the same for solving the current engineering issues.
- **Project Management and Finance:** Ability to design and handle the projects. Should be able to apply new technologies effectively and manage the projects convincingly to meet the desired needs in an economical manner.
- The institution helps the students in attaining the graduate attributes not only through academic training but also through various co-and extra-curricular activities on and outside the campus.
- Each department has developed programme education objectives (PEOs) and outcomes (POs) - all the faculty of the department have developed course objectives and outcomes to satisfy these PEOs.
- Institution provides the necessary infrastructure and healthy environment to accomplish the above requirements. Provision of well-equipped and spacious and well-ventilated laboratories, workshops, classrooms and seminar/conference halls. Hostel facility close to the college with lush green campus, play grounds and auditorium facilitate the students.
- Sound professional knowledge is imparted with advanced teaching aids through regular classroom and practical teaching of the curriculum prescribed by the SPPU.
- Language laboratory and computer laboratories are provided for developing communication skills and self-learning through online courses.
- Variety of competitions and activities are held in the campus like “Elysium”, “Sthapatya”, “Nabhangan”, “Kurukshetra”, “Electrovaganza” and many more.
- College NSS group carries out variety of activities in village development that help the students in nourishing their social responsibilities.

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

#### **Addressing the grievances at college level:**

**Term-work marks** - After continuous assessment at the end of the semester term-work marks scored by the students are displayed on the notice board duly signed by the head of the respective department. Students can report to the heads if any discrepancies are found in their marks within the given time period. The head of the department along with the subject teacher/s rectify the grievance.

**Internal test marks** – Assessed answer sheets of class tests and preliminary examination are shown to the students and their queries / complaints are rectified by the concerned faculty.

Students can anytime approach the head of the department in case of any grievance

**Addressing the grievances at University level:**

**Examination forms:** Online filling of the examination forms is done as per the university (SPPU) schedule. If any discrepancy is found in name, subject selection, etc. Then the student can report to the university examination centre legally through the college. The university examination cell takes the corrective actions.

**Revaluation of End-semester answer sheets:** Redressal of grievance is permitted only for end-Semester theory examinations by the University. Students can obtain photocopy/s of answer sheets by applying online to the university officially through the college.

Student gets the answer sheets copies within 15 to 20 days. After consulting with the concerned subject teacher if the student desires, he/she can apply legally for revaluation by filling online form on the University website within 10 days.

The university looks into the grievance and takes the necessary corrective action/decision.

## 2.6. Student performance and Learning Outcomes

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

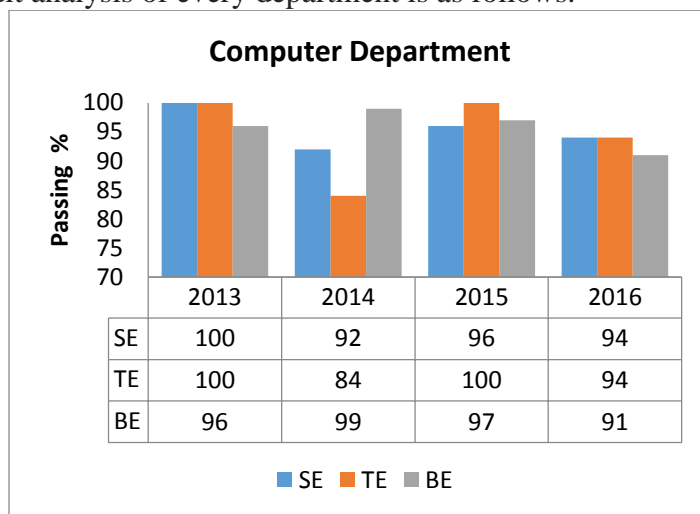
Yes. The Institute has clearly stated and well-defined learning outcomes. For every course and subject learning objectives are specified by Savitribai Phule Pune University and outcomes are specified by faculty. Students and staff are made aware about this in the following ways.

- Syllabus along with objectives are displayed on website of the Institute.
- Displayed in the Departmental notice boards.
- Notified to students in Induction Programme.
- Notified to staff through Departmental presentations.
- During parent meet learning outcomes are notified to parents.

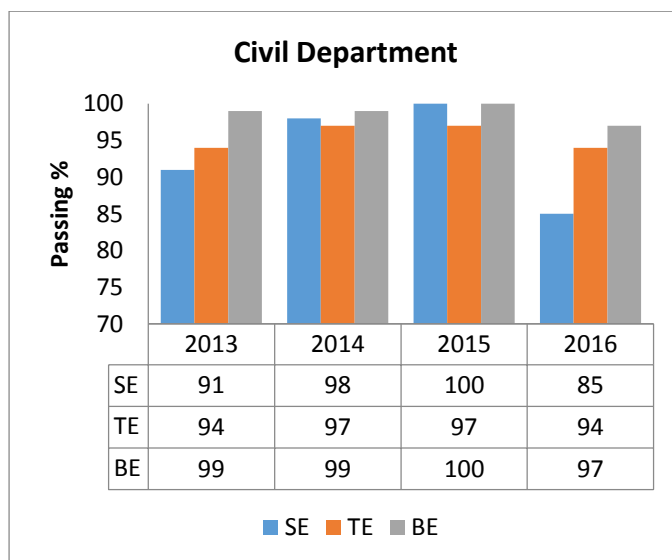
### 2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of course/Programme? (Programme/ Course wise for last four years) and explain the differences if any and patterns of achievement across the Programmes / courses offered.

- By conducting continuous assessments like Unit Test (Theory and Multiple Choice Question), prelim exam, In-sem exam, online exams and oral examinations.
- Institute communicates Marks obtained in the examination and monthly attendance to the parents regularly through SMS and Letters.

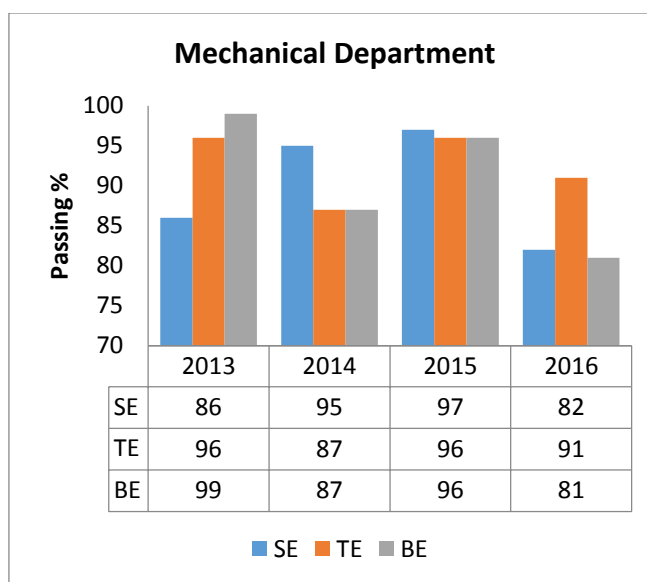
- Felicitation of Toppers for motivation to the students and also displaying the names of the toppers in University examination, GATE Exams, got selected through recruitment process.
- Listing Names of Toppers (Subject and Overall) on website.
- Participation in co-curricular activities like Purushttam, Firodiya, Technical events, Tech-fest, etc.
- Parents meet is organized every year to have interaction between teachers and parents for over all development of the students.
- Result analysis of every department is as follows.



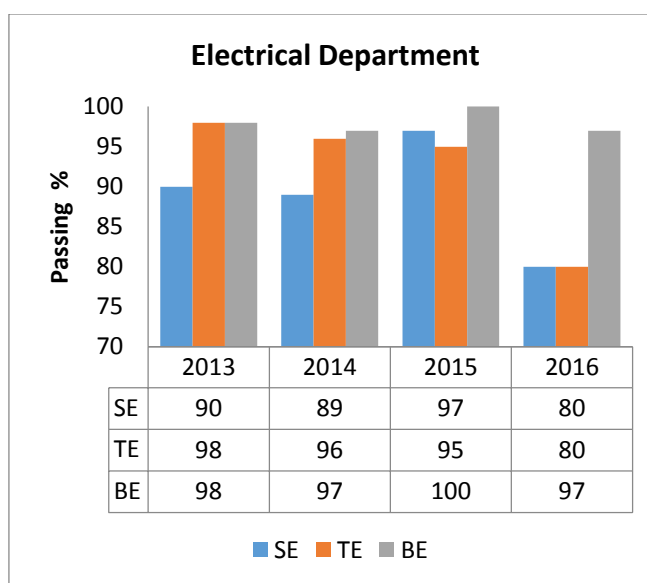
Result analysis Computer Department



Result analysis Civil Department

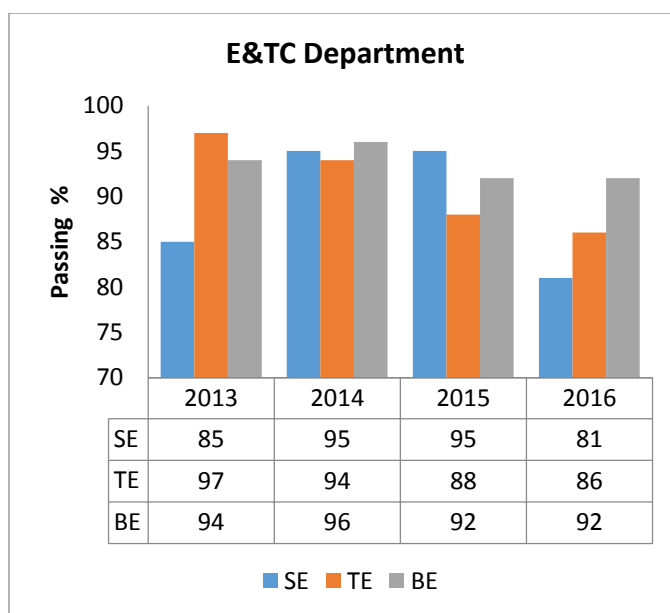


Result analysis Mechanical Department

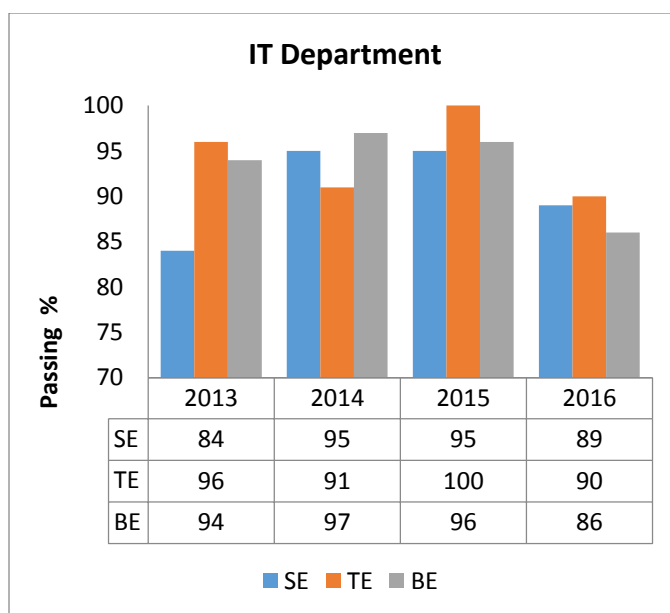


Result analysis Electrical Department





Result analysis E&amp;TC Department



Result analysis IT Department

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

- **Teaching:** Institute has well defined teaching strategy. Before the commencement of semester, Departmental academic calendar is prepared by

every department with time tables. Using departmental calendar and Time-Table all teachers prepared their course-plans.

- **Learning:** Faculty plans his subject delivery by various modes such as chalk/talk, PPTs, seminars, tutorials, quiz, projects, self-learning online courses, industry visits, internships, field visit, NPTEL online certification courses, QEEE, MOOCS etc. for achieving desired learning outcomes.
- **Assessment Strategies:** Assessment for theory examination is based on college Internal Examinations like Unit Tests and preliminary examinations. Guidance to academically weak students after declaration of their University online Phase results and In-semester examination is provided. Assessment is based on Oral Examinations, seminars, tutorials, and assignments. Weightage of class attendance, Unit Tests, prelim exam and assignments is given in the Term-Work at the end of Semester.

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

- Institute has signed Memorandum of Understanding (MOUs) with industries as well as research Institutes from India and abroad.
- The Institute organizes research paper presentation competitions, Technical events and conferences like SAEBAJA-2017, ELYSIUM, STAPTYA, EESA (ENTC Engineering Students Association), CSI Event TechNext.etc.
- Institute motivates students for NPTEL online course, QEEE courses from various IITs.
- Students are encouraged to participate in state/national/international technical events like Integrated Tech Olympiad (COEP), Tech-Fest and Hackathon.
- NSS organizes:
  - a) A ten-day camp in nearby village every year
  - b) Cleanliness drive in the campus
  - c) Blood donation camp
  - d) Snake awareness program
- Social activities conducted by students' groups such as: No-Vehicles-Day, Cloth Bank, tree plantation, Guest Lectures for Competitive Examinations.
- Training and Placement Cell organizes training programs:
- Students are encouraged for conducting their projects based on social needs.

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

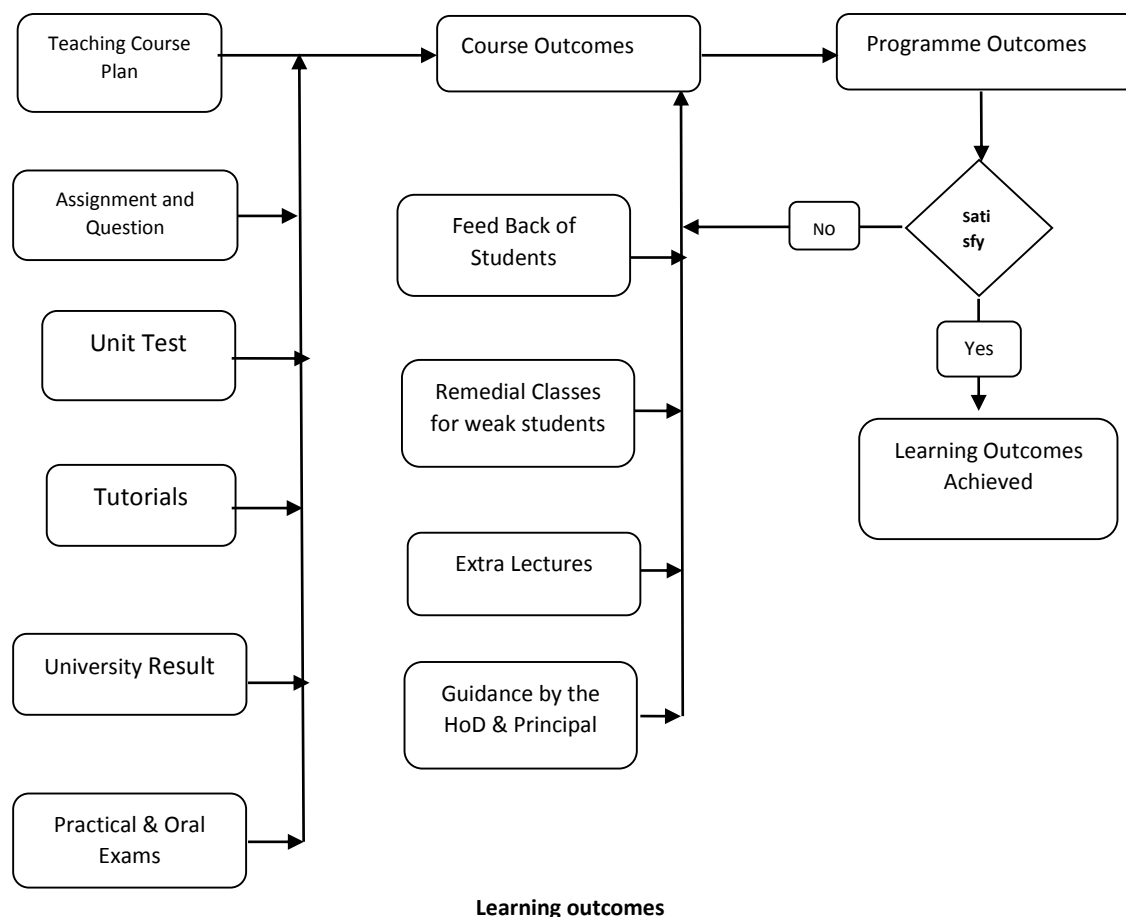
On the basis of students' performance learning outcomes are analyzed.

- The Institute has a continuous evaluation system to assess students' performance like analysis of unit tests, preliminary examination, assignments and oral examinations.

- Students participate in different activities such as seminars, group discussion sessions, technical events, poster presentation, quizzes and coding programs. These are conducted by respective course teachers. Report of these activities gives the data about learning outcomes achieved by students and the same is analyzed.
- Feedback from students, parents, alumni and staff is taken and analyzed to understand the learning outcomes.
- Evaluation of students' performance in general aptitude test at the time of placement
- On the basis of result analysis remedial action is taken for weak students in the following manner.
- Extra lectures are conducted for special guidance
- Monitoring of students' performance
- Providing theory question banks, summary of units and multiple choice questions.

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

By the following ways the institution monitors learning outcomes.



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

- Vision and Mission of the Institute are correlated with the Programme Educational Objectives (PEOs) of each department, which in turn are mapped to Program outcomes (POs) of each subjects. Therefore, POs and PEOs accomplishment indicate the alignment of academic activities with the vision and mission of the Institute.
- For evaluation of students' performance in the academic semester, every teacher uses course objectives and outcomes through marks obtained by students in unit tests, online examination and performance in practical and oral examinations.
- Teachers help students to build confidence and improve their communication skills by conducting seminars, group discussions and poster presentations.
- On the basis of subject-wise result analysis performance of students is evaluated. This data helps to identify weak students and take remedial action.

Example: If performance of students is weak in Internal Test, In-Semester and On-line examination, subject teacher takes extra efforts to improve their performance by conducting extra lectures and giving assignments to them. Teacher plans and executes preventive actions by asking students to solve University question papers. Every teacher ensures that learning outcomes are achieved in the respective subject.

## CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

### 3.1 Promotion of Research

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

No, the institution does not have a recognized research center of SPPU or any other organization.

#### 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 college has a Research Committee to monitor and address issues of research and Development.

Research Committee

Sr. No.	Name of Faculty	Position
1	Dr. M.G. Devmane Principal, VPKBIET, Baramati	Chairman
2	Dr. S.B. Lande Dept. E&TC Engineering	Dean
3	Dr. S.C. Bali Dept. Mechanical Engineering	Member
4	Dr. Wagh Nandkumar Dept. Electrical Engineering	Member
5	Dr. S.L. Ghodke Dept. Civil Engineering	Member
6	Dr. R.J. Patil Dept. Civil Engineering	Member
7	Dr. L.S. Pammar Dept. Civil Engineering	Member
8	Dr. A.G. Sajjan Dept. General Science	Member
9	Dr. D.B. Hanchate Dept. Computer Engineering	Member
10	Mr. A.H. Kolekar Dept. Mechanical Engineering	Member

11	Mrs. S.S. Nandgaonkar Dept. Computer Engineering	Member
12	Mrs. S.A. Takale Dept. IT Engineering	Member
13	Mrs. J.S. Rangole Dept. E&TC Engineering	Member
14	Mr. V.J. Nagalkar Dept. E&TC Engineering	Member

### Research Committee Recommendations and their Impacts

- Faculty and students are motivated to pursue higher education:
  - Every year a good number of students qualify in GATE Examination. Teaching faculty also have appeared and qualified in GATE examination in last 5 years.
  - With Institute support, 4 faculty members have completed PhD and 11 faculty members are pursuing PhD.
- Institute has linkage and collaboration with Industry/ Academic Institutions / research organizations of high repute in India and Abroad.

#### MOU Details

MOU with	Name of Organization	Date
Foreign University	Michigan Technological University's Mechanical Engineering-Engineering Mechanics Department, Houghton, USA	24/10/2013
	Michigan Technological University, Houghton, USA	31/07/2012
	University of Pardubice, Czech Republic	16/01/2012
	North Carolina State University, Raleigh, NC, USA	14/09/2011
	Lawrence Technological University, Southfield, MI, USA	16/08/2005
Institutes in India	IIT BOMBAY, Powai, Mumbai	06/08/2010
	College of Engineering, Pune (COEP)	18/12/2014
Indian Industries	Bharat Forge Ltd., Mundhwa, Pune, Maharashtra, India	12/10/2007
	Zensar Technologies	24/01/2017

3. Faculties of Institute have successfully completed Summer Research Fellowship Programs and Training Programs at various IITs, IISc, and Various national importance Institutes.
4. Encourage students to take up Summer/Winter research Fellowship Programs at IITs/NITs/abroad  
 Opportunity of UG Fellowships at European Universities in association with CTIF-ViMEET (Centre for TeleInfrastruktur - CTIF Global Capsule in association with Vishwaniketan, Khalapur) was made available to the students of Institute. The key objective was to promote transformation in Indian engineering education through Project Based Learning (PBL). Thirteen different foreign Universities were involved in the program. Sixty four students were selected for the fellowship program.
5. Encouragement to faculty to take up research programs at National / International Reputed Institutes

Research programs taken by faculties

Sr. No	Name of Faculty	Name of Institute	Branch
1	Mr. Padmakar Shinde	Lawrence Technological University, Southfield,	Mechanical
2	Dr. R.K.Shastri	SGGS, Nanded	E&TC
3	Dr. Dinesh Hanchate	SGGS, Nanded	Computer
4	Mr. Avinash Kolekar	IIT Bombay	Mechanical
5	Mrs. S.A. Takale	Walchand COE, Sangli	Computer
6	Mr. Vikas Deshmukh	Dr.B.A.M.U. Aurangabad	E&TC
7	Mr. Pradeep Patil	Satyabhama University, Chennai	Computer
8	Mr. Giridhar Narule	VJTI, Mumbai	Civil
9	Mr. Parshram Chitragar	NIT Suratkal	Mechanical
10	Mr. Sachin Bhosle	Michigan Technological University, Haughton,	Mechanical

11	Mr. Ashok Jadhav	University of Leeds, UK	Electrical
12	Mrs. Jyoti Sadalge	SGGS, Nanded	E&TC
13	Mr. Anil Disale	Dr. B.A.M.U. Aurangabad	Physics
14	Dr. Anil Hiwarekar	Dr. B.A.M.U. Aurangabad	Mathematics
15	Dr. G.A. Dhanorkar	North Maharashtra University, Jalgaon	Mathematic

6. Encouragement to faculty to present and publish their research in National & International Conferences & Journals.
7. Guide faculties for preparation of research proposals.
  - Grant of RS 25 Lakhs is received at Institute through AICTE-MODROB Proposals,
  - Rs 33.58 Lakhs through University of Pune BCUD Projects.
  - Grant of Rs 40 Lakhs is received for Workshop/Seminar from MHRD Govt. of India, NME-ICT,
  - Rs 3 Lakhs are received towards Travel Grant, NPTEL Workshop Grant of Rs 3 Lakhs,
  - Rs 1 Lakhs IIT Grant is received for Aakash Project,
  - Rs. 5 Lakhs IIT Grant to augment the Infrastructure of the Remote Center at Institute is received.
8. Identification of Consultancy opportunities and revenue generation  
Revenue of Rs. 14, 34,252 is generated through various consultancy activities at Institute.
9. Allocate funds to faculty members to attend STTPs, FDPs, Workshops / conferences / seminars for skill up gradation

**Funds allocation to attend STTPs, FDPs, Workshops / conferences / seminars**

Sr. No	Name of Faculty	Details of paper	Details of Conference	Funds Utilized by Faculty
1	Dr. N. K. Sahuji	Exploring Mathematical Equation with Graphical Data Visualisation using Python	World Congress of Engineering-2014 , London UK	Rs. 59000/- toward Full registration charges of conference and 50% of travel expenditure given



2	Dr. A.P. Hiwarekar	New transform techniques for cryptography	The 81st annual conference of the Indian Mathematical Society' at VNIT, Nagpur	Rs. 5,000/-
3	Dr. A.P. Hiwarekar	Application of Laplace Transform for Cryptographic Scheme	World Congress on Engineering 2014, July 3-7, 2014, London UK	Rs. 58,000/ (toward Full registration charges of conference and 50 % of travel expenditure given
4	Dr. A.P. Hiwarekar	Transform Techniques for cryptography	18 <sup>th</sup> Asian Technology Conference in Mathematics) + TIME (Technology and Innovations in Mathematics) International conference, IIT Bombay, 7 <sup>th</sup> to 11 <sup>th</sup> Dec.2013.	Rs.5,000/
5	Dr. R.K. Shastri	1. "Gaussianity Analysis of Ambient Noise in Littoral Tropical Water", 2. "Spectral Analysis of Littoral Water Ambient Noise in the Tropical Region",	RIO Acoustics 2013 IEEE/OES Acoustics in Underwater Geosciences Symposium Centro Empresarial, Rio de Janeiro, Brazil 24–26 July 2013.	50% towards Travel and accommodation

10. Allocate funds to organize STTPs, FDPs, Workshops / conferences / seminars for skill up gradation

## Funds allocation to organize STTPs, FDPs, Workshops / conferences / seminars

Expenditure Head	2012-2013		2013-2014		2014-2015		2015-2016	
	Budget (In Lakhs)	Expenditure (In Lakhs)	Budget (In Lakhs)	Expenditure (In Lakhs)	Budget (In Lakhs)	Expenditure (In Lakhs)	Budget (In Lakhs)	Expenditure (In Lakhs)
Funds Utilized for Organizing CEPs, STTPs,	9.25	4.04	10.25	15.33	8.25	13.07	7.50	4.70

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

- **Autonomy to The Principal Investigator** -Yes, Principal Investigator (PI) has complete autonomy for successful completion of Research Project. PI decides research topics. Research Associates assist PI to implement the Research Project. PI has authority to mention specifications of purchase material and call for quotations. PI suggests the required reference Books and Journals in Library.
- **Timely Availability or Release of Resources** - Yes, Funds are made available to the Principal Investigator as soon as they are received from the funding agency.
- **Adequate Infrastructure and Human Resources** – Yes, adequate Infrastructure is made available to PI. Labs with computing and internet facilities, Library are made available.
- **Time-Off, Reduced Teaching Load, Special Leave etc. for Teachers** – Yes, Institute provides comfortable environment and healthy work culture. Institute supports by providing special leave to faculties who have undertaken research activities.
  - a. Paid leave is given for three years to the faculty for carrying out research in research Institutes
  - b. Institute also encourages teachers to undergo SRFs and Training Programs at centers of higher learning and excellence
  - c. Duty leave is sanctioned to teachers to present their findings in seminars and conferences.
  - d. Duty leave is sanctioned for project related meetings, testing and analysis, purchases, and visits to another Institutes.

- **Support in Terms of technology and Information Needs** – Yes, Project In-charge and all teachers have access to the entire technology and information infrastructure available in the college.
  - 1) Institute has 60 Mbps, 24X7 dedicated Internet Leased Line connectivity with contention ratio 1:1 from Tata Teleservices Maharashtra Ltd. It is distributed among all departments, library, and labs through campus wide optical fiber cable and CAT 6 network connectivity with gigabit Cisco and D link manageable switches connectivity.
  - 2) Institute has state of the art servers like
    - a. Dell Vostro 430 x64 Windows Server 2008 R2 Enterprise,
    - b. HP Elite 7100 x64 Windows Server 2008 R2 Enterprise,
    - c. Dell Power Edge R210 Windows Server 2012 R2 Standard,
    - d. HP Elite 7100 x64 Ubuntu 13.04 Server ,
    - e. HP Proliant DL60 Gen9 x64 Windows Server 2012 R2 Standard,
    - f. HP Proliant DL60 Gen9 x64 Windows Server 2012 R2 Standard,
    - g. HP Proliant ML 110G7 CentOS Server
  - 3) Central Library with 1350 reference books, 9578 titles, 27389 volumes, 70 print National Journals, NPTEL and QEEE Video library and AICTE SCIENCE DIRECT Engineering with Computer Science 275 JNLS and Backfiles Since 2000 / 2017.
- **Facilitate Timely Auditing and Submission of Utilization Certificate to the Funding Authorities** – Yes, accounting section with the help of PI completes Timely Auditing and Submission of Utilization Certificate to the Funding Authorities.

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

Since its inception in 2000, Institute is very keen about developing scientific temper and research culture among students through many activities.

1. Expert sessions and motivational lectures by speakers always instill fresh and actionable ideas and help our students to be focused.
2. Recently Students interactions were scheduled with:
  - a. Dnyaneshwar Mulay, Diplomat of the Indian Foreign Service
  - b. Arunima Sinha, the first female amputee to climb Mount Everest
  - c. Vishwas Nangare Patil, IPS Officer.
3. Through these interactions students are motivated and taught them a principle of life: “Courage, determination and dedication play an important role in achieving the goal of life.”
4. Students are motivated to participate in project competition organized by IET, IEEE and CSI. Students also participate in AVISHKAR and PGCON (conference for PG

students).

5. AAKASH tablets are provided by IIT Bombay to students and competitions are organized for development of Android Apps.
6. College Library issues Book Bank to students every year.
7. In order to provide exposure to our students, collaborations with foreign universities and Indian Institutes are developed. UG Fellowships at European Universities in association with CTIF-ViMEET was made available to the students of Institute.

List of Universities offering UG Fellowship Programs are:

1. Aalborg University, Denmark
2. UNESCO chair on PBL
3. Technical University of Sofia, Bulgaria
4. Ural Federal University, Russia
5. Stevens Institute of Technology, New Jersey-USA
6. University of Rome-TorVergata, Italy
7. Athens Information Technology, Greece
8. National Technical University of, Ukraine "Kyiv Polytechnic Institute"
9. CTIF, Princeton University, USA
10. Global ICT Standardisation Forum for India (GISFI)
11. Mae Fah Luang University, Thailand (TBC)
12. University of Cape Town, South Africa (TBC)
13. University of Arkansas, USA (TBC)

**Number of Selections from Institute (Discipline wise):**

Section from Institute

Discipline	Number	Discipline
1	Mechanical Engineering	18
2	Civil Engineering	12
3	Information Technology	10
4	Computer Engineering	04
5	Electronics and Telecommunication Engineering	13
6	Electrical Engineering	07

TOTAL	64
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**List of students who will be attending the UG fellowship program at foreign universities**

**Student list attending UG fellowship program**

Sr. No	Name of Student	Class	Branch	University
1	Kalmegh Snehal Jayant	TE	Comp	Stevens Institute of Technology ,USA
2	Shah Kalpesh Sanjay	TE	ENTC	Stevens Institute of Technology ,USA
3	Lomte Aditya	BE	Mechanical	Technical University of Sofia,Bulgaria
4	Alisha Sonawane	BE	Mechanical	Technical University of Sofia,Bulgaria
5	Rohan Sunil Pawar	TE	Civil	Ural Federal University, Russia
6	Rohan Avinash Jagtap	TE	Civil	Ural Federal University, Russia
7	Omkar Hiralal Katkar	TE	Civil	Ural Federal University, Russia
8	Zainab Nagarwala	BE	IT	Ural Federal University, Russia
9	Divya Bhosale	BE	IT	Ural Federal University, Russia
10	Priyanka Pawar	BE	IT	Ural Federal University, Russia
11	Shubham Wattamwar	BE	IT	Ural Federal University, Russia
12	Nishant Sumbe	SE	Mechanical	Ural Federal University, Russia

13	Bhoopalsinh Musale	BE	IT	Ural Federal University, Russia
14	Abhijeet Daftardar	TE	Civil	Ural Federal University, Russia
15	Shirinivas Survase	TE	Civil	Ural Federal University, Russia
16	Tejas Desai	TE	Mechanical	Ural Federal University, Russia

**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.**

Faculties are actively involved in research funded by various like BCUD, SPPU Pune. These projects are complete or ongoing

**Faculty projects funded by BCUD, SPPU Pune**

Sr. No.	Name of Faculty	Name of Project
1	Mr. V. U. Deshmukh	Investigation of Nonlinear Effects (Optical Solitons) in Fiber Optic Communication and It's Applications
2	Mr. B.H. Deokate	A pipelined VLSI Architecture for 2-D DWT
3	Mr. S.S. Jagdale	Ambient Noise Characterization in Shallow Depths for Tropical Water of The Indian Ocean Region
4	Mr. D.T. Kushnure	Peak Power to Average Power Reduction of OFDM System Using Modified Selective Mapping Technique
5	Mrs. J.S. Rangole	Side scan Sonar Image Analysis, An Application to sediment Classification
6	Mrs. A.R. Shastri	An Image Processing Solution to Frozen semen straw counting problem

7	Mr. P.N. Arotale	EEG based Emotion Recognition
8	Mrs. J.S. Rangole	Automatic counting of Silkworm eggs
9	Mr. S.D.Biradar	EEG Signal Classification for Brain Computer Interface Applications
10	Mr. M.M. Jadhav	Microstrip Patch Antennas
11	Mr. Nayak C.B.	Vibration control of Civil structures using Piezoceramic Smart Materials
12	Mr.Bhosale S.M. Mr. Shelage S.V.	Experimental investigations & Analysis of Recast Layer formation in wire EDM
13	Mr. Bhagwat V. B.	Characterization and comparison of solar selective coatings between Ni Al and NiCo on Al substrate
14	Mrs. Kale P.D	Experimental Investigation and Analysis of Dynamic Response of Conical Compression Spring in Comparison with cylindrical in Shock absorber
15	Mr. Zende D.A.	Credit card fraud detection using data mining techniques
16	Mr. Zende D.A.	Spyware solution: Detection of spyware using data mining and machine learning techniques.
17	Mr.Patil P.M.	Iris recognition systems less constrained environment
18	Mrs. Sushma S. Nandgaonkar	Discrimination using rule bases Data Mining
19	Mr. Santosh A. Shinde	Inpainting of Digitized Vintage Films via Maintaining Spatiotemporal Continuity
20	Mr. Digambar M. Padulkar	Electricity Transformer Life Estimation using Association rule mining

21	Mr. Rajaram A. Ambole	High Speed Network Intrusion Detection System (NIDS) using Stride-FA
22	Mr. Manoj D. Shelar	Detection of Adware by using Data Mining and Machine Learning Techniques.
23	Mr. Rajkumar V. Panchal	A Novel Method For Movie Character Identification Based on Graph Matching
24	Dr. A.P. Hiwarekar	Better Network Security Using Generalized Hill Cipher Algorithm
25	Mr. Disale Anil	Spectroscopic Study of Medicinal and Edible Mushrooms for Development of Optical Sensors for Industrial and Agriculture Applications

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

- 1 CEP's and Student enrichment programs conducted at VPKBIET Baramati which are funded by VPKBIET

**Programs funded by VPKBIET**

Sr. No	Resource Faculty	CEP Details	Duration
1	Dr Y.V Joshi	Fundamentals of digital signal processing	21-Jun-16
2	DWIJ IT Solution Pune	Raspberry pi: hands on Training	5-7 March 2016
3	Prof. Tushar Jain - IITMandi	Design of Feedback in Control Systems	Jan-April 2016
4	Prof. Devendra Jalihal - IITM	Introduction to Signal and Systems	Jan-April 2016
5	Prof. Balakrishnan M - IITD	Low Power Embedded Systems	Jan-April 2016
6	Prof. Tushar Jain - IITMandi	Time domain analysis of first and second order system - Control Systems	Jan-April 2016



7	Prof. Nandita Dasgupta (IITM)	Electronic Devices & Circuits	Jan-April 2015
8	Prof. Giridhar K (IITM)	Digital Communication	Jan-April 2015
9	Prof. Deepa Venkitesh (IITM)	Antenna and Wave Propagation	Jan-April 2015
10	Prof. Ashok Jhunjhunwala (IITM)	Wireless and Mobile Technology	Jan-April 2015
11	Prof. Gopal Srinivasan (IITB)	Digital Signal Processing	Jan-April 2015
12	Prof. Nagesh Kulkarni, Prof. Bhavika Shah	Embedded Systems: PIC Microcontroller Workshop	Oct-15
13	Mr.Sunil Pawar	Network Security and Project Management	18th September 2015
14	Dr. Mahesh B. Abegonkar	Basics of antenna Design and Hands on Using CST	30-31 Oct 2015
15	BE EESA Students	Introduction to Robotics	6-7 March 2015
16	Prof. Shreepad Karmalkar. (IITM)	Solid State Devices	Aug-Nov 2015
17	Prof. Shanthi Pavan. (IITM)	Fundamentals of Small Signal Analysis	Aug-Nov 2015
18	Prof. Deepa Venkitesh. (IITM)	Electromagnetic Waves	Aug-Nov 2015
19	Prof. G. Venkatesh. (IITM)	Graphs and Strings	Aug-Nov 2015
20	Prof. Zafar Ali Khan. (IITH)	Space Time Codes MIMO and Massive MIMO- Part 1 - Wireless Communication	Aug-Nov 2015
21	Prof. Zafar Ali Khan. (IITH)	Space Time Codes MIMO and Massive MIMO- Part 2 - Wireless Communication	Aug-Nov 2015
22	Prof. Gopal Srinivasan. (IITB)	Algebra	Aug-Nov 2015
23	Dr Arnab Das	Underwater Signal and Image processing	Apr-14
24	IIT BHU(expert)	PLC and SCADA	22-23 March 2014.

25	Prof. D. Venkatesh (IITM)	Electromagnetic Fields	Jan -April 2014
26	Prof. A. Jagannathan (IITK)	Wireless Communication	Jan -April 2014
27	Prof. S. Sabnis (IITB)	Probability & Statistics	Jan -April 2014
28	Dr. Y.V.Joshi	Digital filter design	Oct-14
29	Dr. S.S.Gajre	Fundamentals of Digital Signal Processing	Oct-14
30	Dr. R.R.Manthalkar	Texture Analysis	Oct-14
31	Dr Arnab Das	Underwater Signal and Image Processing	Oct-2014
32	Dr Arnab Das and Dr. Monika Agrawal	Under Water Signal processing	26,27 Sept 2014
33	Prof. Aurobinda Routray (IITK)	Digital Signal Processing	Aug-Nov 2014
34	Prof. Pradeep Kumar (IITK)	Analog Circuits	Aug-Nov 2014
35	Dr. S. S. Damhare	AVISHKAR Orientation	2nd Nov. 2014
36	Prof. Ashok Jhunjhunwala (IITM)	Fibre Optic Communications	Aug-Nov 2014
37	Prof. S. Dutta Roy (IIT Delhi)	Computer Vision	12-13 Oct. 2013
38	Prof. Mahesh Abegaonkar (IIT Delhi)	Antennas and Arrays	29 -30 June 2013
39	Prof. I.K. Rana IIT Bombay	Mathematics Modeling for School teachers	8-10 June 2013
40	Prof. Suneet Singh IIT Bombay	Nuclear Power Generation	13-14 April 2013
41	Prof. A.G. Ranade IIT Bombay	Design Analysis & Algorithms	9-12 April 2013
42	Prof. Suhas Joshi Prof. Aseem Tewaree Prof. U.V.Bhandarkar Prof. Shiv Kapoor (USA) Prof. Amit Agrawal	Inter-disciplinary Aspects of Manufacturing Engineering –by IIT Bombay	21-22 March 2013
43	Prof. Vikram Gadre IIT Bombay	Fundamentals of Digital Signal Processing	26-27 January 2013

44	Prof.Santosh Takale	Understanding the Universe and Career Guidance	26-Jun-13
45	Dr Arnab Das	Underwater Signal and Image processing	Oct-13
46	Dr. Vitthal Shrirang Bandal	Control System & Introduction to MATLAB	9th March, 2013
47	E cell IIT Bombay	Illuminate Workshop by E-Cell IIT Bombay	21st Sept, 2013

## 2 Training programs conducted under IIT Bombay Remote Center

### Programs conducted under IIT Bombay Remote Center

Sr. No.	Courses Conducted at VPCOE	Duration	No. of Participants
1	2 week ISTE workshop on Fluid Mechanics	2014-15	16
2	ISTE workshop on Computer Programming		28
3	ISTE workshop on Computer Networking		16
4	2 week ISTE workshop on Cyber Security		18
5	LaTex: Spoken Tutorial Project (FOSS)		275
6	Aakash Android Application Programming Workshop for Students	2013-14	45
7	Workshop on Research Methods in Educational Technology		55
8	ISTE Workshop for Database Management System		22
9	2 Week ISTE Workshop on Signals and System		32
10	2 Week ISTE Workshop on Engineering Mechanics		16

11	2-Weeks Workshop on Engineering Thermodynamics	2012-13	20
12	Workshop on Aakash for Education, MHRD Govt. of India		60
13	Introduction to Research Methodologies		41
14	Computational Fluid Dynamics (CFD)		15
15	Workshop on "Writing Effective Conference Papers for Engineering / Science Teachers"		98
16	10 day ISTE Workshop on Solar Photovoltaic's: Fundamentals, Technologies and Applications		33
17	2-Week ISTE Workshop on Heat Transfer		19
18	2 Week ISTE Workshop on Software Development Techniques for Teachers of Engineering and Science Institutes		22

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

**Prioritized research areas and the expertise**

Sr. No.	Name of faculty	Specialization area
<b>Civil Engg.</b>		
1	Dr.L.Pammar	Construction Management
2	Mr.G.N.Narule	Structural Engineering
3	Mr. .C.B.Nayak	Structural Engineering
4	Dr.S.Morkhede	Structural Dynamics & Earthquake Engineering

5	Dr.S.L.Ghodke	Structural Dynamics & Earthquake Engineering
6	Dr.R.J.Patil	Environmental Engineering
<b>Mechanical Engg.</b>		
7	Dr.Shirish Bali	Material Science
8	Mr..P.R.Chitragar	Heat Power
9	Mr.D.G.Joshi	Manufacturing
10	Mr.A.H.Kolekar	Heat Power
11	Mr.S.M.Bhosale	Manufacturing
<b>Electrical Engg.</b>		
12	Dr. N.B. Wagh	Electrical Power System
13	Mr.R. S. Tarade	Power System Engineering
14	Mr.M. P. Thakre	Power System Engineering
<b>Electronics and Telecommunication Engg.</b>		
15	Dr. Sudhir Lande	4G/LTE Mobile & Wireless Communication
16	Mr.V. U. Deshmukh	Radiating systems, Microstrip Antenna.
17	Dr. R.K.Shastri	Underwater and Biomedical Signal Processing
18	Mr.M. M. Jadhav	Microstrip patch antenna design
19	Mrs. Jyoti Rangole	Machine Vision, Underwater Signal Processing
20	Mr.Balasaheb Patil	Microwave Communication, Digital Image Processing.
<b>Computer Engg.</b>		
21	Dr. D. B. Hanchate	Machine Learning Software Engg.

22	Mrs.G. J. Chhajed	Image & Biomedical Signal Processing
23	Mrs.S.S.Nandgaonkar	Information Retrieval Data Mining
24	Mr.S.A.Shinde	Image Processing
25	Mr.D.M.Padulkar	Data Mining, Machine Learning
<b>Information Technology Engg.</b>		
26	Mrs. Sheetal A. Takale	Information Retrieval, Web Mining
27	Mr.Dinesh A. Zende	Data mining, Data Analysis, Machine Learning
28	Mr.Pradeep M. Patil	Image Processing, Pattern recognition
29	Mr.Santosh S. Kare	Computer Networks
30	Mr.Prashant T. Raut	Information Retrieval, Data & Knowledge Engineering
<b>General Science</b>		
31	Dr. N K Sahuji	Low temperature Physics, Data acquisition tools, computer
32	Dr. A P Hiwarekar	Differential equation, integral transforms, applied
33	Mr. A S Disale	Spectroscopy
34	Dr. A G Sajjan	Inorganic Chemistry
35	Mr. D S Sonawane	Probability theory
36	Mrs. G G Bhoite	Group theory and linear algebra
37	Dr. G A Dhanorkar	Functional analysis, fis-point theory

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

1. Interactions of students and faculties with eminent researchers always help them to be focused.
2. Institution understands that such expert talks always instill a strong desire to pursue research.
3. Institute invites eminent researchers, industry experts and academia to visit and interact with the students.
4. Various workshops and conferences are regularly organized, where eminent personalities from respective fields interact with students and faculty.
5. In addition to that students and faculty members are encouraged to directly visit the industries, research organizations and interact with the eminent persons related to the funded projects.
6. Institute also has MOUs with five International Universities and three national Institutes and various industries.
7. Institute is member of various Technical Societies or Associations. Institute organizes various workshops/conferences/seminar/training programs in association with these societies.
8. These societies also help the institution to identify the experts in the domain and to arrange workshops/conferences/seminar/training programs.

### **Institutional Membership**

**Institutional Membership**

<b>Organization</b>	<b>Membership Type</b>	<b>Membership No.</b>	<b>Valid Upto</b>
The Indian Society for Technical Education (ISTE)	Institutional Member	MH-224	Life Membership
The Indian Society for Technical Education (ISTE) Student Chapter	Institutional Member	MH-213	Life Membership
The Institution of Electronics & Telecommunication Engineers (IETE)	Life Organizational Member And IETE Student Forum	G 00395	Life Membership
Indian Society of Structural Engineers (ISSE)	Organization Member	O 17	Life Membership

Indian Association for Environmental Management	Institutional Member	ILM - 2011 Dt. 16-1-2012	Life Membership
The Institutions of Engineers (IEI)	Institutional Member	IM000342-7	Life Membership
German Indian Business Center	Institutional Member	---	31 <sup>st</sup> Dec. 2016
The Association of Commonwealth Universities (ACU)	Associate Membership	ZVPCOEIN1	31 <sup>st</sup> July 2016
Computer Society of India (CSI)	Educational Institution Member And CSI Student Branch	I01448	31 <sup>st</sup> March 2016 31 <sup>st</sup> March 2016
The Institution of Engineering & Technology (IET)	Institutional Member	---	July 2014- July 2016
Institute of Electrical and Electronics Engineer (IEEE)	Institutional Member	60101782 Student Branch Code: STB17071	17 Feb'15 to till date
The Engineering Society for Advancing Mobility Land, Sea, Air and Space (SAE India)	Collegiate Club	---	2011-2016
National Safety Council	Institutional Member	CM-MAH-2100	31 <sup>st</sup> March 2016
Mahratta Chamber of Commerce Industries & Agriculture, Pune	Associate of the Chamber	IA-6878	31 <sup>st</sup> March 2016
Association of the Managements of Un-aided Engineering Colleges (Mah)	Institutional Member	EN326	31 <sup>st</sup> March 2016



Details of eminent personalities who have visited and interacted with our students during the last four years are:

**Visitors' details**

<b>Sr. No.</b>	<b>Eminent Research Person</b>	<b>Organization</b>	<b>Purpose of Visit</b>
1	Prof. R. K. Shevgaonkar	Director of IIT Delhi	Workshop on National Programme on Technology Enhanced Learning (NPTEL)
2	Dr. William Predebone and Dr. Craig Friedrich	Michigan Tech USA	MOU with VPKBIET
3	Dr. Suhas Joshi	IIT Bombay	CEP
4	Dr. Shiv Kapoor	University of Illinois at Chicago – UIC	“Manufacturing Processes”
5	Dr. Abhiram Ranade	Department of Computer Science and Engineering, IIT , Mumbai	Expert talk on “Graph Theory in Transportation (A Case Study)”
6	Dr. Aditya A. Abhyankar	Dean, Department of Technology, SP Pune University	Keynote Address on: Kernel Evolution
7	Prof. Yashwant Kanitkar	Indian computer science author	Expert Talk on “Pointers in C”,
8	Dr. Ram Mohan Reddy	Professor, IT Dept, NITK, Suratkhal	Expert Talk on “Human Computer Interaction”
9	Dr. Harold D'costa	CEO- Intelligent Quotient Security System	Expert Talk on “Cyber Security”
10	Dr. Y K Dikshit,	Scientist ISRO, Bangalore	Elysium 2014
11	Dr. Anuradha Ganeshan and Dr. Veenaranjani -	Directors of Cummins India Ltd	Faculty & Student Interaction
12	Dr. Mohrir	IIT Bombay	Seminar on Online Piping Course

13	Dr. Veenaranjini Manjunath	Director Research and Development ,Cummins India Ltd. Pune	IEEE WIE Inaugural
14	Prof.Balan Selva	Scientist at CWPRS, Pune	Workshop on Underwater Signal Processing
15	Dr. Monika Aggarwal	CARE,IIT Delhi	Workshop on Underwater Signal Processing
16	Dr. Tarun K. Chandrayadula	Department of Ocean Engineering, IIT Madras	Workshop on Underwater Signal Processing
17	Dr. Hemant Abhyankar,	Vice President, VIIT group	Workshop on National Programme on Technology Enhanced Learning (NPTEL)
18	Dr.Y.V.Joshi	Professor, Dept. Electronics and Telecommunication, S.G.G. S. I. E.& T. Nanded Former Director WCE, Sangali	Guest lecture on Digital Filter Design
19	Dr. Suhas Gajare	Associate Professor Dept. of E&TC S.G.G. S. I. E.& T. Nanded	Guest Lecture on Biomedical Signals & Systems

**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, Sabbatical leave is granted to faculty for pursuing higher qualification and research. 13% faculty have utilized Sabbatical Leave for research activities. The Institute has well defined policy for sponsoring the faculty to pursue higher studies leading to PG or Ph.D. College policy has helped many faculty to complete their PG and Ph.D. degree over the period of time.

In addition, the Institute extends full support for faculty members who wish to avail a short period leave for the research work.

## Study Leave

Sr. No	Name of Department	Name of Staff	Reason for Deputation	Duration (in Years)
1	Information Technology	Mrs. Dipali Kasat	M.E.(Computer)	1
2		Mr. Manik Chavan	M.Tech(Computer)	1
3		Mr. Santosh Shinde	M.E.(Computer)	1
4		Mr. Kare Santosh	M.E. (Comp. Net.)	1
5	Computer Engineering	Mrs. G.J. Chhajer	M.Tech (Computer)	1
6		Mrs. S.S. Nandgaonkar	M.Tech (Computer)	1
7		Mr. D.M. Padulkar	M.Tech (Computer)	1
8	Mechanical Engineering	Mr. Shinde P.R.	Ph.D.(Mechanical)	3
9		Mr. Salunke S.Y.	M. S. (Mechanical)	2
10		Mr. Avinash Kolekar	Ph.D.(Mechanical)	3
12		Mr. Sachin Bhosale	Ph.D.(Mechanical)	3
13		Mr. P.R. Chitragar	Ph.D.(Mechanical)	3

**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)**

- Civil Engineering Dept. team carried out third party technical audit for Road over bridge in Baramati from TC college road to Bhigwan road. Following members were part of this team.
  - Mr. G. N. Narule
  - Mr. D. G. Patil
  - Mr. U. T. Jagdale
  - Mr. A.A. Sukheve

The team visited this site for about 20 times to check quality and progress of work time to time as a third party technical audit from 10 Feb 2014 to 31 Dec 2016. The team completed their part for the project by submitting all 14 visit reports.

- India is the only country producing all the five known commercial silks. The success of the sericulture industry depends on availability of Diseases Free silkworm eggs. Conventional method of counting silkworm eggs relies on manual counting, which is time consuming and labor-intensive. Mrs. Jyoti

Sadalge has proposed a technology for of automatic method for counting of silkworm eggs using image processing algorithm. The algorithms have been implemented on the database collected from Bhartiya Agro Industries Foundation, Uralikanchan and Pune.

- Counting of straws is currently done manually at Bharatiya Agro-Industrial Foundation (BAIF), Central Research Station. Manual counting of these straws is tedious, erroneous and hazardous. Research project lead by Mrs. Aparna Shastri and Dr. R.K.Shastri along with students proposed the solution for automatic semenstraw counting which will result in easy, accurate, time and cost effective solution with increased safety in the field of animal husbandry.
- Mr. Vinay Nagalkar is working on funded research project titled: “Quantification and Identification of Arteriovenous Malformation (AVM)”. This software can further be embedded directly into CT scanner.
- Fluoride in water above a certain limit is very toxic for human health. Students of Institute, Madhusudan Yadav, Rahul Sul, Harshwardhan Surawase, and Niranjan Nanaware under the guidance of Prof S. R. Deshmukh have proposed and implemented a project on Ground water Purification.
- Recent advances in web 2.0 have resulted in various social media sites. These social media sites have become integral part of each individual’s life. Huge amount of social and community contributed images are available on these social sharing sites. Mrs. S.A. Takale has worked on the problem of “Visual summarization of Geo-graphic Locations”. The proposed work has been accepted and published in ACM and Springer digital libraries.
- Institute has always contributed for establishment and maintenance of IT infrastructure of nearby schools.
- The Institute regularly organizes project exhibitions, poster competitions, paper presentations, model making competitions, and Robo-War competitions. School students and community are invited for interactions. Every year students participate in AVISHKAR- state level project competition. Students are motivated to attend industry internships. Initiatives are taken up by the institution for creating awareness and to transfer of relative findings of research of the institution through following steps:
  - By publishing research papers in high impact national/international journals.
  - By conducting national/international conferences in various departments
  - By supporting faculty and students for their participation in National and International Conferences.
  - Every year student achievers are congratulated by Principal in Student Council Meetings.

## 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.**

Out of the total budget of the Institute, about Rs.80 lakhs i.e. 8.3 %, is earmarked for research related activities. This budget is allocated for various major heads like, student training, industrial visits of students, support to staff for attending conferences and workshops, required infrastructure for research and financial support to students.

**Budget earmarked for research**

Expenditure Heads	2015-16		2014-15		2013-14		2012-13	
	Budget (In Lakh)	Expenditure Incurred (In Lakh)	Budget (In Lakh)	Expenditure Incurred (In Lakh)	Budget (In Lakh)	Expenditure Incurred (In Lakh)	Budget (In Lakh)	Expenditure Incurred (In Lakh)
Financial Aid To Students	2	1.16	2	0	2	0.32	2	1.79
Software Renewal	5.35	27.66	8	9.36	3	1	5	1.55
Internet Expenses	10.4	9.9	10	7.22	6	5.45	8.35	5.16
Industrial Visits Of Students	3	2.02	3	2.04	2.5	1.94	2	2.09
Student Training	10	8.63	12	5.45	2	9.85	4	0.99
Library	11	7.98	13	5.92	11	4.5	9	7.72
Laboratory Equipments	76.75	40.62	117.25	18.55	106.75	24.94	65	43.17
Stationery Expenses (All)	1.1	1.2	2.25	0.87	1.7	1.12	2.15	0.98

CEPs,STTPs, FDPs, Workshops / Conferences / Seminars	9.25	4.04	10.25	15.33	8.25	13.07	7.5	4.7
Travel (Staff)	5	3.29	5	3.35	6	3.07		7.4
Total Exp.	133.85	106.5	182.75	68.09	149.2	65.26	105	75.55

**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,** Institute provides seed money for the research projects of faculty as and when required. Details seed money provided by Institute for various projects are listed here:

**Seed money provided by Institute for faculty research**

Sr. No	Title of project	Name of Faculty	Seed Money Provided by Institute
1	Peak Power to Average Power Reduction (PAPR) of OFDM System using Modified Selective Mapping Technique	Mr. Kushnure D. T.	Rs. 21,920 /-
2	Experimental investigation and analysis of dynamic response of conical compression spring in comparison with cylindrical compression spring in shock absorber	Mr. Kale P. D.	Rs. 1,20,000/-
3	Recognition System In Less Constrained Environment	Mr. Patil P. M.	Rs. 45,000/-
4	Ambient Noise Characterization in Shallow depths for Tropical Waters of the Indian Ocean Region	Mr. Jagadale S. S.	Rs. 9,250/-
5	Vibration control of Civil structures using piezoceramic smart materials	Mr. Nayak C. B.	Rs. 31,469/-
6	Experimental Investigation and	Mr. Shelge	Rs.

	Analysis Recast Layer Formation in Wire Electro Discharge Machining Process.	S.V.	2,68,579/-
7	T10KT Workshop	Mr. Jagadale S .S.	Rs.28,887/-
8	Non – Destructive testing of existing structure & rehabilitation	Mr. G.N. Narule	Rs. 1,50,000/-

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

- Institute supports student's research projects and research work of students by providing financial assistance to students.
- To support student's research projects required components, software's, devices etc. are procured by the institution as and when required.
- Required skill based training programs and workshop by the industry experts are arranged by the Institute.
- Institute also provides financial support for travelling and attending the different events at state and national level competitions.
- Institute also organizes Industrial visits for students.
- Every year Institute also organizes Project Competition and 3 best projects are awarded with Prizes.
- Students can use Institute infrastructure and resources after even working hours for doing their projects.

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

Research Committee at Institute is having expert faculty from each department. Inter-disciplinary projects are always supported and motivated at Institute. A significant number of students undertake multidisciplinary projects. Faculty members also work on interdisciplinary projects. Interdisciplinary projects of students are coordinated by the project coordinators of the concerned department.

Some of the showcase areas for interdisciplinary projects are in Internet-of Things, Embedded Systems, Image processing, Networking, Mechatronics, Robotics, Environmental engineering etc.

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

- The research committee, at Institute level, plays the major role for monitoring the research activities.
- Committee identifies the need of research facilities accordingly the facility or specialized equipment required for R & D is made available.
- Committee also keeps track of the usage of various resources and facilities available for research. Optimum utilization of Library and Laboratories is done by UG and PG students.

**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,** Institute has received grants from various funding agencies such as: BCUD SPPU Pune, AICTE, IIT Bombay, MHRD Govt. of India, and NVIDIA.

**Funding agencies and funds details**

<b>Sr. No</b>	<b>Funding Agency / Industry</b>	<b>Funds received</b>
1	BCUD, SPPU Pune	33.58 Lakhs
2	AICTE, Delhi	25 Lakhs
3	IIT Bombay AAKASH Project	1 Lakh
4	MHRD Govt of India, NMEICT	40 Lakhs
6	NPTEL Workshop Grant	3 Lakhs
7	QEEE Grant : To augment the Infrastructure of the Remote Center	5 Lakhs

**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.**



## Ongoing projects and funds details

<b>BCUD SP Pune University Research Projects</b>				
<b>Sr. No.</b>	<b>Year</b>	<b>Name of Faculty</b>	<b>Name of Project</b>	<b>Grant Received Rs.</b>
Ongoing Projects				
1	2016-18	Mrs. Kale P.D	Experimental Investigation and Analysis of Dynamic Response of Conical Compression Spring in Comparison with cylindrical in Shock absorber	Rs.1.70 Lakh
2	2016-18	Mr. D.A. Zende	Credit card fraud detection using data mining techniques	Rs. 0.63 Lakh
3	2016-2018	Mrs. J.S. Rangole	Side scan Sonar Image Analysis, An Application to sediment Classification	Rs. 1.4 Lakh
4	2016-2018	Mrs. A.R. Shastri	An Image Processing Solution to Frozen semen straw counting problem	Rs. 1.6 Lakh
5	2016-2018	Mr. P.N. Arotale	EEG based Emotion Recognition	Rs. 1.1 Lakh
6	2014-2016	Mr. V. U. Deshmukh	Investigation of Nonlinear Effects (Optical Solitons) in Fiber Optic Communication and It's Applications	Rs. 1.9 Lakh
7	2014-2016	Mr. B.H. Devkate	A pipelined VLSI Architecture for 2-D DWT	Rs. 1.7 Lakh
8	2014-2016	Mr. S.S. Jagdale	Ambient Noise Characterization in Shallow Depths for Tropical Water of The Indian Ocean Region	Rs. 1.9 Lakh

9	2014-2016	Mr. D.T. Kushnure	Peak Power to Average Power Reduction of OFDM System Using Modified Selective Mapping Technique	Rs. 1.7 Lakh
10	2014-2016	Mr. Nayak C.B.	Vibration control of Civil structures using Piezoceramic Smart Materials	Rs. 1.8 Lakh
11	2014-16	Mr. Bhagwat V. B.	Characterization and comparison of solar selective coatings between Ni Al and NiCo on Al substrate	Rs.0.85 Lakh
12	2014-16	Mr. Patil P.M.	Iris recognition systems less constrained environment	Rs.1.2 Lakh
13	2014-16	Mrs. Sushma S. Nandgaonkar	Discrimination using rule bases Data Mining	0.70 Lakh
14	2014-16	Mr. Santosh A. Shinde	Inpainting of Digitized Vintage Films via Maintaining Spatiotemporal Continuity	0.70 Lakh
15	2014-16	Mr. Digambar M. Padulkar	Electricity Transformer Life Estimation using Association rule mining	0.80 Lakh
16	2014-16	Mr. Rajaram A. Ambole	High Speed Network Intrusion Detection System (NIDS) using Stride-FA	0.50 Lakh
17	2014-16	Mr. Manoj D. Shelar	Detection of Adware by using Data Mining and Machine Learning Techniques.	0.50 Lakh
18	2014-16	Mr. Rajkumar V. Panchal	A Novel Method For Movie Character Identification Based on Graph Matching	0.70 Lakh
<b>Completed Projects</b>				

19	2013-2015	Mr. M.M. Jadhav	Microstrip Patch Antennas	Rs. 2.0 Lakh
20	2013-2015	Mr. S.D.Biradar	EEG Signal Classification for Brain Computer Interface Applications	Rs. 1.8 Lakh
21	2013-15	Mr. Bhosale S.M. Mr. Shelage S.V.	Experimental investigations & Analysis of Recast Layer formation in wire EDM	Rs. 2.15 Lakh
22	2013-15	Mr. Zende D.A.	Spyware solution: Detection of spyware using data mining and machine learning techniques.	Rs. 0.70 Lakh
24	2012-2014	Mrs. J.S. Rangole	Automatic counting of Silkworm eggs	Rs. 2.3 Lakh
25	2012-2014	Mr. A.P. Hiwarekar	Better Network Security Using Generalized Hill Cipher Algorithm	Rs. 1.25 Lakh
26	2012-2014	Mr. A.S Disale	Spectroscopic Study of Medicinal and Edible Mushrooms for Development of Optical Sensors for Industrial and Agriculture Applications	Rs. 1 Lakh

**MODROB AICTE Funded Projects**

Sr. No.	Year	Name of Faculty	Name of Project	Grant Received In Rs.
Completed Projects				

1	2012-2013	Mr. Narule G.N.	Non – Destructive testing of existing structure & rehabilitation	Rs. 6.0 Lakh
2	2012 - 2013	Dr. S.B. Deosarkar	MODROB Microwave Engineering	Rs. 19,71,950/-

<b>BCUD SP Pune University FDP/Seminar Grant</b>				
<b>Sr. No.</b>	<b>Year</b>	<b>Name of Faculty</b>	<b>Name of Project</b>	<b>Grant Received Rs.</b>
Completed				
1	2015-16	Mr. Zende D.A.	Faculty Development Progarm	Rs.1.5 Lakh
2	2015-16	Mrs. Sushma Nandgaonkar	State level Seminar	Rs 59500/-
3	2012-13	Dr. Hanchate D.B.	Faculty Development Progarm	Rs 0.25 Lakh
4	2014-15	Mr. Kolekar A. H. Mr. Jadhav K. M.	State level workshop on “Critical issues in Nuclear Technology ”	Rs.1.0 Lakh

## BCUD Grant for Equipments

BCUD Grant for Equipments				
Sr. No.	Year	Name of Faculty	Name of Project	Grant Received Rs.
Completed				
1	2013-14	Sachin Bhosale	Projectors received through BCUD Funding	Rs. 75,000
2	2013-14	Sachin Bhosale	Multi GYM Sports Equipments	Rs. 89,000

Table 3.21: Grant Received From MHRD Govt. Maharashtra

Grant Received From MHRD Govt. Maharashtra				
Sr. No.	Year	Name of Faculty	Name of Project	Grant Received Rs.
Completed				
1	2015-16	Mr. Jagadale S. S.	NEM-ICT AKASH Project Bombay	Rs1.0 Lakh
2	2015-16	Mr. Jagadale S. S.	T10KT Workshop	Rs.2.8 Lakh

Table 3.22: Grant Received from Industry

Grant Received from Industry				
Sr. No.	Year	Name of Faculty	Name of Project	Grant Received (in kind)
Completed				
1	2015-16	Mr. M.D. Shelar	GPU Education Center	GPU teaching kit consisting of K40 {active} and Titan X GPUs

### 3.3 Research Facilities

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

Institute has been supporting the students and faculty for various research activities by providing maximum facilities.

1. Institute has developed healthy relation with Research Institutes of National and International recognition, which has turned into MOUs. Faculty and students are promoted and deputed for research program in these Research Institutes.
2. Institute has developed world class infrastructure and healthy environment with healthy work culture, which sports research mind of faculty and students to develop and implement various ideas.
3. Every year faculty participates and presents their research in various National and International conferences and journals. Institute supports faculty and students to attend and present their research in various National and International conferences and journals.
4. Central library of Institute is the central support which provides information services and access to reference books, text books, National and International Journals e-journals, and video library.
5. Each department has well equipped labs and workshops which are utilized for conducting research activity.
6. Institute has excellent computing facility with each department. Institute has more than 630 computers and State-of-the-art servers like:
  - a. Dell Vostro 430 x64 Windows Server 2008 R2 Enterprise,
  - b. HP Elite 7100 x64 Windows Server 2008 R2 Enterprise,
  - c. Dell Power Edge R210 Windows Server 2012 R2 Standard,
  - d. HP Elite 7100 x64 Ubuntu 13.04 Server ,

- e. HP Proliant DL60 Gen9 x64 Windows Server 2012 R2 Standard,
- f. HP Proliant DL60 Gen9 x64 Windows Server 2012 R2 Standard,
- g. HP Proliant ML 110G7 CentOS Server

7. Various expert lectures and motivational talks frequently arranged in the Institute always help to foster the research culture and aptitude among faculty and students.

### Expert lectures arranged in Institute

Sr. No.	Name of Department	Research Facilities/ Labs/Equipments of Dept	Details of Project Carried out using research project
1	E&TC	<b>Project Lab :</b> Agilent Field Fox Portable Microwave Vector Network Analyzer 14 GHZ -	1. Frequency Configurable micro strip patch antenna 2. Compact dual band micro strip antenna for WLAN application
2		IIT Delhi MIC Kit	
3		Digital Storage Oscilloscope 100 MHz	
4		CST Microwave Studio	
5		USRP B200 SDR Kit	Implementation of PAPR reduction technique in OFDM system using SDR
6		Embedded Vision System NIEVES	Automatic counting of silkworm eggs using image processing
7		3D Brain Activity Window	
8		Rigol 300 DAQ	Underwater Ambient Noise Modeling
9		RF Laboratory – Optisystem V13	Investigation of the Nonlinear Effects in Fiber Optic Communication and Application
10	Mechanical Engg	1. Digital Strain Indicator 2. Accelerometer 3. Strain Gauges 4. Round pot Electromagnet	Stress Concentration effects on various cut outs.
11	IT & Computer Engineering	AAKASH Tablets	Android Based Projects of students

### 3.3.2 What are the institutional strategies for planning, upgrading and creating

**infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?**

- The Institute has research committee. Every year budget is allocated for R & D activities.
- The budget is utilized for purchasing lab equipment, consumables, Software, IT infrastructure etc.
- Some part of the budget is also utilized for staff and students trainings and to sponsor faculty for presenting research papers in international and national conferences. Faculty members apply for travel grant from various government agencies and partial support is given by Institute.
- The Institute also provides financial support for filing patents.
- The Institute motivates young faculty members for pursuing research by providing the required support.
- Institute motivates faculty to apply for research grants from various government agencies. Senior faculty members are encouraged to apply for funding for organizing FDPs, SSSPs and Seminars. Various research projects of faculty are funded by BCUD, MODROB, etc.
- Institute provides the required seed money for these projects. The funding received for these projects helps to create new infrastructural facilities to meet the needs of researchers, especially in the new and emerging areas of research.
- Institute has collaborations with foreign universities, reputed Indian Institutes and industries to develop infrastructural facilities for research.
- Faculty also undertakes various consultancy and research assignments involving research work.
- NVIDIA computing lab is developed specially to cater to research in parallel computing domain.

**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**, every year, all departments apply for grants from different funding agencies like, AICTE and BCUD. Laboratories are developed and upgraded to meet the state-of-art facilities in emerging research areas of the program. Institute has also received funding from IITs for AAKASH project, and to augment the Infrastructure of the Remote Center at Institute. Institute has also received grant for organizing Workshop/Seminar from MHRD Govt. of India and SPPU, BCUD, Pune.



## Instruments Purchased Through BCUD SP Pune University Funding

<b>Instruments Purchased Through BCUD SP Pune University Funding</b>					
<b>Sr. No.</b>	<b>Year</b>	<b>Name of Faculty</b>	<b>Name of Project</b>	<b>Grant Received Rs.</b>	<b>Details Instruments / facilities created</b>
1	2014-2016	Mr.S.S. Jagdale	Ambient Noise Characterization in Shallow Depths for Tropical Water of The Indian Ocean Region	Rs. 1.9 Lakh	Rigol 300 DAQ
2	2014-2016	Mr.D.T. Kushnure	Peak Power to Average Power Reduction of OFDM System Using Modified Selective Mapping Technique	Rs. 1.7 Lakh	SDR B200 USRP Kit
3	2013-2015	Mr.M.M. Jadhav	Microstrip Patch Antennas	Rs. 2.0 Lakh	IIT Delhi MIC kit for VNA. of cost RS. 77175/
4	2014-2016	Mr. Nayak C.B.	Vibration control of Civil structures using Piezoceramic Smart Materials	Rs. 1.8 Lakh	i)Matlab Software With Signal Processing Toolbox ii) Digital Storage Oscilloscope iii) Three Storey Building Frame
5	2016-18	Mrs. Kale P.D	Experimental Investigation and Analysis of Dynamic Response of Conical Compression Spring in Comparison with cylindrical in Shock absorber	Rs.1.70 Lakh	Vibration exciter

6	2014-16	Mr. Bhagwat V. B.	Characterization and comparison of solar selective coatings between Ni Al and NiCo on Al substrate	Rs.0.85 Lakh	1) Phase Air Cooled Rectifier (0-12 volts, 24 Amps Capacity, Ripple less than 5%) (Rs. 18000/-) 2) Coating Thickness Gauge Meter KM 8042 4 Digitals LCD Display (Rs. 23721/-)
7	2013-15	Mr. Bhosale S.M. Mr. Shelage S.V.	Experimental investigations & Analysis of Recast Layer formation in wire EDM	Rs. 2,15,000/-	Micro Vicker Hardness Tester Economy Model Digital Manual Model HV 1000B (RS. 3,60,000/)
8	2014-16	Mr. Patil P.M.	Iris recognition systems less constrained environment	Rs.1.2 Lakh	CV-A55IR Infra red Camera along with MP41 Tripoid adapter, 12 Pin Hirose connector power supply, USB 2.0 Cable, 13vm20100AS Tamron Lens, DFG/ USB2 Pro Books
9	2013-15	Mr. Zende D.A.	Spyware solution: Detection of spyware using data mining and machine learning techniques.	Rs. 0.70 Lakh	Quick Heal Total Security, Net Protector Antivirus, Kaspersky Antivirus, MAX Secure Antivirus Plus, McAfee Antivirus
10	2014-16	Mr. Rajaram A. Ambole	High Speed Network Intrusion Detection System (NIDS) using Stride-FA	0.50 Lakh	TP Link 300 MBPS Wireless NADSL2+ Modem Router

## Instruments Purchased Through MODROB Proposals By AICTE

<b>Instruments Purchased Through MODROB Proposals By AICTE</b>					
<b>Sr. No.</b>	<b>Year</b>	<b>Name of Faculty</b>	<b>Name of Project</b>	<b>Grant Received Rs.</b>	<b>Details Instruments / facilities created</b>
1	2012-2013	Mr. Narule G.N.	Non – Destructive testing of existing structure & rehabilitation	Rs. 6.0 Lakh	1. Concrete Profometer 2. Concrete Cutter
2	2012 - 2013	Dr. S.B. Deosarkar	MODROB Microwave Engineering	Rs. 19,71,950/-	1. Agilent Field Fox Portable Microwave Vector Network Analyzer 14 GHZ 2. IIT Delhi MIC Kit 3. Digital Storage Oscilloscope 100 MHz 4. CST Microwave Studio

## Instruments Purchased Through BCUD Grant for Equipments

<b>Instruments Purchased through BCUD Grant for Equipments</b>					
<b>Sr. No.</b>	<b>Year</b>	<b>Name of Faculty</b>	<b>Name of Project</b>	<b>Grant Received Rs.</b>	<b>Details Instruments / facilities created</b>
1	2013-14	Sachin Bhosale	Projectors received through BCUD Funding	Rs. 75,000	LCD Projectors
2	2013-14	Sachin Bhosale	Multi GYM Sports Equipments	Rs. 89,000	Multi GYM Sports Equipments

## Instruments Purchased Through MHRD Govt. India Funds

Instruments Purchased through MHRD Govt. India Funds					
Sr. No.	Year	Name of Faculty	Name of Project	Grant Received Rs.	Details Instruments / facilities created
1	2015-16	Mr. Jagadale S. S.	NEM-ICT AKASH Project Bombay	Rs1.0 Lakh	Dell PowerEdge R 210 Rack Server (01QTY)(Rs.80000/-) LinkSys E1200Wirelss N Router (02 QTY)(Rs.6800/-) Viewsonic VX2270SMH 22 INCH LED Monitor (01QTY) (Rs.10000/-) Microsoft Cordless Keyboard and Mouse (02QTY)(Rs.2900/-) Total = Rs.99700/- Rs.300/- Refunded
2	2015-16	Mr. Jagadale S. S.	T10KT Workshop	Rs.2.8 Lakh	Video Camera-Panasonic - AG-AC90AEN(Rs. 140625/-) Tripod stand for camera (Rs. 5062/-) Wireless Mic System-Shure SVX 24/PG 58(rs. 31500/-) Video Capture Card-Blackmagic Design Decklink Mini Recorder (Part No: BDLKMINIREC)(Rs. 13125/-) Personal Computer-HP 406G1 i5 DOS Core i5-4570/4GB DDR3/ 1TB HDD/ Ubuntu Linux /DVD RW/ 23" TFT/3 years Onsite (Rs.56700/-)

## Instruments Purchased through Funds Received From Industry

Instruments Purchased through Funds Received From Industry					
Sr. No.	Year	Name of Faculty	Name of Project	Grant Received From	Details Instruments / facilities created
1	2015-16	Mr. M.D. Shelar	GPU Education Center	NVIDIA	GPU teaching kit consisting of (1) K40 {active} and (2) Titan X GPUs Free Access to 100 GPU programming labs available at <a href="http://nvidia.qwiklab.com">nvidia.qwiklab.com</a>

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

1. Institute promotes faculty for pursuing Ph.D. at IITs, NITs and other renowned Institutes.
2. The Institute deputed and sponsors students for research competition, exhibition like PGCON, Avishkar, and Innovation etc.
3. Students also undertake industry sponsored projects.
4. Opportunity to undertake UG Fellowship at European Universities is provided to students.
5. Institute has MOUs with National and International Universities and Industries.

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

#### Information Resource:

- a. **Computing facility:** Institute has more than 630 computers with latest configuration.
- b. **Institute has total 60 Mbps:** 24X7 dedicated Internet Leased Line Connectivity with contention ratio 1:1 from Tata Teleservices Maharashtra Ltd. It is distributed among all departments, library, and labs through campus wide optical fiber cable and CAT 6 network connectivity with gigabit Cisco and D link manageable switches connectivity.
- c. **State of the art servers and licensed softwares**
  - 1) **Dell Vostro 430 x64 Windows Server 2008 R2 Enterprise:**

- i) MATLAB R2015a Software Server License.
- ii) CST STUDIO SUITE 2015 Software Server License.
- iii) IE3D Software Server License.
- 2) **HP Elite 7100 x64 Windows Server 2008 R2 Enterprise:**
  - i) Local G (Local Guru) Content Management System and Video Streaming Software for NPTEL Resources in College LAN.
- 3) **Dell Power Edge R210 Windows Server 2012 R2 Standard:**
  - i) Active Directory OU users used for internet firewall user authentication.
  - ii) Software's Backup
- 4) **HP Elite 7100 x64 Ubuntu 13.04 Server**
  - i) Used for SP Pune University First Year and Second Year online Examination.
- 5) **HP Proliant DL60 Gen9 x64 Windows Server 2012 R2 Standard:**
  - i) Used for providing N Computing facility at Library
- 6) **HP Proliant DL60 Gen9 x64 Windows Server 2012 R2 Standard:**
  - i) Used for providing N computing facility to PG Lab A 212 of E&TC Dept.
- 7) **HP Proliant ML 110G7 CentOS Server :**
  - i. Used for to QEEE IITM Programme. Under this programme to delivered various IIT's live lectures to college students.
- 8) **MSDN campus license**  
VPKBIET Subscribe Microsoft Volume Licensing Service Center.  
Licensing ID: Agreement V1390833
  - ii) Name of the subscriber: Vidya Pratishthan Group of Institutes.

**9) Details of all license software's for all departments**

**Computer Engg & IT. :**

IBM Rational Suite Enterprises.

- i) Software & Tools Kit Introduction to Oracle 9i.

**E&TC Engg. :**

- i) DSP Tanning Software
- ii) Xilinx 8.2
- iii) Micro-Cap 8
- iv) IE3D Super Structure Designer Software
- v) CST Studio Suite Version 2014
- vi) Proteus VSM Software, with advance simulation features with microcontrollers.
- vii) Optisystem V 13
- viii) Matlab 2016r
- ix) National Instrument Vision Builder 2010

**Electrical Engg. :**

- i) PSIM Software (Academic)
- ii) ETAP Software

iii) Matlab 2015a

iv) PLC SCADA

**Civil Engg.**

- i. GRAM ++ GIS Version 2.0 E Tubler for GIS Civil CD, S S F, Q T Y, R O A D S, Super Real Valuation, Steel 2007, R C F, 2 D Fram Analysis, Road Estimate, R A F T, Site Control, Super Rate Analysis.
- ii. MATLAB
- iii. STAAD pro Software

**Mechanical Engineering:**

- i. ANSYS 14.5
- ii. Matlab
- iii. Master-Cam X9
- iv. Solid Edge V20
- v. Auto -Cad 2009

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

1. Institute has been recognized by IIT Bombay, as a Remote Center for NMEICT.
2. Infrastructure of the Remote Center at Institute is developed through funds received from IIT for conduction of QEEE.
3. Institute has MOUs with industries and Institutes of National and International repute.

## **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)**

**Major research achievements**

<b>Sr.No</b>	<b>Title of Patent</b>	<b>Name of faculty</b>	<b>Application Number</b>	<b>Date of filling</b>
1.	Cotton Sowing Mechanism/Machine For Vidarbha Region.	Vinay Jagdish Nagalkar Dr. Sudhir Lande	201721004159	06/2/2017
2.	Ischemic stroke detection using	Vinay Jagdish Nagalkar	545/MUM/2013	10/1/2013

	digital image processing software embedded in CT scanner			
3	Quantification and rectification of diabetic retinopathy diseases using digital image processing embedded in FPGA	Vinay Jagdish Nagalkar	415/MUM/2014	24/3/2014

### **Original research contributing to product improvement**

1. Android applications developed by students

### **Research studies or surveys benefiting the community or improving the services**

1. 7<sup>th</sup> National Conference on Technology and Innovations in Mathematics Education (TIME) was organized by Institute from December 4-7, 2015.

### **Research inputs contributing to new initiatives and social development**

Third party technical audit was carried out by Civil Engineering Dept. of Institute team for Road over bridge in Baramati from TC college road to Bhigwan road.

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

No

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

- Publication per faculty per year – 1.13
- Total Number of papers published by faculty and students - 476
- Number of papers published by faculty in National Conferences- 52
- Number of papers published by faculty in International Conferences- 135
- Number of papers published by faculty in National Journals - 31
- Number of papers published by faculty in International Journals- 258
- Number of papers in Journals and Conferences with citations – 89
- Number of papers in Journals and Conferences with H-Index - 42
- Number of papers in Journals and Conferences with Impact Factor>1 - 107



## Publications of faculty and students.

Sr. No	Department	Name of Faculty	Number of Papers in National and International Journals and Conferences
1	Civil Engineering	Dr.L.S.Pammar	5
2		Mr. G.N.Narule	17
3		Mr. C.B.Nayak	23
4		Mrs. S.B.Walke	6
5		Mr. U.T.Jagdale	5
6		Mrs. S.R.Deshmukh	1
7		Dr.S.G.Morkhade	7
8		Mr. R.R.Khartode	2
9		Mr. A.M.Gaikwad	2
10		Dr.S.L.Ghodke	3
11		Dr.R.J.Patil	1
12	Information Technology	Mrs. Sheetal A. Takale	5
13		Mr. Dinesh A. Zende	4
14		Mr. Pradeep M. Patil	1
15		Mr. Santosh S. Kare	2
16		Mr. Prashant T. Raut	1
17		Ms. Shridevi A. Swami	1
18		Mr. Avinash J. Kokare	2
19		Mr. Deepak S. Gaikwad	4
20		Mrs. Kanchan Bhale	1
21		Mr. Keshav S. Bhagwat	2
22		Ms. Gauri K. Ghadge	1
23		Ms. Pallavi D. Javalkar	1
24	Electrical Engineering	Dr. N. B. Wagh	11
25		Mrs. Pooja Jaiswal	2
26		Mrs. Jyoti Kulkarni	3
27		Mr. Nikhil Vaidya	3
28		Mr. Dipak Yeole	7
29		Mr. Mohan Thakre	9
30	Mechanical Engineering	Dr. Shirish Bali	2
31		Mr. P.R.Chitrakar	6
32		Mr. D.G.Joshi	7
33		Mr. A.H.Kolekar	2

34		Mr. S.M.Bhosale	4
35		Mr. S. V. Shelge	3
36		Mrs. P. D. Kale	4
37		Mr. D. D. Rupanwar	2
38		Mr. V. B. Bhagwat	4
39		Mr. H. P. Borate	4
40		Mr. K. M. Jadhav	4
41		Mr. P. V. Dhandore	1
42		Mr. S. H. Kumbhar	5
43		Mr. M. S. Yadav	3
44		Mr. P. Galande	1
45		Mr. M. Gaikwad	1
46	Computer Engineering	Dr. D. B. Hanchate	9
47		Mrs. G. J. Chhajed	2
48		Mrs. S. S. Nandgaonkar	0
49		Mr. S. A. Shinde	0
50		Mr. D. M. Padulkar	1
51		Mr. R. H. Ambole	0
52		Mr. M. D. Shelar	0
53		Mr. R. V. Panchal	0
54		Mr. V. V. Rampurkar	1
55		Mr. P. M. Paithane	0
56		Mr. M. B. Rangdal	0
57		Mr. S. K. Shah	2
58		Ms. V. S. Kharad	0
59	Electronics and Telecommunication	Dr. S. B. Lande	11
60		Dr. R.K. Shastri	27
61		Mr.V. U. Deshmukh	8
62		Mr.B. H. Patil	13
63		Mr. P.K. Kadbe	16
64		Mrs. J.S. Rangole	6
65		Mrs. A.R. Shastri	7
66		Mr. S.S. Jagdale	5
67		Mr. P.N. Arotale	1
68		Mr. S.D. Biradar	5
69		Mr. M. M. Jadhav	13
70		Mr. D.T. Kushnure	6
71		Mrs. V.S. Surwase	2
72		Mr. S.U. Kolhar	3
73		Mr. A.S. Bankar	3

74		Mr. S. R.Trankatwar	2
75		Mr. R.S. Piske	1
76		Mr. A.W. Bhagat	7
77		Ms. A.R. Bankar	3
78		Mr. A.M. Padole	1
79		Mr. P.R. Bansinge	1
80		Ms. N. U. Bhosle	1
81	General Science	Prof. N K Sahuji	4
82		Prof. A P Hiwarekar	15
83		Mr. A S Disale	2
84		Mr. D S Sonawane	3
85		Dr. G. A. Dhanorkar	11
86		Mrs. G G Bhoite	1
87		Mr. A B Patil	12
88		Mr. Y M Chitare	1
89		Mr. S H Pawar	2

## Faculty publications details

Sr. No	Department	Name of Faculty	Number of Papers with citations	Number of papers with H Index	Number of papers with Impact Factor > 1
1	Information Technology	Mrs. Sheetal A.	3	1	1
2		Mr. Dinesh A. Zende	1	0	0
3		Mr. Prashant T. Raut	1	0	0
4		Ms. Shridevi A.	1	0	0
5	Mechanical Engineering	Dr. Shirish Bali	1	1	1
6		Mr. P.R.Chitrakar	0	4	2
7		Mr. D.G.Joshi	0	0	0
8		Mr. A.H.Kolekar	0	1	1
9		Mr. S.M.Bhosale	1	1	1
10		Mr. V. B. Bhagwat	1	1	0
11		Mr. H. P. Borate	1	1	1
12		Mr. K. M. Jadhav	0	0	3
13	Computer Engineering	Dr. D. B. Hanchate	6	4	6
14		Mrs. G. J. Chhajed	3	3	1
15		Mrs. S. S.	0	0	0

16		Mr. S. A. Shinde	0	0	0
17		Mr. D. M. Padulkar	0	0	0
18		Mr. R. H. Ambole	0	0	0
19		Mr. S. K. Shah	1	1	1
20		Ms. V. S. Kharad	0	0	0
21	Electronics and Telecommunication	Dr. S. B. Lande	10	3	2
22		Dr. R.K. Shastri	12	4	6
23		Mr. V. U. Deshmukh	1	2	2
24		Mr. B. H. Patil	0	0	0
25		Mr. P.K. Kadbe	0	0	0
26		Mrs. J.S. Rangole	3	3	0
27		Mrs. A.R. Shastri	2	2	2
28		Mr. S.S. Jagdale	1	1	1
29		Mr. S.D. Biradar	2	1	1
30		Mr. M. M. Jadhav	0	0	4
31		Mr. D.T. Kushnure	4	2	2
32		Mr. S.U. Kolhar	1	0	2
33		Mr. A.S. Bankar	0	0	1
34		Mr. S. R. Trankatwar	0	0	1
35		Mr. A.W. Bhagat	0	0	3
36	General Science	Prof. A P Hiwarekar	5	4	3
37		Mr. A S Disale	0	0	0
38		Mr. D S Sonawane	0	0	1
39		Dr. G. A. Dhanorkar	3	2	2
40		Mrs. G G Bhoite	0	0	0
41		Mr. A B Patil	0	0	1
42		Mr. Y M Chitare	0	0	0
43		Mr. S H Pawar	1	0	1

Following faculty members have received funding and they have presented their research in international conferences:

## International publications by faculty

Sr. No	Name of faculty	Details of International Conference
1	Mr. P.R. Chitragar	International Engineering Symposium (IES) 2017, Kumamoto, Japan
2	Mr. P.R. Chitragar	Spring Internship Program 2017, Kumamoto University, Kumamoto, Japan.
3	Mrs. S.A. Takale	WISE 2015, Miami, Florida, USA
4	Dr. A.P. Hiwarekar	World Congress of Engineering-2014 , London UK
5	Dr. N.K. Sahuji	World Congress of Engineering-2014 , London UK
6	Dr. R.K. Shastri	RIO Acoustics 2013 IEEE/OES Acoustics in Underwater Geosciences Symposium Centro Empresarial, Rio de Janeiro, Brazil 24–26 July 2013.
7	Dr. R.K Shastri	OCEANS'13, MTS/IEEE San Diego, USA conference 23-26 Sept. 2013.

List of peer reviewed journal publications by faculty:

- 1) **P.R.Chitragara**, Shivaprasad K.V, Vighnesh Nayaka, P.Bedara, Kumar G.N, "An experimental study on combustion and emission analysis of four cylinder 4-stroke gasoline engine using pure hydrogen and LPG at idle condition", Energy Procedia 90 ( 2016 ) 525 – 534
- 2) Vighnesha Nayak, Rashmi G.S., **Parashuram Chitragar**, P. Mohanan, "Combustion Characteristics and Cyclic variation of a LPG fuelled MPFI Four cylinder Gasoline Engine", Energy Procedia 90 ( 2016 ) 470 – 480
- 3) Parashuram Bedar, **P R Chitragar**, Kumar G N, "Combined effect exhaust gas recirculation (egr), fuel injection pressure on ci engine using simarouba glauca biodiesel blends", Proceedings of the 23rd National Heat and Mass Transfer Conference and 1st International ISHMT-ASTFE Heat and Mass Transfer Conference IHMTTC2015 17-20 December, 2015, Thiruvananthapuram, India
- 4) K.V.Shivaprasad and **P.R.Chitragar** "Hydrogen addition on combustion and emission characteristics of high speed spark ignition engine- an experimental study", Journal of Engineering Science and Technology Vol. 11, No. 11 (2016) 1554 – 1564
- 5) Shivaprasad K V, Raviteja S, **Parashuram Chitragar**, Kumar G N, "Experimental Investigation of the Effect of Hydrogen Addition on Combustion Performance and Emissions Characteristics of a Spark Ignition High Speed Gasoline Engine", Procedia Technology 14 ( 2014 ) 141 – 148
- 6) **Kolekar, A.H.**, Laddha, S., Singh, S., Ganesh, A. et al., "Development and Validation of Power Performance Prediction Chart for Conversion of Diesel Engine to Dual Fuel Engine," SAE Technical Paper 2014-01-1316, 2014, doi: 10.4271/2014-01-1316.

- 7) **Bhosle S.M.**, R. Tewari, C.R. Friedrich, "Dependence of Nano textured titanium orthopedic surfaces on electrolyte condition", *Journal of surface engineered materials and advanced technology*, 2016, 6, 164-175. DOI: [10.4236/jsemat.2016.64015](https://doi.org/10.4236/jsemat.2016.64015)
- 8) **S.A. Takale**, Prakash Kulkarni, Sahil Shah, "An Intelligent Web Search Using Multi-Document Summarization International Journal of Information Retrieval Research (IJIRR), Volume 6 Issue 2, Pages 41-65, April 2016.
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#### Books with ISBN/ISSN numbers with details of publishers

##### Published books details

Sr. No.	Title	Authors	Publication	ISBN/ISSN	Year of Publication
1	Twitter Topic Summerization	Gulab Shaikh, Mr. D. M. Padulkar	LAP LAMBERT Academic Publishing	3659923338, 978-3659923333	Jul-16

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

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

Numbers of faculty members have published their research and survey papers in reputed conference and journals which are indexed in IEEE Xplore, ACM, Science Direct, Springer, etc.

Following faculty members have received travel grant from funding agencies for attending international conference.

##### Travel grant received by faculty

Sr. No	Name of faculty	Details of International Conference	Details of Funding Agency
1	Mr. P.R. Chitrakar	ISE 2017, Kumamoto, Japan	1) JASSO Scholarship Japan 2) NITK Suratkal
2	Mr. P.R. Chitrakar	SIP 2017, Kumamoto, Japan	1) JASSO Scholarship Japan 2) NITK Suratkal



3	Mrs. S.A. Takale	WISE 2015, Miami, Florida, USA	1) BCUD, SPPU Pune 2) CICS, Chennai
4	Dr. R.K Shastri	OCEANS'13, MTS/IEEE San Diego, USA conference 23-26 Sept. 2013.	1)BCUD, SPPU, Pune

- **Incentives given to faculty for receiving state, national and international recognitions for research contributions.**
  1. The Institute always motivates, appreciates and supports the faculty for their research contribution in the field of engineering. Due consideration in this regard is always given to the faculty at the time of yearly appraisal and promotion of the faculty.
  2. Following faculty members have received financial support from institution for attending international conference

**Financial support provided by Institute**

Sr. No	Name of faculty	Details of International Conference
1	Dr. R.K. Shastri	RIO Acoustics 2013 IEEE/OES Acoustics in Underwater Geosciences Symposium Centro Empresarial, Rio de Janeiro, Brazil 24–26 July 2013.
2	Dr. A.P. Hiwarekar	World Congress of Engineering-2014 , London UK
3	Dr. N.K. Sahuji	World Congress of Engineering-2014 , London UK

### 3.5 Consultancy

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

- Institute has established an Industry-Institute Interaction cell. Each department is having a member of this cell.
- Students undergo industrial training /internship of one to three weeks in summer and winter vacations.
- Faculty also undergoes industrial training in winter and summer vacations.
- Every department conducts Industrial visits arranges Guest Lectures and Workshops with industry experts to increase Institute-industry interaction.
- Visit of faculty members to industry to understand problems. These problems are given to students as a part of project.

#### 3.5.2 What is the stated policy of the institution to promote consultancy? How

**is the available expertise advocated and publicized?**

- Consultancy increases the professional and academic experience of the staff members.
- It also creates and enhances the links between the Institute and external organizations and increases the research opportunities, student recruitment and placement.
- It generates the additional income for the staff members and Institute.
- This helps for knowledge transfer for benefit of the community.
- Policy also gives out the share of 50% income for all staffs working on the consultancy.
- Details of faculty expertise and research lab facility enable users, industries to approach the concerned expert.

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

- Institute encourages faculty/staff by sharing consultancy amount with them.
- They are provided with all technical and administrative infrastructure and support for carrying out and completing the projects.
- Institute motivate such faculty by providing all facilities them for their achievements.

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

Consultancy services provided by Institute

Sr. No.	Year	Name of Institue / Industry	Nature of Work	Department	Revenue Generated (Rs)
1	2015-16	Yashswi Institute Pune	For Conduction of Practical of subjects: E&TC, Physics, Chemistry, Mechanical, Computer	General Science	52,540
	2014-15				73,202
	2013-14				70,100
	2012-13				67,300

2	2015-16	Central University of Karnataka, Dattakala COE, Bhigwan	Dryness fraction ,efficiency of Boiler, Energy balance sheet	Mechanical	49000
3	2014-15	COE, Malegaon &HSBPVT'S COE Kasthi Someshwar COE			143000
4	2013-14				70000
5	2012-13				55000
6	2015-16	Gas Project India Pvt.Ltd, Bhambare Infrastuture Pvt Ltd Po Pimpri, Deputy Engineer Midc Jejuri, M/S S.J Vastunirmity P V T Ltd Phaltan Dist Satara, Karne Construction Baramati, Hardik	Consultancy &Testing	Civil	193878
7	2014-15	Bhamare Infra. Pvt Ltd, Borade Associate, Vedshree Infrastr. Pvt Ltd, S.J. Vastunirmitee Pvt Ltd, Karne Construction, Someshwar	Consultancy &Testing		195500
8	2013-14	Manoj Potekar And Asscoiates, K.M. Build Homes Pvt Ltd, Saswad Nagar Parishad, Agri. Cult. Dev. Trust, Krushi Vid. Kendra, Shardanagar Trust	Consultancy & testing		113680

9	2012-13	D.P. Jagtap And Company Rec., M/S. Tejas V. Kadam, Bvg India Ltd, D.P. Jagtap, Gourav Engineers,Njr Construction Pvt Ltd, Sabve Rohini Construction P Ltd , N.M. Manthalkar, Solapur Rec.No-828, M/S. Dhotre Constructions ,	Consultancy & Testing		344194
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### 3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

Institute has laid down following policy for disbursing the income from consultancy.

#### Institute policies for consultancy income

Sr. No.	Particular	Percentage
1	Institute Share	50%
2	Concerned Staff Share	33%
3	Principal Share	5%
4	Head of Department Share	5%
5	Office Share	5%
6	Public Relation Officer Share	2%

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

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

Institution concentrates on “think globally and act locally” principle. Keeping overall personality development of students at center point, different activities are planned and conducted. These activities help students to nurture the sense of responsibility towards society. These activities are scheduled uniformly throughout academic year. NSS unit is actively involved as mediator between society and Institute. NSS unit helps to develop good citizenship values among students and also ensures holistic

development of students through participation in different activities.

Some of the activities conducted are as follows:

**Road Safety Awareness and Traffic Control:** Institute has organized guest lectures by officials from RTO, Baramati in last year. Students of different colleges from Vidya Pratishthan have attended these lectures. Speakers emphasized on precautions to be taken by commuters, riders and drivers. Along with this session RTO Baramati organized exhibition related to Road Safety containing posters, banners, vehicle models.

NSS volunteers contributed in controlling traffic during 41<sup>st</sup> State Level Science Exhibition and 24<sup>th</sup> National Children Science Congress organized in association with Government of Maharashtra, Vidya Pratishthan Baramati, and Environmental Forum of India, Baramati.

**Digital India:** In order to support Digital India programme, volunteers explained the procedure to the citizens of adopted village about opening Jan-Dhan account in bank. Volunteers also informed the importance of having email account of each person. They helped citizens to enroll for Aadhaar card which is the gateway for Government's online services.

**Cashless India:** During camp volunteers spread awareness about cashless India among citizens. Volunteers introduced different modes of payment to the people of village. Citizen can make use of plastic money which includes debit card, credit card. Citizens are made aware about significance of net banking. This facility can be utilized through a smart phone, computer or any other electronic gadget. Volunteers emphasized that internet banking is one of the safe way of doing payments online.

**Blood Donation Camps:** NSS unit organized blood donation camps during NSS Special Camp at adopted village, Medad in collaboration with IRCS Late Manikbai Chandulal Saraf Blood Bank, Baramati. Medical officers also suggested volunteers a diet to increase the Hemoglobin level.

**Visit to Orphanage, old age home and residence school of under-privileged students:** Institute has active NSS unit and Prerana group. Student alongwith in-charge faculty regularly visited orphanage, "Sawali" - residence of under-privileged orphans. They distributed sweets, fruits, stationery to them. Prerana group members not only played games with them but also conducted session on computer knowledge and its usage. Prerna group members financially supported a needy student to meet her educational requirements. Students visited old age home at Tandulwadi, spent time with inhabitants happily.

**Tree plantation:** NSS volunteers have planted trees in adopted villages and ensured that school children will water it on regular basis. Prerana group members have planted trees in surrounding area of ZP school, Rui.

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

Social activities are planned and organized through different groups of students. NSS unit has a Programm Officer and student coordinators. They regularly conduct sessions to motivate students to become a member of any of these groups. NSS volunteers activities are observed during NSS special camp and best volunteers and best group are appreciated. A sport event "Kurukshetra" is organized by student annually and monitored by incharge faculty. Dindi, a part of cultural event Nabhangan mainly spreads message of communal harmony, importance of integrity in diversity, social issues. A technical program, "Verismo" is organized in order to provide a platform to improve technical, managerial skills of students. It helps student to develop entrepreneurship, to cope with cutting edge technologies. Student council is formed to organize these activities. Faculty coordinator for the activity monitors the whole activity and submits report to Principal. Regular review during the activity ensures the student's active participation in it.

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

Major Stakeholders of the institution are students, faculty members, alumni, industrial organization, and parents. Institute website flashes forthcoming events continuously. Reports, photographs of various events are available on Institute website. In order to ensure the strong bonding between all stakeholders and maintain continuous communication among them for the betterment of Institute and all stakeholders, Institute takes certain steps such as student feedback, alumni feedback, parent feedback etc. All departments communicate attendance of defaulter students through mail to their parents. Alumni provide constructive suggestions at the time of Alumni Meet. Feedback from recruiter companies through their HR representatives, technical interviewers are also collected. These feedbacks are analyzed and corrective actions are communicated to departments and students.

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

Every academic year different extension and outreach programs are planned and organized. Estimated budget is allocated for each activity at the commencement of the academic year. Some of the programs are as follows:

- Parents Meet
- Engineers Day celebration
- Personality development activities: Campus to corporate, Grad2Guru, Globalina course for competitive exam aspirants, Spoken English Classes,
- NSS Special Camp

- Technical Program “Verismo”
- Cultural Program “Nabhangan”
- Purushottam Karandak
- Firodiya karandak
- Sport Activity “Kurukshetra”

The budgetary detail of extension and outreach programmes organized by Institute for last four years is as following:

**Budgetary detail of extension and outreach programmes**

<b>Expenditure Heads</b>	<b>Expenditure (In Lakhs) 2012-2013</b>	<b>Expenditure (In Lakhs) 2013-2014</b>	<b>Expenditure (In Lakhs) 2014-2015</b>	<b>Expenditure (In Lakhs) 2015-2016</b>
NSS Expenses	0.74	0.91	0.63	0.69
Annual Social Expenses (Purshottam & Firodiya Expenses.)	3.15	5.87	2.26	5.31
Sports Expenses (With Kurukeshtra Expenses.)	2.10	2.09	1.36	3.21

### **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?**

Students are aware about the importance of NSS and activities organized under it. Photos related to NSS activities are flashed on Institute website as well as on Institute LED display screen at entrance. It inspires others to be a part of NSS. The Programme Officer and student coordinators guide other students to join NSS. Members who have actively and successfully participated in NSS activities are motivating others to join NSS unit. Other students observe the activities organized under NSS throughout the year and they get attracted towards NSS as it provides platform to students for overall personality development.

Details of NSS Programs conducted:

**NSS Program**

<b>Sr. No.</b>	<b>Program</b>	<b>Details</b>
1	Guest Lecture on “Live Organ Donation”	The motto of this program was to create awareness in the student for organ donation. Dr. Kokane guided students for legal procedure of organ donation in India

		and the importance of organ donation.
2	Expert Talk on “Financial Literacy and Cashless India”	Mr. Mahesh Pathak, Officer, Bank of Maharashtra, Baramati explained various key points regarding financial literacy such as financial resources, how one should manage with the given resources, Financial planning, Personal Investment etc. He also explained the path from cash to less cash to cashless transaction.
3	Exhibition	Organized Exhibition related to “Marathi Bhasha Sanvardhan” in which volunteers tried to focus on Marathi literature, awards in Marathi literature, Government support to spread use of Marathi Language.
4	Awareness Program for Plastic Free Environment	NSS volunteers visited market, grocery shops and shopping malls for awareness of plastic free environment. They convinced the people for reducing and reusing the plastic in daily life. Students circulated the posters related to harm of plastic and why to reduce the usage of plastic.
5	College Ground Cleaning Campaign	NSS conducted college ground campus cleaning campaign. In this activity volunteers cleaned college ground. They collected the garbage like plastic, broken glasses, paper pieces etc. from the ground. Moreover students helped to make maintenance of volleyball ground.
6	Expert talk on “Life Values and Career Guidance”	Special talk on “Life Value and Career Guidance” delivered by Prof. Dinesh Zende, HoD Department of Information Technology, VPKBIET, Baramati.
7	Snake Awareness Program	The team of Green World Foundation Baramati conducted Snakes Awareness Program. They cleared the myths among the audience about snakes with scientific justifications. They proved how snakes are friends of farmer. But due to the lack of knowledge about snakes, we all ignore them.
8	Talk on topic “Bhagatsinh”	Prof. D. M. Padulkar from VPKBIET, Baramati delivered speech on topic “Bhagatsinh”. The speech inspired the



		volunteers. He narrated how Bhagatsinh sacrificed life for country at early age. Bhagatsinh's thinking about independence in those days ignited audience mind.
9	Exhibition	Celebrated Engineer's Day 15th Sept. 2015 by organizing exhibition that showcased Dr. APJ Abdul Kalam's contribution to education, society and nation.
10	Expert talk on topic "Ethics @ me"	Dr. R.K.Shastri from VPKBIET, Baramati delivered talk on the topic "Ethics @ me". He mentioned youth's responsibilities towards society.
11	Gram Swachh Abhiyan	Conducted School Cleaning Campaign on the occasion of "Gandhi Jayanti" on 2nd Oct. 2015 at Medad in association with Bharat Forge, Baramati.
12	Yoga and Art of Living Session	Volunteers practised yoga during special camp. It included mainly different types of Pranayama like Kapalbhata Pranayama, Bhastrika Pranayama, and Bhramari Pranayama. These sessions emphasized Art of Living should be everybody's Part of Living.
13	Expert talk on 'Organic Farms and Annulose Fertilizer	Dr. Bhagwan Mali (NSS District Coordinator, Pune District Rural, SPPU, Pune) delivered the expert talk. He insisted farmers to use organic fertilizers. The side effects of chemical fertilizers were explained with real incidents. He gave brief information about how to develop Organic Farms and Annulose Fertilizer.
14	Expert talk on "Conservation of Environment"	Dr. Mahesh Gaikwad, Environment researcher, guided volunteers to save the trees and birds in India. His intention was to increase the awareness about importance of local trees like Neem, Pipal, and Banyan.
15	"Save Girl Child" rally	NSS organized "Save Girl Child" rally to spread awareness of importance of girl child.
16	Workshop on "Use of Electric Equipment"	Workshop conducted by Prof. Rohit Tarade, Head of Electrical Engineering Department, VPCOE, Baramati. During the workshop his team gave the information about the

		safety norms of electric equipment. The team also demonstrated a tool showing the correct use of electric equipment for the students of the Z. P. Primary School of Medad.
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The volunteers participated in various NSS regular activities and special camp:

**Volunteers participated in NSS acitivity.**

Sr. No.	Year	Regular Activity		Special Camp	
		Male	Female	Male	Female
1	2016-17	52	48	26	24
2	2015-16	50	50	24	26
3	2014-15	60	40	30	20
4	2013-14	60	40	29	21

**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?**

- To emphasize the importance of cleanliness, NSS volunteers cleaned ZP School area, temples, and main streets in adopted village Medad. They tried to convince villagers about clean and neat village through youth rally. Volunteers cleaned surrounding area of Talathi office, Medad. They spread awareness among villagers about health and hygiene habits.
- NSS volunteers conducted baseline survey of village during special camp at adopted village, Medad. This survey was suggested by department of NSS and Interdisciplinary School of Health Sciences, SPPU, Pune.
- NSS volunteers organized a campaign to spread the awareness of importance of plastic free environment. They visited market, grocery shops and shopping malls in Jalochi and Rui area. They convinced the people for reducing and reusing the plastic in daily life. NSS volunteers suggested people different alternative ways to reduce the usages of plastic like using paper bags, clothing bags etc. They distributed posters related to plastic free environment, harms of plastic and why to reduce the plastic.
- Tree plantation is carried out by students at different locations.
- NSS volunteers conducted School Cleaning Campaign on the occasion of “Gandhi Jayanti” on 2nd Oct 2015 at Medad in association with Bharat Forge, Baramati.
- Blood donation camps were organized during NSS special camp at adopted village Medad. NSS volunteers have distributed stationary to students of ZP school, Medad.

- NSS organized workshop for the students of the Z. P. Primary School of Medad to spread the information about the safety norms of electric equipment. The resource persons of workshop also demonstrated a tool showing the correct use of electric equipment.
- The following are the adopted villages by NSS:

Adopted villages by NSS

Year	Adopted Village
2015-16	Medad, Tal. Baramati, Dist. Pune
2014-15	Deulgaon Rasal, Tal. Baramati, Dist. Pune
2013-14	Deulgaon Rasal, Tal. Baramati, Dist. Pune
2012-13	Deulgaon Rasal, Tal. Baramati, Dist. Pune

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

By means of conducting different activities in Institute and during NSS special camp under the monitoring of NSS Programme Officer, students develop different competencies such as organized team work, self management, leadership. Similar to NSS, Sparsh and Prerana groups organize different programs. This helps to increase interaction between students and incharge faculty. These activities also help to create bonding among students and inculcates healthy environment at work place. Participating in diversified cultural program "Nabhangan", technical program "Verismo", sport event "Kurukshetra" help students in social, emotional, intellectual development. Campus cleaning drives and awareness programs about plastic free environment have created sense of responsibility in community towards environment.

**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?**

- Institutes from same vicinity visit VPKBIET.
- Institute provides consultancy to different organizations and continuously remains in touch with them to maintain strong bond among all.
- NSS volunteers conducted Gram Swachhta Abhiyan in collaboration with Bharat Forge, Baramati at Adopted village Medad.
- Institute collaborates with IRCS Late Manikbai Chandulal Saraf Blood Bank, for organizing blood donation camps.
- Sparsh and Prerana groups have good understanding with orphanage students, old age inhabitants, and underprivileged students and under-privileged students.

**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.**

- Institute has signed MOU with COEP Pune, and with foreign Institutes.
- Institute acts as remote center to conduct ISTE workshops in collaboration with IITB Mumbai, IIT Kharagpur. Spoken Tutorial training is offered to students through Spoken Tutorials project by IITB, Mumbai.
- Institute has organized different workshops in collaboration with SPPU Pune, IEEE Bombay Chapter, ISTE and CSI.
- Institute provides consultancy to organization in locality. Civil department organizes model making competition in association with Builder's Association of India, Baramati Branch.

**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.**

- NSS volunteer Ms. More Ashwini (BE) selected for "State Level Republic Day Parade (SRD)" which was held at Mumbai on 26<sup>th</sup> Jan'15.
- Special appreciation received from Environmental Forum of India to NSS volunteers for their involvement in traffic control during 41<sup>st</sup> State Level Science Exhibition.

## **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.**

1. Institute started taking the benefit of Two-month Summer Fellowships offered by various IITs/NITs which helps to enable students/teachers to work with scientists associated with the three Science Academies. Faculties have attended these Fellowship Programmes.

Faculties deputed for Summer Faculty Research Program:

**Faculties deputed for Summer Faculty Research Program**

<b>Sr. No</b>	<b>Department</b>	<b>Faculty Name</b>	<b>Institute</b>	<b>Year</b>
1	Information Technology	Mrs. Bhale K. M.	IDRBT, Hyderabad	2015-2016

2		Mr. Zende D. A.	Indian Institute of Technology, Delhi	2014-2015
3		Mr. Shah S. K.	Indian Institute of Technology, Delhi	2014-2015
4		Mr. Keshav Bhagwat	UOH, Hyderabad	2013-2014
5		Mr. Manik Chavan	Indian Institute of Sciences, Bangalore	2012-2013
6	E&TC Engineering	Vikas Deshmukh	Indian Institute of Technology, Delhi	2013-2014
7		Shantanu Jagdale	Indian Institute of Technology, Delhi	2013-2014
8		R.K.Shastri	Indian Institute of Technology, Delhi	2012-2013
9	Mechanical Engineering	Keshav Jadhav	Indian Institute of Technology, Delhi	2014-2015
10		Sachin Bhosle	IIT Guwahati	2012-2013
11	Civil Engineering	Mahesh G. B.	Indian Institute of Technology, Delhi	2013-2014
12		Giridhar Narule	IIIT Jabalpur	2013-2014

## 2. Industrial Visits

### Industrial Visits

Department	Industry/Institute
Information Technology	Persistent Systems Ltd. Pune on 28th Mar, 2015
	BITS, Pilani on 25rd Mar. to 29th Mar. 2015
	Persistent Systems (India) Hinjewadi, Pune on 9th March

	2013
	Vishwanet Computer Pvt. Ltd, Kolhapur and Panomtech. Technologies Pvt. Ltd, Ratnagiri on 2nd & 3rd March 2013
Computer Engineering	IIT, Bombay on 29th Mar, 2015
	ACME Infovision System, Satara on 23rd Mar. to 24th Mar. 2015
	Persistent Systems (India) Hinjewadi, Pune on 9th March 2013
	Dalvi Bros, Chiplun, Ratnagiri on 16th & 17th Feb. 2013
Civil Engineering	Bhatghar and Nira Deoghar Dam's Hydro Electric Power Plant on 30th August 2016
	Khadakwasla Dam, Panshet on 18th March 2016
	CBSE School of VP, Baramati on 4th March 2016
	Road over Bridge construction site in Baramati near railway station on 1st March 2016
	Koyna Dam's Hydro-Electric Power Plant on 4th Sep, 2015
	Dhom-Balkawadi Dam on 6th Sep. 2013
	Construction Site of 'Godrej Cattle feed plant on 7th Aug. 2013 Survey Project at Lakdi on 15th March 2013
	NPCIL TMS Tarapur on 14th & 15th March 2013
	HVDC Trans System on 14th & 15th March 2013
	Water Treatment Plant Sayali Hill, Baramati on 1st March. 2013
	Nirmiti Appartment, Baramati on 28th Feb. 2013
	Dhom - Balkwadi Dam's Hydroelectric Power Plant on 11th Sept. 2012
	Indian Hume Pipes Pvt.Ltd. Wadgaon, Pune. Central Water & Power Research Station, Khadakwasla, Pune & Water Treatment Plant, Bhandup,Mumbai on 4th & 5th Sept. 2012
	Tamhini Ghat on 25th Aug. 2012
	Kurkumbh on 23th Sept. 2011

	Pune Mumbai Express Way & Sea Link Warli-Bandra on 20th Sept. 2011
	Textile Park MIDC, Baramati & Gawate Association MIDC, Baramati on 17th Sept. 2011
Mechanical Engineering	Renuka Ice Plant and Cold Storage Plant Baramati on 30th Sept. 2016
	Nandan Dairy and Sugar Factory, Malegaon (BK), Tal. Baramati on 27th Sept. 2016
	Solar Power Plant, Shirsuphal, Baramati (Pune) on 27th July 2016
	Visit to DR AUTO COMP, MIDC, Baramati on 27th March 2016.
	Gas Turbine Power Plant, Uran on 3rd March 2016
	Nandan Dairy and Malegaon Sugar Factory, Malegaon, Tal-Baramati on 16th Oct, 2015
	Bharat Forge, Baramati on 25th Sep. 2015
	Reliance Thermal Power Plant, Dahanu on 28th Mar, 2015
	Jawaharlal Nehru Port on 27th Mar, 2015
	Nandan Dairy & Malegaon Co-operative Sugar Factory, Malegaon(BK) on 22nd Sep. 2014
	GTPS Uran,NPS, Tarapur, Jindal Steel Plant on 13th,14th & 15th March 2013
	Kolhapur Airport Kolhapur and Irrigation Project Construction Div Ratnagiri on 11th & 13th March 2013
	IIT Bombay, Mumbai on 10th March 2013
	Dalimb Niryat Kendra, Baramati and Renuka Ice factory, Jalochi, Baramati on 18th Feb. 2013
	Bharat Forge, Baramati on 16th Feb. 2013
	Bhavaninagar Sugar Factory & Sonai Dairy, Indapur on 23th Sept. 2011
	Hi-Tech Engg. Corporation PVT. LTD, MIDC, Baramati on 24th Jan. 2011
E&TC Engineering	Aftek Ltd.,Chincholi Solapur on 6th Oct. 2016
	BSNL, Chinchawad, 3rd Feb to 4th Feb, 2016

Electrical Engineering	Piaggio Vehicles Pvt. Ltd.on 3rd & 4th Mar, 2015
	GMRT Khodad Junnar Pune on 28th Feb. 2013
	220 KV Substation, Baramati on 7th & 8th Feb. 2013

**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.**

1. Institute is connected through Pilot programme by MHRD, Govt. of India and IIT Madras, through which various QEEE online courses are available for students and faculties. These courses are in line with university curriculum and embedded into regular Institute timetable.

Details of **QEEE Online Courses** are as follows.

**QEEE Online Courses**

Academic year	Department	List of Courses
2015-16	Information Technology	<ol style="list-style-type: none"> <li>1. The Nitty-Gritty of Logic Gates to Processor Design - Computer Organization and Architecture</li> <li>2. Foundation of Machine Learning</li> <li>3. Information Security and Cryptography</li> <li>4. Process Synchronization - Operating Systems Basic Graph Algorithms - Design and Analysis of Algorithms</li> </ol>
	Computer Engineering	<ol style="list-style-type: none"> <li>1. Program Testing</li> <li>2. Graphs and Strings</li> <li>3. Compiler Design</li> <li>4. Foundation of Machine Learning</li> <li>5. English for Employability</li> <li>6. Information Security and Cryptography</li> </ol>



		7. Low Power Embedded Systems 8. Nitty-Gritty of Processor Design 9. Object Oriented Concepts-Classes and Data Abstraction-Operator Overloading-Inheritance 10. Object Oriented Design using UML P
	E&TC Engineering	1. Understanding Solid State Devices Made Easy 2. Fundamentals of Small Signal Analysis 3. Space Time Codes MIMO and Massive MIMO- Part 1 - Wireless Communication 4. Electromagnetic Waves 5. Graphs and Strings 6. Foundation of Machine Learning 7. The Nitty-Gritty of Logic Gates to Processor Design - Computer Organization and Architecture 8. Space Time Codes MIMO and Massive MIMO- Part 2 - Wireless Communication 9. Algebra 10. Design of Feedback in Control Systems 11. Introduction to Signal and Systems 12. Low Power Embedded Systems Time domain analysis of first and second order system - Control Systems

	Mechanical Engineering	<ol style="list-style-type: none"> <li>1. Basics of Design of Machine Elements</li> <li>2. Physical and Mathematical Foundations - Fluid Mechanics</li> <li>3. Balancing of Rotating Machines - Theory of Machines</li> <li>4. Braking System - Automobile Engineering</li> <li>5. Fundamental Concepts in Fluid Mechanics - Fluid Mechanics</li> <li>6. Gears - Kinematics of Machines</li> <li>7. Heat Transfer</li> </ol>
	Civil Engineering	<ol style="list-style-type: none"> <li>1. Construction Planning and Control</li> <li>2. Earth Pressures on Retaining Structures</li> <li>3. Site Investigation and Exploration</li> <li>4. Introduction to Slope Stability Analysis</li> <li>5. Basic Design of Steel Structures</li> <li>6. Cement Production, Composition and Chemistry - Concrete Technology</li> <li>7. Compaction of Soil - Soil Mechanics</li> <li>8. Design of earthquake resistant design of RCC multi-stored frames - Design of Concrete Structures</li> <li>9. Fundamental Concepts in Fluid Mechanics - Fluid Mechanics.</li> <li>10. Moment Distribution Method - Structural Analysis</li> </ol>

	Electrical Engineering	<ol style="list-style-type: none"> <li>1. Solar DC</li> <li>2. Understanding Solid State Devices Made Easy</li> <li>3. Control Systems</li> <li>4. Design of Feedback in Control Systems</li> <li>5. Digital Electronics</li> <li>6. Time domain analysis of first and second order system - Control Systems</li> </ol>
	General Science	<ol style="list-style-type: none"> <li>1. English for Employability</li> <li>2. Spoken English [Orientation and Consonant Sounds]</li> </ol>
2014-15	Information Technology	<ol style="list-style-type: none"> <li>1. Software Engineering</li> <li>2. Data Structures &amp; Algorithms</li> <li>3. Computer Organization &amp; Architecture</li> <li>4. Computer Networks</li> <li>5. Introduction to Data Base System</li> </ol>
	Computer Engineering	<ol style="list-style-type: none"> <li>1. Data Structures &amp; Algorithms</li> <li>2. Software Engineering</li> <li>3. Computer Network Technology</li> <li>4. Embedded Systems</li> <li>5. Computer Organization</li> <li>6. Computer Networks</li> <li>7. Advanced Computer Architecture</li> </ol>
	E&TC Engineering	<ol style="list-style-type: none"> <li>1. Analog Circuits</li> <li>2. Digital Signal Processing</li> <li>3. Fiber Optic Communications</li> <li>4. Electronic Devices &amp; Circuits</li> <li>5. Digital Communication</li> <li>6. Antenna and Wave Propagation</li> <li>7. Wireless and Mobile Technology</li> </ol>

		8. Digital Signal Processing
	Mechanical Engineering	1. Introduction to Operations Research. 2. Machine Design 3. Heat Transfer 4. Thermodynamics
	Civil Engineering	1. Transportation & Traffic Engineering 2. Smart Structures 3. Construction Management 4. Foundation Engineering
	Electrical Engineering	1. Analog Circuits 2. Network Analysis 3. Power System II
	General Science	1. Mathematics – III 2. Physics 3. Employability Skills Development Lab
2013-14	Information Technology	1. Computational Architecture & Organization 2. Operating Systems
	Computer Engineering	1. Computer Organization & Architecture 2. Operating Systems
	E&TC Engineering	1. Wireless Communication 2. Electromagnetic Fields 3. Probability & Statistics
	Mechanical Engineering	1. Engineering Thermodynamics 2. Computational Methods in Thermal & Fluid Engineering 3. Heat Transfer
	Civil Engineering	1. Engineering Mechanics 2. Geotechnical Analysis 3. Engineering Fluid Mechanics
	General Science	1. Linear Algebra

2. To promote open source software, Institute has collaboration with IIT Bombay. The details of various courses conducted under this initiative are as follows:

## Courses conducted under collaboration of IIT Bombay

Academic Year	Name of Course	Total no. of Participants
2015-16	Latex	350
	C and CPP	144
	Advanced CPP	79
	Blender	79
	OpenFOAM	81
	Java Business Application	80
	Java	80
2014-15	Latex	310
	Blender	75
2013-14	Latex	20
	Linux	215
	Scilab	23

## 3. UG Fellowship/Internship Program at Universities Abroad

Dr. Sandip Inamdar, (Director - Vishwaniketan's Institute of Management Entrepreneurship & Engineering Technology) visited Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering and Technology, Baramati on 19th December 2016 and given presentation to students of Institute, on "Various UG Fellowships available at European Countries and Opportunities with CTIF Global Capsule".

Students from all department have applied along with Statement of Purpose (SOP), Projects Completed and Project Proposal.

Following is the details of selected students at various universities.

## Students selected at various universities

Department	University Name	No of selected students
CIVIL	URAL FEDERAL RUSSIA	8
MECH		9
COMP		2

IT		8
ENTC	Tor – Vergata University, Rome,	3
ENTC	Athens Institute of technology, Greece	7
ELECTRICAL	National Technical University of, Ukraine "Kyiv Polytechnic Institute"	8
MECH		7
ENTC		1
IT		1
CIVIL		4
COMP		1
ENTC	National Technical University of, Ukraine "Kyiv Polytechnic Institute"	2
IT		1
COMP		1
MECH		1

4. INSTITUTE has taken initiative to conduct GATE coaching classes in house.

**GATE coaching classes**

Academic year	Department	No of registered
2015-2016	IT	12
	COMP	38
	ENTC	48
	ELECTRICAL	42
	MECH	53

2014-15	ENTC	65
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**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.**

**Institute-Industry interactions**

<b>Sr. No.</b>	<b>Name of Organization</b>	<b>Details</b>
1	IBM	Value added courses like DB2
2	NVIDIA	2016 GPU Education Center GPU teaching kit consisting of (1) K40 {active} and (2) Titan X GPUs Access to the GPU Educators Program providing teaching materials and real GPU Resources for use in university classrooms and labs.
3	Persistent Pvt. Ltd.	Campus connect Program to offer Sponsored Projects to UG students and placement opportunities
4	Extentia Information Technology	Provides placement opportunities to students and also exhibits recent gadgets through 'TECHAQUARIUM'
5	Zensar Technologies	Employability Skills Development (ESD) center for training the graduates to make them ready to face the IT industry, at no cost to the student.
6	Piaggio Vehicles Pvt. Ltd	Provided internships to faculties and students, sponsored projects to students to improve technical competency.
7	Bharat Forge	Provided internships to faculties and students, sponsored projects to students to improve technical competency. Conducts value addition / student development programs.

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

## Guest Scientists visited in events

Sr. No	Department	International / National Conference/ Workshop	Eminent Scientists/Resource Person	Date & Duration
1	COMP/IT/ENTC	InfoComm International (AV Workforce Programme Introduction Seminar)	1. Prof.Uttam Mane, Vice Chairman, CSI Mumbai Chapter, Prof.Gauvab Majumdar, Country Manager, InfoComm International. Prof.Ratnesh Javeri, Managing Director, Innovative Systems & Solutions Pvt. Ltd	2015-16
2	General Science	Technology and Innovations in Math Education (TIME) Conference	Douglas Butler TSM Workshops and Autograph development, UK Prof. K. P. Mohnan, IISER, Pune Dr. Jonaki B Ghosh, Lady Sri Ram College, Delhi Dr. Gaurav Bhatnagar, Indian Statistical Institute, Delhi Dr. Ajit Kumar, ICT Mumbai Anju Sehgal, Ceque Inder K. Rana I.I.T. Mumbai	2015-16
3	MECH	Students Interaction on topic “Education and Job Opportunities in German Automotive Industries”	Mr. Frank Lochner ( Head ), Mr. Kai – Uwe Lesch ‘Preh’ – (Manager )-An Automotive Company, Germany	2015-16



4	MECH	IEEE Woman Cell Meet	Dr. Anuradha Ganeshan and Dr. Veenaranjani - Directors of Cummins India Ltd	2015-16
5	COMP	National Conference on Recent Trends in Computer Engineering and Technology (NCRTCET )2015	Dr. U. V. Kulkarni, SGGSC&T, Nanded Dr. Jibi Abraham, COEP, Pune Dr. Harold D'Costa, CEO - Intelligent Quotient Security System Prof. Anandi Deopujari, GS Lab, Pune	2014-15
6	MECH	Opportunities at Michigan Tech USA.	Dr. William Predebone- (Professor) and Dr. Craig Friedrich – (Professor) Michigan Tech USA	2014-15
7	MECH	Technical Event -Elysium 2014	Dr. Y K Dikshit- Scientist ISRO, Bangalore.	2013-14
8	MECH	Seminar on Online Piping Course	Dr.Mohrir –Professor (Chemical Engineering)IIT Bombay	2012-13

**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 -**

**1. Institute has MOU's With Foreign Universities:**

- a. Mr. Sachin Bhosale has been deputed for pursuing Ph. D. at Michigan Technological University, Houghton, USA
- b. Mr. P. R. Shinde was deputed for Ph. D at Lawrence Technological University, Southfield, MI, USA
- c. Mr. Sandeepraj Salunke was deputed for M.S. Programme at Lawrence Technological University, Southfield, MI, USA

## MOUs with foreign universities

Name of Organization	Subject / Area of MOU
Michigan Technological University's Mechanical Engineering-Engineering Mechanics Department, Houghton, USA	Collaboration Agreement to establish academic exchanges in Master of Science and Doctor of Philosophy Degree in Mechanical Engineering.
Michigan Technological University, Houghton, USA	Establish academic exchanges in various areas of education, research, and extension. Exchange faculty, scholars and students.
University of Pardubice, Czech Republic	Establish academic exchanges in various areas of education, research, and extension. Exchange of staff, students and academic materials and publications.
North Carolina State University, Raleigh, NC, USA	Establish academic exchanges in various areas of education, research, and extension. Exchange faculty, scholars, and students. To develop collaboration especially in Nuclear Engineering education & Training.
Lawrence Technological University, Southfield, MI, USA	Establish academic, cultural and personal exchange of faculty, students and joint programs

## 2. MOU'S With Indian Institutes

## MOU'S With Indian Institutes

Name of Organization	Subject / Area of MOU
IIT BOMBAY, Powai, Mumbai	Remote Centre in the Distance Engineering Education Programmes (CDEEP) conducted by IIT Bombay
College of Engineering, Pune (COEP)	Collaboration Agreement to promoting and reinforcing Institutional Academics and Research Cooperation.

## 3.MOU's with Industries

## MOUs with industries

MoUs with Industries	Department	Objective
Bharat Forge Ltd.	MECH	1. Selected students can opt summer/winter training programs and Sponsored Projects. 2. Train the Trainer Programme for faculty for hands on experience
Cummins India Ltd.		1. Provide students an opportunity for summer training, Sponsored Projects and Subsequent Scholarships and Placement Opportunities to potential students
PIAGGIO Vehicles Pvt. Ltd.		1. The company supports the students and faculty for training in their Manufacturing Unit and Sponsored Projects
IBM Centre of Excellence	COMP IT/COMP	1. To enable the students to be in pace with technological advancements which helps in increasing their knowledge base and placement in Industry
Wipro Mission 10 X		1. Training Programs for Faculties 2. Introduction to high impact teaching skills for the faculties 3. To develop innovative thinking in pedagogical practices and to introduce new approaches of learning 4. To enable the faculties to build knowledge assets and generate teacher support in different disciplines
Zensar Technologies		1. Employability Skills Development (ESD) Program for training of fresh graduates towards better readiness for the IT industry, at no cost to the student. 2. To bridge the knowledge gap so that students can connect to the industry relevance of all the theory they absorb at college.

Extentia Information Technology Pune		The company supports the students for recruitment
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- 1) **Curriculum development/enrichment – Yes**
- 2) **Internship/ On-the-job training – Yes**
- 3) **Summer placement - Yes**
- 4) **Faculty exchange and professional development - Yes**
- 5) **Research - Yes**
- 6) **Consultancy - Yes**
- 7) **Extension -**
- 8) **Publication - Yes**
- 9) **Student Placement – Persistent, Metamagics, Piaggio Vehicles, Extentia, IBM etc.**
- 10) **Twinning programmes - Nil**
- 11) **Introduction of new courses - Nil**
- 12) **Student exchange – Yes**
- 13) **Any other**

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

1. Principal and senior faculty members attend CII meetings which further leads in establishing collaborations with industry.
2. Informal discussions between TPO and recruiting companies lead to linkages.
3. Alumni initiate association and collaborations.
4. Industry Institution Interaction cell has been set up through which linkages formed are formalized.
5. Formal MOU is signed agreed collaborative activities are implemented through the departmental III cell member.
6. Academic Advisory Committee of each department has members from industry and meet every semester.
7. Industrial visits are organized each year.

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

## 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 policy of the institution infrastructure is conveyed and executed by a committee formulated by the management/governing council. The committee confirms a uniform and balanced distribution of space and resources to all departments and also to provide and maintain essential amenities to the faculties and students in a time bound manner. The committee plans and designs classrooms, faculty rooms, laboratories, etc., complying with the standards necessitated by AICTE and Savitribai Phule Pune University, Pune.

The requirements are obtained from each department through the Head of the Department every year. The collected requirements are then consolidated with the budget and submitted to the Principal in the faculty meetings. The gist of the meetings is conveyed to the Management/governing council through Principal, for approval. It is then approved, based on the priority and availability of funds.

The institution has a structured mechanism for the creation and enhancement of additional infrastructure beyond the statutory requirements to facilitate effective teaching-learning.

#### 4.1.2 Detail the facilities available for

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

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

Infrastructural facilities

Sr. No.	Resources	Quantity / Numbers	Size in Sq. Mtr.	Available facility
1	Classroom and Technology enabled learning resource	21 Classrooms & 5 Tutorial Rooms	2337.61	Most of the Classrooms are having LCD Projectors and Wi-Fi facilities

2	Conference/ Seminar halls	05	867.69	LCD Projector, Audio/ Video, Video conferencing with PA system, AC system
3	Laboratories	57	4540.68	Well-equipped and with adequately furnished. Having all the Instruments/ equipments/ machines, adequate number of computers, licensed softwares as per AICTE & syllabus mentioned by the University.
4	Workshop	1	278.55	Lathe Machines, CNC Machine etc.
5	Additional Workshop/Labs	4	901.71	Additional Labs for Civil, Mechanical and Electrical Engineering
6	Drawing Hall	2	180	Sufficient drawing tables and models.
7	Central Library	1	743.15	OPAC, Digital library and conventional , E- resources
8	Reading Room	1	413	200 seating capacity with adequate seating facilities
9	Botanical Garden	School of Biotechnology has developed botanical garden called as “Nakshatra Udyan”. Variety of Plants and trees have planted in accordance with Vedic Astrology (Zodiac).		

10	Specialized facilities and equipment for teaching-learning	<ul style="list-style-type: none"> <li>▪ Institute well equipped seminar/conference hall with audio visual equipment through which remote workshops can be conducted viz. QEEE [Quality Enhancement in Engineering Education], IIT Bombay &amp; IIT Kharagpur Continuing Education Programs and workshops.</li> <li>▪ The Institute also encourages for various teaching learning modules like,               <ul style="list-style-type: none"> <li>▪ Direct to Student Program</li> <li>▪ Program on Teacher Training</li> <li>▪ Live Classes</li> <li>▪ Tutorials</li> <li>▪ MOOC's</li> <li>▪ Virtual Labs</li> </ul> </li> <li>▪ The intuition also promotes for Spoken Tutorial Workshops Conducted under NME-ICT MHRD Govt. of India</li> <li>▪ Institute is having modern laboratories like,               <ul style="list-style-type: none"> <li>▪ Vibration Lab: Integrated with National Instrument Hardware and Lab -VIEW software.</li> <li>▪ Finite Element Analysis Lab: Ansys and MATLAB Integrated</li> <li>▪ Experimental Stress Analysis Lab</li> <li>▪ Engineering Mechanics Lab &amp; Materials Testing Lab – (100 ton and 40 ton UTM)</li> </ul> </li> </ul>
11	Department Libraries	Each department has its own library with good collection of books.
12	Common facilities	<ul style="list-style-type: none"> <li>▪ Computer Centre</li> <li>▪ Auditorium</li> <li>▪ Central Library</li> <li>▪ Language Lab.</li> <li>▪ Internet Facility</li> </ul>

**Computer Centre:** Central Computing and Browsing Centre facilities is utilized by staff and students. The centre provides the latest state-of-the-art computers with browsing facilities. The centre functions on all working days and Saturdays.

**Auditorium:** Ga.Di.Ma. Auditorium is shared facility which is well equipped, Central AC and having seating capacity of 1500 seats

**Central library:** The central library has a collection of more than 10,329 titles and more than 28,522 volumes more than 72 periodicals, e-resources of 275 e-journals, NPTEL video resources and more than 2000 CDs.

**Language Lab:** The language lab is facilitated with computers and furnished infrastructure. Language lab helps the students to improve their communication skills by utilizing the “Tell Me More” software interface and the lab facilities.

**Internet Facility:** 60 Mbps high speed leased line facility. 24x7 Wi-Fi facility is available in the campus and the hostels.

**Sports:** A full-fledged sports campus is developed in the premises of Vidya Pratishthan Trust. Running track, cricket ground, football, badminton, volleyball, basketball, baseball and Indian games facilities available with the coach. Full-fledged gymnasium for Boys and girls each are available for indoor games with all the facilities

The Institute provides Sports Kit and Sports Material for students who participate in Inter-State/National Level, Zonal, Inter-zonal, All India Inter University Tournament and many other different types of game and sports. The Institute also reimburses the allowances as per University Rules and Regulations.

Students participate various levels like the Inter-Zonal Competition of Savitribai Phule Pune University for various games. Every year, colleges conduct a KURUKSHETRA competition for the Student which includes Cricket, Boxing, Volleyball, Kabaddi, Kho-Kho, Carom, Chess, Badminton, Table Tennis, etc.

### **Outdoor Games**

Spacious 10-acre playground is available for outdoor games, i.e. Cricket, Kabaddi, kho-kho, volleyball, Football in the campus.

### **Indoor Games**

Facilities for the sports like Chess, Table Tennis, Carom, etc. are provided to students in the college campus only.

### **Gymnasium**

Centralized Gymnasium is available separately for boys and girls in the campus with all fitness equipments.

### **NSS**

The NSS unit is regularly involved organizing the social, environmental and service related programmes viz. blood donation camps, village camps, experts talks, an awareness program for the plastic free environment in villages, college ground cleaning campaign, guest lecturers on social awareness.

### **Cultural activities:**

Various activities viz. Drama, Dance & Music and Photography functioning in the campus offer tremendous opportunities for the students to acquire improve and demonstrate their



extra-curricular skills. Various activities organised are conducted in the auditorium, seminar halls and temporary stages set up in the college ground.

### Communication skills

Institute gives more attention on communication skill of the students. T&P department organizes various training courses/programs to enhance the communication skill of the students. For the improvement of the competency of students, Institute organizes various training/workshops for the student's personality development.

### Hygiene

- The campus is made hygienic by a housekeeping section of the Institute.
- Time to time cleaning.
- Safe drinking water of RO is supplied in the campus.
- Water coolers are provided at various locations.
- Every year medical check-up for student is conducted after admission process.
- Once in every three months, the entire campus is sprayed with insecticide.
- Greenery is adequate in campus which makes healthy environment on campus.

#### 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).**

Whenever there is a plan to increase the intake of an existing programme or start a new programme and there is a change in syllabi and curricula, the Principal in consultation with the concerned head of the departments prepares a report on the additional infrastructure including upgradation and submits the same to the management/ governing council. The management/ governing council approves to procure the necessary infrastructure as per the laid down rules. Institutional plan and ensuring optimal utilization of infrastructure

Plan for infrastructure

Particulars	For existing intake			
	Nos.		Area	
	Required	Available	Required	Available
Class Rooms	21	21	1386	2172.61

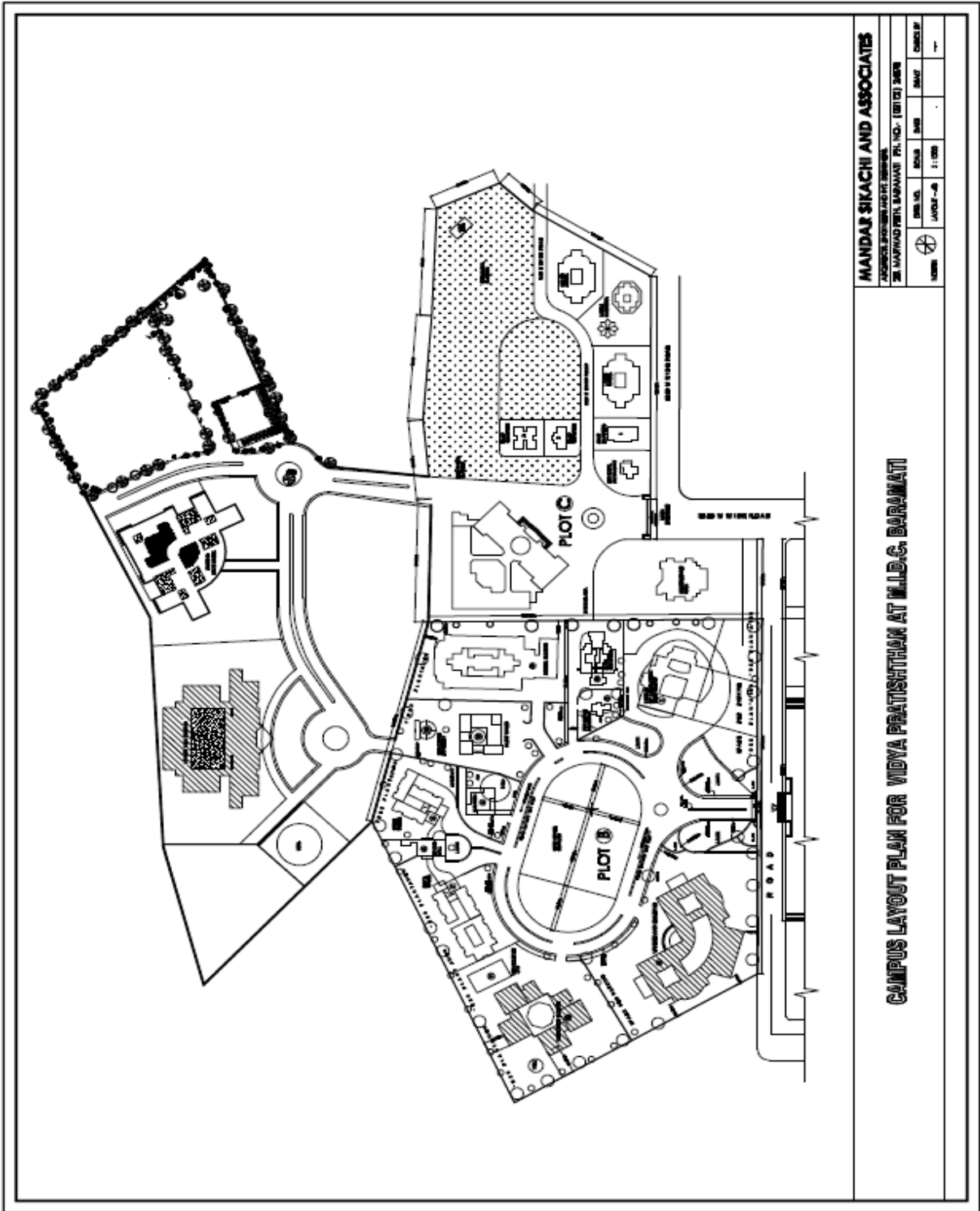
Tutorial Rooms UG (5.25)+ PG Classrooms (5)	10	10	330	330.00
Laboratories (UG & PG)	55	57	3630	4474.68
Drawing Hall	1	2	132	179.96
Workshop	1	1	200	278.55
Additional WS/Labs	4	5	800	901.71
Seminar Hall: (UG (3) + PG(2))	5	5	660	867.69
Computer Centre	1	2	150	180.53
Library and Reading Room	1	1	400	1156.15
Language Laboratory	1	1	66	66.00
<b>Total</b>	<b>100</b>	<b>106</b>	<b>7754</b>	<b>10607.88</b>

- During the second-half of every academic year, the process for identification of new infrastructure and/or additional infrastructure anticipated for next academic year begins and gets completed before the end of the current academic year.
- Each and every type of resource available in the Institute is monitored regularly by a faculty in-charge. The faculty in-charge in consultation with the concerned head of the department optimally allocates the resources.
- Centralized computer servers are maintained by in-house technicians.
- Extended time service of the library provides optimal access to the learning resources.
- Common facilities like Computer centre, Language laboratory are shared by all departments.

#### Expenditure of infrastructure

Sr. No.	Infrastructure	Expenditure in Rs.			
		2015-2016	2014-2015	2013-2014	2012-2013
1	Building	00	16,94,684	00	2,44,942
2	Furniture	86,80,517	1,99,825	45,81,478	9,22,287
3	Equipment	78,06,024	26,11,905	30,69,321	44,33,278
4	Computers	63,82,998	21,31,856	43,33,068	33,21,853

Utilization of the Building infrastructure is depicted by the floor-wise plan of the institution.



Institute master plan

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

The entire academic area of the institution is accommodated in two buildings. Both the buildings have ramped access on the ground floor level. Most of the labs and workshops are placed on the ground floor to ensure easy accessibility. Elevator has been installed in the new building which provides access to all the floors.

Students with physical disabilities are keenly taken care by the Institute by providing dedicated entrance with a ramp for Wheelchair, with proper navigation guides. Separate toilets for male and female have been designed in the proposed restrooms exclusively for physically disabled persons.

#### 4.1.5 Give details on the residential facility and various provisions available within them: Hostel Facility-accommodation available

Hostel Facility – Accommodation available

Hostel facility

Particulars	Boys Hostel			Girls Hostel	
Name of Hostels	B	C	D	A	D
Number of Occupancy/Beds	135	123	317	190	350

#### Recreational facilities, Gymnasium and Yoga centre etc.

- A Television room with a seating capacity of 100 people is available in each of the hostel blocks.
- Newspapers and magazines are provided in each of the hostel blocks.
- For Gymnasium facilities, indoor and outdoor games, centralized facilities are shared which are available for boys and girls separately.

#### Computer facility including access to Internet in hostels

- All the hostels are equipped with Wi-Fi for internet connectivity.

#### Facilities for medical emergencies

- The Institute has tie-up with the Government Hospital adjacent to the campus.
- Vehicle facility is available for 24 hours.
- Doctor is available on call.
- First aid box is provided in each hostel.

#### Library facility in the hostels

- Hostels are in the close vicinity of the Institute and therefore library facilities are easily accessible.

### **Internet and Wi-Fi facility**

- The entire campus is Wi-Fi enabled with multiple access points.

### **Recreational facility-common room with audio-visual equipments**

- Separate Boys and girls common rooms are available.



**Student Hostels**

### **Available residential facility for the staff and occupancy**

- Spacious Principal Bungalow is available within the campus.
- On campus residential facility [2BHK, 1BHK and 1HK] is provided for the faculties, staffs and supporting staff. The accommodation is made available on need-based.
- Staff Quarters are fully equipped with 24 Hours electricity and water supply with round the clock security.

### **Constant supply of safe drinking water**

- Potable water points are available.
- Purified drinking water is made available throughout the campus at various working places including hostels, staff quarters & cafeterias.

- Around 6 RO-water filtration units are also installed in the campus.

#### **Security**

- The entire campus has 24x7 security.
- Security guards work in shifts and keep a tight vigil on the hostel premises.
- CCTV cameras are fitted at strategic points.

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

- A first aid box is made available in the restroom.
- Government Hospital is easily accessible from the Institute and can be reached in five minutes time.
- The campus has an ambulance for the service whenever the situation demands.
- Doctors on emergency call are made available in and off campus as and when necessary.
- Group insurance is available for the staff. The fees paid by the student include group insurance scheme under Savitribai Phule Pune University, Pune.

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

The Institute has IQAC, Grievance Redressal unit, Women's Cell, Counselling and Career Guidance unit and the department of training and placement. The Institute also provides facilities like health centre, canteen and safe drinking water for the welfare of the staff and the students. The Institute has created recreational spaces and auditorium to conduct activities for the all-round development of the staff and the students.

##### **Common facilities**

<b>Sr. No.</b>	<b>Description</b>	<b>Location</b>	<b>In-Charge</b>
1	IQAC (Internal Quality Assurance Cell)	Main Building	Dr. S. B. Lande
2	Grievance Redressal unit	Main Building	Dr. R. K. Shastri
3	Women's Cell	Main Building	Mrs. S. A. Takale
4	Counselling and Career Guidance	Main Building	Mr. D. G. Joshi
5	Training and Placement Office	T&P Office Main Building	
6	Space for Health Centre	Gymnasium	Mr. S. V. Jankar

7	Cafeteria	Near Guest House	Mr. B. H. Patil
8	Recreational spaces for the staff	Main Building & New Building	Mr. S. H. Taware
9	Safe drinking water	Main Building, Workshop and New Building	
10	Recreational space of students	Main Building & New Building	
11	Auditorium	Ga.Di.Ma. Auditorium Shared Facility	
12	Additional and Shared Facilities	<ul style="list-style-type: none"><li>▪ Gymnasium</li><li>▪ Cricket Ground</li><li>▪ Indoor Court for Badminton</li><li>▪ Security</li><li>▪ Canteen / Mess</li><li>▪ Volleyball Ground</li><li>▪ Basketball Ground</li><li>▪ Tennis Court</li></ul>	

## 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?

Library has an advisory committee.

Composition of such a committee is as follows:

The committee comprises of Principal as a Chairman, in the absence of Principal, Vice Principal acts as a chairman, Heads of all Dept., one faculty from each dept. as a Library coordinator & Student representative as members and librarian as a Secretary.

Library advisory committee

Sr. No.	Name	Present status	Status in committee
1	Dr. Devamane Machindranath G.	Principal	Chairman
2	Dr. Lande Sudhir Bapuraoji	Vice-principal & HoD, E&TC Dept.	Member

3	Dr. Wagh Nandkumar Babarao	HoD, Electrical Dept.	Member
4	Prof. Zende Dinesh Achyut	HoD, IT. Dept.	Member
5	Prof. Nandgaonkar Sushma Shailesh	HoD, Comp. Dept	Member
6	Prof. Pammar Leeladhar Shankar	HoD, Civil Dept.	Member
7	Prof. Kolekar Avinash Hanumant	HoD, Mechanical Dept.	Member
8	Dr. Sahuji Nirmal Kulbhushan	HoD, First Year Dept.	Member
9	Prof. Biradar Shashank Devidas	Library coordinator of E&TC Dept.	Member
10	Prof. Rokade Shreemanti Dattatray	Library coordinator of Electrical Dept.	Member
11	Prof. Takale Sheetal	Library coordinator of IT.Dept.	Member
12	Prof. Shelar Manoj Dattoba	Library coordinator of Comp. Dept.	Member
13	Prof. Patil Ravindra J.	Library coordinator of Civil Dept.	Member
14	Prof. Shelge Shrinivas V.	Library coordinator of Mechanical Dept.	Member
15	Dr. Hiwarekar Anil Prabhakar	Library coordinator of First Year Dept.	Member
16	Mr. Swapnil Bhilare	Student Representative	Member
17	Mr. Shete Chandrakant Dagadu	Librarian	Secretary

### Major Significant Initiatives

- Meetings of the committee are conducted twice or thrice per semester to coordinate the execution of the requisite procedure for smooth functioning of the library.
- Requirements of journals, magazines are collected for every academic year from all departments and Requirements of books are collected at the beginning of every semester. Librarian gets approval of the Principal for further necessary action.
- Open access system is provided.



- NPTEL (National Program on Technology Enhanced Learning) video lectures and e-resources are available throughout campus by Wi-Fi connectivity.
- Book bank scheme is provided.
- Day-night reading hall facility is provided.
- Book drop box facility for saving time to return the book to library.
- Web based OPAC (Online Public Access Catalogue) search is provided.
- Excellent environment have been provided for library users.

#### 4.2.2 Provide details of the following

- \* **Total area of the library (in Sq. Mts.):**
- \* **Total seating capacity**
- \* **Working hours (on working days, on holidays, before examination days, during examination days, during vacation)**
- \* **Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)**

- Total area of the library (in Sq. Mts.) – 1213 Sq. Mts.

Area of library

Sr. No.	Specification of the Area	Area (in Sq. Mts.)
1	Library	743.15
2	Internet room	56.85
3	Reading hall	413
Total		1213

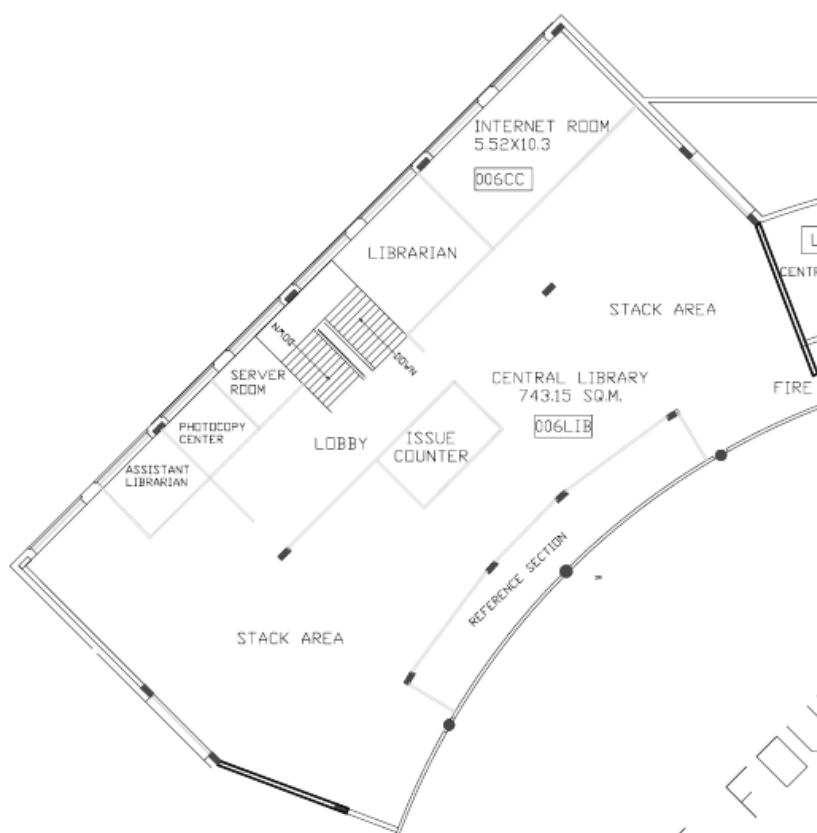
- Total seating capacity – 200 students
- **Working hours (on working days, on holidays, before examination days, during examination days, during vacation)**

Library Working hours

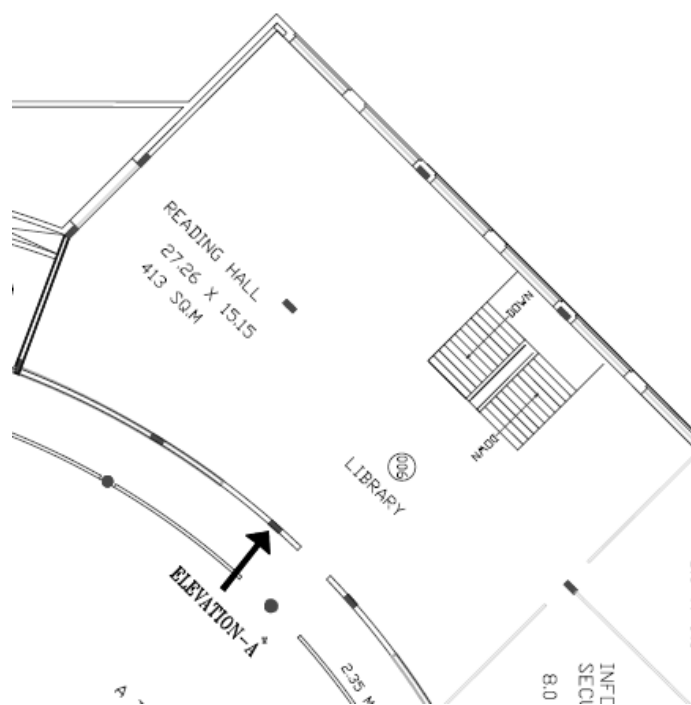
On all working days			
Name of Section	Working days	Holidays	During Exam
<b>Circulation &amp; Journal Section</b>	9.30 am to 6 pm	-	9.30 am to 6 pm
<b>Reference Section</b>	9.30 am to 6 pm	-	9.30 am to 6 pm
<b>Reading Section</b>	8 am to 12.00 (midnight)	8 am to 12.00 (midnight)	8 am to 12.00 (midnight)
During Vacation			

<b>Circulation &amp; Journal Section</b>	9.30 am to 6 pm	-	9.30 am to 6 pm
<b>Reference Section</b>	9.30 am to 6 pm	-	9.30 am to 6 pm
<b>Reading Section</b>	8 am to 12.00 (midnight)	8 am to 12.00 (midnight)	8 Am to 12.00 (midnight)

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



Library and IT zone for accessing e-resources



Reading room

**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.**

In consultation with advisory committee; requirements of books, journals, magazines etc. from all departments are collected for every academic year and librarian forwards requirements to the principal.

- Following table ensures procurement of books, journals, e-resources during last four years:

Library purchase details

Library holdings	(2015-2016)		(2014-2015)		(2013-2014)		(2012-2013)	
	Number	Total Cost (Rs.)	Number	Total Cost (Rs.)	Number	Total Cost (Rs.)	Number	Total Cost (Rs.)
<b>Text Books</b>	937	5,30,559	1320	7,00,464	1002	4,62,738	1178	5,57,736
<b>Reference Books</b>	105	7,87,128	202	8,27,533	46	2,81,590	177	7,52,615

<b>Journals/ Periodicals Total</b>	69	1,58,187	69	1,39,359	76	1,39,583	100	4,41,601
<b>Total</b>	<b>1111</b>	<b>14,75,874</b>	<b>1591</b>	<b>16,67,356</b>	<b>1124</b>	<b>8,83,911</b>	<b>1455</b>	<b>17,51,952</b>

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

- \* **OPAC**
- \* **Electronic Resource Management package for e-journals**
- \* **Federated searching tools to search articles in multiple databases**
- \* **Library Website**
- \* **In-house/remote access to e-publications**
- \* **Library automation**
- \* **Total number of computers for public access**
- \* **Total numbers of printers for public access**
- \* **Internet band width/ speed 2mbps 10 mbps 1 gb (GB)**
- \* **Institutional Repository**
- \* **Content management system for e-learning**
- \* **Participation in Resource sharing networks/consortia (like Inflibnet)**

▪ **OPAC**

Online Public Access Catalogue (OPAC) is to provide the maximum access to the library collection with respect to a search by Author/creator name, Title of the book, Keyword, Publisher name and Class number.

▪ **Electronic Resource Management package for e-journals:**

Library has subscribed e-resource packages of Elsevier e-journal (Science Direct). These e-resources are accessible from anywhere in the Institute campus and link to all such e-resources is available on library webpage.

▪ **Federated searching tools to search articles in multiple databases:**

Library has subscribed total 275 Elsevier e-journal package where the federated search facility is available.

▪ **Library web site:**

Link to library webpage is provided on college website. It provides information regarding library, direct link to Web OPAC and subscribed e-resources and information about library facilities, rules/regulations.

▪ **In house/remote access to e-publications**

Digital Library with 15 nodes having internet connectivity is housed in the Central Library for access to e-publications. In house access to e-publications is available throughout the campus using college IP's.

▪ **Library automation:**

Yes. Library operation has been automated using library automation software SLIM 21. All the books are bar-coded circulation of books has been computerized. The Web OPAC is available for searching the books of library to users.

- **Total No. of computers for public access:** 15
- **Total No. of Printers for public access:** 01
- **Internet Band width/speed:** 60 Mbps
- **Institutional Repository:** Said facility is not available.
- **Content management systems for e-learning:** Said facility is not available.
- **Participation in Resource sharing networks/consortia (like Inflibnet):**

Institute has collaboration with library of ARAI Pune and Membership of DELNET.

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

- \* Average number of walk-ins
  - \* Average number of books issued/returned
  - \* Ratio of library books to students enrolled
  - \* Average number of books added during last three years
  - \* Average number of login to opac (OPAC)
  - \* Average number of login to e-resources
  - \* Average number of e-resources downloaded/printed
  - \* Number of information literacy trainings organized
  - \* Details of “weeding out” of books and other materials
- **Average number of walk-ins:** 450
  - **Average number of books issued/returned:** 300
  - **Ratio of library books to students enrolled:** 1:13
  - **Average number of books added during last three years:** 1204

**Average number of books**

Academic year	No of titles	Average	No of books (Volumes)	Average	Total Price (Rs.)
2015-16	701	731	1042	1204	1317707
2014-15	887		1522		1527997
2013-14	606		1048		744328

- **Average number of login to OPAC: 50**
- **Average number of login to e-resources: 4 per day**
- **Average number of e-resources downloaded/ Printed: 20**
- **Number of information literacy trainings organized: 0**
- **Details of “weeding out” of books and other materials:** Total 1936 books are weeded out from library collection.

#### **4.2.6 Give details of the specialized services provided by the library**

- \* Manuscripts
  - \* Reference
  - \* Reprography
  - \* ILL (Inter Library Loan Service)
  - \* Information deployment and notification (Information Deployment and Notification)
  - \* Download
  - \* Printing
  - \* Reading list/ Bibliography compilation
  - \* In-house/remote access to e-resources
  - \* User Orientation and awareness
  - \* Assistance in searching Databases
  - \* INFLIBNET/IUC facilities
- **Manuscript:**  
Library does not have collection of manuscripts.
  - **Reference:**  
Reference books are properly arranged in racks and can be easily searched.
  - **Reprography:**  
Library has one multipurpose photography machine for public access. Library provided photocopying (Xerox), printing and scanning facility on paid basis to users.
  - **ILL (Inter Library Loan service):**  
Library has taken the membership of Developing Library Network (DELNET). Through this library satisfies the document loan requirement of users.
  - **Information deployment and notification (Information Deployment And Notification)**

The information of library collection is available through web OPAC. Library notices/circulars are circulated in the classrooms and displayed on notice boards. Display of new arrivals to aware the user and motivate them to read.

- **Download**

E journals subscribed by the library can be downloaded users in digital library and throughout the campus.

- **Printing**

Printing facility is available for the users to take printouts.

- **Reading list/ Bibliography compilation:**

Bibliography of books is provided to all users by OPAC search. Syllabus copy with books recommended by university and back year university exam question papers are available offline (hardcopy).

- **In house/remote access to e-publications:**

E-publications are available in digital library i.e. e-journals through LAN and Wi-Fi connectivity.

- **User Orientation and awareness:**

New arrivals are displayed on rack and list of new arrivals is displayed on library OPAC.

- **Assistance in searching Databases:**

E-journals/NPTEL video lectures are provided in digital library. OPAC search is available to all users. Help for book searching is provided at circulation counter.

- **INFLIBNET/IUC facilities:**

Library has not the membership of INFLIBNET/IUC.

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

The support provided by the Library staff to the students and teachers of the college is as follows:

- To give information about the books located in the library.
- To guide uses regarding searching of OPAC.
- To provide guidance for searching e-journal articles and research papers.
- Reprographic as well as scanning facility is available in library.

- To facilitate the staff and students about the new arrivals through display of the books and journals on the proper display boards and OPAC in this respect.
- Book bank facility is available to the students.

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

Liberal policy is implemented for the differently able persons. First priority is given to differently able persons at circulation counter.

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

Suggestion box is kept in library and suggestions are analyzed by the authority.

### **4.3. IT Infrastructure**

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

- Number of computers with Configuration (provide actual number with exact configuration of each available system)
- Computer-student ratio
- Stand-alone facility
- LAN facility
- Wi-Fi facility
- Licensed software
- Number of nodes/ computers with Internet facility
- Any other

**Details on the computing facility available (hardware and software) at the institution**

**Computing facility**

Number of computers with configuration\	628
Number of Servers with configuration	06
Computer-student ratio	UG: 1:3 PG: 1:2
Stand-alone facility	90
LAN facility	538
Wi-Fi facility	Yes
Licensed software	54



Number of nodes/computers with Internet facility	538
Any other	----

### Configuration of the Computers and Servers

Configuration of the Computers and Servers

Sr.No.	Make and Model No.	Configuration	Qty.
<b>Computer Details</b>			
<b>1</b>	Wipro 2.4 GHz	PIV 2.4 GHz HT (800 MHz), 865G chipset Motherboard, 128 MB DDR Ram, 40 GB HDD (7200 rpm), 1.44 FDD, 10 / 100 Mbps NIC, Monitor: 15" Color Monitor, 52x CD-ROM drive.	27
<b>2</b>	Wipro 2.8 GHz	Processor : PIV 2.8 HT(800FSB-1MB, Motherboard: Intel 915GV Chipset, Memory :256 MB DDR RAM, FDD: 1.44 MB FDD, HDD : 40GB HDD SATA, CD-ROM: 52x CD-ROM Drive, Sound: Integrated on chip, Keyboard : PS2 Std. Keyboard, LAN Card : Integrated 10/100/1000 Mbps, Monitor: 15"	76
<b>3</b>	Lenovo 2.8 GHz	Processor : PIV 2.8 GHz (Dual Core) 2 MB Cache 800FSB, Motherboard: Intel 946 GHz chipset, Memory :1GB MB DDR2 RAM, HDD : 80GB HDD SATA (720 RPM), CD-ROM: 52x CD-ROM Drive, Keyboard : Std.Keyboard, Mouse : Optical Mouse, LAN Card : Integrated 10/100/1000 Mbps, 15" TFT Monitor	78
<b>4</b>	Lenovo 3.4 GHz	Processor : PIV 3.4 GHz (Dual Core) 2 MB Cache 800FSB, Motherboard: Intel 946 GHz Chipset, Memory :1 GB DDR2 RAM 533 MHz, HDD : 80GB HDD SATA (720	13

		RPM),CD-ROM: 52x CD-ROM Drive, LAN Card : Integrated 10/100/1000 Mbps,17" TFT Monitor	
5	Wipro 3.4 GHz	Processor : PIV 3.4 GHz (Dual Core) 2 MB Cache 800FSB ,Motherboard: Intel 946 Gz chipset, Memory :1 GB DDR2 RAM 533 MHz, HDD : 80GB HDD SATA (720 RPM),CD-ROM: 52x CD-ROM Drive, LAN Card : Integrated 10/100/1000 Mbps,17" TFT Monitor	09
6	Dell OptiPlex 980	Inter Core i3-550 (3.20 GHz,4MB), Intel Q57 Express Chipset, 2 GB DDR3, 500 GB SATA HDD, Integrated Intel 52578DM,,DVD Writer, Gigabit Ethernet, Dell E1910H 18.5" Monitor, Asus 8400GS 512 MB Dedicated PCI Express Graphics Card.	26
7	DELL VOSTRO 430	Make : DELL VOSTRO 430 , Intel® Core™ i5-540 Processor (3.06GHz, 4MB, 2C, 4 threads),8 GB Dual-Channel DDR3 SDRAM at 1333MHz, 120 GB HDD, Dell 19-inch E190S analog flat panel monitor,16X DVD+/- RW,512MB NVIDIA® GeForce® G310 (DVI, VGA,HDMI).	02
8	DELL OPTIPLEX 380	Make : DELL OPTIPLEX 390 , Intel Core i3-2120 (3.3 GHz,3MB), Intel H61 Express Chipset, 2 GB DDR3, 500 GB SATA HDD, Integrated Intel 52578DM,,DVD Writer, Gigabit Ethernet, Dell E1910Hc 18.5" Monitor,	21
9	DELL OPTIPLEX 390 DT	Make : DELL OPTIPLEX 390 DT , Intel Core i3-2120 (3.3 GHz,3MB), Intel H61 Express Chipset, 4 GB NECC DDR3, 500	35

		GB SATA HDD, Integrated Intel 52578DM,,DVD Writer, USB Keyboard & optical Mouse, Gigabit Ethernet, Dell E1912Hc 18.5" Monitor,	
<b>10</b>	HP Pro , Intel 7100	Make : HP Pro , Intel Core i5-2120 (3.3 GHz,3MB), Intel H61 Express Chipset, 4 GB DDR3, 360 GB SATA HDD, Integrated Intel 52578DM,,DVD Writer, Gigabit Ethernet, HP 18.5 Wide LED TFT Monitor,	20
<b>11</b>	HP Pro 3330	Make : HP Pro , Intel Core i3-2120 (3.3 GHz,3MB), Intel H61 Express Chipset, 4 GB DDR3, 500 GB SATA HDD, Integrated Intel 52578DM,,DVD Writer, Gigabit Ethernet, Dell E1912Hc 18.5" Monitor,	15
<b>12</b>	DELL OptiPlex(TM) 3010 DT	Intel(R) Core(TM) i3 Label Intel(R) Core(TM) i3-3220 Processor (3.30GHz,3MB), Intel ® H61 chipset, 4GB (1x4GB) Non-ECC DDR3 1600MHz SDRAM Memory 500GB 7200 RPM 3.5" SATA Hard Drive, 500GB 7200RPM SATA, Dell USB Entry Keyboard KB212B (English-International), Dell E Series E1914H 18.5" Wide Screen Monitor with LED Back Light, HD Graphics 2500, 16X DVD+/-RW Drive (Half Height), Warranty 3 Yrs. Next Business Day Onsite Service	50
<b>13</b>	DELL OptiPlex(TM) 3010 DT	Intel(R) Core(TM) i5 Label Intel(R) Core(TM) i5-3470 Processor (6M Cache, up to 3.60 GHz), 4GB (1x4GB) Non-ECC DDR3 1600MHz SDRAM Memory, 500GB 7200 RPM 3.5" SATA Hard Drive, Dell(TM) MS111 USB Optical Mouse Dell USB Entry Keyboard KB212B	50

		(English-International), Dell E Series E1914H 18.5" Wide Screen Monitor with LED Back Light, 1GB AMD RADEON HD 7470, OptiPlex Intel ® HD Graphics 2000, Intel(R) H61 Chipset, 16X DVD+/-RW Drive (Half Height), Warranty Three Years NBD Onsite	
14	HP 202 G2 MT	Intel Core™ i5 4570T 2.9G 4 M HD 4600 CPU, 4GB DDR3 1600 DIMM (1x 4GB) 500GB 7200RPM 3.5 HDD, USB W8 K/B & Opt. Mouse (universal), HP 18.5" Monitor, 3/3/3 202 MT Online Warranty	50
15	HP 202 G2 MT	Intel Core™ i3 4570T 2.9G 4 M HD 4600 CPU, 4GB DDR3 1600 DIMM (1x 4GB) 500GB 7200RPM 3.5 HDD, USB W8 K/B & Opt. Mouse (universal), HP 18.5" Monitor, 3/3/3 202 MT Online Warranty	50
16	ASUS D510MT	Intel Core i5-4460, 4GB x 1 DDR3 RAM, 500GB SATA HDD (7200 RPM), DVD RW, Free DOS, 1 x Media K/B USB, 1 x Mouse USB, 18.5" LED ASUS Monitor, Warranty - 3 Years.	65
17	HP 406 GMT	Personal Computer-HP 406G1 i5 DOS Core i5-4570/4GB DDR3/ 1TB HDD/ Ubuntu Linux /DVD RW/ 23" TFT/	01
18	Thin client	N Computing L300 Thin client 1. (2) Remote USB 2.0, Microphone, Headphone, Keyboard, Mouse, 10/100BASE-T Ethernet, VGA Monitor, 12V DC In, Power Switch.	40
<b>Total</b>			<b>628</b>
<b>Server Details</b>			

<b>1</b>	Wipro Xeon Server	Make: Wipro Xeon. Specification : Intel Xeon 2.8 GHz, Intel E7520, 2 GB DDR, 146GB HDD, 1.44 FDD, 25x CDROM Hot Plug Power Supply With keyboard and Mouse.	01
<b>2</b>	HP Pro Liant ML110	HP Pro Liant ML110 G7 E3-1220 NHP SATA, Server/Intel® Xeon® E3-1220 (3.10GHz/4-core/8MB/80W, 1333, Turbo 1/2/3/4) /8MB Intel® Smart Cache/ 4GB (1x4GB) PC3-10600E DDR3 UB ECC/ (4U)/3-3-NBD Support HP 8GB (2x4GB) Dual Rank x8 PC3-10600 (DDR3-1333) Un buffered CAS-9 Memory Kit , HP 2TB 3G SATA 7.2K rpm LFF (3.5-inch) Non-hot Plug Midline 1yr Warranty Hard Drive, HP 18.5" LRD Monitor	01
<b>3</b>	IBM AIX Server	Make: IBM P series P510 Server, 1 Way 1.5 GHz Processor. 4 GB ultra SCSI HDD, DVD ROM, CDROM With keyboard and Mouse, Hot Plug Power Supply	01
<b>4</b>	Dell Power Edge R 210 Server	Make Dell Power Edge: Server R 210 Rack Server. II nd generation, Intel Xeon Processor ES1230 V2 3.30 GHz, 8 GB RAM 1TB HDD DVD RW 3 YRS NBD Support	01
<b>5</b>	HP Proliant DL 60 Server	Intel Xeon E5 2603v3 (1.6GHz/6Core/15MB/85W) 8GB DDR4, 500GH HDD hot plug SATA SAS/SATA H420 Smart HBA with Encryption DVD RW 1x800W/900 Gold hot plug power, Ethernet 1GBx2 36i adapter HP iLO 4 with 2 GB NAND	02
<b>Total</b>			<b>06</b>

▪ **Licensed software**

## Licensed software

Sr.No.	Name of the Department	No. of Licensed Software
1	Mechanical Engineering	11
2	Computer Engineering & Information Technology	20
3	Electronics and Telecommunication Engineering	13
4	Civil Engineering	05
5	Electrical Engineering	05

## Department-wise Licensed Software List:

## Department-wise licensed software

Sr.No.	Name of Software	No. of Licensed Copy
<b>Mechanical Engineering</b>		
1	Auto Desk Inventor Professional 2009	20
2	Pro-E Wildfire University plus site License	01
3	Altair Hyper Mesh	01
4	Solid Edge V20	20
5	Intelicad 6.6 Pro educational bundle	200
6	Ansys Academic	50
7	Swift GATE solution software 2.2 LAN Version	05
8	Mastercam X9	20
9	Matlab 2016R	10
10	Auto Desk Inventor Series (AIS 7)	05
11	LS Dyna	01
<b>Computer Engineering and Information Technology</b>		
1	Microsoft Windows 7	250
2	Microsoft Windows 8.1	250
3	Microsoft Windows 10	250
4	Visual Studio Professional 2013	VLK
5	Visual Studio Professional 2015	VLK
6	Office Professionals Plus 2007	VLK
7	Office Professional Plus 2010	250
8	Office Professional Plus 2013	250

9	Office Professional Plus 2016	250
10	Oracle 9i	05
11	Windows Server Standard 2008 R2	50
12	Windows Server Enterprise 2008 R2	50
13	Windows Web Server 2008 R2	45
14	Windows Server 2012 Essentials	10
15	Windows Server 2012 R2 (Std and DataCtr)	45
16	Windows Server 2016 Standard	45
17	Windows Server 2012 R2 (Std and DataCtr)	45
18	IBM Rational Suite Enterprises	10
19	Windows Small Business Server Essentials 2011	10
20	Swift GATE solution software 2.2 LAN Version	10
<b>Electronics and Telecommunication Engineering</b>		
1	DSP Tanning Software	01
2	Xilinx 8.2	01
3	Micro-Cap 8	02
4	IE3D Super Structure Designer Software	05
5	CST Studio 2014 Ver.	05
6	Proteus VSM Software, with advance simulation features with microcontrollers	10
7	Optisystem Ver 2013	01
8	MATLAB 2015a	10
9	MATLAB 2016r	10
10	Orcad	01
11	VLSI Design Software	01
12	Swift GATE solution software 2.2 LAN Version	10
13	VLSI Lab Design Software	01
<b>Civil Engineering</b>		
1	GRAM ++ GIS Version 2.0	12
2	Super Civil CD, S S F, Q T Y, ROAD, Super Real Valuation, Steel 2007, R C F, 2 D Fram Analysis, Road Estimate, R A F T, Site Control, Super Rate Analysis (12)	03
3	Matlab Software	01
4	STAAD pro Software	05
5	Swift GATE solution software 2.2 LAN Version	05
<b>Electrical Engineering</b>		
1	PSIM Software (Academic)	05
2	ETAP Software - 50 Bus - 10 User	10
3	Matlab 2016r	05
4	PLC SCADA	01
5	Swift GATE solution software 2.2 LAN Version	05

▪ **Number of nodes/ computers with Internet facility :**

**Nodes with internet facility**

<b>Sr.No.</b>	<b>Name of the Department</b>	<b>No. of Computers</b>	<b>No. of Computers with Internet Facility</b>
1	Mechanical Engineering	55	55
2	Civil Engineering	23	23
3	E & TC Engineering	89	89
4	Computer Engineering	139	139
5	Information Technology	82	82
6	Electrical Engineering	27	27
7	Engineering Science	27	27
8	Computer Centre	48	48
9	Central Library	22	22
10	College Office	14	14
11	T&P Cell	03	03
12	Computer Service Center	09	09
13	Other	90	00
	<b>Total</b>	<b>628</b>	<b>538</b>

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

- Central Computing facility with 46 latest configuration computers is available for the faculties and students
- 60 Mbps dedicated Internet Leased Line Connectivity with contention ratio 1:1 from Tata Teleservices Maharashtra Ltd is available. The internet connection is provided among all departments, library, and labs through campus wide optical fiber cable and CAT 5/6 network connectivity with gigabit Cisco and D link manageable switches connectivity.
- Firewall: Cyberoam CR-300i is used for providing the secure internet facility to all departments' students, faculties and laboratories. The Cyberoam firewall is tightly integrated with features like Application Visibility & Control, VPN (IPSec & SSL VPN), Intrusion Prevention System, Web Filtering, Bandwidth Management, Anti-Virus & Anti-Spyware, Anti-Spam, and Multiple Link Management to provide unified security also Cyberoam Firewall thus protects organizations from DoS, DDoS and IP Spoofing attacks.



- **Delivering Internet Facility:** 24X7 access to the internet is provided to all the students and faculties at the Institute and at the hostels via wired and wireless connectivity.
- **Wired LAN connectivity:** For providing internet facility via wired LAN, optical fiber cable and CAT 5/6 connectivity is provided to all department students, faculties. There are total 47 + gigabit manageable Cisco and D-link switches are used to provide wired internet facility.
- **Wireless LAN (Wi-Fi) connectivity:** Internet facility is provided at the Institute and hostel premises via secure wireless network with D-link, Airtight, Linksys, TP Link access points. There are total 145+ access points are available in the campus.

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

- **Internet Bandwidth:** Institute is facilitated with the 60 Mbps leased-line (1:1) from the TTML. Institute is planning for up gradation of the bandwidth to 150 Mbps and also planning for redundant ISP.
- **FSO Link:** To provide the redundant path for the network (OFC) connectivity, Institute has planned for the Free Space Optic Links.
- **Firewall Upgradation:** Based on the current user statistics and future perspective Institute has planned to upgrade the firewall to Sonicwall or relevant competent configuration.
- **High Performance Servers:** Institute has planned for the HPC servers and is planning to deploy it in order to implement integrated web facilities, FTP and Moodle applications.
- **LCD Projector and AV facilities:** Currently 15 classroom are equipped with the projector facility, insatiate has planned to facilitate all the classrooms with projector and audio facilities.
- **Helix Media Delivery Platform:** Institute has planned for the helix media server for Live streaming of regular classes, guest lectures and conferences, using over the intranet to develop Educational Campus network.

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

Annual budget details

Particulars	Budget 2015-16	Actual Expenses 2015-16	Budget 2014-15	Actual Expenses 2014-15	Budget 2013-14	Actual Expenses 2013-14	Budget 2012-13	Actual Expenses 2012-13
	Amount in Lakh							
<b>Computer Procurement</b>	<b>25.00</b>	<b>63.83</b>	<b>30.00</b>	<b>21.32</b>	<b>40.00</b>	<b>43.33</b>	<b>10.00</b>	<b>33.22</b>

<b>Computer upgradation, development and maintenance</b>	<b>2.00</b>	<b>7.25</b>	<b>2.00</b>	<b>0.92</b>	<b>2.00</b>	<b>1.33</b>	<b>2.00</b>	<b>0.70</b>
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**4.3.5 How does the institution facilitate extensive use of ICT resources including Development and use of computer-aided teaching/learning materials by its staff and students?**

The Institution has adequate computer facility for its faculty. Faculty members are provided with computers with internet facility for preparation of teaching/learning materials in their respective departments.

- Each department has its own computing facility based on the curriculum demand.
- LAN based access to the NPTEL and various IIT lectures is available to the faculty and students.
- Digital Library with e-Journals Springer, ASCE, DELNET
- Institutional Memberships of IIT Bombay Library, and NICMAR.
- CDEEP-IIT Bombay, NPTEL and QEEE IIT Madras Learning Resources
- Students and faculties are accessing to the MOOCs ( IIT Bombayx and edX)
- Classrooms including Seminar halls are equipped with LCD projector facility.
- Official email domain is enables with Google support.

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

**IIT Bombay and IIT Kharagpur Remote Center**

- From 2011 Institute is a recognized remote center of IIT Bombay and IIT Kharagpur under the National Mission on Education through ICT, MHRD Govt. of India
- It facilitates the extensive training to the faculty and students from the faculties of various IITs in a distance learning mode
- Institute also organizes the continuing education programs in collaboration with various IIT's for the faculty and students.

- Around 30 STTPs and 10 CEPs were organized for the student and faculty development.

### **CDEEP IIT Bombay**

- Institute is a remote center of CDEEP IIT Bombay,
- Different courses from IIT Bombay are made available for the students and faculties
- Post Graduate Diploma (PGD) of IIT Bombay is also available in distance mode through CDEEP.

### **Quality Enhancement in Engineering Education (QEEE) – IIT Madras**

Under this initiative various course are offered to the students from various IIT's

**The various Modules offered under the QEEE are as follows:**

#### **Live Class**

IIT faculties deliver live lecture classes to students of the Institute:

#### **Course pack**

A supplement study material with lecture notes, live class videos, discussion forums, assessment and evaluation tools to serve as a reference material for QEEE courses

#### **Live Labs**

To provide virtual hands-on experience to students on experiments undertaken remotely. It creates an opportunity to work on a real lab experiment tailored to suit their syllabus and curriculum.

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

- At the Institute, 26 workshops have been conducted under NME-ICT program sponsored by MHRD; IIT Bombay & IIT Kharagpur is the remote center of workshops.
- We have NPTEL system which is also under NME-ICT program.
- In NPTEL system we have collection of Video Lectures for different engineering streams and subjects.

### **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)?**

Management is always providing financial support considering the maintenance demands required by the college. Separate budget is allotted to each department. Each

department is doing maintenance of equipments, furniture, computers in their respective department through the allotted budget at the college level.

\* Expenditure exceeds the budget due to renovation at the time of renaming ceremony of the Institute.

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

- Maintenance of computers is carried out by institutional system department.
- Repair and maintenance of equipments and instruments is initiated by Laboratory In-charge when required.
- Preventive maintenance is carried out by Lab In charge along with laboratory assistance before the commencement of semester.
- Furniture maintenance and metal fixtures is carried out by workshop department.
- Maintenance of Water Coolers, glass fittings, EPABX, Air Conditioning System etc. is looked after by Store Keeper. External agency is appointed for maintenance.
- Electrical Maintenance is looked after by Electrical department.
- Maintenance in the garden is routinely carried by gardening staff of Central office.
- Maintenance of the hostels & staff quarters is done by Central office.

Table 4.17: Expenditure of budget

Sr. No.	Infrastructure	2015-2016		2014-2015		2013-2014		2012-2013	
		Budget	Expenditure Incurred	Budget	Expenditure Incurred	Budget	Expenditure Incurred	Budget	Expenditure Incurred
		Amount in Lakh							
1	Building	8.00*	177.95*	3.00	2.02	5.00	16.7 <sub>5</sub>	8.00	16.14
2	Furniture	4.00*	25.21*	2.00	0.42	4.00	1.90	3.00	6.32
3	Equipment	2.00	3.68	2.00	0.13	2.00	0.93	2.00	0.37
4	Computers	2.00	7.25	2.00	0.92	2.00	1.33	2.00	0.70
5	Vehicles	1.00	1.77	1.75	1.13	1.75	1.18	2.00	1.50
6	Electrical	2.00	15.24	2.00	0.97	2.00	0.90	2.00	2.14
7	Other (Cleaning, Garden, Repairing, etc.)	2.00	20.07	7.00	9.01	8.00	8.18	3.00	6.29

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

- Lab In charges identifies the equipments which need periodical calibration for safe and proper functioning.
- Calibration of selected equipments is done yearly.
- The Institute has allocated some of technical staff for maintaining computers and networking facilities.

**4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment's (Voltage Fluctuations, Constant Supply of Water etc.)? Any other relevant information regarding Infrastructure and Learning Resources which the college would like to include.**

- The College has safe, secure and separate places for the sensitive equipment's like electricity generators, water purifiers, chemicals and scientific instruments.
- The laboratory staff keeps a strict vigil regarding the maintenance and upkeep of the scientific instruments and Chemicals.

**Electrical Supply**

- Diesel Generator is placed in strategic location throughout the year to minimize power loss.
- The transformer is located close to the load center, considering the other features like optimization needs for centralized control, operational flexibility etc.
- For the uninterrupted academic activity, a stand by Generator set is available.
- Fire extinguishers are available nearby laboratories on campus.
- Regular maintenance of the generator is done by the operator.
- Yearly maintenance is carried by the authorized mechanic.

**Water Supply**

- Water coolers with purifiers are installed at different places in college campus
- Continuous safe drinking water supplied by RO.
- Water coolers are maintained regularly.

## CRITERIAN V: STUDENT SUPPORT AND PROGRESSION

### 5.1 Student Mentoring and Support

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

**Yes**, the institution publishes the information with salient features of college to the students through annual prospectus. An updated revised prospectus is published annually and is provided to the students at the time of admission process.

It covers following aspects:

- 1) Vision & Mission of the Institute.
- 2) Information about Management and the Institute.
- 3) Information about programs offered by the Institute briefly describing the intake capacity, college fees and scholarships.
- 4) Introduction about Departments & Laboratories
- 5) Information about Training & Placement activities, Technical Events conducted in college, various Industrial Visits, Extracurricular Activities and Achievements of Students.
- 6) E-Newsletters are published by Institute for every three months that highlight the achievements of the students and faculty members and showcase special activities conducted during the semester such as Guest Lectures, Training Sessions etc.

Institute ensures its commitment and accountability by providing all stated resources in house and by outsourcing whenever required.

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

Institute provides various types of scholarships / freeship to the eligible students offered by Government & Institute, such as:

- 1) Scholarship and Free ship to SC/ST/NT/OBC/SBC students.
- 2) EBC to students belonging to economically backward class.
- 3) PTC/STC Scholarship
- 4) Minority Scholarship

Whenever scholarship is disbursed by issuing authority, it is transferred to students account and also informed to parents.

**The details of number of students with amount disbursed and dates are as follows:**

**SC/ST/NT Student Scholarship details**

<b>Academic Year</b>	<b>No. of Student eligible for Scholarship/ Freeship (SC/ST/NT)</b>	<b>Amount Disbursed (Rs)</b>	<b>Disbursed Date</b>
2015-2016	324	1,76,90,024	06-08-2016
2014-2015	399	2,22,08,858	13-08-2015
2013-2014	292	1,14,35,788	29-04-2014
2012-2013	255	1,09,80,237	26-09-2013

**OBC/SBC Student Scholarship details**

<b>Academic Year</b>	<b>No. of Student eligible for Scholarship/Freeship (OBC/SBC)</b>	<b>Amount Disbursed (Rs)</b>	<b>Disbursed Date</b>
2015-2016	360	78,72,631	06-08-2016
2014-2015	356	1,05,33,252	13-08-2015
2013-2014	264	56,39,470	29-04-2014
2012-2013	237	1,16,43,266	26-09-2013

**EBC Student Scholarship details**

<b>Academic Year</b>	<b>No. of Student eligible for Scholarship (EBC)</b>	<b>Amount Disbursed (Rs)</b>	<b>Disbursed Date</b>
2015-2016	308	11,35,419	06-08-2016
2014-2015	316	12,97,079	13-08-2015
2013-2014	370	13,17,834	29-04-2014
2012-2013	322	15,04,582	26-09-2013

**PTC/STC Student Scholarship details**

<b>Academic Year</b>	<b>No. of Student eligible for Scholarship (PTC/STC)</b>	<b>Amount Disbursed (Rs)</b>	<b>Disbursed Date</b>
2015-2016	21	84,000	06-08-2016
2014-2015	14	56,000	13-08-2015
2013-2014	16	64,000	29-04-2014
2012-2013	17	68,000	26-09-2013

## Minority Student Scholarship details

Academic Year	No. of Student eligible Minority	Amount Disbursed (Rs)	Disbursed Date
2015-2106	20	4,00,000	06-08-2016
2014-2015	17	3,40,000	13-08-2015
2013-2014	20	4,00,000	29-04-2014
2012-2013	18	4,50,000	26-09-2013

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

Students receive financial assistance from state government, central government and other national agencies on the basis of eligibility criteria that are laid down by the regulatory bodies. Central government offers minority scholarships for students. However students belonging to SC/ST/OBC categories avail scholarship/free ship from state Government. Scholarships/free ships are given by state Government of Maharashtra on the basis of parent's annual income. Scholarships offered to the students as per government policy is about 50%.

Details of students receiving financial assistance from state and central government are given below:

## Financial support by State Govt and Central Govt count

Type of Scholarship	Agency	No. of Students received Financial Assistance			
		2015-2016	2014-2015	2013-2014	2012-2013
SC/ST/NT	State Govt.	324	399	292	255
OBC/SBC	State Govt.	360	356	264	237
EBC	State Govt.	308	316	370	322
PTC/STC	State Govt.	21	14	16	17
Minority	Central Govt.	20	17	20	18

## Financial support by State Govt and Central Govt percentage

Type of Scholarship	Agency	% of Students received Financial Assistance			
		2015-2016	2014-2015	2013-2014	2012-2013
SC/ST/NT	State Govt.	19.28	23.75	17.38	15.17
OBC/SBC	State Govt.	21.42	21.19	15.71	14.10
EBC	State Govt.	18.33	18.80	22.02	19.16
PTC/STC	State Govt.	1.25	0.83	0.95	1.01
Minority	Central Govt.	1.19	1.01	1.19	1.07



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

- **Students from SC/ST, OBC and economically weaker sections**
- **Students with physical disabilities**
- **Overseas students**
- **Students to participate in various competitions/National and International**
- **Medical assistance to students: health centre, health insurance etc.**
- **Organizing coaching classes for competitive exams**
- **Skill development (spoken English, computer literacy, etc.,)**
- **Support for “slow learners”**
- **Exposures of students to other institution of higher learning/ corporate/business house etc.**
- **Publication of student magazines**

The specific support services/facilities available are as under:

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

- Admission seats are reserved for students from socially backward community.
- Assistance is provided to eligible SC/ST/OBC/EBC students to avail scholarship/freeship of government.
- A book bank facility is provided to SC/ST students in the college library.
- College offers ‘Tuition Fee Waiver Scheme’ to the students of economically weaker sections of society.

##### 2. **For Physically Handicapped Students.**

- Special ramp is available for handicapped students.
- Provision for lift in the building is made.
- If any accidental case is encountered, Institute makes special arrangement of classes or examination at ground floor.

##### 3. **Overseas students**

There are no overseas students admitted in the Institute.

#### **4. Students to participate in various competitions/conferences in India and abroad**

The college encourages students to participate in various National/International Technical events such as seminars, workshops, conferences organized at different reputed organizations like IITs, NITs etc. College gives attendance consideration for classes for the period of participation in these events. Travelling allowances and registration fees are remitted by the college.

#### **5. Health Centre and Health Insurance**

- Institute provides medical facility within the campus
- Ambulance facility is available 24X7
- Gymnasium facility for boys & girls is available for maintaining body health
- Institute arranges blood donation camp every year.
- First-Aid Box is available in every department
- Information regarding Address, Timing & Contact Numbers of nearby Government & Private Hospitals is displayed at college for emergency.
- Free medical checkups are carried out by reputed physicians.

#### **6. Organizing coaching classes for competitive exams**

Since qualifying the GATE examination is the prime requirements for higher studies in reputed institutions like IIT, NIT, focus is given towards organizing the coaching classes of this Examination by establishing GATE Forum in the college.

#### **7. Skill Development (Spoken English, Computer Literacy, etc.)**

- The college has a well-equipped Language Laboratory which caters spoken language requirements of students.
- Training and Placement cell helps in organizing activities on personality development, soft skill development such as “Grad to Guru” workshop for first year Engineering students.

#### **8. Performance enhancement for slow learners / students who are at risk of failure and dropouts:**

- Mentor monitors slow learners and counsels them.
- Institute arranges extra lectures, tutorials, takes re- test & assignments for slow learners.
- Special Unit wise Question Banks are provided to students for ease of preparation.

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

- Students are motivated to pursue higher studies.
- Memorandum of Understanding (MOU) is established with College of Engineering, Pune.
- Students are motivated to attend various events like games and sports/project/paper presentation Competitions at IITs / NITs and other institutions.
- Students have undergone the industrial training, industrial visits, participation in IIT B Techfest and solar program at IIT B.

## 10. Publication of Student Magazines

- E-Newsletters are periodically published by Institute that highlight the achievements of the students and faculty members and showcase special activities conducted during the semester like Guest Lectures, Training Sessions etc.

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

Institute is organizing Entrepreneurship awareness programmes to promote the spirit of Entrepreneurship among the students.

Following are the details of Entrepreneurship Awareness Programmes organized by Institute.

Entrepreneurship Awareness Programmes

Sr. No.	Activity	Resource Person	Date
01	Entrepreneurship and Youth Development	Mr.D.S.Kulkarni(Founder and Chairman DSKDL Pune)	2-10-2015
02	Entrepreneurship development and Career development for Graduates	Mr. Shekhar Kulkarni(Chairman Maniks systems Pvt Ltd, Hon. Mr. Prataprav Pawar (Chairman Sakal Group)	18-12-2014

### 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.

#### Co-Curricular:

Students are motivated to explore engineering knowledge which is beyond the regular curriculum and their own discipline and to prepare them for writing technical papers,

fabrication of models etc. They are motivated to participate in the technical workshops; competitions etc. organized by educational institutions.

### **Extracurricular:**

For personal enhancement and development of the students, college provides ample opportunities for showcasing technical, cultural and sports talents through the events like Verismo, Sthapatya, Nabhangan, Purushottam karandak, Firodia etc. For motivating the students to participate in sports activities and encourage them to enhance their performance in different tournaments, Institute awards certificates, medals and mementoes to the winners in different sports. Every year college organizes KURUKSHETRA i.e. interdepartmental sports competition.

Institute also gives them the relaxation in internal theory and practical attendance during deputation period.

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

To meet the special dietary requirements of sport persons, college provides.

1. Financial aid to each and every participant who participates in any intercollegiate sport competitions organized at university, state or national level.
2. Sports uniforms, track suits are made available to all those sportspersons who have represented the college at either university level or at interuniversity level tournaments.
3. Sports material is provided to students participating in all sports activities such as intercollegiate events, intra college level tournaments or any other tournaments organized at different levels.

### **Facilities available in campus are:**

- Sports Ground
- Basketball Court
- Well-equipped Gymnasium for both Boys and Girls
- Volleyball Court.

### **5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central /State services, Defense, Civil Services, etc.**

The college has department-wise GATE Forums, which are headed by a Faculty Incharge. The GATE Forum prepares the students for the examination, arranges counseling sessions, expert lectures and mock tests.

Number of students who have qualified in various competitive exams in the last four years is given below.

Student qualified in competitive exam

	2015-16	2014-15	2013-14	2012-13
GATE	36	31	16	20
GRE/GMAT	3	1	0	1
CAT	0	1	0	0
Civil services	0	2	0	1
Defense services	0	1	1	4
Other Exams	11	5	4	6

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

There is a Class Teacher system in place at first year level to BE level for student support. The faculty mentoring system is in operation from second year to final year at the respective departments. In this system, a group of 15 students is allotted to faculty mentor.

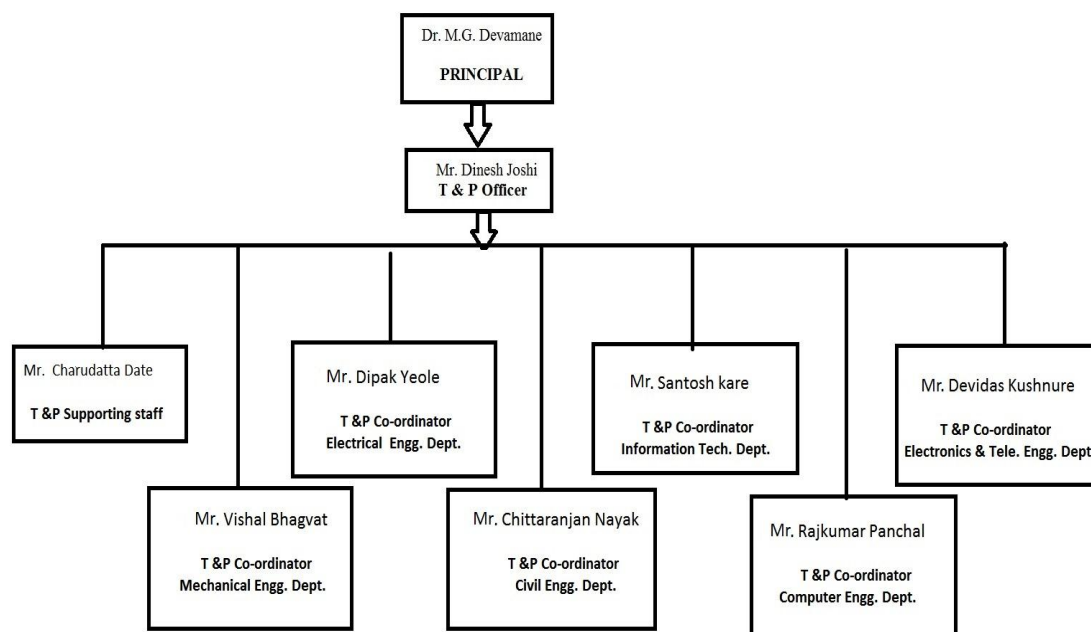
The Class Teacher has to keep a track of academic performance including class room attendance of these students. Faculty guides and helps the students of his/her group in case of any personal problems. Faculty also provides guidance to these students regarding their career advancements, professional upliftments and academic improvement.

Critical cases/issues faced by the students in their general life are discussed with the HoD, Principal and Parents. This mentoring system is made more effective with the use of Student Information System, which gives information to the parents about the performance and attendance of their wards.

Day to day psycho-social problems, anxiety and depression may have the physical symptoms and it affects the mental health of the students. To tackle this issue, Institute organizes the course of Art of Living on regularly.

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

Yes, college has a separate training and placement (T & P) department supported by the coordinators of different departments which takes care of the placement and trainings of students. Guest Lectures, Seminars and Workshops are regularly organized on the various topics for the career guidance to the students both at the departmental level and the college level through the T & P Department. Eminent speakers from the industry and academia are invited to deliver the same. The alumni working in the various industries are invited to interact with the students. Career guidance is provided informally by the faculty members/ guides/ teacher guardians to the students.



Career guidance and placement mechanism

**The list of the events organized by the T & P Cell is as under:**

**Events organized by T&P Cell**

Sr. No.	Date	Activity	Resource Person/Organization
1	14/1/2016	Career building opportunities in niche Engineering fields	MIT Skills, Pune
2	6/1/2016	Seminar on Opportunities for Engineers in Indian Administrative Services	Mr Rajendra Bharud (IAS Officer)

3	6/1/2016	Seminar on Preparing for admissions to International Institutes through GRE, TOEFL	Mr. Sunil Shah (Foreign Academy Consultancy and Training Dubai Centre)
4	2/10/2015	Entrepreneurship and Youth Development	Mr. D. S. Kulkarni (Founder and Chairman DSKDL Pune)
5	7/9/2015	Opportunities after graduation especially opportunities abroad.	Mr. Komal Nadmikan, Manager (HR & Corporate Relations), Confluence Educational Services Pvt. Ltd., Hyderabad
6	16/7/2015	Higher program in US and Internship Placements	Laxman Iyer
7	9/7/2015	GRE / TOEFL / SAT / GMAT Preparation	Chopras, Pune
8	16/12/2014	Career Opportunities in BARC	Hemant Takale
9	12/9/2014	Seminar on Education & Employability Opportunities Abroad	Arpan Suryawanshi
10	9/8/2014	SEED InfoTech Pvt. Ltd. Pune	Nilangini Gupta
11	20/6/2014	Faculty Development Program	Sameer Kulkarni, Imran Mulla, Wren and Packer Pune
12	16/9/2013 to 20/9/13	PLC Training	Godrej Automation, Pune
13	3/8/2013	Seed Java Training (JAVA)	Advanced java Training Institute
14	3/8/2013	Seed C Language Training	Advanced C++ Training Institute

**Career Guidance** - As there are diverse career options available for the students today, it becomes very important that each student chooses the option most suitable for him/her. There is also a need of formal and informal career guidance by way of interaction with the experts, faculty members, alumni and also through books and magazines.

**Facilities available are:**

1. Training and Placement cell
2. Industry Institute Interaction Cell

**Campus Placement Details:**

Campus placement details

Sr. No	Department Name	Percentage of Students Placed			
		2015-16	2014-15	2013-14	2012-13
1	Mechanical	40.90	44.59	82.08	66.66
2	Electronics & Telecommunication	40.14	40.42	33.33	47.16
3	Computer	48.00	77.41	59.73	47.65
4	Information Technology	38.66	46.75	42.66	49.25
5	Civil	29.62	69.23	59.52	55.81
6	Electrical	40.25	40.78	45.39	NA

The T & P department maintains regular interaction with the industry for the purpose of Training and Placement. Reputed companies have regularly selected our students through Campus selection process. The students of the Institute are also sent to attend off campus placement drives. Some of the eminent core and software industries are listed below those have recruited students during in and off campus selection process.

List of Employers

List of Employers	
Bharat Forge, Baramati	Cummins India Pvt. Ltd
Persistent Systems Pvt. Ltd., Pune	ISMT LIMITED, Pune
KPIT, Pune	Amdocs Software Solutions Limited
Hotwax Systems, Pune	Tata Motors LTD.
Genius Minds Consulting Services, Pune	Tata Consultancy Services
Piaggio Vehicles Private Limited, Baramati	Syntel, Pune
Extentia Technologies, Pune	Tibco Software Private Limited

**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.**



As and when the grievances are registered the committee takes the cognizance and proposes the amicable solution. Institute has kept suggestion boxes at various places within premises.

**Grievance Committee for Students (Non Academic Matters)**

<b>Grievance Committee for Students (Non Academic Matters)</b>		
<b>Sr. No.</b>	<b>Name</b>	<b>Designation</b>
1	Dr. Rajveer Shastri	Chairman
2	Mrs. Gyankamal Chhajer	Member
3	Mr. Dinesh Zende	Member
4	Mr. Dilip Patil	Member

<b>Sr. No.</b>	<b>Year</b>	<b>Grievances Reported</b>	<b>Grievances Redressed</b>
1	2015-16	Non-working of Wi-Fi system of boys hostel	Complaint was forwarded to office and problem was solved
2	2014-15	No reading room facility was available after working hours & during exam period	Reading room facility at library was extended before & during the examinations for late night
		Insufficient hot water system at ladies hostel	Hot water facility was provided to all girl students through solar water heating system
3	2013-14	less no. of books available in Book Bank scheme	New books were purchased & reference section of library was Strengthened for book bank facility

4	2012-13	Water cooler and Aqua guard is not working in boys hostel	Repaired and pure drinking facility was provided
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**5.1.11. What are the institutional provisions for resolving issues pertaining to sexual harassment?**

The college has a committee for addressing the issues related to Sexual harassments of women's. In this matter the victim can approach to the Head of Institution internal complaint committee and file the complaints in writing. The Committee invites both the aggrieved person as well the accused to the hearing to know and establish the facts. The report of the committee is then submitted to Principal for further action.

To address these issues, the Internal Complaint Committee is constituted at the Institute level is as mentioned below

**Internal Complaint Committee**

<b>ICC: INTERNAL COMPLAINT COMMITTEE</b>		
<b>Sr. No.</b>	<b>ICC Committee</b>	<b>Name of Member</b>
1	Presiding Officer	<b>Mrs. Sheetal Takale</b> Dept. Information Technology Tel: (02112) 239527, 9823149304 sheetal.takale@vpkbiet.org
2	Two Committee Members - Teaching Faculties nominated by the Principal	<b>Mrs. Prachi Kale</b> Dept. Mechanical Engineering
		<b>Mr. Pradeep Patil</b> Dept. Information Technology
3	Two Committee Members - Non-Teaching Faculties nominated by the Principal	<b>Mrs. Pornima Sarode</b> Dept. Library
		<b>Mrs. Natu Nitve</b> Dept. Workshop
4	Undergraduate Student	<b>Ms. Palange Sampada Ravindra</b> TE- E&TC
5	Postgraduate Student	<b>Ms. Monika Sonmale</b> ME- Computer Engineering
6	External Member	<b>Advt. Ms. Neelima Gujar</b> Member, Environmental Forum of India, Baramati

**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 set up the anti-ragging committee to monitor the ragging in college and hostel premises. It comprises of the Head of the Institution (Presiding Officer) along with Hostel Rectors. The committee is formed as per norms laid down by Savitribai Phule University, Pune. Till date, no incident of ragging of any kind has been reported in the Institute and hostel premises.

**Details of the anti-ragging committee for Institute is as under:**

**Anti-ragging committee**

Sr. No.	Name	Designation		Contact No.
1	Dr. M.G. Devamane	Principal, VPKBIET	Chairman	(02112) 239500, 8275596168 <a href="mailto:principal.vpkbiet@vidyapratishthan.com">principal.vpkbiet@vidyapratishthan.com</a>
2	Chief Executive Officer, Baramati Municipal Council	Representative Civil Administration	Member	(02112) 222494 <a href="mailto:baramatinp@gmail.com">baramatinp@gmail.com</a>
3	SHO, Baramati Rural Police Station, MIDC Baramati	Representative Police Administration	Member	(02112) 222433, 9421953730 <a href="mailto:pibaramatitaluka.pnr@mahapolice.gov.in">pibaramatitaluka.pnr@mahapolice.gov.in</a>
4	Adv. Ms. Neelima Gujar (Member, Environmental Forum of India, Baramati)	Representative NGO	Member	9850134462 <a href="mailto:neelimagujar5@gmail.com">neelimagujar5@gmail.com</a>
5	Prof. Avinash Kolekar (HoD, Mech.Engg., VPKBIET)	Representative Faculty	Member	(02112) 239512, 9850207209 <a href="mailto:avinash.kolekar@vpcoe.org">avinash.kolekar@vpcoe.org</a>
6	Prof.(Mrs.) Sheetal A. Takale, (Asst. Prof., Information Technology, VPKBIET)	Representative Faculty	Member	(02112) 239527, 9823149304 <a href="mailto:sheetaltakale@yahoo.co.in">sheetaltakale@yahoo.co.in</a>
7	Mrs. Pingale Shailaja Pandurang (Student Parent)	Representative Parent	Member	9822845164, 7057586402

8	Ms. Dhawan Asmita Dnyaneshwar (BE-Mech)	Representative Student BE	Member	9822523620 <a href="mailto:dgdhawan00@gmail.com">dgdhawan00@gmail.com</a>
9	Mr. Mankar Abhishek Chandu (FE-IT)	Representative Student FE	Member	8421398424 <a href="mailto:abhiathor619@gmail.com">abhiathor619@gmail.com</a>
10	Mr. Satish Taware (Administrative Officer, VPKBIET)	Representative Non-Teaching Staff	Member	(02112) 239504, 9890319150 <a href="mailto:vpkbiet@vidyapratishtan.com">vpkbiet@vidyapratishtan.com</a>

### Anti-ragging committee for Hostel:

#### Anti-ragging committee for hostel

Sr. No.	Designation	Name of Member
1	Convener	Dr. Nirmal Sahuji
2	Coordinator	Mr. Satish Taware
3	Chief Rector- Boys Hostel B	Mr. Digambar Padulkar
4	Chief Rector- Boys Hostel C	Mr. Anil Disale
5	Chief Rector- Boys Hostel D	Mr. Dilip Patil
6	Chief Rector- Girls Hostel A	Mrs. Sheetal Takale
7	Chief Rector- Girls Hostel D	Mrs. G. J. Chhajed
8	Chief Rector- Girls Hostel E	Mrs. Aparna Shastri

### 5.1.13 Enumerate the welfare schemes made available to students by the institution.

The following welfare schemes are made available for the students.

**Scholarships & Freeships:** Institute has student welfare fund through which needy students in case of medical emergency, economically weaker students are supported. The

class teacher guides the students to avail the facilities of various welfare schemes. Similarly scholarships received from central, state government and other agencies are made available to the students.

**Bank Services:** In collaboration with the Bank of Maharashtra, the institution assists all the students in opening an account with zero deposit. It empowers students to make transactions through the bank in the globalized world. The bank also provides educational loans.

**Counseling & Placement Service:** The placement cell extends its service to the students in career guidance, organizes lectures concerning career planning and invites companies for campus recruitment.

**Health Services:**

- Institute provides medical facility within the campus
- Ambulance facility is available

**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 college has a registered Alumni Association chaired by Principal. Annual meetings are arranged to extend the cooperation among the alumni and faculties for the welfare of students. During interaction with faculty of respective departments, alumni may help in framing the curriculum as per the needs of Industries. They play an important role in industry Institute interactions and bridging the gap between industry and Institute.

The details of alumni association are as follows

**Alumni association**

<b>Sr. No.</b>	<b>Name of Member</b>	<b>Designation</b>
1	Dr. Macchindranath Govind Devamane	President
2	Dr. Nandkumar Babarao Wagh	Vice President
3	Mr. Rajaram Hanumant Ambole	Secretary
4	Mr. Avinash Hanumant Kolekar	Treasurer
5	Mr. Dilip Gulabrao Patil	Member
6	Mr. Manoj Dattoba Shelar	Member
7	Mrs. Pooja Nitesh Jaiswal	Member
8	Ms. Shridevi Apayya Swami	Member
9	Mr. Anil Walmik Bhagat	Member

In 2016-2017, we have registered VPKBIET Alumni Association, Baramati. In this meet, alumni assured to establish the strong bond to strengthen the industry Institute interaction.

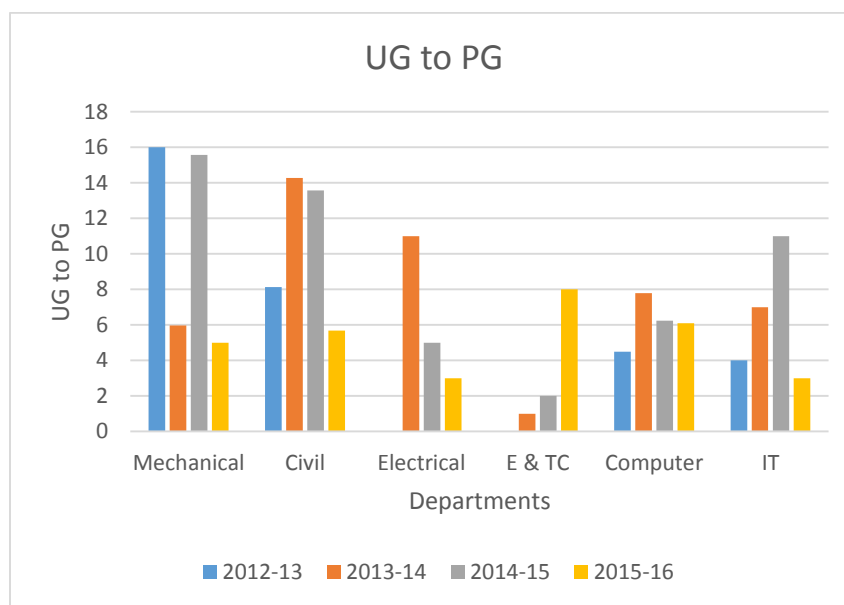
## 5.2 Student Progression

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

Student progression

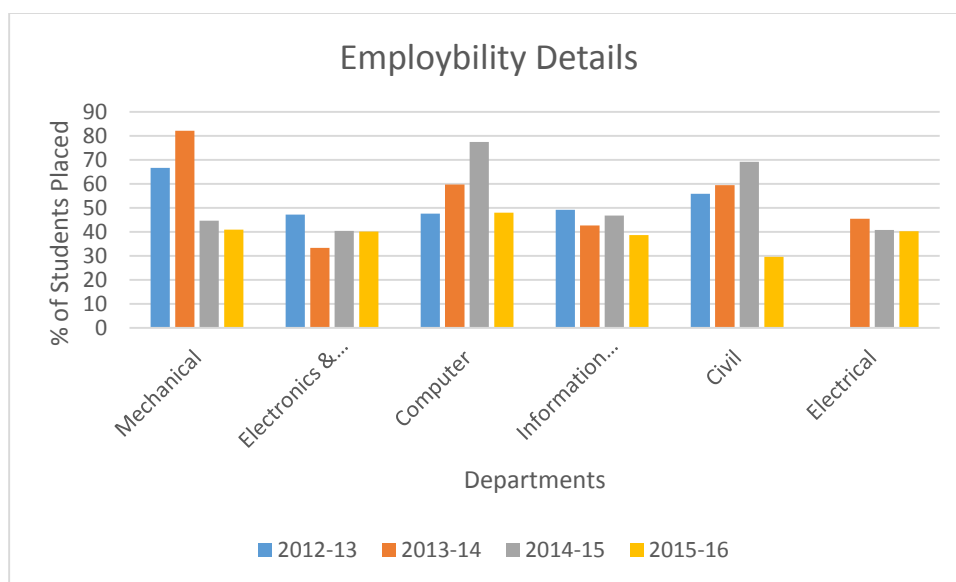
Sr. No	Student Progression	As per Program	2015-16	2014-15	2013-14	2012-13
1	UG to PG	Mechanical	5	15.58	5.97	16
		Civil	5.68	13.58	14.28	8.14
		Electrical	3.20	5.32	11.38	NA
		E & TC	5.84	1.42	1.11	0
		Computer	6.09	6.25	7.79	4.5
		IT	3.89	13.09	9.33	5.97
2	PG to PhD	Mechanical	0	0	1.26	0
		E & TC	0	0	11.76	11.11
3	Employed A) Campus Selection	Mechanical	6.06	9.45	22.38	10.66
		Civil	9.87	15.38	28.57	0
		Electrical	1.29	1.31	0	NA
		E & TC	13.33	0	0	0
		Computer	13.33	16.12	15.58	12.50
		IT	6.66	1.36	13.33	7.46
	B) Other than campus selection	Mechanical	34.84	35.14	59.7	56
		Civil	19.75	53.85	30.95	55.81
		Electrical	38.96	39.47	45.39	NA
		E & TC	27.01	40.42	33.33	47.16
		Computer	34.67	61.29	44.15	35.15
		IT	32	45.39	29.33	41.79
4		Mechanical	0	1.13	2.53	5.33
		Civil	36.38	2.47	9.52	6.98
		Electrical	0	0	2	0

	Entrepreneurship / Self Employment	E & TC	01	0	1.11	0
		Computer	0	0	1	0
		IT	0	0	1.33	0

**UG to PG:****UG to PG student progression**

The trend indicates that the progression of students from UG to PG need to be strengthen further. In view of this, Institute has started UG Fellowship program and extra coaching for preparation of GATE exams at Third Year level.

**Employability Details:**



Employability details

Employability is quite steady however Institute is taking efforts to increase the number of potentially employable students by providing soft skill training programs.

- 5.2.2 Provide details of the programmed wise pass percentage and completion rate for the last four years (course wise/batch wise as stipulated by the university)? Furnish program -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.**

**Department of Mechanical Engineering:**

Student progression Mechanical Result

Sr. No	Student Progression	2015-16	2014-15	2013-14	2012-13
1	No of students Appeared	81	77	67	75
2	No of students passed in Distinction	41	46	28	47
3	No of students passed in First Class	19	24	26	27
4	No of students passed in Higher Second class	06	04	04	0
5	No of students passed in Second class	0	0	0	0



6	No of students passed	66	74	58	74
7	% passed	81.48 %	96.10 %	86.5 %	98.66 %

**Department of Civil Engineering:****Student progression Civil Result**

Sr. No	Student Progression	2015-16	2014-15	2013-14	2012-13
1	No of students Appeared	88	78	79	84
2	No of students passed in Distinction	52	45	42	71
3	No of students passed in First Class	27	31	35	12
4	No of students passed in Higher Second class	00	00	00	00
5	No of students passed in Second class	00	00	00	1
6	No of students passed	81	78	78	83
7	% passed	92.04	100	98.73	98.80

**Department of Electrical Engineering:****Student progression Electrical Result**

Sr. No	Student Progression	2015-16	2014-15	2013-14	2012-13
1	No of students Appeared	79	76	59	NA
2	No of students passed in Distinction	46	24	25	NA
3	No of students passed in First Class	18	40	23	NA
4	No of students passed in Higher Second class	00	00	00	00
5	No of students passed in Second class	13	12	9	NA

6	No of students passed	77	76	57	NA
7	% passed	97.46 %	100 %	96.61 %	NA

**Department of Computer Engineering:****Student progression Computer Result**

Sr. No	Student Progression	2015-16	2014-15	2013-14	2012-13
1	No of students Appeared	82	64	73	69
2	No of students passed in Distinction	47	27	37	39
3	No of students passed in First Class	24	29	26	27
4	No of students passed in Higher Second class	7	5	5	0
5	No of students passed in Second class	0	1	3	0
6	No of students passed	75	62	72	66
7	% passed	91.46%	96.88%	98.63%	95.65%

**Department of Information Technology:****Student progression IT Result**

Sr. No	Student Progression	2015-16	2014-15	2013-14	2012-13
1	No of students Appeared	87	76	77	68
2	No of students passed in Distinction	40	29	35	39
3	No of students passed in First Class	26	39	34	23
4	No of students passed in Higher Second class	00	00	00	00
5	No of students passed in Second class	07	05	05	02

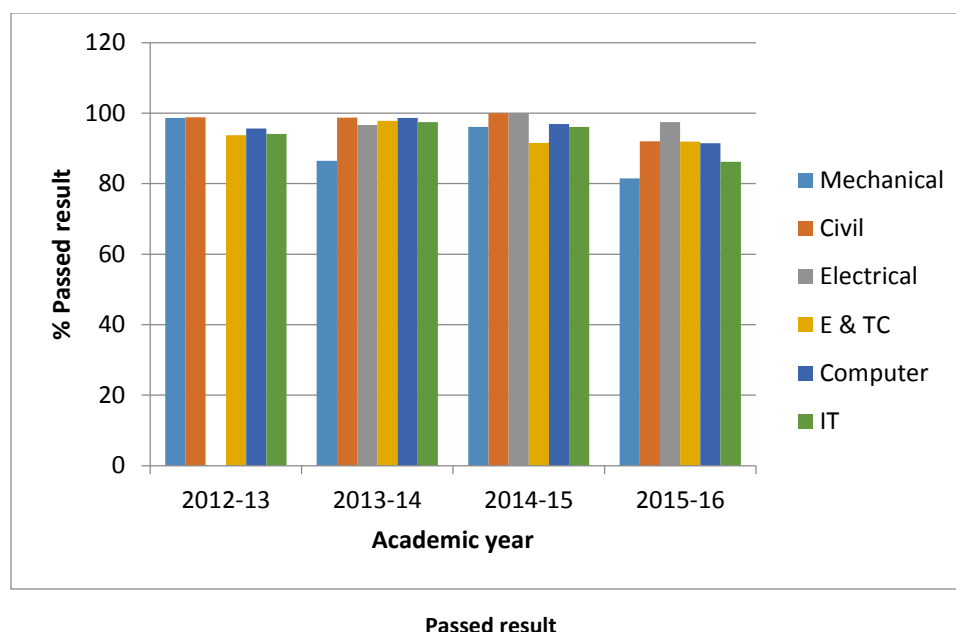
6	No of students passed	75	73	75	64
7	% passed	86.21	96.05	97.40	94.11

### Department of Electronics and Telecommunication Engineering:

#### Student progression E&TC Result

Sr. No	Student Progression	2015-16	2014-15	2013-14	2012-13
1	No of students Appeared	149	154	92	111
2	No of students passed in Distinction	74	50	32	20
3	No of students passed in First Class	55	81	53	68
4	No of students passed in Higher Second class	00	00	00	00
5	No of students passed in Second class	8	10	5	16
6	No of students passed	137	141	90	104
7	% passed	91.95	91.56	97.83	93.69

### Percentage passed Year wise:



The graphical representation of result analysis for last four years of our Institute has shown in above bar chart.

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

- **Preparation of GATE Exam:** The Institute is taking special care for the preparation of GATE examination for third year students. Institute arranges the extra coaching from external agencies for third year students. They get the training of almost 365 Hrs in their third year so that they can get ample time for preparation of GATE examination in final year. Better GATE score opens the channels for students not only for higher studies but also in many reputed organization and industries.
- **UG Fellowship Program:** Under this scheme, students shall carry out the project work at international level in various reputed international universities for the period of 42 days in the summer vacation. During this period, students get the opportunity to work at international level and develop the Research and Development skills. Students may progress under the guidance of international faculties and have the opportunity to come across their curriculum with the hands on experience. Students can take the benefit of this experience for their higher qualification as well as employability at national and international level.
- **Industry Institute Interaction Cell:** Under this cell, faculties and students interact with Industry experts. Industry experts explains their recent trends to the faculty and students. They give their suggestion to add some required things in the curriculum to bridge the gap between Industry demand and Institute outcome which can improve the employability of students. Students get a chance to do their project work on industrial problems in the nearby companies and get

familiar with recent trends of industry. These industrial experiences enhance technical skills of students and increase the percentage of employability.

- **Training and Placement Cell:** This cell promotes the summer and winter training program at various companies for the students. Students are encouraged for special training of Communication skill and Aptitude Test and creates the awareness among the students about the value and etiquettes of corporate culture. It takes the review of vacancy positions of various organizations and arranges the campus drive for third as well as final year students.

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

All faculty members provide academic support to students who are at risk of failure and drop out in the role of Mentor faculty member. Weak students for each class are identified and special sessions of theory and practical are arranged. Additional inputs are provided to prepare for theory examination in the form of Assignments, Tutorials and Tests. Mock practical tests and oral exams are also arranged for weak students. Faculty plays an important role of counselor to find out the root cause of his/her failure and helps in removing the fear of failure.

### 5.3 Student Participation and Activities

#### 5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

Institute has the facilities of Indoor and Outdoor games and sports facilities to prepare the students for inter university competitions.

**Indoor Games:** Chess, Badminton, Table Tennis, Carom

**Outdoor Games:** Basketball, Cricket, Football, Volleyball and Kho-Kho

The participation of students in various activities for last four years are as under:

**Student participation in outdoor games**

<b>2015-16</b>		
<b>Game</b>	<b>Level/Event</b>	<b>Participants/ Team</b>
Cricket	Zonal/ KURUKSHETRA'16	7
Football		7
Volley-Ball (Boys)		7
Volleyball (Girls)		7
Box-Cricket (Girls)		7
Basketball (Boys)		7
Basketball (Girls)		7
Table Tennis (Girls)		7
Table Tennis (Boys)		7

Chess (Boys)		7
Chess (Girls)		7
Badminton (Girls)		7
Badminton (Boys)		7
Carom (Boys)		7
Carom (Girls)		7
Kabaddi (Boys)		7
Baseball (Boys)		7
Kho-Kho (Girls)		7
Basketball Tournament		University ('Spirit-2015)
Basketball (Girls)	Pune District Zone Team	1
		1
Boxing (Boys)	Bronze Medal (3 <sup>rd</sup> Place)	1
		1
Volleyball (Girls)	Pune District Zone Team	1
Softball (Boys)	Pune District Zone Team	1
		1
		1
Baseball (Boys)	Pune District Zone Team	1
	Pune District Zone Team	1
Softball (Boys)	Savitribai Phule Pune University	15
Cricket (Boys)		15
Basketball (Boys)		8
Volleyball (Girls)		15
Kho-Kho (Boys)		12
Boxing (Boys)		4
Volleyball (Boys)		10
Basketball (Girls)		9
Badminton (Boys)		6
2014-15		
Basketball Tournament (Boys)	Savitribai Phule Pune University	16

Volleyball Tournament (Boys)	Savitribai Phule Pune University	16
Volleyball (Boys)	Pune District Zone Team	1
Baseball (Boys)	Pune District Zone Team	1
	Pune District Zone Team	1
	Pune District Zone Team	1
Basketball (Girls)	Pune District Zone Team	1
	Pune District Zone Team	1
Athletics	Pune District Zone	1
Boxing (Boys)	Pune District Zone Team	1
	Pune District Zone Team	1
Athletics	Savitribai Phule Pune University	6
Kabaddi (Boys)		12
Cross Country		3
Table Tennis (Boys)		5
Badminton (Girls)		4
Baseball (Boys)		15
Athletics		5
Kho-Kho (Boys)		15
Boxing (Boys)		9
Basketball (Girls)		8
Cricket (Boys)		15
Basketball (Boys)		11
Kabaddi (Boys)		12
Cross Country		3
Table Tennis (Boys)		5
Badminton (Boys)	Savitribai Phule Pune University	5
Badminton (Girls)		4
Volleyball (Girls)		8

Baseball (Boys)	Zonal /KURUKSHETRA'1 5	16
Volleyball (Boys)		12
Cricket (Boys)		7
Football (Boys)		7
Volleyball (Boys)		7
Volleyball (Girls)		7
Box-Cricket (Girls)		7
Basketball (Boys)		7
Basketball (Girls)		7
Table Tennis (Girls)		7
Table Tennis (Boys)		7
Chess (Boys)		7
Chess (Girls)		7
Badminton (Girls)		7
Badminton (Boys)		7
Carom (Boys)		7
Carom (Girls)		7
Kabaddi (Boys)		7
Baseball (Boys)		7
Kho-Kho (Girls)		7
2013-14		
Game	Level/Event	Participants
Cricket	Zonal/KURUKSHET RA'14	7
Football		7
Volley-Ball (Boys)		7
Throw ball (Girls)		7
Box-Cricket (Girls)		7
Basketball (Boys)		7
Basketball (Girls)		7
Table Tennis (Girls)		7
Table Tennis (Boys)		7
Chess (Boys)		7
Chess (Girls)		7
Badminton (Girls)		7
Badminton (Boys)		7
Carom (Boys)		7
Carom (Girls)		7



Kabaddi (Boys)	Zonal/KURUKSHET RA'14	7
Kho-Kho (Boys)		7
Kho-Kho (Girls)		7
Baseball (Boys)		7
Boxing (Boys)	Pune District Zone Team	1
Boxing (Boys)	Pune District Zone Team	1
Baseball (Boys)	Pune District Zone Team	1
Basket Ball (Girls)	Pune District Zone Team	1
	Pune District Zone Team	1
Boxing (Boys)	Pune District	3
Boxing (Boys)	Pune District	4
Basketball (Girls)	Pune District	11
Basketball (Boys)	Pune District	12
Baseball (Boys)	Pune District	15
Chess(Boys)	Pune District	5
<b>2012-13</b>		
Basket Ball	Under University of Pune	12
Basketball (Boys)	Pune District Zone	12
Baseball (Boys)	Under University of Pune	15
Badminton (Girls)	Under University of Pune	5
Badminton (Boys)	Under University of Pune	5
Chess(Boys)	Under University of Pune	5
Cricket (Boys)	Under University of Pune	16
Boxing (Boys)	Under University of Pune	3
Cricket (Boys)	Inter-Engineering Colleges	15
Baseball (Boys)	Inter-Engineering Colleges	15

Volleyball (Boys)	<b>Zonal/KURUKSHET RA'13</b>	7
Basketball (Girls)		7
Chess (Boys)		7
Chess (Girls)		7
Badminton (Boys)		7
Badminton (Girls)		7
KHO-KHO (Boys)		7
Cricket (Boys)		7
Box-Cricket (Girls)		7
Football (Boys)		7
Throw ball (Girls)		7
Carom (Boys)	<b>Zonal/KURUKSHET RA'13</b>	7
Carom (Girls)		7
Table Tennis (Boys)		7
Table Tennis (Girls)		7
Kabaddi (Boys)		7

### Cultural activities available to students during 2015-16

#### Cultural activities available to students 2015-16

Sr.No.	Event Name	Sub-Event Details
1	Nabhangan'16 (Annual social gathering)	Tie Day, Saree Day, Rose Day
2		Music Night, Kavya Wachan
3		Traditional day
4		Art gallery
5		Anwesha
6		Treasure Hunt
7		Dindi
8		Alumni Meet
9		Cultural Night

### Cultural activities available to students during 2014-15

#### Cultural activities available to students 2014-15

Sr.No.	Event Name	Sub-Event Details
1	Nabhangan'15 (Annual social gathering)	Tie Day, Saree Day, Rose Day
2		Music Night, Kavya Wachan
3		Traditional day
4		Art gallery

5	Nabhangan'15 (Annual social gathering)	Anwasha
6		Treasure Hunt
7		Dindi
8		Alumni Meet
9		Cultural Night

### Cultural activities available to students during 2013-14

#### Cultural activities available to students 2013-14

Sr.No.	Event Name	Sub-Event Details
1	Nabhangan'14 (Annual social gathering)	Tie Day, Saree Day, Rose Day
2		Music Night, Kavya Wachan
3		Traditional day
4		Art gallery
5		Anwasha
6		Treasure Hunt
7		Dindi
8		Alumni Meet
9		Cultural Night

### Cultural activities available to students during 2012-13

#### Cultural activities available to students 2012-13

Sr. No.	Event Name	Sub-Event Details
1	Nabhangan'13 (Annual social gathering)	Tie Day, Saree Day, Rose Day
2		Music Night, Kavya Wachan
3		Traditional day
4		Art gallery
5		Anwasha
6		Treasure Hunt
7		Dindi
8		Alumni Meet
9		Cultural Night

The sports calendar for 2015-2016 is as under.

**Sports Calendar 2015-16**

		<b>SPORTS CALENDER FOR 2015-2016</b>									
We ek No.	Month	Week Days							Events/Activities		
		MON	TUE	WEN	THU	FRI	SAT	SUN	Institute Level	Inter- collegiate	Inter- Zonal
1	JULY			1	2	3	4	5			
2		6	7	8	9	10	11	12			
3		13	14	15	16	17	18	19			
4		20	21	22	23	24	25	26			
5		27	28	29	30	31					
1	AUG.						1	2			
2		3	4	5	6	7	8	9			
3		10	11	12	13	14	15	16			
4		17	18	19	20	21	22	23			TT(B&G) 19-20
5		24	25	26	27	28	29	30			
6		31									Chess 31-2
1	SEPT.		1	2	3	4	5	6			
2		7	8	9	10	11	12	13		Basketball (G): 7-8 Volleyball 11-12	
3		14	15	16	17	18	19	20		Basketball 16-17 Boxing 15-16	Basketball (G) 14-15

4		2 1	2 2	2 3	2 4	2 5	2 6	2 7		Basketball 25-27 Organize Spirit 15 (21-22)	Volleyball (B) 21-22
5		2 8	2 9	3 0						Organize Kho-kho boys 29- 30	
1					1	2	3	4			
2		5	6	7	8	9	1 0	1 1		Volleyball (G) 09-10	Kho-kho 9-10
3	OCT.	1 2	1 3	1 4	1 5	1 6	1 7	1 8			Basketball (B) 12-13 Volleyball (G) 14-15 Kho-kho(G) 16-17
4		1 9	2 0	2 1	2 2	2 3	2 4	2 5			Athletics (B&G) 19-21
5		2 6	2 7	2 8	2 9	3 0	3 1				Badminton(B&G) ) 28-29 Kabaddi (B)30- 31
1								1			
2	NOV.	2	3	4	5	6	7	8			Football (B) 4-5

3		9	10	11	12	13	14	15			
4		16	17	18	19	20	21	22			
5		23	24	25	26	27	28	29			
6		30									
1			1	2	3	4	5	6			
2		7	8	9	10	11	12	13		Cricket 8-10	Boxing(B) 9-10
3	DEC.	14	15	16	17	18	19	20			Tennis(B) 16-17 Cricket(B) 17-19
4		21	22	23	24	25	26	27		Softball (B) 21-22	
5		28	29	30	1					Baseball (B) 29-30	
1						1	2	3			
2		4	5	6	7	8	9	10	KURUKSHETRA'16		Softball (B) 4-5 Baseball (B) 6-7
3	JAN.	11	12	13	14	15	16	17	Cricket Football Volley-Ball (Boy's) Volleyball (Girl's): Box- Cricket (Girl's): Basketball (Boy's): Basketball (Girls): Table		

4		1 8	1 9	2 0	2 1	2 2	2 3	2 4	Tennis (Girls) Table Tennis (Boy's): Chess (Boy's): Chess (Girl's) Badminton (Girls) Badminton (Boy's): Carom (Boys) : Carom (Girl's) : Kabaddi (Boys) Baseball (Boys): Kho- Kho (Girls)		
5		2 5	2 6	2 7	2 8	2 9	3 0	3 1			
1	FEB.	1	2	3	4	5	6	7			
2		8	9	1 0	1 1	1 2	1 3	1 4			
3		1 5	1 6	1 7	1 8	1 9	2 0	2 1			
4		2 2	2 3	2 4	2 5	2 6	2 7	2 8			
5		2 9									
1	MAR.		1	2	3	4	5	6			
2		7	8	9	1 0	1 1	1 2	1 3			
3		1 4	1 5	1 6	1 7	1 8	1 9	2 0			
4		2 1	2 2	2 3	2 4	2 5	2 6	2 7			
5		2 8	2 9	3 0	3 1						
1	APR.					1	2	3			
2		4	5	6	7	8	9	1 0			
3		1 1	1 2	1 3	1 4	1 5	1 6	1 7			
4		1 8	1 9	2 0	2 1	2 2	2 3	2 4			
5		2 5	2 6	2 7	2 8	2 9	3 0				

Students are busy in preparation of their practical oral, in semester and end semester theory examination during the month of November, December, February, March and April.

**5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University / State /Zonal / National /International, etc. for the previous four years.**

Various teams of the Institute participated in sports and cultural activities and bring laurels to the Institute.

Following is the list of detail achievements in every respect.

**Student achievements**

<b>Year</b>	<b>Achievement</b>	<b>Activity Level</b>	<b>Prizes /Won</b>
2015-2016	Co-Curricular	University/Zonal	5
	Extra-Curricular	University/Zonal	6
2014-2015	Co-Curricular	University/Zonal	1
	Extra-Curricular	University/Zonal	8
2013-2014	Co-Curricular	University/Zonal	3
	Extra-Curricular	University/Zonal	3
2012-2013	Co-Curricular	University/Zonal	8
	Extra-Curricular	University/Zonal	2

**Cultural Achievement**

**Cultural achievements**

<b>Sr. No.</b>	<b>Event Name</b>	<b>Sub-Event Details</b>	<b>Level</b>	<b>Achievements</b>
1	Firodia	One Act play Competition	University level	Qualified for primary round
2	Purushottam	One Act play Competition	University level	Won best actor award



**5.3.3 How does the Institute seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?**

To improve the performance and quality of the institutional provisions, Institute gathers the opinion about the quality of Institute and students performance from technical experts in the prescribed feedback form during campus interviews and alumni during alumni meets conducted at Institute level.

Feedbacks contains information regarding institutional provisions about quality of students, student's performance in interview, curriculum improvement, work culture and behavioral attitudes etc.

The feedback is used to enhance the teaching learning process, training modules prepared by T & P to increase the employability. Feedbacks from employers and alumni helps in improvement of curriculum, infrastructure facilities and research & consultancy.

**5.3.4 How does the Institute involve and encourage students to publish materials like catalogues, wall magazines, Institute magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.**

College publishes E News Letter for every three months which includes the information regarding Students curricular and Extra Curricular activities. Student association of each department is involved in presenting and publishing article on the student association notice board.

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

Yes. Institute has Student Council. Selection procedures are followed as per the guidelines of Savitribai Phule Pune University

**Selection**

Till last year the selection process was to collect the forms from eligible students (Eligibility criteria is that the student should have cleared all the subjects of previous years). The eligible students go through selection process for the respective post.

**Constitution**

**Student council constitution**

<b>Sr. No.</b>	<b>Position</b>	<b>Member</b>
1	Chairman	Principal
2	Council Advisor	Faculty Member
3	Students Welfare Officer	Faculty Member

4	Programmer Officer - NSS	Faculty Member
5	Sports In-charge	Sport Teacher
6	General Secretary	B.E.
7	Class Representative	From all classes (F.E. to B. E.)
8	Class Representative	M. E.
9	Cultural Represen	BE
10	NSS Representative	BE
11	Sports Representative	BE
12	Ladies Representative-1	BE
13	Ladies Representative-2	BE

### **Activities**

The Students Council organizes many activities through its representative's viz. Sports Coordinator, Cultural Coordinator and General Secretary.

### **Funding**

Institute bears all the expenses for the cultural activities in the benefit of the students.

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

- Student Council
- Hostel committee
- National Service Scheme (NSS)
- ISTE Student Chapter
- Anti-ragging Committee
- Departmental Students Associations
- Student associations like IEEE, CSI chapter etc.
- Internal compliant committee

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

Institute has formed a registered alumni association for all branches and conduct a meeting once in a year to collect the feedback of alumni to enhance the teaching learning process as well as to build a strong industry- Institute relationship through employed students as well as the students who are playing a roll of entrepreneur. In case of academic help the former faculties of the institution are contacted and invited.

## **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:

To achieve excellence in technical education through continuous and collaborative efforts of stakeholders

Mission:

- To provide students with comprehensive knowledge of fundamentals of engineering.
- To nurture moral values and professional skills with consistent efforts.
- To foster relationship with other leading Institutes of learning, research and industries to facilitate the development of stakeholders.
- To develop centers of excellence to meet the need of industries.

The Institute's mission is to produce competent and responsible engineers to face challenges in field of engineering. The Institute follows mode of learning continuously for faculty and students to accommodate the skills and impart knowledge of the highest standards. The Institute conducts a wide range of academic programs under various departments. Apart from regular conduction of theory and practical classes from our eminent and professional faculty, Institute also conducts special lectures, application oriented workshops, and hands on training programs for our students. The Institute believes in sharing the expertise among other leading Institutes such as NITs and IITs through collaborative learning. The collaborative approach followed brings together conducive and stimulating atmosphere for the overall development and growth of various stakeholders of the Institute.

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

**The top management, Principal and various committees hold regular meetings to chalk out policies for the fulfillment of vision and mission of the college.**

The quality policy of the Institute is well derived to achieve the Vision and Mission statements which have been designed by the unifying the effective roll of Top

Management, principal and faculties involved in various committees. Semester wise comprehensive plan for quality enhancement is prepared and incorporated in the academic calender. According to the action plan, specific roles are assigned to various faculty members.

**Role of Top Management:**

- The Management regularly interacts with the Principal to review the implementation process of the quality plans.
- The Management committees regularly take overview of various academic functions, administrative functions and other functions ongoing in the entire organization.
- The Management makes financial provision to provide infrastructure and facilities suitable for effective services and to cater to further requirements as per growing needs.
- The Management creates an atmosphere that is fair, transparent, motivating and conducive to faculty and staff to realize their potential.
- The Management sets goals in consonance with the quality policies and shares its vision in meet with Governing Body and Principal.

**Role of the Principal:**

- The Principal is an active and dynamic member in deciding the quality policy and implementing with effective action plans as per strategy decided with top management.
- The Principal communicates the opinions to the faculty and staff regarding the responsibilities and duties assigned to each component of the college.
- The Principal strives to create a climate which fosters development of the students and faculty.
- The Principal constitutes various committees and heads for executing activities in accordance with quality policy.
- The Principal contributes to develop the means and tools for measuring the quality through the Internal Quality assurance Committee (IQAC) and ensures corrective and preventive actions.
- The Principal takes initiatives to develop the relationship with the eminent academicians, scientists, industries, professional bodies and renowned Institutes with the planning and implementing the quality policy.
- The Principal proposes new initiatives to Top Management to strengthen the quality policy on basis of updated global educational scenario and its applications.

**Heads of Departments:**

Heads of the Department are devoted members of the department. The responsibilities of the Head in the academic and administrative matters are as follows:

- Conduct departmental meetings regularly and also as per need for adequate interaction with the faculty and staff to ensure quality policy.
- Implementation of quality plans and monitor through execution of the academic activities according to the calender.

- Ensure departmental discipline of the students and faculties in learning domain.
- Ensure that the departmental laboratories and library are academically adequate, used optimally, kept clean, and run efficiently.
- Encourage and facilitate the faculty for field visits / industrial training, guest lectures by eminent personalities, International/National seminars/conferences/workshops.

#### **Role of the faculty:**

The faculty plays a key role in the implementation of the quality policy for teaching-learning process. All faculties devote their effort through experience and expertise for implementing the quality policy. Their role is as follows.

- To prepare course plans for academics delivery as per the quality policy.
- To share and fulfil responsibilities in areas namely teaching, research and administrative activities.
- To upgrade themselves continuously in their area to achieve quality in teaching.
- To develop quality measures for the evaluation of various teaching learning methodology.
- To guide and monitor the students for quality in various activities concern with learning.
- To examine and support to direct them for carrier opportunities in respective field as per their calibre.

### **6.1.3 What is the involvement of the leadership in ensuring?**

**The policy statements and action plans for fulfilment of the stated mission formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**

**The interaction with stakeholder takes place through following avenues-**

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

**Reinforcing the culture of excellence**

**Champion organizational change**

The leadership is involved in following activities with ensuring

**The policy statements and action plans for fulfilment of the stated mission formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**

- The leadership has developed the long-term blueprint of the development of the Institute by formulating its Vision, Mission, Quality policy and objectives.
- For the strategic implementation of its Vision and Mission it has developed the quality policy and action plan for professional education. The Institute developed pattern fine-tuned over a period of time by brainstorming with all stakeholders for

ensuring quality in the system of higher education.

- Leadership is actively encouraging positive developments and activities to be undertaken by students and staff to get global exposure by signing Memoranda of Understanding with various reputed Universities, Institutions and Industries.
- The leadership through active participation of staff has evolved the action plans which is the main source of implementation of its quality policy and which takes care of its academic and overall objectives as per academic calendar.
- The calendar involves a list of academic, co-curricular, extracurricular activities and events listed at the start of the semester. Every department prepares its academic calendar in accordance with the inputs received and ensures effective implementation of the action plans.
- Leadership is involved in modification and refinements in the action plans.
- The Head of Department take care of the implementation of strategic plan at the department level along with the quality policies in the teaching learning process.

**The interaction with stakeholder takes place through following ways-**

- Interaction with parents through Parent meet which is conducted once in a year.
- Interaction with industry through Industry Institute interaction Cell and through company representatives in each semester.
- Interaction with students through feedback session taking place twice in a year at the end of each semester by visiting each and every class and division to identify academic and non-academic requirements and satisfaction; and student council meetings conducted occasionally.
- Interactions with alumni during the alumni meet which is organized every year during Annual cultural gathering-Nabhangam. Also through the alumni association meetings.
- Interaction with faculty through two general meetings conducted at the start of every semester and regular faculty interaction.
- Institute takes care to satisfy teaching and non-teaching staff by offering pay scale, good working environment and welfare facilities like Provident Fund, Insurance, various types of leaves, promotions etc.
- For media and local public relation Institute organizes number of social activities like Women Empowerment programs, Blood donation camps, NSS camps and Road safety program, etc.

**Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders is done through-**

- Regular meetings of Principal, Head of departments who review the feedback of students, parents, industry, employers, and other organizations. Based on which remedial measures are identified and implemented with due diligences.
- Based on them Remedial classes, practice sessions, backlog classes are conducted for students.
- Personality development and soft skill training is provided for better employability and prospects.
- Financial and non-financial support in terms of sponsorship, duty leave granted to faculty for pursuing higher education and research endeavours.

**Reinforcing the culture of excellence through-**

- The Institute always benchmarks itself against the best practices.
- Review of result analysis every semester and taking corrective action based on it like Practice sessions, Backlog sessions and night study.
- Financial and non-financial support, encouragement and motivation for participating in qualification upgrading, projects and proposals.
- Encouraging staff to take up Consultancy activities in their areas of expertise.
- Giving out Academic awards for meritorious Students and University rankers.
- Financial aid to faculty members to attend conferences and seminars in India and abroad.
- Financial assistance to students to participate in industrial visits.
- 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 through:**

- Starting courses to upgrade and update student knowledge like computer programming, soft skills training.
- Providing training for faculty through Faculty development programs and CEPs of experts from IITs.
- Sending faculty for industrial training to get versed with current technology and practical applications.
- MOUs with Industry and reputed universities and institutions.

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

The procedures adopted by the Institute to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time are:

- Action plan devised by Institute itself for ensuring quality in the Teaching Learning process. It has four distinct components viz. Teachers Development, Teaching Approach, Study Approach, Students Development and guidelines for the same.
- Institutional quality policies and plans are monitored with the responsibilities and authority delegated to the Principal, Vice-Principal, Head of Department, Class Co-Coordinator, Subject Teacher, Laboratory In-charge, Librarian, Hostel Rector, Training and Placement officer.
- Different processes of departments are well defined for smooth conduction of academic activities.
- **Result analysis-** A document of result in terms of :
  - a. Percentage passed, ATKT, Distinction, First class and Second class with toppers and their respective class Coordinator.
  - b. Subject wise result with name of subject teacher and percentage result of

previous three years.

- **Feedback of students-** It is taken twice in a year at the end of every semester. It has various components like
  1. Name of subject and teacher.
  2. Teaching (Excellent, Very Good, Good, Average, below average).
  3. Time sense (Punctuality in class, completes syllabus of course in time, makes alternative arrangements of class in his/her absence).
  4. Subject command (self-confidence, teaching the subject matter, skill of linking subjects to life experiences and creating interest in subject, refers latest developments in the field).
  5. Use of teaching methods / teaching aids ( Blackboard and PPTs, shares answers of class test, makes sure that students are getting what he/she has taught).
  6. Helping attitude (provides e-resources notes references, helps students in learning career goals).
  7. Laboratory interactions (regular checking of laboratory log, demonstrates conduction of experiments, explains applications of experiments in engineering field).
  8. Class control (control over class, student's participation in class).
 Meetings are conducted based on the feedback, remedial measures decided and implemented and they are conveyed to faculties for improvement in next semester.
- **Feedback of faculty-** It is collected from faculty through performance of self-appraisal system in a year and reviewed for improvement of faculty.
- **Design and implementation of Academic calender-** It is done well in advance of the start of the academic year, so that all Institute level and department level activities can be streamlined.
- **Student council meetings-** Frequent student council meetings are conducted during which students express their views, opinions and expectations about the various activities and the academic quality policies, which are taken upon for discussion and decisions.
- The Principal's meetings with HoDs and faculties are conducted regularly to monitor all academic and student related activities.
- Faculty meetings are conducted in every Department frequently to convey plans and instructions discussed in HoD meeting and initiate their implementation as well as take feedback about the plans being implemented.

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

- The Top Management gives freedom and flexibility to the Principal to lead all the academic activities of the Institute.
- The top management gives full freedom to faculty members to present their suggestion and views for the Institute development.



- Top management and principal meet regularly and take necessary steps to formulate strategic plans of the institution.
- Corrective actions were taken on feedback received from faculties and staff.
- Every faculty member is involved in administrative and other non-statutory committees.

#### 6.1.6 How does the college groom leadership at various levels?

College grooms the leadership in following way.

A) In co-ordination with Top management, Head of the Institute delegates the power of academic leadership to all the staff and Heads of Departments. The Head of the Institute identifies the field of expertise of each faculty, his teaching skills and inter-personal skills based on performance of a faculty in various academic works and feedback from students. Based on these results, the Head of the Institute provides different levels of leadership tasks and responsibilities to the faculty. The Head of the Institute has formed various leadership posts for administrative responsibilities as listed below.

##### Administrative responsibilities

Sr. No.	Committee/Activity	Coordinator	Department	Report to
1	Internal Quality Assurance Cell(Academic Committee)	Dr. R. K. Shastri. Dr.N. K. Sahuji	Electronics &Tel.Com.Engg.,	Principal
2	Accreditation (NBA, NAAC)	Dr. R. K. Shastri. Dr.N. K. Sahuji	Electronics &Tel.Com.Engg., General Science	Principal
3	Internal Assessment Tests / SPPU Examinations	Mr. D.M.Padulkar	Information Technology	Principal
4	Central Library	Mr.C.D.Shete	Librarian	Principal
5	Industry-Institute interaction cell	Mr.D.A.Zende	Information Technology	Principal
6	Grievance Redressal Committee	Dr. R.K. Shastri	Electronics &Tel.Com.Engg.	Principal
7	Anti-Ragging (At college level)	Dr.N.K. Sahuji	General Science	Principal
8	Hostel and Healthcare	Dr.N.K. Sahuji	General Science	Principal
9	Alumni Association	Dr. N. B. Wagh	Electrical Engineering	Principal
10	Faculty Advisor-ISTE Students Chapter	Dr.A.P. Hivarekar	General Science	Principal
11	Students Council	Mr. A.S.Disale	General Science	Principal

12	National Social Service scheme(NSS)	Mr. A.S.Raut	Computer Engineering	Principal
13	Research and Innovation	Mrs. S.A. Takale	Information Technology	Principal
14	Anti-Ragging Cell (At Institute level)	Mr. A.H. Kolekar	Mechanical Engineering	Principal
15	Internal Complaint Committee	Mrs. S.A. Takale	Information Technology	Principal
16	Training & Placement Committee	Mr.D.G. Joshi	Mechanical Engineering	Principal
17	Purchase Committee	Mr. A.H. Kolekar	Mechanical Engineering	Principal

B) The administration is decentralized through the control of the departments by the respective Heads of Department.

C) For the student, management motivate faculty to conduct co-curricular activities like seminar, workshop, field tours, industrial visit, etc. so that student will learn how the theoretical knowledge they learn from academic is applied in practical way in industry. The Institute promotes leadership among the students through student council, class representatives, departmental library comities, hostel representatives, student associations and extracurricular activities.

For all above three levels college provides various leadership opportunities to conduct number of activities which ultimately help to groom leadership.

#### **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 college decentralized Authority in following ways:

Before start of new semester, Head of departments conduct meeting with all staff in which discussion is made regarding academic plans, requirements of department and laboratories. These decisions are brought to the notice of the Head of the Institution in form of budget.

The requirement of department in form of budget is submitted to head of institution to take approval in meeting with Top management. The head of institution communicates the decision and suggestions of top management to all department heads through the meeting and various committees for further process. Head of the Institute assigns specific duties to faculties and administrative staff of the Institute on the basis of suggestions of the Management. Teaching staff together with administrative staff is work on the given plan.

Student council also separately works along with staff coordinator on the requirement and problem of the students. Student council works as bridge in between teaching staff and student. Student council also manages co-curricular and extra-curricular activities. These are excuted under the guidance of faculties along with student representatives who are involved in the decision making process.

**6.1.8 Does the college promote a culture of participative management? If ‘yes’, indicate the levels of participative management.**

Yes.

The Institute always promotes a culture of participative management. It has continuous practice to involve all the stake holders such as parent, students, faculty and staff in various administrative bodies for decision making process. Regular meetings are held in all departments where internal issues within the departments are discussed and resolved. Staff meetings are held to discuss issues with head of department and head of Institute. Top management and head of Institute evaluates the faculty feedbacks received through departments. Top management communicates their responses on priority with the head of Institute to inculcate culture of listening and interpreting the views of all the employees as part of effective leadership.

## **6.2 Strategy Development and Deployment**

**6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed, and reviewed?**

Yes, the Institute has formally stated quality policy. The quality policy was formulated initially by Board of Governing council of Institute as on student centred basis and aligned with vision-mission of Institute. Quality Policy of the Institute aims to establish excellence in Technical Education and to serve all its stake holders in way of

- Strive for quality academic performance of students
- Promoting partnerships with various IITs to enhance quality of learning
- Improve the employability, no of students going for higher studies and entrepreneurship
- Employ competent faculty in each and every area of engineering branch.
- Encourage the existing faculty for upgrading their qualifications and skills.
- Develop excellent infrastructure facilities for healthy atmosphere with decent discipline
- Create environment for industry interaction

The development of quality policy of the Institute is based on the vision and mission of the Institute. Quality policy emerged by the institution for the benefits of the students and society at large.

The quality policy is driven through entire organizational structure with involvement of all the stakeholders of Institute. All the stakeholders are made aware about the quality policy through Institute website and college brochure. The quality policy of the Institute is deployed and reviewed by the information collected through various stakeholders like students, parents, industry, faculty and staff. The institution always strives to improve its quality of programs through internal assessment processes.

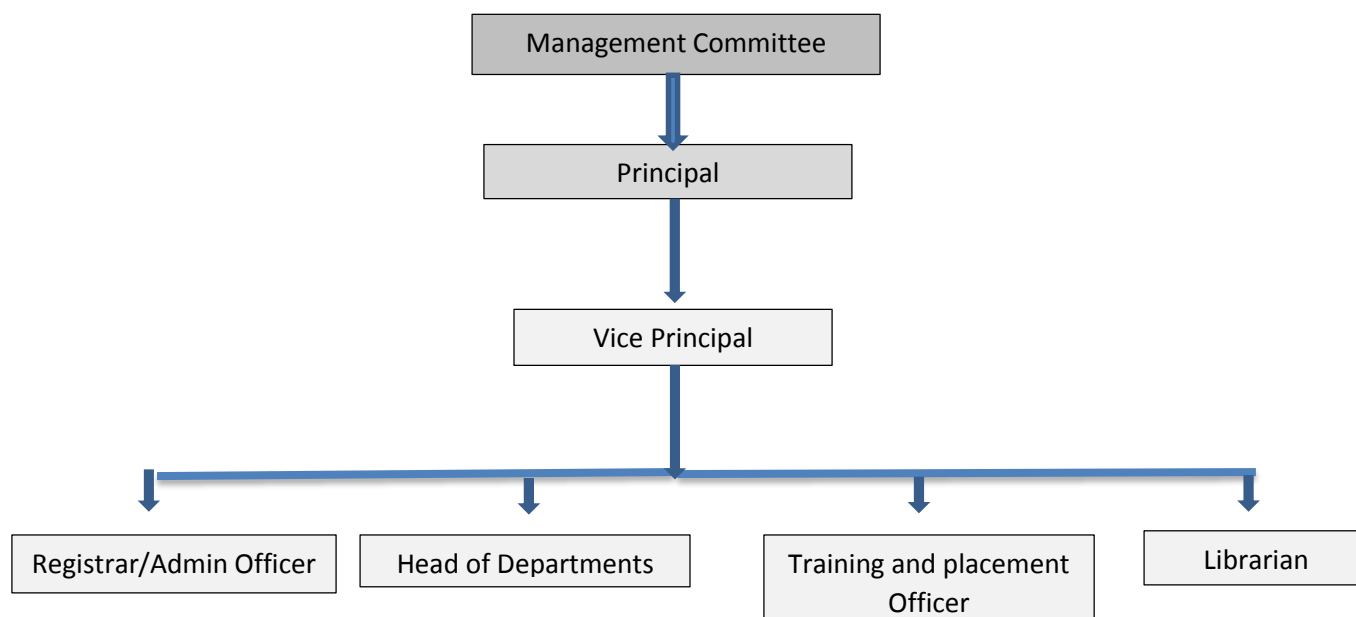
**6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.**

Yes, the Institute has formulated perspective plans for the development and the following aspects are taken into account for the development.

- The Institute aims to develop experience based learning system.
- To start Research and Development (R & D) and Innovation centre.
- To apply for recognized research centre for faculty development.
- The Institute is starting Centre of excellence and Incubation centre
- The Institute is planning to seek Academic Autonomy status.
- To collaborate with leading overseas Institutes.

### 6.2.3 Describe the internal organizational structure and decision making processes.

Organizational Structure: The internal organizational structure of the Institute is as shown in Figure 6.2.3.



#### Organizational Structure of the Institute

All the departments of the Institute have departmental committees coordinated by faculty members and monitored by Head of the Department to keep a check on academics and effective as well as efficient performance of the department in all aspects. An internal Academic assessment committee evaluates the activities of the departments. A regular review of the departments is taken through this committee and submitted to Head of Institute.

#### Decision making process:

As shown in above organizational structure, the supreme authority on decision making process is management committee through Principal. The decision making process is

decentralised by the Principal at various levels with authorities such as Vice Principal, Registrar and various Departmental Heads.

The issues within the boundaries of authority, the decision is taken at that level only. Further issues related to Institute or interdisciplinary departments, the Principal conducts meeting with concern departmental authority and decision will be taken to resolve the issues.

**6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following:**

**Teaching and Learning**

**Research and Development**

**Community engagement**

**Human resource management**

**Industry interaction**

**For Quality improvement in Teaching and Learning:**

- Every faculty prepares teaching plan and it depends on credits for the course and the end of each week it is monitored by the HOD.
- The faculty of the College is committed in the timely completion of the syllabi and is always concerned about the improvement of results.
- As per students feedback analysis report Head of department guides individual faculty to incorporate proper changes in the teaching process.
- The Institute promotes teaching and learning process by QEEE courses and various audit courses.
- Digital Library with e-Journals, ASCE, DELNET, Association with IIT Bombay Library, and CDEEP-IITB, NPTEL and QEEE Learning Resources, Spacious Reading Hall, Student Book Bank Scheme.
- The Institute uses various approaches through the use of appropriate methodologies like industrial visits, workshops, projects presentations, surveys, seminars, experiments and practical sessions, guest lecturers etc.

**For Quality improvement in Research & Development:**

- Faculties are encouraged in research activities through QIP, BCUD and other funding agencies.
- Faculties are sent for various training programs such as summer & winter fellowship.
- Various technical events are arranged in every department for students to explore their ideas.
- Projects are offered to the students based on recent developments.

**For Quality improvement in Community engagement**

Following programs are held under NSS:

- Yoga and Art of Living Session
- Expert Talk
- Awareness Program for Plastic Free Environment
- State Level Science Exhibition
- Blood Donation Camps.
- Gram Swachh Abhiyan
- Tree Plantation
- Under women empowerment cell, ICC committee is there where awareness programs are held against women exploitation.
- Various technical and cultural events are held in college.

#### **For Quality improvement in Human Resource Management:**

- The Institute practises appraisal methods for teaching/learning/research of the faculty.
- The Institute has certain policies and implements them while recruiting and retaining faculty and other staff.
- The Institute always supports to develop professional skill of the faculty and proper budgetary provision is allocated for this activity.
- Institute sponsors the faculty member for paper presentation in conference, participation in seminars and workshops.
- The Institute organizes staff development programs to impart training to the staff.
- Staff members are entitled to other benefits like Provident Fund, Gratuity and Group Insurance, Casual, Earned, Medical, Special leaves and Vacation.
- Institute provides accommodation facility within the campus.

#### **For Quality improvement in Industrial Interaction**

- Students are motivated for industrial training at UG and PG level.
- Consultancy and testing work is carried out in few departments.
- Industrial and various site visits are arranged for the students.
- Government live projects are taken by the students for seminars.
- Industry meet is organized to strengthen the interaction.

#### **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:

- Interactions with parents, alumni, industry through meet once in a year.
- Informal meetings with Management.
- Newsletters highlighting major events, faculty achievements
- 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 of teaching and non-teaching staff with principal.
- The feedback is collected through suggestion boxes to review and rectify performance of faculty, department and Institute.
- The feedback forms are collected from the students at every semester and in meeting with the principal various points are discussed.
- During the stake holders meeting, the Principal presents the report and the discussion during this meeting helps in reviewing activities.

**6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional process?**

- Management appreciates the staff for their achievements in academic and support to research activities.
- Management allows sponsorship to staff for STTPs, conferences, workshops.
- Management provides special leaves for attending courses, for higher studies, seminar, conference, etc.
- Management involves the staff members in various activities and decision making process.

**6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.**

Local Management Council reviews and guides to implement the resolutions which are inline with Vision and Mission of the Institute. The resolutions passed in the Management council meeting held on 2<sup>nd</sup> February 2016 are presented herewith.

1. The performance budget of Institute for period 1<sup>st</sup> April 2015 to 31<sup>st</sup> December 2015 was reviewed and permitted for necessary purchase.
2. The status of students' result and placement for the year 2014-15 was reviewed.
3. The proposal to start GRE, TOEFL and Foreign Languages courses was sanctioned.
4. The status of faculty recruitment for the academic year 2015-16 was reviewed.
5. The purchase proposal of e-Journal as per AICTE norms was approved.
6. The proposal of renaming of the Institute has been approved.

Status of the implementation of these resolutions:

1. Necessary purchase carried out as per approval of performance budget.
2. To improve the students' placement and training, GATE, GRE, TOEFL and Foreign Languages courses has arranged for students of all departments.
3. Faculties are recruited through University selection process.
4. The e-Journals as per AICTE norms have been purchased.
5. Due to renaming, official changes are carried out on letter heads, website, etc.

**6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If 'yes', what are the efforts made by the institution in obtaining autonomy?**

The Institute has been affiliated to the Savitribai Phule Pune University, Pune. This university has a provision for awarding the status of autonomy to affiliated institutions. This institution is established in 2000. Presently, the institution is planning for permanent affiliation and also preparing for NBA and NAAC accreditation. The institution plans to go for autonomy after acquiring the permanent affiliation and NAAC/NBA accreditation.

**6.2.9 How does the Institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?**

Grievance redressal mechanism for faculty, staff and students:

- A Grievance Redressal Committee at the Institute level has been formed to address the grievances of faculty, staff and students. Teaching and non-teaching staff members send their grievances through suggestion box and emails. The categorization of the grievances is done by the said committee and after proper analysis and review it suggests and recommends the corrective measures. After the decisions of said committee the administrative authority implements it to resolve the issues and help maintain cordial relations within the stakeholders
- An Internal complaint cell addresses ladies related complaints and related issues by conducting meetings and the decisions of said committee implements through administrative authority to create disciplined environment for the stakeholders.
- A Hostel committee at the Institute level has been formed to address the issues of students staying in hostel and any complaint about food. Suggestion boxes are available for students to give their suggestions/complaints. Preventive measures by way of creating awareness amongst students and staff help in reducing the grievances.
- The Principal and HODs addresses grievances at their level and communicate to parents.

**6.2.10. During the last four years, had there been any instances of court cases filed by and against the Institute? Provide details on the issues and decisions of the courts on these?**

No Court Cases

**6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?**

Yes, The Institute has a mechanism for regularly obtaining and analysing student feedback on its performance.

Student feedback is taken through suggestion box on the following broad parameters:



1. Administration 2. Building Maintenance 3. Laboratories 4. Placement Cell 5. Other Amenities like drinking water, toilets, canteen, internet and sports facilities, photocopying, etc.

Feedback is analyzed by organizational section and discussed with Principal who takes immediate action to resolve the issues and the same is conveyed to the management. Also, suggestions are collected by mentors during mentoring sessions. The feedback is conveyed to concerned faculty or staff, organizational section and Principal. Corrective measures are taken by the Institute.

## **6.3 Faculty Empowerment Strategies**

### **6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non-teaching staff?**

- The Institute organizes various workshops and seminars from time to time as well as encouraged the staff to attend seminars, workshops and training programmes organized by other organizations at local levels to enhance professional development.
- Encourage faculty to have membership of professional societies
- Concessions are given to faculty for pursuing higher studies by way of special leave/concession in teaching load.
- In-house faculty development programs are conducted to enhance professional, teaching and communication skills.
- Encourage faculty to present their research at conferences and share their technical expertise as resource persons.
- Providing access to faculty for Internet, e-learning resources, library facilities, and National and International journals, lectures of experts from reputed Institutes (NPTEL) etc.
- The faculty is given duty leave to participate in other organizations to attend seminars, workshops and training programmes.
- The Institute is always motivating to faculty through implementing a policy for distribution of Testing and Consultancy charges.
- All Faculty members are encouraged to involve themselves in field action projects.

### **6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?**

- The Institute invites resources persons from industries, researchers and academicians for interactions with the faculty and staff
- The Institute encourages the faculty to motivate in following ways-
  1. Giving essential inputs, providing personal training on lecture/ lab-work delivery/seminar-project guidance, counselling on career advancement.

2. Involving them in discussions on topics in the syllabus
  3. Creating an open atmosphere for personal growth and to clarify the doubts, concepts and difficulties
- For personality development, teaching skill development and social and technical upgradation, the Institute organizes training programs for Teacher.
  - The Institute deputed the faculty for refresher courses, orientation programs, summer/winter short term schools, etc.
  - The Institute encourages the non-teaching staff to upgrade their skills in computer operation and lab equipment handling with safety.

**6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.**

The Institute evaluates the performance of staff through submitted self-appraisal report. A self-appraisal method of performance appraisal system is followed.

This contains of three parts.

- The first part is filled by the faculty themselves giving their details of achievement for that year.
- The second part is filled by the Head of the department.
- The third part is filled by the Head of the Institute.

Self-appraisal reports are reviewed in meeting of Head of Institute and Head of department.

The teachers, whose performance is not good, are motivated to take up development programs.

**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?**

All the reports are reviewed by the Institute authority. The result of performance appraisal system helps to aware about self-weaknesses and strengths of individual faculty. The score of performance appraisal system identifies the faculties for appreciation by the management and the Head of Institute. Faculty with low score is personally counselled and suggested for improvement by the Head of Institute.

**6.3.5 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have availed the benefit of such scheme on the last four years?**

Welfare scheme available for teaching and non-teaching staff:

- The Institute facilitate Group Gratuity Scheme, Provident Fund, Group Insurance Scheme and implementation of payband as per norms, arrears to staff, financial assistance etc.
- Faculty members are deputed for full time Ph.D. program by paying salary. Since last four years 05 faculties were deputed for Ph.D.

- Advanced payment facility is available for faculty/staff under certain circumstances.
- Health of faculty/staff is insured under health policy.
- Two set of uniform is given to class III and IV staff every year.

#### Facility of Mediclaim:

##### Faculty mediclaim

Academic Year	No. of Staff Members	Staff members availing Mediclaim	% of staff members
2015-16	160	18	11.25
2014-15	169	49	28.99
2013-14	168	48	28.57
2012-13	148	25	16.89

#### LIC Personal Insurance (GSLI)

##### GSLI for staff

Academic Year	No. of Staff Members	Staff members availing LIC Group Insurance scheme	% of staff members
2015-16	160	150	93%
2014-15	169	160	94%
2013-14	168	157	93%
2012-13	148	140	94%

#### Group Gratuity Scheme

##### Group Garduity Scheme

Academic Year	No. of Staff Members	Staff members availing Group Gratuity Scheme	% of staff members
2015-16	160	160	100%
2014-15	169	169	100%
2013-14	168	107	64%
2012-13	148	108	72%

#### Financial assistance to staff (in case of accidental cause/education/abroad tour)

## Financial assistance to staff

Academic Year	Name of Staff Members	Purpose	Total amount Disbursed(Rs.)
2015-16	Dr. Sahuji N.K.	World Cong14-London	58,920
	Dr. Hiwarekar Anil	World Cong14-London	58,920
	Dr.R.K.Shastri	IEEE Paper- Brazil	73,550
2014-15	Mr. Vikas Kamble	Medical	5,000
2013-14	Mr. Magar Santosh	Medical	10,000
2012-13	Mr. Bhosale Amol, Mr. Chavan Suresh	Medical, Education	15,000
	Dr.S.B.Deosarkar	ICMAT13-Singapore	63,414

### 6.3.6 What are the measures taken by the institution for attracting and retaining eminent faculty?

Experienced and qualified faculties from IITs and NITs are appointed with additional incentives/increments at entry level as well as during service are provided to experienced and qualified faculty.

The Institute offers liberty of work and gives prospect to excel in the domain of individual. For academic development of faculty, full financial assistance has been provided for attending conferences, participation in seminar, research, workshop etc.

The Institute offers salaries as per sixth pay scale, Promotions, Annual increments, Provident Fund, Gratuity, Group insurance etc., to attract and retain eminent 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 Institute has a budgeting system consists of head of Institute, teaching and non-teaching staff. The annual budget is prepared well in advance with approval of Principal as per the requirements received from every department. The provision as per budget and utilisation is monitored with an institutional mechanism.

The final budget is reviewed in meeting of the management and approved for efficient use of financial resources to fulfil the educational requirements of the students from rural area. The available resources are effectively utilized by the management through transparent accounting process.

A Purchase Committee monitors the purchase as per the sanctioned budget. Department heads ensure that suitable equipment with the right specifications are procured at competitive and optimal prices.

Budget utilization is periodically reviewed by the management and corrective measures are taken, if required. Financial audits are conducted by a chartered accountant every financial year to verify the compliance with established processes.

**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 daily routine transaction internally is verified by Accounts Officer. Internal audit is done quarterly by Internal Auditor April to September in October or November, October to January in January and January to March in March and External Auditor is done in April or May. Internal and External Auditors are appointed by the management. The audit of financial year 2015-16 was completed in the last week of May 2016. There are no audit objections till date.

**6.4.3 What are the major sources of institutional receipts / funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund / corpus available with Institutions, if any.**

The major source of institutional receipts is fees collected from the students. The tuition fee and development fee is decided by Fees Regulatory Authority, Govt. of Maharashtra. The College is affiliated to Savitribai Phule Pune University. Other fees are collected as per directives of affiliating university. The Institute tries to generate additional funding from the other sources such as research projects, training programmes and consultancy services. This is properly balanced for maximum benefit of the students. In case of deficit, management will support as and when required.

The reserve/corpus fund is maintained at the central society office. Audited Income and Expenditure statements of the previous four years are available.

**6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).**

The Institute is taking efforts for getting additional funds through projects sponsored by various agencies like AICTE & SPPU (BCUD) and generates revenue through consultancy work. The details of grants received in the past years are as mentioned below.

**Revenue generated through Consultancy work:**

## Revenue generated through consultancy work

Sr. No.	Name of Department	Year	Income generated through Consultancy (in Rs.)
1	Civil Engg.	2012-13	3,44,193
2	Civil Engg.	2013-14	1,13,680
3	Civil Engg.	2014-15	1,95,500
4	Civil Engg.	2015-16	1,93,878
5	Information Technology (Shared with E&TC, COMP, Mech and General Science)(YIT)	2015-16	52,540
6		2014-15	73,202
7		2013-14	70,100
8		2012-13	67,300
9	Mechanical Engg.	2015-16	38,000
10	Mechanical Engg.	2014-15	1,05,000
11	Mechanical Engg.	2014-15	1,13,000
12	Mechanical Engg.	2013-14	70,000
13	Mechanical Engg.	2012-13	55,000

## Additional funds through projects sponsored by various agencies like AICTE &amp; SPPU (BCUD):

## Funds received through sponsored project

Sr. No.	Name of Staff / Title of Scheme / Department	Funding Agency	Year	Funding (In Rs.)	
				Sanctioned	Received
1	Mrs. Rangole J.S. (Side scan Sonar Image Analysis, An Application to sediment Classification)- E&TC	BCUD, SPPU, Pune	2016-18	1,40,000	70,000
2	Mrs. Shastri A.R. (An Image Processing Solution to Frozen semen straw counting problem)- E&TC	BCUD, SPPU, Pune	2016-18	1,60,000	80,000
3	Mr. Arotale P.N. (EEG based Emotion Recognition)- E&TC	BCUD, SPPU, Pune	2016-18	1,10,000	55,000
4	Mr.Zende D.A.(Credit card fraud detection using data mining techniques)-IT	BCUD, SPPU, Pune	2016-18	63,000	31,500

5	Dr. Hiwarekar A.P. (General Science)	ISTE Grant	2016-17	14,822	14,822
6	Mr. Jankar Santosh – Kho- Kho Sports Event -	SPPU,Pune	2016	11,000	11,000
7	Mr. Raut Prashant- NSS Grant	SPPU,Pune	2016	50,500	50,500
8	Mr. Raut Prashant- NSS Grant	SPPU,Pune		29,700	29,700
9	Mrs. S.S. Nandgaonkar Computer Engg. Department (State level Seminar on “Advanced Algorithms”)	BCUD, SPPU, Pune	2015-16	59,500	18,255
10	Lipi Data Grant Proposal	SPPU- BCUD	2015-16	1,00,000	1,00,000
11	Mr. Kolekar Avinash (Critical Issues in Nuclear Science )– Mechanical	SPPU- BCUD	2015-16	21,510	21,510
12	Mr. Jagdale Shantanu – Under Water Acoustic & Signal Processing – E&TC	SPPU- BCUD	2015-16	56,801	56,801
13	Mr. Jankar Santosh – Holly Ball Sports Event	SPPU,Pune	2015-16	15,000	15,000
14	Mr. Bhapkar Vivek- NSS Grant	SPPU,Pune	2015-16	50,500	50,500
15	Dr. Hiwarekar A.P. . (General Science)	ISTE Grant	2015-16	8,690	8,690
16	Mr.Kakare (Electrical Department)	IEEE Grant	2015-16	18,031	18,031
17	Mrs.S.A. Takale (IT Department) Travel Grant	CICS, Chennai	2015-16	25,000	25,000
18	Mrs. Nandgaonkar S S. ( Discrimination using rule bases Data Mining)- Computer	BCUD, SPPU, Pune	2014-16	70,000	56,955
19	Mr. Shinde S. A. (Inpainting of Digitized Vintage Films via Maintaining Spatiotemporal Continuity)- Computer	BCUD, SPPU, Pune	2014-16	70,000	56,765
20	Mr. Padulkar D.M. (Electricity Transformer Life Time	BCUD, SPPU, Pune	2014-16	80,000	51,231

	Estimation using Association rule mining)- Computer				
21	Mr. Ambole R.H. ( High Speed Network Intrusion Detection System (NIDS) using Stride-FA)- Computer	BCUD, SPPU, Pune	2014-16	50,000	40,000
22	Mr. Shelar M.D. ( Detection of Adware by using Data Mining and Machine Learning Techniques)- Computer	BCUD, SPPU, Pune	2014-16	50,000	39,487
23	Mr. Panchal R.V. ( A Novel Method For Movie Character Identification Based on Graph Matching)- Computer	BCUD, SPPU, Pune	2014-16	70,000	56,966
25	Mr. Nayak C.B. ( Vibration control of Civil structures using Piezoceramic Smart Materials)- Civil	BCUD, SPPU, Pune	2014-16	1,80,000	1,61,962
26	Mr. Patil P. M. ( Iris recognition system in less Constrained Environment)- IT	BCUD,SPPU, Pune	2014-16	1,20,000	1,01,037
27	Mr. Bhagwat V. B. (Characterization and comparison of solar selective coatings between Ni Al and NiCo on Al substrate)- Mechanical	BCUD,SPPU, Pune	2014-16	85,000	61,250
28	Mr. Deshmukh V. U. [Investigation of Nonlinear Effects (Optical Solitons) in Fiber Optic Communication and It's Applications]- E & TC	BCUD, SPPU, Pune	2014-16	1,90,000	1,59,865
29	Mr. Devkate B.H. (A pipelined VLSI Architecture for 2-D DWT)- E & TC	BCUD, SPPU, Pune	2014-16	1,70,000	1,43,280
30	Mr. Jagdale S.S (Ambient Noise Characterization in Shallow Depths for Tropical Water of The Indian Ocean Region)- E & TC	BCUD, SPPU, Pune	2014-16	1,90,000	1,58,865
31	Mr. Kushnure D.T. (Peak Power to Average Power Reduction of OFDM System Using Modified	BCUD, SPPU, Pune	2014-16	1,70,000	1,44,500



	Selective Mapping Technique)- E & TC				
32	DLP Projector Grant Proposal	BCUD, SPPU, Pune	2014-16	1,00,000	1,00,000
33	Trade Mill Grant Proposal	BCUD, SPPU, Pune	2014-16	84,375	84,375
34	Mr. Bhapkar Vivek- NSS Grant	SPPU, Pune	2014-16	50,500	50,500
35	Dr. Shastri R.K. (Avishkar Grant)	BCUD, SPPU, PUNE	2014-15	10,000	10,000
36	Mr. Wagh S.V.	MSCTA-Online Exam	2014-15	7050	7050
37	Dr. Hiwarekar A.P. (General Science)	ISTE Grant	2014-15	18,748	18,748
38	Mr. Zende D. A. (Spyware solution: Detection of spyware using data mining and machine learning techniques)- IT	BCUD, SPPU, Pune	2013-15	70,000	51,600
39	Mr. Bhosale S.M (Experimental investigations and Analysis of Recast Layer formation in wire EDM)- Mechanical	BCUD, SPPU, PUNE	2013-15	2,15,000	2,15,000
40	Mr. Jadhav M.M. (Microstrip Patch Antennas)- E & TC	BCUD , SPPU , Pune	2013-15	2,00,000	1,56,304
41	Mr. Biradar S.D. (EEG Signal Classification for Brain Computer Interface Applications)- E & TC	BCUD , SPPU , Pune	2013-15	1,80,000	1,53,000
42	Mr. Bhosale S.M (Avishkar Grant)	BCUD, SPPU, PUNE	2013-14	10,000	10,000
43	Dr. Deosarkar S.B.- Modernization of Microwave Laboratory – E&TC	AICTE – MODROBS	2012-13	15,77,560	15,77,560
44	Mr. Bhapkar Vivek- NSS Grant	SPPU, Pune	2012-13	50,500	50,500
45	Mr. Bhosale S.M (QIP Grant for equipments -Multi Gym)- Mechanical	BCUD, SPPU, Pune	2012-13	1,00,000	1,00,000
46	Mrs. Rangole J.S. (Automatic counting of Silkworm eggs)- E & TC	BCUD , SPPU , Pune	2012-14	2,30,000	2,29,192
47	Dr. Hiwarekar A.P. (Better Network Security Using	BCUD, SPPU, PUNE	2012-14	1,25,000	1,25,000

	Generalized Hill Cipher Algorithm)- General Science				
48	Mr. Disale A.S. (Spectroscopic Study of Medicinal and Edible Mushrooms for Development of Optical Sensors for Industrial and Agriculture Applications)- General Science	BCUD,SPPU,PUNE	2012-14	1,00,000	85,704
49	Mr. Narule G.N. (Non Destructive Testing of Existing structures & Rehabilitation)- Civil	AICTE – MODROBS	2012-13	6,00,000	6,00,000
50	Mr. Bhosale S.M QIP Grant of for equipment (Projectors)-Photo Copying Machine- Mechanical	QIP Grant	2012-13	75,000	75,000
51	Mr. Bhosale S.M( Avishkar Grant)	BCUD,SPPU,PUNE	2012-13	10,000	10,000
<b>IIT Bombay &amp; Kharagpur Grants</b>					
52	Environmental Studies	IIT, Bombay	2015-16	92,178	92,178
53	Equipment	IIT, Bombay	2015-16	2,80,000	2,80,000
54	TIME	IIT, Bombay	2015-16	8,01,091	8,01,091
55	Design of Algorithms	IIT Kharagpur	2015-16	78,000	78,000
56	Computer Programming	IIT, Bombay	2014-15	64,872	64,872
57	Computer Networking	IIT, Bombay	2014-15	53,520	53,520
58	Cyber Security	IIT, Bombay	2014-15	1,25,000	1,25,000
59	Server Akash	IIT, Bombay	2014-15	1,00,000	1,00,000
60	NPTEL	IIT, Bombay	2014-15	3,72,484	3,72,484
61	Fluid Mechanics	IIT Kharagpur	2014-15	1,00,000	1,00,000
62	Control System	IIT Kharagpur	2014-15	1,17,233	1,17,233
63	Data Base Management Systems	IIT, Bombay	2013-14	1,06,275	1,06,275
64	Green Building Awareness	IIT, Bombay	2013-14	3,000	3,000
65	Engineering Mechanics	IIT, Bombay	2013-14	1,07,683	1,07,683

66	Research Methods in Educational Tech	IIT Kharagpur	2013-14	7,000	7,000
67	Analog Electronics	IIT Kharagpur	2013-14	1,37,200	1,37,200
68	Signals & System	IIT Kharagpur	2013-14	1,25,378	1,25,378
69	Computational Fluid Dynamics	IIT, Bombay	2012-13	1,50,000	1,50,000
70	Research Methodology	IIT, Bombay	2012-13	1,75,000	1,75,000
71	Engineering Thermodynamics	IIT, Bombay	2012-13	1,25,000	1,25,000

The funding received from the respective organizations is utilized for the purpose for which it is received. The revenue generated from consultancy is utilized for upgrading the laboratories, conducting faculty development and student development programs.

## 6.5 Internal Quality Assurance System (IQAS)

- 6.5.1 a. Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'Yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?**
- b. How many decisions of the IQAC have been approved by the management/authorities for implementation and how many of them were actually implemented?**
- c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.**
- d. How do students and alumni contribute to the effective functioning of the IQAC?**
- e. How does the IQAC communicate and engage staff from different constituents of the institution?**

**a.** Yes. The Institute has established the Internal Quality Assurance Cell (IQAC). It consists of head of the institution, senior faculty members, senior administrative officials, student co-ordinators and parent representative.

**b.** IQAC is recently formed in the institution and is in its formative stage.

**c.** Yes. The IQAC involves alumni coordinator and parent representative as external members.

**IQAC committee**

<b>Sr. No.</b>	<b>Name</b>	<b>Designation</b>
1	Managing Trustee	Chairman
2	Prof. M. G. Devamane (Principal)	Member Secretary
3	Dr. N. K. Sahuji and Dr. R.K. Shastri	IQAC Coordinators

4	Dr. S .B. Lande (HOD, E&TC Engineering)	Member
5	Dr. N. B. Wagh (HOD, Electrical Engineering)	Member
6	Mrs. S. S. Nandgaonkar (HOD, Computer Engineering)	Member
7	Mr. D.A. Zende (HOD, Information Technology)	Member
8	Dr. S. C. Bali (HOD, Mechanical Engineering)	Member
9	Dr. L.H. Pammar (HOD, Civil Engineering)	Member
10	Dr. N. K. Sahuji (HOD, General Science)	Member
11	Mr. A.S. Disale (Student Welfare Officer)	Member
12	Mr. D. M. Padulkar (Chief Examination Officer)	Member
13	Mr. D. G. Joshi (T&P Officer)	Member
14	Mr. D. C. Shete (Librarian)	Member
15	Mrs. Shailaja P. Pingle	Member
16	Mr. R.H. Ambole (Alumni Co-ordinator )	Member
17	Mr. S. L. Bhilare (Student University Representative)	Member
18	Ms. A. Dhawan (Student Ladies Representative )	Member

d. IQAC invites suggestions and collects periodic feedback from students and alumni. It is then evaluated and suitable plans are prepared for improving the teaching-learning process.

e. IQAC consists of faculty representatives from each and every constituents of the institution. Faculty and student from different constituents of the institution are communicated through the heads of respective units/ faculty representatives.

**6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalisation.**

Yes. The institution has an integrated framework for Quality Assurance of the academic and administrative activities as per the requirements and expectations of AICTE and Savitribai Phule Pune University. The integrated frame work is established by defining appropriate procedures for academic and administrative activities required interaction is ensured among departments. The quality assurance is evaluated through conducting internal audits.

**6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.**

The institution provides training to staff for implementing quality assurance procedures as per the requirements and expectations of AICTE/ University of Pune. The training

aware and tunes to practices and advancements in the procedures increasing efficiency of execution.

**6.5.4 Does the institution undertake Academic Auditor other external review of the academic provisions? If ‘yes’, how are the outcomes used to improve the institutional activities?**

Yes. The External academic auditor is invited to discuss the outcomes of the Internal audits. The suggestions given by him/them are incorporated in the process.

**6.5.5 How are the internal quality assurance mechanisms aligned with the requirement so for the relevant external quality assurance agencies/regulatory authorities?**

The external regulatory authorities are University of Pune, AICTE, New Delhi and Directorate of Technical Education, Mumbai. The institution has framed its quality assurance mechanism in a line to fulfil their requirements and expectations.

**6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?**

The Institute has well defined procedure framed to continuously review and improve the teaching learning process. At the beginning of each semester all faculty members prepares the course work plan for theory and practical sessions. These plans are reviewed and monitored by head of the department for regular conductance of lectures and practical. The head of the institution continuously monitor/review the performance of the faculty members through the respective head of the department.

- The feedbacks from the students are collected twice in a year. Their feedback is scrutinized by the head of the institution and communicated to the respective faculty members through the concerned head of the department. Counselling and guidance are given to faculty members with less score in the student’s feedback to improve the teaching methodology.
- Mentor-student meeting is conducted once in a fortnight to get a first-hand opinion from the students about the teaching learning process. The Head of the department takes necessary remedial actions if necessary.
- Feedback received from the alumni, employers, parents and other stakeholders are also taken into consideration to review/improve the teaching learning process.
- Result analysis is submitted through Head of the departments to the head of the institution immediately after the declaration of university examination results to review/judge the quality of teaching learning process.
- Besides these mechanisms, the head of the institution also informally interacts with the students and faculty to review/improve the teaching learning process.

**6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?**

The institution communicates its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders through the following means:

- Vision, Mission and Quality policies are displayed on the website of the institution.

- The achievements of the students, result analysis, placement data is uploaded on Institute web site and display screens are also available in each building.
- Outstanding achievements of students are covered in local newspapers
- The meritorious students were rewarded at annual meet with parent.
- Quality Assurance mechanisms and outcomes are informed to all during student's induction program, industry-Institute interactions, and students mentoring sessions, parents meetings and alumni meetings.
- Implementation of quality assurance policies and outcomes projected through institutional prospectus, brochures and E- newsletters.

**Any other information the Institute wishes to give?**

- The Institute is a pioneering and leading Institute in the Western region of Maharashtra state. It has maintained a high reputation in quality of teaching learning processes.
- The Institute has lustre green campus with world class infrastructure and frequent visits of eminent personalities (The campus is visited by two Bharatrantans, two Presidents and Prime Minister and many Scientists) which motivates students to higher levels.
- Institute has Remote Centre of virtual classroom facilities to interact with experts in various field of Engineering.
- Institute organizes different activities for students under lead of college platform such as Techfests, Club activities, student induction cells, project contest, Art of Living, Yes+ program, cultural and sport activities.
- The outcome in university ranking of students is given below :

**University ranking students**

Sr.No./ Year	Name of Student	Rank in University	Percentage	Branch
2014				
1	Kharade Amit Anadrao	2 <sup>nd</sup>	77.86	T.E.Mechanical Engineering
2	Dhavan Asmita Dnaneshwar	7 <sup>th</sup>	87.35	F.E.Mechanical Engineering
3	Sathe Snehal Hanumant	6 <sup>th</sup>	62.20	SE.Civil Engineering
2013				
1	Pardi Devendra Bhujram	6 <sup>th</sup>	80.80	BE Civil Engineering
2	Katore Shilpa Dhanraj	8 <sup>th</sup>	79.93	BE Civil Engineering
2012				
1	Shinde Supriya Baban	1 <sup>st</sup>	86.00	BE Civil Engineering

2	Admile Pushkaraj Ramkrishna	5 <sup>th</sup>	79.90	BE Civil Engineering
3	Mukadam Gaurav Vilas	9 <sup>th</sup>	78.07	BE Civil Engineering
4	Ghagage Surabhi Maruti	10 <sup>th</sup>	77.93	BE Civil Engineering

## **CRITERIA VII**

### **INNOVATIONS AND BEST PRACTICES**

#### **7.1 Environment Consciousness**

##### **7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?**

Institute follows environment consciousness through energy conservation practices, waste management practices and plantation of lots of different plant species including medical plants in the campus. The college has greenery spanned over 20 acres of land. The college has a maintenance and water works unit for better housekeeping. All the environmental aspects are duly taken care by this unit. Maintenance supervisor(s) are available for up-keeping the track of greenery. There is a separate provision for collection of solid waste from various sources. Dust bins have been provided at many places for solid waste collection. All the possible efforts are taken to make the college campus eco-friendly. Good flora cover in college maintains the temperature lower 2<sup>0</sup>-3<sup>0</sup> C within the campus when compared with temperature outside the campus. Provision of water purifiers/filters in the college campus with corporation water as a feed water ensures hygienic potable water. Purified drinking water is made available throughout the campus at various working places including hostels, staff quarters, canteen, and cafeterias. In addition to this Reverse Osmosis (RO) water filtration units are also installed in the campus. Recycled water is circulated for plants nurturing.

As a part of the green-initiative, students and faculty are encouraged to avoid usage of printed documentation unless it is really essential. Printing of assignments, office documents is done on both sides of paper whenever necessary.

Campus safety audit is carried out as a part for identifying audit of risks and potential accidents. Institute conducts green audit & energy audit as an initiative towards environmental consciousness.





**Sewage Treatment Plant**

The Conventional Sewage treatment plant of capacity 1 MLD is built up on the campus. The treated effluent is recycled for gardening purpose and the sludge after drying is used as soil conditioner in the Institute campus.

**7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?**

- **Energy conservation**
- **Use of renewable energy**
- **Efforts for Carbon Neutrality**
- **Efforts for Rain Water Harvesting**
- **Plantation**
- **Hazardous waste management**
- **E-waste management**

Institute has tie-up with Environmental Forum of India (NGO), Baramati. It provides environmental awareness on a large scale at and around Baramati. To make the campus eco-friendly, we have developed the infrastructure and some regular practices which have been enumerated below-

**Energy conservation**

- The college building is designed in such a way that the broad day light commensurate the required ventilation and sunlight. This shows the Institutes commitment towards the energy conservation.
- Students are encouraged to switch off the lights and fans when not needed.
- Air-conditioners are used only at essential places

- Water purification units have been set up for providing potable water.
- Due to lavish greenery on campus, air circulation is very good. This demands very few rooms with air conditioning.
- The conventional tube lights are partially replaced by modern LED lights.
- Traditional CRT monitors are replaced by LCD monitors.

### **Use of renewable energy**

- Awareness of solar energy and renewable energy is created at College Campus. Solar Panels have been set up at Student Hostels for Hot Water Facility.

### **Efforts for Carbon Neutrality**

- College provides residential facilities for Teaching, Non-teaching staff & students in the campus premises. This avoids use of vehicles while coming to the college resulting in less pollution.
- Dead leaves of tree are decomposed and used as organic fertilizer.
- **No Vehicle Day** was initiated in 2015 by Students of “Prerana Club” to spread awareness about Pollution Control. Faculties & Students are encouraged to use cycles and avoid usage of vehicles wherever possible.

### **Efforts for Rain Water Harvesting**

Through Environmental Forum of India (NGO), Baramati, rain water harvesting is carried out in the campus. Main Engineering College Building roof-top area is very large. At present, roof-top area of the Institute building is used as the catchment area for rain water harvesting. In one season, at least 28 lakhs liter of water is collected and discharged in a well in the campus.

### **Plantation**

- The college has National Service Unit: ‘NSS’ which conducts activities related to environmental consciousness and awareness to sensitize our students towards the environment.
- Staff and students are encouraged to follow environment friendly measures at Home/hostels.
- The NSS unit of our college has been conducting a plantation drive at the rural camp site and in college campus periodically.
- Built-up environment is established within the college by establishing green corridors.
- A large numbers of tree species have been planted in college campus for making the campus environment friendly. (Nakshtra Garden is developed in the premises of Vidya Pratishthan which consists of various medicinal plants)



**Aerial View of Nakshttra Garden**

The jogging track encompassing the garden which is topped with red soil for comfort of daily walkers. The layout of the garden is based on the zodiac signs of the almanac and provides serene atmosphere for those inclined towards philosophical mindset.

#### **Hazardous waste management**

- Every day all the academic buildings and other surrounding area in the campus are cleaned by the department assistants, contractual labors and they separate out the waste and dispose accordingly.

#### **E-waste management**

- Non-working computers, monitors, printers are being repaired.
- Efforts are taken to recycle the collected e-waste to minimize e-scrap.
- Physical assets audit is conducted every year and equipment's are gone through repair and maintenance.
- Electronic goods are put to optimum use. The minor repairs are set right by the staff and the Laboratory assistants and the major repairs are carried out by the professional technicians and are reused.
- Department of Mechanical Engineering, Electrical Engineering and Civil Engineering are regularly following the practice of making various models from the scrap, details of which are listed below:

#### **Department: Electrical Engineering**

**1. Model Name:** Hybrid Vertical Axis Wind Turbine

**2. Developed by:** BE Electrical Engineering Students

**3. Raw/Scrap Material Used:**

1. Plywood (quarter or half inch)
2. Steel strapping with holes in it (other alternatives are possible)
3. Nuts and bolts
4. 24 inch all thread rod (half inch diameter)
5. Roof flashing, thin sheet metal, or even some sort of flexible plastic

**4. Year:** 2015-16

**5. Use of Model:** Demo explaining working principle of Hybrid Vertical Axis Wind Turbine

**6. Models:**



Models

**Department:** Mechanical Engineering

**1. Model Name(s):**

1. Cam & Slider crank Mechanism Application
2. Cutter Mechanism
3. Beam Engine
4. Single Slider Crank Mechanism
5. Four Bar Mechanism
6. Single and Double Slider Crank Mechanism

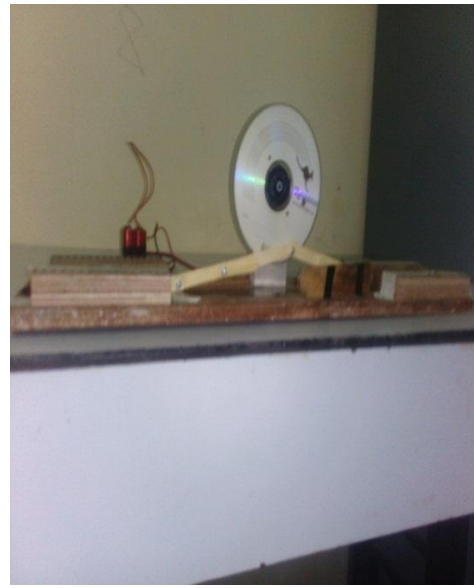
**2. Developed by:** SE Mechanical Engineering Students

**3. Raw/Scrap Material Used:** Wooden blanks/Sheets

**4. Year:** 2015-16

**5. Use of Model:** Demo explaining working principle of crank slider mechanisms

**6. Model:**



Models



Models



**Department: Civil Engineering**

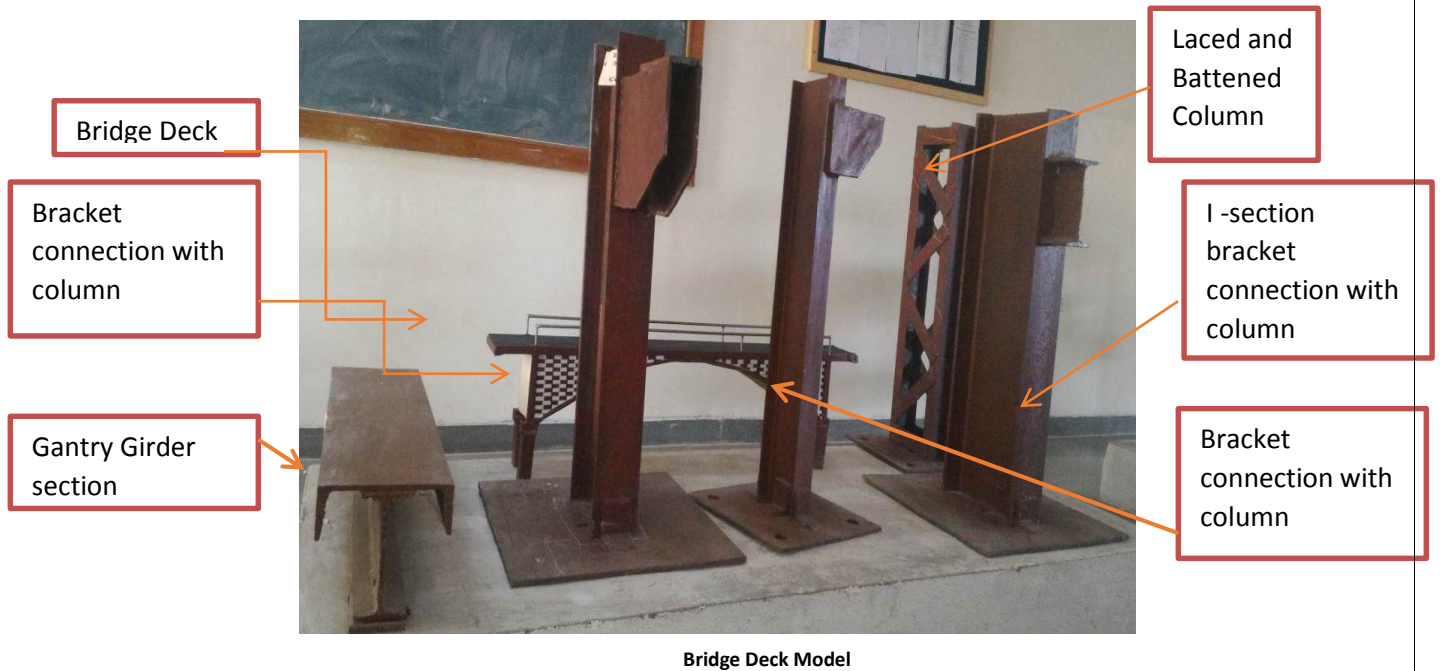
Following models are prepared in Civil Engineering Departments from Scrap Materials.

**1. Steel Truss Joint Model**

**Steel Truss Joint Model**

Steel truss joint model is prepared using scrap angles and steel plate. Angles and plate is cut into required dimensions with help of cutter and welded with gas welding. This is helpful in teaching truss joint. Scrap steel plates are cut into shape to produce joint models.

**2. Bridge Deck Model**



Steel columns sections are made up with scrap I-sections to demonstrate Laced and battened column, Bracketed connections with columns, Gantry Girder section. Bridge deck model is prepared using scrap steel strip. As per design, steel strips are connected with welded connections.

### 3. Gantry Girder Supported by Built-up Model

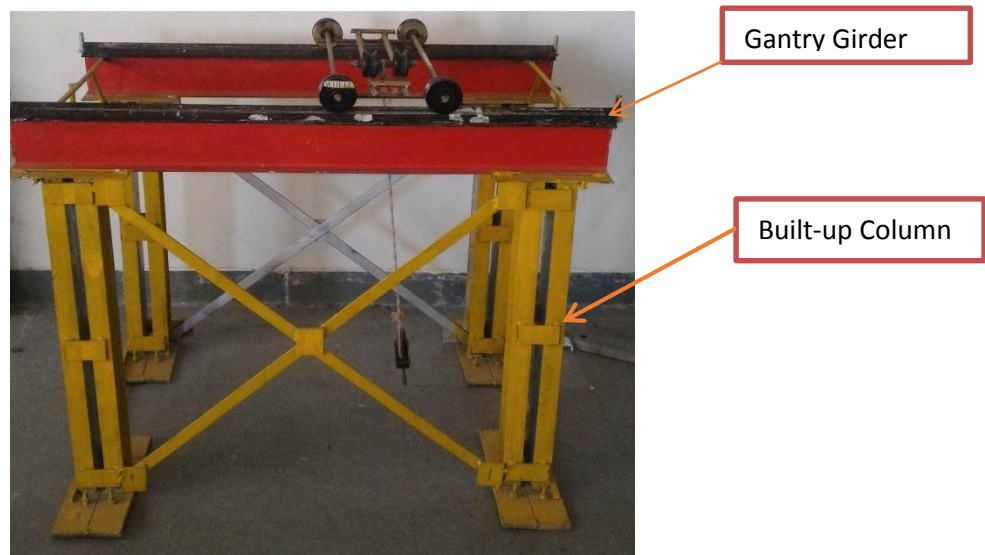


Figure 7.9: Gantry Girder Supported by Built-up Model

Gantry Girder supported by Built-Up column model is prepared by joining angle sections with steel strips. This model is used to demonstrate the location as well as connections between steel column and beam.

#### 4. Reinforcement Connection Model

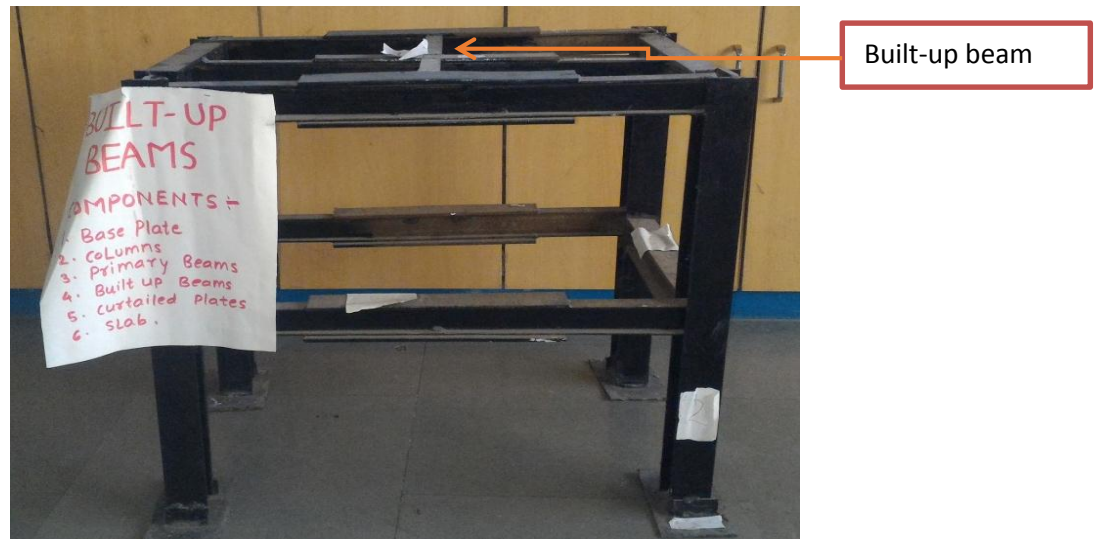


Reinforcement Connection Model

An internal Reinforcement connection for casting beam, column and footing is showcased through above model. All the reinforcements are connected with help of binding wire.

#### 5. Built-up Beam Model





Built-up Beam Model

Built-Up beam model is prepared using scrap beam sections. These sections are jointed with each other to get the whole model.

## 7.2 Innovations

### 7.2.1. Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

Innovations introduced in the last four years which have created a positive impact on functioning of the college are: -

- Curricular enrichment in the form of large number of value added courses.
- Mini projects in the academic curriculum.
- Teaching learning and evaluation
- Use of e-learning platforms like MOODLE, QEEE, Certification Courses from NPTEL, edX etc.
- Evaluation using mock internal tests and mock practical exams.
- Remedial Classes for weaker students
- Workshops & FDPs for faculty
- Soft Skill Training, Technical Courses by Professionals
- Course File, Teaching Plan & Lab Manuals are maintained by each faculty
- Biometric Attendance Monitoring System for Faculty & PG Students
- Faculty Assessment System (Self-appraisal/Performance Reports, Faculty Presentations, Feedback Systems etc. )
- Continuous assessment of Term-work.
- Guest lectures by industrial experts/academicians

- Every faculty prepares subject wise course file in which all the teaching material is available including handwritten notes, PPT handouts, transparent sheets, previous question papers, question banks etc.
- Spoken tutorials by IIT Bombay
- Department of Civil Engineering provides consultancy to industries, stakeholders of society.
- Faculty receiving Grants for research projects from BCUD, Savitribai Phule Pune University on continual basis.
- Selection of Faculty in Research Fellowship Programmes offered by IASc, Bengaluru and IIT, Delhi.
- Research Oriented Students Projects
- Short Term Training Programs for faculty & students
- Industrial visits are arranged for students & faculty
- Wired and Wi-Fi connected campus
- Open Gymnasium
- Play-grounds with facilities for various sports
- NPTEL Videos are made available through Local-Guru & NPTEL Local Chapter
- QEEE Online Courses by IIT, Madras
- Digital Library with e-Journals Springer, ASCE, DELNET
- Institutional Memberships of IIT Bombay Library, and NICMAR.
- CDEEP-IITB, NPTEL and QEEE Learning Resources
- Cummins scholarships benefitting girl students were introduced
- Student Book Bank Scheme
- Encouraging the students for summer/winter internship programs
- Organization of Annual Cultural Program “Nabhangan” and various technical events by each department.
- Encouragement to the students for participating in University, National and International Technical events, summer/winter internship programs and UG Fellowship Programs
- Periodic meetings of Principal with all Academic and Administrative heads.
- Monthly brainstorming sessions/meetings of Principal with staff to review various academic and administrative practices.
- IQAC monitors academic & administrative practices on periodic basis.

### **Innovative Practices in Administration**

- **Groups:**
  - Faster, effective and paperless communication with staff is facilitated through Google groups. Official e-mail id is provided to the faculty, and staff with domain name **@vpkbiet.org**
  - Moreover Google Groups like [vpkbiet\\_se\\_it\\_2016\\_17@googlegroups.com](mailto:vpkbiet_se_it_2016_17@googlegroups.com) have been introduced for

effective sharing of lab manuals, question banks, assignments etc. with the students.

- Assignments, surveys, student information regarding seminars and project topics, electives etc. are shared/ updated through Google sheets.
- Apart from this student & faculty groups are formed on Social Media like WhatsApp, Facebook etc. for quick sharing of information.
- **Art of Living YES+ program:**
- Art of Living YES+ program is implemented for faculty & students, every semester/year. These programs help students in building their confidence, enhancing the concentration and which in turn results in enhancement of academic performance.

## 7.3 Best Practices

### 7.3.1 Give details of any two best practices which have contributed to better academic and administrative functioning of the college.

#### Best Practice–I

##### 1. Title of the Practice

NPTEL (National Programme on Technology Enhanced Learning) Online Certification Courses: A move to enhance the technical strength of students.

##### 2. Goal

The goals of offering NPTEL Online Certification Courses at Institute are as follows:

1. To inculcate ability of self-learning in students.
2. To impart sound technical knowledge into principal stakeholders of Institute i.e. students and faculty.
3. To groom students with innovative trends in the field of engineering.
4. To help students in preparing competitive exams like GATE.

##### 3. The Context

Engineering students face challenge of proving their technical competencies. As the competition for job is becoming more intense, students have to gain technical expertise in specific areas. Industry demands ready to use resources means they demand students from Institute who can start project assignments without undergoing any training. To bridge the gap between the industry demands and university curriculum, Institute should invest time in students to make them technically compatible and employable. NPTEL online courses strive to provide excellent technical knowledge through video lectures of IIT professors. Quality lectures by recognized speakers and Institutes help students to make basic fundamentals of domain area crystal clear.

#### 4. The Practice

NPTEL announces the commencement of different online courses every semester. NPTEL introduces more than 120 online courses for aspirants. Institute has formed local chapter of NPTEL. Special Point of Contact (SPOC) performs following activities:

1. Registration of candidates to course.
2. Communicating the schedule of course and online examination to candidates.
3. Getting sanctions on concessions for online certification.
4. Communicating result and dispatching certificates to candidates.

After the start of course, instructor of course uploads video lectures for candidates. Based on the content of video lecture, candidates solve quiz and assignments. Assignments are evaluated weekly. Course progression of candidate is monitored on regular basis by mentor. Online forum of candidates all over India is formed to share views, ask queries about the topic elaborated in video lecture. Cumulative result of assignment and online examination is announced after the course completion. Candidates appreciated for their special achievement. Candidates are honored with certificates from NPTEL according to final accumulative score. The different types of certificates offered are Elite+Gold Medal, Elite and Course certification certificate as per the score.

Institute has a dedicated server for storage of all NPTEL Course Videos. This server “Local Guru” provides a facility of offline video streaming of all NPTEL Courses in the college campus.

#### 5. Evidence of Success

Institute has successfully completed two phases of NPTEL online courses. More than 500 candidates including students and faculties have enrolled for different courses. 77 candidates have successfully completed the certification. 54 candidates appreciated with Elite certificates. Technical content of video lectures belonging to IIT instructors is worth of quality. Candidates get benefited from NPTEL online course by means of strengthening their basic fundamentals of particular topics from different subjects, scoring good in GATE exam. Candidates solve assignments and quiz independently referring video lectures indicates improved pace of self-learning. Students gained confidence in facing technical interviews

#### 6. Problems Encountered and Resources Required

In order to reserve time for this activity in busy schedule, students and faculty have to take extra efforts.

#### Best Practice-II

##### 1. Title of the practice: Best out of Waste

**2. Objective of the practice:**

All the departments are striving for excellence in skill based learning. To serve this purpose, various departments incorporated the use of Models prepared with the scrap materials as an efficient tool in teaching methodology with following objectives:

- To develop creativity amongst the students.
- To improve teaching methodology
- To impart knowledge to the students with practical applications.
- To help students to understand the theoretical concepts with prototype models.

**3. The context:**

The staffs get an easy way to teach theoretical concept pertaining to various Engineering subjects and various laws as well as principles related with the technical processes. During practical hours, staff also gets an opportunity to perform experiments based on the concepts learned in classrooms with the use of models. Moreover, the problems encountered in the class and laboratory during the transformation of technical knowledge to the students is resolved effectively. Hence, the use of Models prepared with scrap materials in teaching process as a regular practice has taken an initiative to promote innovation on small scale amongst the students.

**4. The practice:**

Various departments encourage and support faculties for use of models made up from scrap materials. As per curriculum of SPPU, Pune, the generated models are used by faculties to effectively explain any fundamental concept in engineering. It further helps students to understand fundamental laws and principles with respect to particular subject. The students and staff get contentment in understanding the concepts as well as develop cordial relationship for small innovations.

**5. Evidence of success**

1. As various departments are having such practice, the staff and students of the departments are getting inspiration to participate in model making competitions at various levels.
2. Staff encourages students to take projects for utilization of waste material in various practices.
3. The staff and students are made aware about the recycling of waste materials to save environment from degradation.
4. Students participate in various technical events along with their designed models using scrap materials on regular basis.
5. Students spread messages to the society through poster presentation competitions to save environment and to develop creativity amongst the student community.

**6. Problems encountered and resources required:**

1. Handling of models is without any damage and breakage is essential. Care need to be taken while handling all such created models.
2. Designing of model depends on interest and involvement of faculty and students

**Contact Details:**

Name of the Principal: Dr. M. G. Devamane

Name of the Institution: Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering & Technology, Baramati

City: Baramati

Pin Code: 413133

Accredited Status: -

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Website: [www.vpkbiet.org](http://www.vpkbiet.org)

E-mail: [principal.vpkbiet@vidyapratishthan.com](mailto:principal.vpkbiet@vidyapratishthan.com)

Mobile: 7875128787

## **EVALUATIVE REPORT OF THE DEPARTMENTS**

- 1. Department of Computer Engineering**
- 2. Department of Information Technology**
- 3. Department of Electronics & Telecommunication Engineering**
- 4. Department of Mechanical Engineering**
- 5. Department of Civil Engineering**
- 6. Department of Electrical Engineering**
- 7. Department of General Sciences & Engineering**

## Evaluative Report of Computer Engineering Department

1. **Name of the department:** Computer Engineering
2. **Year of Establishment:** 2000
3. **Names of Programmes/Courses offered (UG, PG, M.Phil, Ph.D., Integrated Masters, Integrated Ph.D., etc.):**

Level	Programme Offered	Commencement Year	Intake
UG	BE(Computer Engineering)	2000	60
PG	ME(Computer Engineering)	2010	18

4. **Names of Interdisciplinary courses and the departments/units involved:**

Sr.No.	Year	Semester	Course Code	Subject	Department
1	SE	I	210242	Digital Electronics & Logical Design	Electronics & Telecommunication
2	SE	I	210249	Soft Skills	General Sciences & Engineering
3	SE	II	210253	Microprocessor	Electronics & Telecommunication
4	SE	II	207003	Engineering Mathematics-III	General Sciences & Engineering

5. **Annual/semester/choice based credit system (Programme wise)**

Sr.No	Programme Level	Programme	Annual/ semester/choice based credit system
1	UG	BE(Computer Engineering)	Semester Pattern with Credit Based System w.e.f. 2015-16
			Semester Pattern till 2015
2	PG	ME(Computer Engineering)	Semester Pattern with Credit System w.e.f 2013-14
			Semester Pattern till 2013

6. **Participation of the department in the courses offered by other departments**



Sr.No.	Year	Semester	Course Code	Subject	Department
1	S.E	II	204190	Object Oriented Programming	Electronics & Telecommunication
2	M.E.	I	501005A	Cyber Security/ Information Security (Elective)	Civil

**7. Courses in collaboration with other universities, industries, foreign institutions, etc.**

Sr.No	Course	Duration	Collaborating Institution/Industry /Universities etc.	Coordinator
<b>2015-16</b>				
1	IIT Bombay Spoken Tutorials on: a) Java Programming b) Latex c) C++ d) Blender e) Advanced C++	Jun'15 – Sept'15  Jan'16- Mar'16	Indian Institute of Technology, Bombay Free & Open Source Softwares(FOSSE)	Mr. R.V.Panchal Mr. M.B. Rangdal
2	Courses conducted for GATE Preparations	Jul'15- Jan'16	GATE Forum, Hyderabad	Mr. B. A. Mahajan
3	Online Certification Courses	Jun'15 – Oct'15  Jan'16- Apr'16	QEEE, IIT Madras NPTEL, IIT Madras IIT BombayX, IIT Bombay EdX Online Courses	NPTEL Local Chapter
<b>2014-15</b>				
4	Barclays Training Campus Connect CRT	Feb'15 – Mar'15	Globerina Pvt.Ltd, Mumbai	Mr. R. V. Panchal
<b>2013-14</b>				
5	Courses on: a) C++ Programming b) Core Java	Jun'13 – Sept'13 Jan'14 –	Seed Infotech, Pune	Mr. R. V. Panchal Mr. S. A. Dhanawe

	Programming c) Advanced Java Programming	Apr'14		
6	Courses on: a) Software Testing b) Advanced Software Testing	Jun'13 – Oct'13	AIS Testing Pvt.Ltd, Mumbai Grad2Guru Pvt.Ltd, Mumbai	Mr. R. V. Panchal Mr. M. B. Rangdal

8. **Details of courses/Programmes discontinued (if any) with reasons:** Nil

9. **Number of Teaching Posts:**

Designation	Sanctioned	Filled
Professors	02	00
Associate Professors	05	00
Assistant Professors	11	13

10. **Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M.Phil. etc.,)**

Sr.No	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the Last 4 years
1	Dr. D. B. Hanchate	Ph.D. (Comp. Engg.)	Assistant Professor	Machine Learning Software Engg.	21	Nil
2	Mrs. G. J. Chhajed	M.Tech. (Comp. Engg.)	Assistant Professor	Image & Biomedical Signal Processing	20	Nil

3	Mrs. S.S. Nandgaonkar	M.Tech (Comp. Engg.)	Assistant Professor	Data Mining NLP	16	Nil
4	Mr. S.A. Shinde	M.E. (Comp. Engg.)	Assistant Professor	Image Processing	13	Nil
5	Mr.D.M. Padulkar	M.Tech. (Comp. Engg.)	Assistant Professor	Data Mining, Machine Learning	12	Nil
6	Mr. R.H.Ambole	M.E. (Comp. Engg.)	Assistant Professor	Compiler Design	09	Nil
7	Mr. M.D.Shelar	M.E. (IT Engg.)	Assistant Professor	Security, Image & Video Processing	08	Nil
8	Mr. R.V.Panchal	M.Tech. (Comp. Engg.)	Assistant Professor	Computer Vision	04	Nil
9	Mr.V.V. Rampurkar	M.E. (Comp. Engg.)	Assistant Professor	Image Processing	09	Nil
10	Mr. P.M.Paithane	M.E. (CS Engg.)	Assistant Professor	Real Time Systems	04	Nil
11	Mr. M.B.Rangdal	M.E. (Comp. Engg.)	Assistant Professor	Computer Networking	09	Nil
12	Mr. S.K.Shah	M.E. (Comp. Engg.)	Assistant Professor	Information Retrieval Web Mining	06	Nil
13	Ms. V. S. Kharad	M.E. (IT Engg.)	Assistant Professor	Computer Networking	Nil	Nil

**11. List of senior visiting faculty:**

Sr. No.	Name of Faculty	Qualification	Designation/ Affiliation	Specialization	Experience in Years
<b>2015-16</b>					

1	Dr. M. S. Patwardhan	Ph.D.	Dean, Research, VIT, Pune	Business Analytics	11
2	Dr. D.B. Kulkarni	Ph.D.	Professor Walchand COE. Sangli	High Performance Computing	26
<b>2013-14</b>					
3	Dr. S.A. Kelkar	Ph.D.	Adjunct Professor, IIT Bombay	Software Engineering	25
4	Dr. Manesh Kokare	Ph.D.	Associate Professor, SGGSJET, Nanded	Digital Image Processing, Computer Vision	24
<b>2012-13</b>					
5	Dr. P. J. Kulkarni	Ph.D.	Deputy Director & Professor, CSE, Walchand COE, Sangli	Artificial Intelligence	30

**12. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty:**

Sr. No.	Name	Qualification	No. of lectures delivered	% of lectures delivered	No. of practical's handled	% of practical's handled
<b>2013-14</b>						
1	Bhushan Mahajan	ME(Pursuing)	----	-----	48	7.40
2	Suraj Dhanawe	ME(Pursuing)	-----	----	48	7.40
<b>2012-13</b>						
3	Kishor Vitekar	ME(Pursuing)	----	-----	72	11.00

4	Gulab Shaikh	ME(Pursuing)	-----	----	60	9.00
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**13. Student-Teacher Ratio (Programme wise)**

Sr.No	Programme	Student-Teacher Ratio
1	UG	18:1
2	PG	18:1

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

Staff	Sanctioned	Filled
Technical	03	03
Supporting	01	01

**15. Qualifications of teaching faculty with DSc/D.Litt. / Ph.D. / MPhil/PG.**

Ph.D.	Ph.D. Pursuing	PG-M.Tech. /M.E.
01	00	12

**16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received**

**a) National**

**b) International**

**a) National: 06**

Sr. No	Principal Investigator	Title of Project	Funding Agency	Grant Received in Rs.	Duration of the Project
1	Mrs. S. S. Nandgaonkar	Discrimination using rule bases Data Mining	BCUD, SPPU, Pune	70,000	2014-16

2	Mr. S. A. Shinde	Inpainting of Digitized Vintage Films via Maintaining Spatiotemporal Continuity	BCUD, SPPU, Pune	70,000	2014-16
3	Mr. D. M. Padulkar	Electricity Transformer Life Time Estimation using Association rule mining	BCUD, SPPU, Pune	80,000	2014-16
4	Mr. R. H. Ambole	High Speed Network Intrusion Detection System (NIDS) using Stride-FA	BCUD, SPPU, Pune	50,000	2014-16
5	Mr. M. D. Shelar	Detection of Adware by using Data Mining and Machine Learning Techniques.	BCUD, SPPU, Pune	50,000	2014-16
6	Mr. R. V. Panchal	A Novel Method For Movie Character Identification Based on Graph Matching	BCUD, SPPU, Pune	70,000	2014-16
<b>Total Grant Received</b>					<b>3,90,000</b>

b) **International: Nil**17. **Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received**

Sr.No	Title of the Project	Funding Agency	Grant Received in Rs.
<b>2015-2016 (Seminar)</b>			
1	State level Seminar on "Advanced Algorithms"	BCUD, SPPU, Pune	59,500
<b>2012-13(Workshop)</b>			

2	Workshop on “Wireless Sensor Networks”	BCUD, SPPU, Pune	24,000
<b>Total Grant Received</b>			<b>83,500</b>

18. **Research Centre/facility recognized by the University:** Nil

19. **Publications:**

Sr. No	Name of Faculty	Conference		Journal		No. of Paper with		
		National	International	National	International	Citation	H Index	Impact Factor <sup>1</sup>
1	Dr. D. B. Hanchate	00	03	00	06	06	04	06
2	Mrs. G. J. Chhajed	00	02	00	01	03	03	01
3	Mrs. S. S. Nandgaonkar	00	00	00	00	00	00	00
4	Mr. S. A. Shinde	00	00	00	00	00	00	00
5	Mr. D. M. Padulkar	00	01	00	00	00	00	00
6	Mr. R. H. Ambole	00	00	00	00	00	00	00
7	Mr. M. D. Shelar	00	00	00	00	00	00	00
8	Mr. R. V. Panchal	00	00	00	00	00	00	00
9	Mr. V. V. Rampurkar	01	00	00	00	00	00	00
10	Mr. P. M. Paithane	00	00	00	00	00	00	00
11	Mr. M. B. Rangdal	00	00	00	00	00	00	00
12	Mr. S. K. Shah	01	01	00	01	01	01	01
13	Ms. V. S. Kharad	00	00	00	00	00	00	00

- Number of publications in peer reviewed journals: 08
- Number of publications listed in International Database: 08
- Chapter in Books: 01
- Books Edited: 05
- Books with ISBN/ISSN numbers with details of publishers: 02

20. **Areas of consultancy and income generated:**

Faculty of department have contributed in conduction of practicals on Fundamentals of Computer for students of Yashaswi Institute of Technology, Pune. The mentioned practicals are conducted along with the faculties from other departments and a

cumulative revenue is generated at college side.

**21. Faculty as members in**

- a) National Committees
- b) International Committees
- c) Editorial Boards
- d) Any Other committees

a) National Committees: 01

Sr. No.	Year	Name of Faculty	Committee	Nature of Work/ Description
1	2014-15	Mrs. G.J.Chhajed	National	Convener for NCRTCET-2015 at VPKBIET, Baramati
2			National	Nomination as an Outside Expert to Selection Committee for Young Professional-Reg 16/02/2015

b) International: 01

Sr. No.	Year	Name of Faculty	Committee	Nature of Work/ Description
1	2014-15	Mr. D. M. Padulkar	International	Reviewer at IEEE Region 10 Conference Singapore

c) Editorial: 01

Sr. No.	Year	Name of Faculty	Committee	Nature of Work/ Description
1	2014-15	Mr. S.K.Shah	Editorial Committee	Editorial Committee member for TIME-2015, IITB, at VPKBIET Baramati.

d) Any Other: 04

Sr. No.	Year	Name of Faculty	Committee	Nature of Work/ Description
1	2015-16	Dr. D.B.Hanchate	Reviewer	Reviewer & session chair at CPGCON-16,PCCOE,PUNE
	2014-15		Reviewer	Reviewer at CPGCON-14,NASHIK



	2013-14		University	Contributed for "Detailing of Syllabus for ME Computer Engineering and ME Computer Networking (2013-14)
2	2014-15	Mrs. G.J.Chhajed	Reviewer	Reviewer at CPGCON-14,NASHIK
	2014-15		Reviewer	Reviewer at CPGCON-14,NASHIK
3	2015-16	Mr. S.A. Shinde	Reviewer	Reviewer & Session Chair at CPGCON-16,PCCOE,PUNE
	2015-16		State	Judge at 41 <sup>th</sup> state level Science exhibition at VP, BARAMATI
4	2015-16	Mr. D.M.Padulkar	Reviewer	Reviewer at CPGCON 15,NASHIK
	2014-15		Reviewer	Reviewer at CPGCON 15,NASHIK

## 22. Student projects

a) **Percentage of students who have done in-house projects including inter departmental / Programme**

b) **Percentage of students placed for projects in organizations outside the institution i.e .in Research laboratories/Industry/ other agencies:**

a) Percentage of students who have done in-house projects including inter departmental / Programme

Programme	Academic Year	In-house Projects (%)	
		Departmental	Interdepartmental
UG	2015-16	95	00
	2014-15	100	00
	2013-14	90	00
	2012-13	100	00
PG	2015-16	100	00
	2014-15	100	00
	2013-14	94	00
	2012-13	100	00

b) Percentage of students placed for projects in organizations outside the institution i.e., in Research laboratories/Industry/ other agencies:

Programme	Academic Year	Outside Projects (%)
UG	2015-16	05
	2014-15	00
	2013-14	10
	2012-13	00
PG	2015-16	00
	2014-15	00
	2013-14	06
	2012-13	00

### 23. Awards/Recognitions received by Faculty and Students

#### a. Awards/ Recognitions Received by Faculty

Sr. No	Year	Name of Faculty	Awards/Recognitions	Organization	Details
1	2015-16	Dr. D. B. Hanchate	Special Achievement in ISTE STTP on “Technical Communication”	Indian Institute of Technology, Bombay	Received special exceptional certification from IITB for top performance
2	2015-16	Mr. S. K. Shah	Special Achievement in ISTE STTP on “Technical Communication”	Indian Institute of Technology, Bombay	Received special exceptional certification from IITB for scoring 97%
3	2014-15	Mr. S. K. Shah	Selected for Faculty Research Fellowship-2015	Indian Academy of Sciences, Bengaluru	Worked at Indian Institute of Technology, Delhi during this research fellowship programme.

#### b. Awards Received by the Students

**cPGCON: Postgraduate Symposium of Computer Engineering organized by SPPU, Pune**

Sr. No	Year	Name of Student	Conference Name	Award
1	2015-16	Swapnil Thaware	Computer Engineering Post Graduate Conference (cPGCON-16)	First Rank in the track of Software Engineering and Methodology
2	2014-15	Yashoda Sakhare	Computer Engineering Post Graduate Conference (cPGCON-14)	Best Paper
3	2014-15	Shalaka Mhetre	Computer Engineering Post Graduate Conference (cPGCON-14)	Best Paper
4	2012-13	Sahil Shah	Computer Engineering Post Graduate Conference (cPGCON-13)	First Prize for Project

**Technical Events: Events organized by Various Colleges in India Periodically on National/ State level**

Sr. No	Year	Name of Student	Event	Award	Venue
1	2015-16	Sarthak Doshi	Android App Development	Received special appreciation from Mahatma Phule Agricultural University, Rahuri for developing android application: "Krish-Darshani", in the field of agriculture.	Mahatma Phule Agricultural University, Rahuri
2		Sarthak Doshi	CSI Adhyayan	Published an article on "Android Game MEMPRUSH" in CSI Adhyayan (Jan-Mar 2016)	CSI Mumbai

3	2015-16	Poonam Rohani Shaikh Sumera Sadhana Raut Tehsin Shikilkar	ISTE Poster Competition	First Prize	VPCOE, Baramati
4		Nikita Jadhav Neeta Birajdar	Poster Presentation	First Prize	KJ College of Engineering, Pune
5	2014-15	Anish Kumar Jha	BIZENCE 2014	First Prize Most Eco-friendly Plan	SIES School of Graduate Technology Mumbai
6		Kranti Ingale	Techfun	First Prize	VPCOE, Baramati
7		Kranti Ingale	Elysium	Runner Up	VPCOE, Baramati
8	2013-14	Kushal Patel	IBM Internship	Best Intern Award	IBM Pvt.Ltd, Pune
9		Kranti Ingale	Ind-Global Education Summit	Academic Excellence	Pune

### Non-Technical Events

Sr . No	Year	Name of Student	Event	Award	Venue
1	2015-2016	Vaishali Kumbhar	Daily Loksatta Elocution Competition	Selected at Zonal Level	Pune
2	2013-2014	Sumaiya Sayyed	State level Elocution Competition	Third Prize	Mahatma Phule Agri. College, Rahuri

**Cummins Scholarship**

Following girl students have received scholarship from Cummins India, Pune for meeting their education expenses (laptop & tuition fees) on the basis of their academic performance:

**2015-16**

1. Shravani Nigade (TE COMP) 2. Shivani Deotarse (SE COMP)

**24. List of eminent academicians and scientists/visitors to the department**

Sr.No	Year	Name of Academician and scientist/visitor	Designation	Organization
1	2015-16	Mr. Uttam Mane	Vice Chairman	Computer Society of India (CSI) Mumbai Chapter
2		Mr. Gaurab Majumdar	Country Manager	InfoComm International
3		Mr. Ratnesh Javeri	Managing Director	Innovative Systems & Solutions Pvt. Ltd. Mumbai
4		Mr. Narendra Naidu	Managing Director	Rhino Engineers Pvt. Ltd., Ahmedabad
5		Mr. Subhash Palkar	Member	Computer Society of India (CSI) Mumbai Chapter
6		Mr. Suresh Shah	Member	Computer Society of India (CSI) Mumbai Chapter
7		Mr. T. S. Gopalkrushnan	Faculty	InfoComm University
8	2015-16	Dr. Pushkar S. Joglekar	Assistant Professor	VIT, Pune
9		Mr. Harshad Saykhedkar	Head Data Scientist & Analytics	Sokrati, Pune
10		Mr. Santosh J. Kalegore	Sr. Software Engineer	Veritas Software, Pune
12		Dr. U. V. Kulkarni	Head, CSE Department	SGGSIET, Nanded

13		Dr. Jibi Abraham	Head (Computer & IT)	COEP, Pune
14	2014-15	Dr. Harold D'Costa	CEO	Intelligent Quotient Security System
15		Mrs. Anandi Deopujari	Software Engineer	GS Lab, Pune
16	2012-13	Dr. Abhiram G. Ranade	Professor, CSE Department	IIT Bombay

## 25. Seminars/Conferences/Workshops organized & the source of funding

a) National

b) International

a) National: 11

Sr. No	Year	Seminars/Conferences/Workshops	Conducted by / Resource Person	Sponsoring / Funding Agency if any
1		Four Week AICTE Approved FDP on Use of ICT in Education for Online & Blended Learning	Dr. D. B. Pathak, IIT Bombay	MHRD, Govt. of India
2		Business Analytics and Intelligence	Dr. M. S. Patwardhan, Dean, Research, VIT, Pune	VPKBIET, Baramati
3	2015-16	Advanced Algorithms	<ul style="list-style-type: none"> <li>Dr. Pushkar S. Joglekar, Assistant Professor, VIT. Pune</li> <li>Mr. Harshad Saykhedkar Head Data Scientist &amp; Analytics Sokrati, Pune</li> <li>Mr. Santosh J. Kalegore Sr. Software Engineer Veritas Software, Pune</li> </ul>	BCUD SPPU, Pune
4	2014-15	ISTE Workshop on Introduction to Design of Algorithms	<ul style="list-style-type: none"> <li>Prof. Partha Pratim Chakrabarti, Prof. Partha Pratim Das,</li> <li>Prof. Pallab Dasgupta, Department of Computer Science and Engineering, IIT Kharagpur.</li> </ul>	MHRD, Govt. of India

5		Computer Society of India :Verismo 2014	Experts from Computer Society of India Pune & Mumbai Chapter	VPKBIET, Baramati
6		Software Engineering	Dr. S. A. Kelkar, Adjunct Professor IIT Bombay	VPKBIET, Baramati
7		National Conference NCRTCET-15	<ul style="list-style-type: none"> <li>▪ Dr. U. V. Kulkarni</li> <li>▪ Dr. Jibi Abraham</li> <li>▪ Dr. Harold D'Costa</li> <li>▪ Mrs. Anandi Deopujari</li> <li>▪ Dr. Abhiram G. Ranade</li> </ul>	Bank of Maharashtra, Baramati
8		VPiDea'12: State level Idea Presentation Competition	Dr. P. J. Kulkarni, Walchand COE, Sangali	KEC International, Umber
9		Wireless Sensor Network	Experts from SPPU, Pune	QIP BCUD, SPPU Pune
10	2012-13	CEP on Design and Analysis of Algorithms	Dr. Abhiram G. Ranade, Professor IIT Bombay	VPKBIET, Baramati
11		ISTE Workshop on Database Management Systems	Dr. S. Sudarshan, Professor IIT Bombay	MHRD, Govt. of India
12		Workshop on IBM DB2	Mr. Sunny Narang, IBM India Pvt. Ltd., Pune	IBM India Pvt. Ltd, Pune

b) International: Nil

**26. Student profile Programme/course wise:**

Year of Admission	Name of the Course	Applications received	Selected	Enrolled		Pass percentage
				M	F	
2015-16	BE (Computer Engineering)	Applications are received by Directorate of Technical Education, Mumbai through Centralized Admission Process		34	25	91
2014-15				27	36	97
2013-14				25	39	99
2012-13				27	37	96
2015-16	ME (Computer Engineering)			02	07	100
2014-15				03	13	100
2013-14				05	13	100

2012-13			07	10	100
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\*M=Male \*F=Female

## 27. Diversity of Students

Year of Admission	Name of the Course	%of students from the same state	% of students from other States	%of students from abroad
2015-16	BE(Computer Engineering)	98.33	01.67	00
2014-15		96.67	03.33	00
2013-14		98.33	01.67	00
2012-13		98.33	01.67	00
2015-16	ME(Computer Engineering)	100	00	00
2014-15		100	00	00
2013-14		100	00	00
2012-13		100	00	00

## 28. How many students have cleared national and state competitive examination such as NET, SET, GATE, Civil services, Defence services, etc.?

Competitive Examination	No. of Students			
	2015-16	2014-15	2013-14	2012-13
GATE	03	00	04	03
PSU	00	00	00	00
Civil Services	00	02	00	03
Defence Services	00	00	00	00
Other Exams (GRE, TOEFL)	00	01	00	02

## 29. Student progression

Student progression	Against % enrolled			
	2015-16	2014-15	2013-14	2012-13
UG to PG	06.09	06.25	07.79	04.50



PG to Ph.D.	00.00	00.00	00.00	00.00
Campus selection	13.33	16.12	15.58	12.50
Other than campus recruitment	34.67	61.29	44.15	35.15
Entrepreneurship/Self-employment	00.00	00.00	01.00	01.00

### 30. Details of Infrastructural

#### Facilities

##### a) Library

##### b) Internet facilities for staff & students

##### c) Total Number of Classrooms

##### d) Laboratories

##### i) Departmental Library:

Sr. No	Particulars	Total No.
1	Text Books/ Reference Books	213
2	CDs	71
<b>Total</b>		<b>284</b>

In addition, departmental library contains project reports and previous year university examination question papers for student reference.

##### ii) Internet facilities for staff and students

- Staff seating places are fully furnished and equipped with, Internet connections
- HoD office has central printing facility
- Wi-Fi and wired network facility is available in the building, and labs.

##### iii) Total number of class rooms- 03

##### iv) Class rooms with ICT facility and 'smart' class rooms- 02

##### v) Laboratories

Sr.No	Name of the Laboratory	Area (Sq. Mtr.)
1	Database System Lab	66.60
2	Parallel Computing Lab	71.12
3	Advanced Networking Lab	66.60
4	Operating System Lab	66.60
5	Programming Lab I	76.32
6	Programming Lab II	80.48
7	Smart System Design Lab	66.60
8	Software Modelling & Testing Lab	66.60
9	PG Computer Lab	66.60

**31. Number of students receiving financial assistance from college, university, government or other agencies**

Name	Type	2015-2016	2014-2015	2013-2014	2012-2013
<b>College</b>		0	0	2	0
<b>University</b>		0	0	0	0
<b>Government</b>	<b>EBC</b>	56	43	39	42
	<b>MCM</b>	6	4	1	1
	<b>State Minority</b>	5	0	4	0
	<b>Scholarship</b>	90	94	53	55
	<b>Freeship</b>	17	18	17	18
<b>Other Agency</b>	<b>Cummins/Pawar Charitable Trust</b>	4	2	1	2
<b>PTC &amp; NTC</b>	<b>PTC</b>	4	2	0	5
	<b>NTC</b>	0	2	0	1

**32. Details on student enrichment Programmes (special lectures/workshops/ Seminar) with external experts**

Sr.No	Year	Name of Enrichment Programme	Name of Resource Person	Organization
1	2015-16	Android Apps Development Workshop	Mr. Sanjay Kumar	In association with IIT Roorkee
2	2014-15	Salesforce Workshop	Mr. C Pon Venkatesh	Citrix Pvt. Ltd., Pune
3	2014-15	Seminar on IBM Blue mix	Mr. Junaid Ali	IBM India Pvt. Ltd, Pune
4	2014-15 2013-14	Workshop on Hadoop and Big Data	Mr. Sachin Gaikwad Mr. Sachin Janani	Persistent Systems Pvt.Ltd, Pune

### 33. Teaching methods adopted to improve student learning

- Teaching Methodology comprising of:
  - a)Chalk and Board teaching
  - b)Power point presentation
  - c)Listening and explaining video lectures by IIT professors in a class
  - d)Conducting quizzes, preparing puzzles
- Asking students to prepare charts on different Subject topics
- Conducting different courses offered by IITs through QEEE centers and IIT Remote Centers
- Staff and students registers for different online courses offered by edX, NPTEL, IIT BombayX etc. and obtains certification.
- Educational visits to IITs , Industries and Expert talks
- Conducting workshops on specific subjects from curriculum
- Mock practical exams, preliminary exams and written assignments are given to the students for the practice before final examinations.
- Developing software based mini projects based on societal needs.
- Demonstration of fundamental concepts in Computer Graphics, Computer Networking etc. by usage of animations and videos

### 34. Participation in Institutional Social Responsibility (ISR) and Extension Activities

- Students of Computer Engineering department actively participate in activities organized by NSS Unit like Visit to Orphanages, Plantation, Plastic Muktaabhiyan, Blood donation Camps, Inspirational lectures, 7-days residential camp etc.

- To create the awareness about Computers and Programming Languages, One Week Summer Training Program on Fundamentals of Computer Programming was organized by the department for the stakeholders of the society during May-2015.
- Career Guidance & Motivational Lectures are given by Mr. D.M.Padulkar during NSS Camps and for school, college students on regular basis. Following are the details of the same:

Sr.No	Year	Topic	Place	Target Audience
1	2015-16	Krantikarak Bhagat Singh	Medad, Tal: Baramati	NSS Students & Village Youths
2	2014-15	Chhatrapati Sambhaji	Janhit Pratishthan Madhyamik Vidyalaya, Baramati	Std. 5 <sup>th</sup> to 10 <sup>th</sup> Students
3		Chhatrapati Sambhaji ani Aadhunik Tantradnyan	Deoolgaon Rasal, Tal: Baramati	NSS Students & Village Youths
4	2012-13	Chhatrapati Sambhaji	Kanheri, Baramati	Village Youth

### 35. SWOC analysis of the Department and Future Plans

#### Strengths

- Experienced, dedicated and self-motivated faculty members.
- Staff having qualifications from reputed Institutes
- Best Use of ICT Tools in Teaching-learning through MOOCs like Moodle Usage by faculty & students for mock online tests, Enrolments for Online Certification Courses offered by QEEE, NPTEL, edX etc.
- Faculty is research oriented having research funding from agencies like BCUD, SPPU, Pune.
- Post-graduation Programme in Computer Engineering.
- Well-equipped classrooms and laboratories
- Student participations and achievements in co-curricular and extra-curricular activities at university, state and national levels.

#### Weaknesses

- To strengthen Institution- Industry interactions
- To upsurge industrial consultancy & applied research.

- To improve placement opportunities
- To increase Faculties with Doctoral and Post-doctoral qualification

### **Opportunities**

- Enhancing the research activities through sponsored R&D projects.
- Establishing the Centre of excellence in the emerging areas.
- Networking with premier Institutes & Industry for advanced, applied research& academic interaction through MOUs.
- Providing technical solutions for the betterment of the Society.
- Collaboration with the industries for trainings, placements, and sponsored projects

### **Challenges**

- Students from the rural background lack in communication skills and also they cannot afford for the supportive training programs.
- Many efforts are required to groom the students with basic attitude and aptitude required for engineering course.
- Coping with rapid changing IT Industry and its requirements to improve the employability of the students

### **Future Plans**

- To establish Research Centre
- To establish labs on recent technologies
- Forming core research groups in the field of Data Mining, Image Processing, High Performance Computing, Cloud Computing etc.

## Evaluative Report of Information Technology Department

1. **Name of the Department:** Information Technology
2. **Year of Establishment:** 2000
3. **Names of Programs / Courses offered (UG, PG, M.Phil., Ph.D., and Integrated Masters; Integrated Ph.D., etc.)**

Level	Program Offered	Commencement Year	Intake
UG	BE Information Technology	2000	60

4. **Names of Interdisciplinary courses and the departments/units involved**

Sr. No.	Year	Semester	Course Code	Subject	Department Involved
1	S.E.	I	214443	Digital Electronics & Logic Design	Electronics & Telecommunication Engineering Department
2	S.E.	I	214449	Communication & Language Laboratory	General Science Department
3	S.E.	II	214454	Processor Architecture & Interfacing	Electronics & Telecommunication Engineering Department
4	S.E.	II	207003	Engineering Mathematics III	General Science Department

5. **Annual/ semester/choice based credit system (programme wise)**

Sr. No.	Programme Level	Programme	Pattern/System(Annual/semester/choice based credit system)
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1	UG	BE Information Technology	Semester Pattern with Credit Based System w.e.f. 2015.
			Semester Pattern till 2015

#### 6. Participation of the department in the courses offered by other departments

Sr. No.	Year	Semester	Course Code	Subject	Department Involved
1	S.E.	II	204190	Object Oriented Programming	Electronics & Telecommunication Engineering
2	M.E.	II	510110A	Business Intelligence & Data Mining	M. E. (Computer Engineering)
3	M.E.	I	510101	Applied Algorithm	M. E. (Computer Engineering)
4	M.E.	I	510102	High Performance Databases	M. E. (Computer Engineering)
5	M.E.	III	610103B	Cloud Computing	M. E. (Computer Engineering)

#### 7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Sr. No.	Course	Duration	Collaborating Universities / Institutions	Coordinator
<b>2015-16</b>				
<b>FOSSE</b>				
1	LaTeX	01/02/2016 to 31/03/2016	IIT Bombay, FOSSE	Mr. Prashant T. Raut
2	C and CPP	01/02/2016 to 29/03/2016	IIT Bombay, FOSSE	Mr. Prashant T. Raut
<b>NPTEL</b>				
3	Design and Analysis of Algorithms	18/01/2016 to	NPTEL , IIT Madras,	Mr. Santosh S. Kare

		11/03/2016	MHRD Govt. of India	
4	Information Security- II	18/01/2016 to 20/03/2016	NPTEL , IIT Madras, MHRD Govt. of India	Mrs. Kanchan M. Bhale
5	Programming, Data structures and Algorithms	18/01/2016 to 20/03/2016	NPTEL , IIT Madras, MHRD Govt. of India	MS. Shridevi A. Swami
6	Discrete Mathematics	18/01/2016 to 24/04/2016	NPTEL , IIT Madras, MHRD Govt. of India	Mr. Sahil K. Shah
<b>QEEE</b>				
7	The Nitty-Gritty of Logic Gates to Processor Design - Computer Organization and Architecture	11/08/2015 to 20/08/2015	QEEE , IIT Madras, MHRD Govt. of India	Ms. Shridevi A. Swami
8	Foundation of Machine Learning	10/08/2015 to 24/08/2015	QEEE , IIT Madras, MHRD Govt. of India	Mr. Ranjit P. Kolkar
9	Information Security and Cryptography	02/02/2016 to 09/02/2016	QEEE , IIT Madras, MHRD Govt. of India	Mrs. Kanchan M. Bhale
10	Process Synchronization - Operating Systems	08/03/2016 to 11/03/2016	QEEE , IIT Madras, MHRD Govt. of India	Mr. Prashant T. Raut & Mr. Ranjit P. Kolkar
11	Basic Graph Algorithms - Design and Analysis of Algorithms	29/01/2016 to 05/02/2016	QEEE , IIT Madras, MHRD Govt. of India	Mr. Santosh S. Kare
<b>2014-15</b>				
<b>FOSSE</b>				
12	LaTeX	26/07/2014 to 25/08/2014	IIT Bombay, FOSSE	Mr. Prashant T. Raut
<b>QEEE</b>				
13	Software Engineering	01/08/2014	QEEE , IIT	Mr. Prashant T.



		to 30/11/2014	Madras, MHRD Govt. of India	Raut & Mr. Vyankatesh V. Rampurkar
14	Data Structures & Algorithms.	01/08/2014 to 30/11/2014	QEEE , IIT Madras, MHRD Govt. of India	Mr. Santosh S. Kare
15	Computer Organization & Architecture.	02/02/2015 to 26/02/2015	QEEE , IIT Madras, MHRD Govt. of India	Mr. Avinash J. Kokare
16	Computer Networks	30/03/2015 to 06/04/2015	QEEE , IIT Madras, MHRD Govt. of India	Ms. Shridevi A. Swami
<b>2013-14</b>				
<b>FOSSE</b>				
17	Linux	24/08/2013 to 23/09/2013	IIT Bombay, FOSSE	Mr. Prashant T. Raut
<b>QEEE</b>				
18	Computational Architecture & Organization	01/01/2014 to 30/04/2014	QEEE , IIT Madras, MHRD Govt. of India	Mr. Avinash J. Kokare
19	Operating Systems	01/01/2014 to 30/04/2014	QEEE , IIT Madras, MHRD Govt. of India	Mr. Santosh S. Kare

**8. Details of courses / programmes discontinued (if any) with reasons:** Nil

**9. Number of teaching posts**

<b>Designation</b>	<b>Sanctioned</b>	<b>Filled</b>
Professors	1	0
Associate Professors	3	0
Assistant Professors	10	12

**10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.)**

<b>Sr. No</b>	<b>Name</b>	<b>Qualification</b>	<b>Designation</b>	<b>Specialization</b>	<b>No. of Years of Experience</b>	<b>No. of Ph.D. Students guided for the last 4 years</b>
1	Mrs. Sheetal A. Takale	M.E. (CSE) Ph.D.(CSE) Pursuing	Assistant Professor	Web Mining, Information Retrieval	18	Nil
2	Mr. Dinesh A. Zende	M.E.(CSE)	Assistant Professor	Data mining, Data Analysis, Machine Learning	15	Nil
3	Mr. Pradeep M. Patil	M.E.(CSE) Ph.D.(CSE) Pursuing	Assistant Professor	Image Processing, Pattern	16	Nil
4	Mr. Santosh S. Kare	M.E. (Computer Networks)	Assistant Professor	Computer Networks	10.5	Nil
5	Mr. Prashant T. Raut	M.E. (Computer Engg.)	Assistant Professor	Information Retrieval, Data & Knowledge	10.5	Nil
6	Ms. Shridevi A. Swami	M.E. (Computer Engg.)	Assistant Professor	Computer Networks, Information Retrieval, Internet of Things	9	Nil
7	Mr. Avinash J. Kokare	M.E. (Computer Engg.)	Assistant Professor	Wireless Sensor Network	9	Nil
8	Mr. Deepak S. Gaikwad	M.E. (Computer Engg.)	Assistant Professor	Artificial Neural Network, Deep Learning	6	Nil

9	Mrs. Kanchan M. Bhale	ME (Computer Engg.)	Assistant Professor	Information Security, Networking	12	Nil
10	Mr. Keshav S. Bhagwat	ME (Computer Engg.)	Assistant Professor	Image Processing	9	Nil
11	Ms. Gauri K. Ghadge	ME (Computer Engg.)	Assistant Professor	Data Mining	0	Nil
12	Ms. Pallavi D. Javalkar	ME (Computer Engg.)	Assistant Professor	Data Mining	0	Nil

#### 11. List of senior visiting faculty

Sr. No	Name	Qualification	Designation/ Affiliation	Specialization	Experience in years
<b>2015-16</b>					
1	Dr. Ram Mohan Reddy	Ph.D.	Professor, NITK, Surathkal,	Multimedia Technology / Human Computer Interface	20
<b>2014-15</b>					
2	Dr. Herold D' Costa	Ph.D.	Cyber Crime Investigator, Cyber security Expert	Cyber Security	25
<b>2013-14</b>					
3	Prof. Yashwant Kanitkar	M.Tech	Director of KICIT and KSET, Nagpur	C Programming Language	30
<b>2012-13</b>					
4	Dr. Abhiram Ranade	Ph.D.	Professor IITB, Mumbai	Discrete Structures, Design and Analysis of Algorithm	35

**12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty**

Sr. No.	Name	Qualification	No. of lectures delivered	% of lectures delivered	No. of practical's handled	% of practical's handled
<b>2015-16</b>						
1	Dr. Ram Mohan Reddy	Ph.D.	8	3	Nil	Nil
<b>2014-15</b>						
2	Dr. Herold D' Costa	Ph.D.	8	3	Nil	Nil
<b>2013-14</b>						
3	Prof. Yashwant Kanitkar	M.Tech	16	6	Nil	Nil
<b>2012-13</b>						
4	Dr. Abhiram Ranade	Ph.D.	16	6	Nil	Nil

**13. Student -Teacher Ratio (Programme wise)**

Sr. No.	Programme	Student-Teacher Ratio
1	UG	18:1

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

Sr. No.	Staff	Sanctioned	Filled
1	Technical	3	3
2	Supporting	1	1

**15. Qualifications of teaching faculty with DSC/ D.Litt/ Ph.D/ MPhil / PG.**

Ph.D.	Ph.D. Pursuing	PG-M.Tech./M.E.
00	02	10

**16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received**

a) National: 02

Sr. No	Principal Investigator	Title of Project	Funding Agency	Total Grant Received (Rs.)	Duration of the Project
1	Mr. Dinesh A. Zende	Credit card fraud detection using data mining techniques	BCUD,SP Pune University	63,000/-	2016-18
2	Mr. Pradeep M. Patil	Iris recognition system in less Constrained Environment	BCUD,SP Pune University	1,20,000/-	2014-16

b) International: Nil

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:**

Sr. No	Principal Investigator	Title of Project	Funding Agency	Total Grant Received (Rs.)	Duration of the Project
1	Mr. Dinesh A. Zende	Spyware solution: Detection of spyware using data mining and machine learning techniques.	BCUD,SP Pune University	70,000/-	2013-15

**18. Research Centre /facility recognized by the University: Nil**

**19. Publications:**

Sr. No	Name of Faculty	Conference		Journal		No. of Paper with		
		National	International	National	International	Citation	H Index	Impact Factor <sup>^</sup> <sub>1</sub>
1	Mrs. Sheetal A. Takale	2	1	0	2	3	1	1
2	Mr. Dinesh A. Zende	0	2	0	2	1	0	0
3	Mr. Pradeep M. Patil	0	1	0	0	0	0	0
4	Mr. Santosh S. Kare	0	2	0	0	0	0	0
5	Mr. Prashant T. Raut	0	0	0	1	1	0	0
6	Ms. Shridevi A. Swami	0	0	0	3	1	0	0
7	Mr. Avinash J. Kokare	0	1	0	1	0	0	0
8	Mr. Deepak S. Gaikwad	0	1	0	3	0	0	0
9	Mrs. Kanchan M. Bhale	0	1	0	0	0	0	0
10	Mr. Keshav S. Bhagwat	0	2	0	0	0	0	0
11	Ms. Gauri K. Ghadge	0	0	0	1	0	0	0
12	Ms. Pallavi D. Javalkar	0	0	0	1	0	0	0

## 20. Areas of consultancy and income generated:

Sr. No.	Year	Name of Faculty	Area of Project	Organization / Industry	Amount in Rs.
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1	2015-16	Mr. Dinesh A. Zende	For expert lecture on “Linux Shell Scripting”	SVERI College of Engineering (Polytechnic), Pandharpur	2500
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**21. Faculty as members in a) National Committees b) International Committees c) Editorial Boards d) Any Other Committees**

**a) National Committees:** Nil

**b) International Committees:** Nil

**c) Editorial Boards:** Nil

**d) Any Other Committees:** 03

Sr. No.	Year	Faculty	Committee	Worked as
1	2014-15	Mrs. Sheetal A. Takale	cPGCON-2015	Review of papers submitted by PG Students to the PG Conference organized by Board of Studies in Computer Engineering, Savitribai Phule Pune University.
2	2014-15	Mr. Dinesh A. Zende		
3	2014-15	Mr. Pradeep M. Patil		

**22. Student projects**

**a) Percentage of students who have done in-house projects including inter departmental / programme**

**b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies**

a) Percentage of students who have done in-house projects including inter departmental / programme

Program	Year	In House Projects (%)	
		Departmental	Inter-Departmental
UG	2015-16	100	0
	2014-15	100	0
	2013-14	95	0
	2012-13	94	0

- b) Percentage of students placed for projects in organizations outside the institution  
i.e.in Research laboratories/Industry/other agencies

Program	Year	Outside Organization Projects (%)
UG	2015-16	0
	2014-15	0
	2013-14	5
	2012-13	6

### 23. Awards / Recognitions received by faculty and students

- a) Faculty Achievements:

Sr. No	Year	Name of Faculty	Award/ Recognition	Organization	Details
1	2015-16	Mr. Avinash J. Kokare	Certificate of Appreciation	IIT Madras,	Received certificate of appreciation from IIT Madras, for his contribution as SPOC, NPTEL Local Chapter at VPKBIET Baramati.
2		Mr. Dinesh A. Zende	Certificate of Appreciation	IIT Madras	Received certificate of appreciation from IIT Madras for working as Mentor for the course on Machine Learning, NPTEL Online Certification Program.
3		Mr. Dinesh A. Zende	NPTEL Online Certification	IIT Madras	Completed course on Machine Learning with 40 %
4		Ms. Shridevi A. Swami	NPTEL Online Certification	IIT Madras	Completed course on Programming, Data Structures and Algorithms with 46 %
5		Mr. Dinesh A. Zende	eDX Online Certification	eDX	Completed course on Python Programming(CSE1309x)



6		Mr. Prashant T. Raut	eDX Online Certification	eDX	Completed course on Python Programming(CSE1309x)
7		Mr. Sahil K. Shah	eDX Online Certification	eDX	Completed course on Foundation of Data Structures
8	2014-15	Mr. Santosh S. Kare	Certificate of Appreciation	IIT Madras	Received certificate of appreciation from IIT Madras for working as Mentor for the course on Design and Analysis of Algorithm, NPTEL Online Certification Program.
9		Ms. Shridevi A. Swami	Certificate of Appreciation	from IIT Madras	Received certificate of appreciation from IIT Madras for working as Mentor for the course on Programming, Data Structures and Algorithms, NPTEL Online Certification Program.
10		Mr. Avinash J. Kokare	Certificate of Appreciation	IIT Madras	Received certificate of appreciation from IIT Madras for working as Mentor for the course on Design and Analysis of Algorithm, NPTEL Online Certification Program
11		Mr. Pradeep M. Patil	NPTEL Online Certification	IIT Madras	Completed course on Design Analysis of Algorithms with 52 %
12		Ms. Shridevi A. Swami	NPTEL Online Certification	IIT Madras	Completed course on Introduction to Programming in C with 62 %
13		Mr. Avinash J. Kokare	NPTEL Online Certification	IIT Madras	Completed course on Introduction to Programming in C with 62 %

## b) Students Achievements:

Sr. No.	Year	Name of Student	Award/ Recognition	Organization	Details
1	2014-15	More Ashwini	Selected for State Republic Day Parade (SRD)	Government of Maharashtra	From BE IT selected for "State level Republic Day Parade (SRD)" which was held at Mumbai on 26 <sup>th</sup> Jan 2015.
2		Vangate Narendra	Third Price	Savitribai Phule Pune University	From TE IT got third price in "Inter collegiate Boxing competition" organized by Savitribai Phule Pune University, 2015.
3		Phadtare Shital and Laturkar Ambika	first prize in PaperFest at "OLYMPUS 2K15"	COE, Pandharpur	Got first prize in the event of PaperFest at "OLYMPUS 2K15" organized by COE, Pandharpur.
4	2013-14	Katore Ashwini	2nd Prize in "SEED IT IDOL"	SEED	From (TE) got 2nd Prize in "SEED IT IDOL 2014" Competition for Baramati Region.

#### 24. List of eminent academicians and scientists / visitors to the department:

Sr. No	Year	Name of the Academicians and Scientists / Visitors	Designation	Organization
1	2015-16	Dr. Abhiram Ranade	Professor, Department of Computer Science and Engineering	Indian Institute of Technology, Mumbai
2		Dr. Aditya A. Abhyankar	Dean, Department of Technology	SP Pune University
3		Prof. Amartya Hatua	Software Engineer	LG Soft India, Bangalore
4	2014-15	Dr. Ram Mohan Reddy	Professor, Information Technology Department	NITK, Suratkal
5		Mr. Hemant Surwase	Delievery Manager,	TCS, PUNE.
6		Mr. Rehmat Sayyad	Technical Team Lead	TCS, PUNE.

7	2013-14	Prof. Yashwant Kanitkar	Director	KICIT, KSET , Nagpur
8		Dr. Harold D'costa	C.E.O.	Intelligent Quotient Security System
9	2012-13	Dr. Abhiram Ranade	Professor, Department of Computer Science and Engineering	Indian Institute of Technology, Mumbai

## 25. Seminars/ Conferences/Workshops organized & the source of funding

### a) National - 07

Sr. No	Year	Seminars/ Conferences/Workshops	Conducted by	Sponsoring / Funding Agency if any
1	2015-2016	VERISMO 2015	Prof. Hemant Surwase , TCS Pune, Mr. Rehmat Sayyad, TCS Pune Mr. Vivek Takalkar, Tech-Mahindra Pune Mr. Kedar Tokekar, Sanzaru Education	Computer Society of India (CSI) Pune and Mumbai Chapter Self-Sponsored
2		ISTE Workshop on: Technical Communication	Prof. P. Sunthar, IIT Bombay	MHRD Govt. of India
3		Introduction to Audio Visual Techniques and Carrier Opportunities in AV	Mr. Uttam Mane, CSI Mr. Gaurav Mujumdar, InfoComm International Mr. Ratnesh Javeri , Innovative Systems and Pvt. Ltd.	Computer Society of India (CSI), Pune

4		Graph Theory and its Applications	Dr. Abhiram Ranade, IIT Bombay Dr. Aditya A. Abhyankar, SP Pune University Prof. Amartya Hatua, LG Soft, Bangalore	BCUD SP Pune University, Pune
5	2013-2014	ISTE Workshop on: Cyber Security	Prof. Bernald L. Menezes, IIT Bombay Prof. Sivakumar, IIT Bombay	MHRD Govt. of India
6		ISTE Workshop on: Computer Networking	Prof. Kameshwari Chebrolu, IIT Bombay	MHRD Govt. of India
7		ISTE Workshop on: Computer Programming	Prof. Deepak B. Pathak IIT Bombay Prof. Shirdhar Iyer, IIT Bombay	MHRD Govt. of India

b) International - Nil

## 26. Student profile program/course wise:

Name of the Course / programme	Academic Year	Applications received	Selected	Enrolled		Pass Percentage
				*M	*F	
UG	2015-16	Not applicable since applications are received by DTE and not received and processed by VPKBIET. Students are admitted as per DTE allotment.	87	23	64	89
	2014-15		76	24	52	96.05
	2013-14		77	27	50	97.40
	2012-13		68	36	32	94.12

\*M = Male \*F = Female

## 27. Diversity of Students

Name of the Course	Year	% of students from the same state	% of students from other States	% of students from abroad
UG	2015-16	98.21	1.79	Nil
	2014-15	98.15	1.85	Nil
	2013-14	98.31	1.69	Nil
	2012-13	100.00	0.00	Nil

- 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?**

Competitive Examination	No. of Students			
	2015-16	2014-15	2013-14	2012-13
GATE	1	2	0	1
PSU	0	0	0	0
Civil Services (MPSC/MSEDCL/UPSC)	0	2	0	1
Defense	0	0	0	0
Other Exam(GRE/TOEFL)	1	1	0	1

- 29. Student progression**

Student progression	Against % enrolled			
	2015-16	2014-15	2013-14	2012-13
UG to PG	3.89	13.09	9.33	5.97
PG to PhD	0	0	0	0
Campus selection	6.66	1.36	13.33	7.46
Other than campus recruitment	32	45.39	29.33	41.79
Entrepreneurship/Self-employment	0	0	1.33	0

- 30. Details of Infrastructural**

**facilities**

**(a) Library (b) Internet facilities for Staff & Students (c) Class rooms with ICT facility (d) Laboratories**

**a) Library****i) Departmental Library:**

<b>Sr. No</b>	<b>Particulars</b>	<b>Particulars</b>
1	Text Book/Reference Book	215
2	CDs	71

**b) Internet facilities for Staff & Students**

1. Connectivity of faculty rooms, labs, library and class rooms through campus wide optical fiber cable and CAT 6 network connectivity.
2. Secure internet facility to all departments students, faculties and laboratories using Cyberoam CR-300i which is tightly integrated with features like Application Visibility & Control, VPN (IPSec & SSL VPN), Intrusion Prevention System, Web Filtering, Bandwidth Management, Anti-Virus & Anti-Spyware, Anti-Spam, and Multiple Link.
3. 24X7 dedicated Internet Leased Line facility provided through the wired as well as wireless connectivity. D-Link, Airtight, Linksys, TP Link access points are utilized for wireless LAN and WAN connectivity.

**c) Class rooms with ICT facility : 2****d) Laboratories**

<b>Sr. No.</b>	<b>Name of Laboratory</b>	<b>Area(in Sq. Mtr.)</b>
1	Network Laboratory(05-105)	62.25
2	Software Laboratory (06-105)	62.25

3	Software Development Laboratory (106)	76.56
4	Information Technology Laboratory (107)	70.25
5	Digital Lab (6B)	72
6	Information Security Lab (6A)	76.96
7	Computer Vision & Graphics Lab (LG 01 A)	66.15
8	Machine Learning Lab (LG 01B)	66.15

**31. Number of students receiving financial assistance from college, university, Government or other agencies**

Name	Type	2015-16	2014-15	2013-14	2012-13
<b>College</b>		0	0	1	0
<b>University</b>		0	0	0	0
<b>Government</b>	EBC	72	63	62	62
	MCM	1	0	1	1
	State Minority	0	0	0	1
	ST	0	0	0	0
	Scholarship	53	63	78	71
	Freeship	12	59	32	37
<b>Other Agency</b>		02	0	0	0
<b>PTS &amp;STS</b>	PTC	1	2	2	1
	STC	4	1	1	2

**32. Details on student enrichment programmes (special lectures / workshops /seminar) with external experts.**

Sr. No.	Academic Year	Class	Course Conducted	Institute/Organization	No. of students Attended
1	2015-16	BE	Basic software Testing	Grand2Guru, Mumbai	35
		BE	Advanced Java	Seed Infotech, Pune	21
		BE	Campus to Corporate	Grand2Guru, Mumbai	54
		BE	Basic software Testing	Grand2Guru, Mumbai	35
		TE	Design and Analysis of Algorithms	NPTEL , MHRD Govt. of India	63
		BE	Information Security- II	NPTEL , MHRD Govt. of India	11
		SE	Programming, Data structures and Algorithms	NPTEL , MHRD Govt. of India	64
		SE	Discrete Mathematics	NPTEL , MHRD Govt. of India	10
		SE	The Nitty-Gritty of Logic Gates to Processor Design - Computer Organization and Architecture	QEEE , IIT Madras and MHRD Govt. of India	47
		BE	Foundation of Machine Learning	QEEE , IIT Madras and MHRD Govt. of India	77
		BE	Information Security and Cryptography	QEEE , IIT Madras and MHRD Govt. of India	80
		TE	Process Synchronization - Operating Systems	QEEE , IIT Madras and MHRD Govt. of India	75
		SE	Basic Graph Algorithms - Design and Analysis of Algorithms	QEEE , IIT Madras and MHRD Govt. of India	78



2	2014-15	BE	Campus Recrutement Training (CRT)	Globarena, Hyderabad	33
		TE	Core Java	Seed Infotech, Pune	30
		TE	Basic Graph Algorithms - Design and Analysis of Algorithms	QEEE , IIT Madras and MHRD Govt. of India	81
		TE	Software Engineering	QEEE , IIT Madras and MHRD Govt. of India	89
		SE	Data Structures & Algorithms.	QEEE , IIT Madras and MHRD Govt. of India	38
		SE	Computer Organization	QEEE , IIT Madras and MHRD Govt. of India	58
3	2013-14	TE	Core Java	Seed Infotech, Pune	30
		TE	Adv. Java	Seed Infotech, Pune	30
		SE	Computational Architecture & Organisation	QEEE , IIT Madras and MHRD Govt. of India	46
		TE	Operating Systems	QEEE , IIT Madras and MHRD Govt. of India	54
		BE	Certificate Test Engineers	Grand2Guru, Mumbai	42
		SE	C++	Seed Infotech, Pune	23

### 33. Teaching methods adopted to improve student learning

1. Effective Teaching Learning process by using ICT for education
  - a. Flipped Classroom implementation using E-books , digital libraries and video lectures.
  - b. Interactive video lectures and video conferencing
  - c. Motivate students and faculty for use of Open source, open standards, and federated systems.
  - d. Massive Open Online Courses: MOOCs
  - e. Spoken Tutorials under NMEICT project
2. Continuous assessment through class tests, Unit tests and In-sem/Online examination

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Sr. No		Activity	Details
1	2015-16	Gram Swachh Abhiyan	Conducted School Cleaning Campaign on the occasion of “Gandhi Jayanti” on 2nd Oct 2015 at Medad in association with Bharat Forge, Baramati.
2		NSS Special Camp 2015-16	Volunteers cleaned ZP School area, temples, and streets in Medad. They tried to convince villagers about clean and neat village through youth rally.
3		College Campus cleaning campaign	Swachh Bharat Abhiyan is a national campaign by the Government of India, covering many cities and towns, to clean the streets, roads and infrastructure of the country. In order to support this campaign, NSS unit of VPCOE conducted college campus cleaning campaign.
4		College Ground Cleaning Campaign	NSS volunteers participated in college ground campus cleaning campaign. In this activity volunteers had cleaned college ground. They had collected the garbage like plastic, broken glasses, paper pieces etc. from the ground. Moreover students helped to make maintenance of volleyball ground.
5		NSS Special Camp 2015-16	Volunteers practised yoga daily from 6.45 am to 7.30 am. It included mainly different types of Pranayama like Kapalabhati Pranayama, Bhastrika Pranayama, Bhramari Pranayama
		Vidyrthini Arogya Prabodhan Program of SPPU, Pune	Conducted hemoglobin test of all final year girls on Jan'15. Also organized Health education workshop on Nutrition, Stress management, Depression, Balancing study with personal responsibilities.
6	2014-15	Blood Donation Camp	32 Bags of Blood donated to IRCS Late Manikbai Chandulal Saraf Blood Bank, Baramati

### 35. SWOC analysis of the department and Future plans

#### Strengths

- E-books and digital library access is provided to the students through Institution membership of various digital libraries such as, IEEE, IET, Springer, Elsevier.
- Active participation of students in Professional societies chapters in Institute such as, IEEE and CSI, IET
- Effective conduction of Spoken tutorials for students in association with IIT Bombay
- Strong interaction with IIT. Almost all the faculty have attended various training programs organized at various IITs: IIT Bombay, IIT Guwahati, IISc Bangalore
- Effective utilization of NPTEL Video lectures by faculty and students
- Effective conduction of QEEE course by faculty for students
- Faculty and students participation in GATE exams.
- Strong alumni- students are placed in India and abroad in various well known IT industries Microsoft, Yahoo, Oracle, HP etc.
- Active participation of students in social events such as: Gram Swachta Abhiyan, Swachh Bharat Abhiyan,
- The department has high percentage of faculty retention

### **Weaknesses**

- To encourage faculties for qualification improvements.
- To improve number of faculty publications in peer reviewed journals
- To increase consultancy and revenue generation work
- To focus on maximum On-Campus selection for students
- To encourage faculties and students for research patents

### **Opportunities**

- Motivates staff for higher studies, organize value addition and skill development programs for faculty and staff
- Good Opportunity for Research, consultancy and revenue generation at department level
- There is a need of vertical growth in the department
- Permanent affiliation, Accreditation, Autonomy and Deemed University
- Improvement of student performance in competitive exams
- Better utilization of Institute MOUs for faculty and students
- Increase in technology transfer programs with industry
- Organization of competitive (UPSC, MPSC) and JEE/GATE preparatory and coaching programs
- Increasing quality research publications count
- Strengthen the alumni association in placement activities.

### **Challenges**

- The socio-economic background of many of the students admitted in the department is responsible for poor language competence in English language. This may lead to an unsatisfactory level of comprehension and communication skills.
- Misunderstanding of society about the IT Branch.

### **Future Plans**

- To encourage faculties for quality research publication and consultancy work.
- To promote faculties to upgrade their qualification.
- To foster good relation with top-notch companies to enhance placement and internship opportunities for students.
- To develop a good research culture and seek funds for research projects from funding agencies like DRDO, DST, and AICTE.

## Evaluative Report of Electronics and Telecommunication Engineering Department

1. **Name of the Department:** Electronics and Telecommunication Engineering
2. **Year of Establishment:** 2000
3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)**

Level	Programme Offered	Commencement Year	Intake
UG	BE (Electronics & Telecommunication Engineering)	2000	60
		2006	90
		2011	120
PG	ME Electronics (Digital Systems)	2010	18

### 4. Names of Interdisciplinary courses and the departments/units involved

Sr. No.	Year	Semester	Course Code	Subject	Department Involved
1	S.E	I	204184	Data structures & Algorithms	IT & Comp
2	S.E	II	204190	Object Oriented Programming	IT & Comp
3	S.E	II	207005	Mathematics III	General Sciences & Engineering
4	S.E.	II	204191	Employability Skill Development	General Sciences & Engineering

### 5. Annual/Semester/Choice based credit system (Program wise)

Sr. No.	Program Level	Program	Annual/Semester/Choice based credit system
1	UG	BE Electronics & Telecommunication Engineering	Semester Pattern with credit based system w.e.f 2015-16
			Semester pattern till 2015
2	PG	ME Electronics (Digital Systems)	Semester Pattern with credit based system w.e.f 2013-14

			Semester pattern till 2013
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### 6. Participation of the department in the courses offered by other departments

Sr.No.	Year	Semester	Course Code	Subject	Department Involved
1	S.E	I	203143	Analog and Digital Electronics	Electrical
2	S.E	I	214443	Digital Electronics & Logic Design	IT
3	S.E	I	210243	Digital Electronics & Logic Design	COMP
4	S.E.	I	210245	Microprocessor Architecture	COMP
5	S.E	II	214451	Processor Architecture & Interfacing	IT
6	S.E	II	210248	Microprocessors and Interfacing Techniques	COMP
7	S.E	II	203152	Electronics and Electrical Engineering	MECH
8	S.E.	II	203148	Numerical Methods and Computer Programming	Electrical
9	S.E.	II	203149	Fundamentals of Microprocessor & Microcontroller	Electrical

### 7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Sr. No.	Course	Duration	Collaborating Institute/Industry	Coordinator
<b>2015-16</b>				
1	GATE Training	14 <sup>th</sup> June 2015 to 10 <sup>th</sup> Jan. 2016 (Weekends)	GATE Forum	Mr.S. R. Trankatwar
<b>2014-15</b>				
2	Under Water Signal	14 <sup>th</sup> to 15 <sup>th</sup> Feb. 2015	IET	Dr. R. K. Shastri

	Processing			
3	GATE Training	10 <sup>th</sup> Jun. to 29 <sup>th</sup> Dec. 2014 (Weekends)	GATE Forum	Mr.S. R. Trankatwar
4	Under Water Signal Processing	26 <sup>th</sup> to 27 <sup>th</sup> Sept. 2014	BCUD, SPPU, Pune	Dr. R. K. Shastri
<b>2013-14</b>				
5	Computer Vision	12 <sup>th</sup> to 13 <sup>th</sup> Oct. 2013	BCUD, SPPU, Pune	Mr. S S Jagdale Mrs. J. S. Rangole
6	Antennas and Arrays	29 <sup>th</sup> to 30 <sup>th</sup> June 2013	IIT Delhi	Mr. S S Jagdale
<b>2012-13</b>				
7	Fundamentals of Digital Signal Processing	26 <sup>th</sup> to 27 <sup>th</sup> Jan. 2013	IIT Bombay	Mr. S. S. Jagdale

**8. Details of Courses/Programmes discontinued (if any) with reasons: Nil**

**9. Number of Teaching Posts**

Designation	Sanctioned	Filled
Professor	03	02
Associate Professor	07	00
Assistant Professor	19	22

**10. Faculty profile with name, qualification, designation, specialization, (D.Sc. /D.Lit. /Ph.D. /M.Phil. etc.,)**

Sr. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the last 4 years
1	Dr. S. B. Lande	M.Tech (TSE), Ph.D.	Professor	4G/LTE Mobile & Wireless Communication	20	Nil

2	Dr. R.K. Shastri	M.E. (Electronics), Ph.D.	Professor	Signal Processing	14	Nil
3	Mr.V. U. Deshmukh	B.E. (Electronics), M.E. (Communication System)	Assistant Professor	Communication Engineering	24	Nil
4	Mr.B. H. Patil	B.E.(E&Tc), M.E. (Microwave Communication)	Assistant Professor	Microwave Communication & Image Processing	12	Nil
5	Mr. P.K. Kadbe	B.E. (E&Tc), M.Tech. (Electronics)	Assistant Professor	Speech and Video Signal Processing	11	Nil
6	Mrs. J.S. Rangole	B.E. (Electronics), M.Tech. (Digital System)	Assistant Professor	Machine Vision, Underwater Signal Processing	12	Nil
7	Mrs. A.R. Shastri	B.E. (Industrial Electronics), M.E. (Electronics)	Assistant Professor	Biomedical Signal Processing and Electronic Devices	11	Nil
8	Mr. S.S. Jagdale	B.E.(E&TC), M.Tech. (E&Tc)	Assistant Professor	Fiber Optic Communication & Computer Networks	08	Nil



9	Mr. P.N. Arotale	B.E. (E&Tc), M.Tech. (Electronics)	Assistant Professor	Biomedical Signal Processing and Speech Processing	08	Nil
10	Mr. S.D. Biradar	B.Tech. (E&TC), M.Tech. (Electronics).	Assistant Professor	Biomedical Signal Processing, Image Processing	07	Nil
11	Mr. M. M. Jadhav	B.E. (Electronics ), M.Tech (E&Tc)	Assistant Professor	Microstrip patch antenna design	18	Nil
12	Mr. D.T. Kushnure	B.Tech. (E &TC), M.Tech. (Electronics)	Assistant Professor	Wireless Communication	04	Nil
13	Mrs. V.S. Surwase	B.E.(E&Tc), M.E. (Electronics)	Assistant Professor	Image processing & Embedded system Design	11	Nil
14	Mr. S.U. Kolhar	B.E (E & TC), M.E (Digital System)	Assistant Professor	Embedded Systems & Signal Processing	04	Nil
15	Mr. A.S. Bankar	B.E (E & TC), M.E (Digital System)	Assistant Professor	VLSI and Embedded Systems	04	Nil
16	Mr. S. R. Trankatwar	A.M.I.E.T.E (E & TC), M.Tech (E & TC)	Assistant Professor	Signal Processing and Power Grid	04	Nil

17	Mr. R.S. Piske	B.E. M.Tech. (Electronics Engineering)	Assistant Professor	Antenna & microwaves, Signal and System	01	Nil
18	Mr. V.J. Nagalkar	B.E. M. E.(Digital Electronics)	Assistant Professor	Digital Image Processing	06	Nil
19	Mr. A.W. Bhagat	B.E (E & TC), M.E (Digital System)	Assistant Professor	Digital Signal Processing, Image Compression	07	Nil
20	Ms. A.R. Bankar	B.E (E & TC), M.E (Digital System)	Assistant Professor	Underwater Signal Processing	04	Nil
21	Mr. M.N. Arotale	MS (Embedded Systems)	Assistant Professor	Embedded Systems and Linux	02	Nil
22	Mr. A.M. Padole	B.E (E & TC), M.E (Digital System)	Assistant Professor	Antenna Array	-	Nil
23	Mr. P.R. Bansinge	B.E (E & TC), M.E (Digital System)	Assistant Professor	Low Power Designs for VLSI Circuits	-	Nil
24	Mrs. N. U. Bhosle	B.E.(E & TC), M.E (Digital Communication)	Assistant Professor	Communication	-	Nil

### 11. List of senior visiting faculty

Sr. No.	Name	Qualification	Designation/ Affiliation	Specialization	Experience in years
<b>2015-16</b>					

1	Dr. Arnab Das	Ph.D.	Adjunct Professor, DIAT Pune	Underwater Acoustics	20
<b>2014-15</b>					
2	Dr. Debashis Adhikari	Ph.D.	Associate Professor, SIT Pune	Wireless Communication	10
3	Dr. M. A. Joshi	Ph.D.	Professor, COEP Pune	Signal Processing	35
<b>2013-14</b>					
4	Dr. Y. V. Joshi	Ph.D.	Professor, SGGS Nanded	Digital Signal Processing	29
<b>2012-13</b>					
5	Dr. Suhas Gajare	Ph.D.	Associate Professor SGGS Nanded	Image Processing	25
6	Dr. R.R. Manthalkar	Ph.D.	Professor SGGS Nanded	Image Processing	27

**12. Percentage of Lectures delivered and practical classes handled (programme wise) by temporary faculty**

Sr. No.	Name	Qualification	No. of lectures delivered	% of lectures delivered	No. of practical classes handled	% of Practical classes handled
<b>2015-16</b>						
1	Anuja Pharate	ME (Pursuing)	-	-	48	16.66
<b>2013-14</b>						
2	Anil Bhagat	ME (Pursuing)	145	11.18	168	6.48

2012-13						
3	Anil Bhagat	ME (Pursuing)	86	6.63	192	7.4

**13. Student-Teacher Ratio (programme wise)**

Sr.No	Programme	Student-Teacher Ratio
1	UG	18:1
2	PG	18:1

**14. Number of academic support staff (Technical) and administrative staff, sanctioned and filled**

Staff	Sanctioned	Filled
Technical	5	5
Supporting	2	2

**15. Qualification of Teaching Faculty with D.Sc./ D.Litt/ Ph.D./ M.Phil/ PG**

Ph.D.	Ph.D. Pursuing	PG-M.Tech./ M.E.
02	05	17

**16. Number of faculty with ongoing projects from a) National b) International Funding agencies and grants received****a) National-04**

Sr.No.	Principal Investigator	Title of the project	Funding Agency	Grant Received in Rs.	Duration of the project
1	Mr. V. U. Deshmukh	Investigation of Nonlinear Effects (Optical Solitons) in Fiber Optic Communication	BCUD, SPPU, Pune	1.90 Lakhs	2014-2016
2	Mr. B.H. Deokate	A pipelined VLSI Architecture for 2-D DWT	BCUD, SPPU, Pune	Rs. 1.7 Lakh	2014-2016
3	Mr. S.S. Jagdale	Ambient Noise Characterization in Shallow Depths for Tropical Water of The Indian Ocean Region	BCUD, SPPU, Pune	Rs. 1.9 Lakh	2014-2016
4	Mr. D.T. Kushnure	Peak Power to Average Power Reduction of OFDM System Using Modified Selective Mapping Technique	BCUD, SPPU, Pune	Rs. 1.7 Lakh	2014-2016
Total Grant Received				Rs.7.2 Lakh	

**b) International Funding-Nil**

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received**

Sr.No.	Principal Investigator	Title of the project	Funding Agency	Grant Received in Rs.	Duration of the project
1	Mr. M.M. Jadhav	Design of C slot Microstrip Patch Antenna for Wi Max Applications	BCUD , SPPU , Pune	Rs. 2.0 Lakh	2013-2015
2	Mr. S.D.Biradar	EEG Signal Classification for Brain Computer Interface Applications	BCUD , SPPU , Pune	Rs. 1.8 Lakh	2013-2015
3	Dr. S.B. Deosarkar	MODROB Microwave Engineering	AICTE	Rs. 19.71 Lakh	2013-2014
4	Mrs. J.S. Rangole	Automatic counting of Silkworm eggs	BCUD , SPPU , Pune	Rs. 2.3 Lakh	2012-2014
Total Grant Received				Rs.25.81 Lakh	

**18. Research Center/Facility Recognized by the University – Nil**

**19. Publications:**

**a) Publication per faculty**

Sr. No	Name of faculty	Conference		Journal		No. of Paper with		
		National	International	National	International	Citation	H Index	Impact Factor $\geq 1$
1	Dr. S. B. Lande	1	6	0	4	10	3	2
2	Dr. R.K. Shastri	0	17	0	10	12	4	6
3	Mr.V. U. Deshmukh	0	4	0	4	1	2	2
4	Mr.B. H. Patil	3	2	2	6	0	0	0
5	Mr. P.K. Kadbe	6	1	0	9	0	0	0
6	Mrs. J.S. Rangole	0	4	0	2	3	3	0
7	Mrs. A.R. Shastri	1	4	0	2	2	2	2

8	Mr. S.S. Jagdale	0	0	2	3	1	1	1
9	Mr. P.N. Arotale	0	1	0	0	0	0	0
10	Mr. S.D. Biradar	0	1	0	4	2	1	1
11	Mr. M. M. Jadhav	2	1	4	6	0	0	4
12	Mr. D.T. Kushnure	2	1	0	3	4	2	2
13	Mrs. V.S. Surwase	2	0	0	0	0	0	0
14	Mr. S.U. Kolhar	0	1	0	2	1	0	2
15	Mr. A.S. Bankar	1	1	0	1	0	0	1
16	Mr. S. R. Trankatwar	0	0	0	2	0	0	1
17	Mr. R.S. Piske	0	1	0	0	0	0	0
18	Mr. V.J. Nagalkar	0	0	0	0	0	0	0
19	Mr. A.W. Bhagat	2	1	0	4	0	0	3
20	Ms. A.R. Bankar	2	0	0	1	0	0	0
21	Mr. M.N. Arotale	0	0	0	0	0	0	0
22	Mr. A.M. Padole	0	0	0	1	0	0	0
23	Mr. P.R. Bansinge	0	0	0	1	0	0	0
24	Ms. N. U. Bhosle	0	0	0	1	0	0	0

- Number of papers published in peer reviewed journals (national /International) by faculty and students: 04
- Number of publications listed in International Database: 04  
List of Faculty Publications in Peer reviewed journals
- Sudhir B. lande and Smita Mankar “Review on M2M Communications Using D2D Communications in cellular Network”, KIET International Journal of Communications & Electronics (ISSN: 2320-8996) page no. 26-33, volume 4,

Issue 1, January-June 2016.

- Sudhir B. lande and Sushil Kawale “Review on Energy Efficient Using Clustering Algorithm for Wireless Sensor Networks”, KIET International Journal of Communications & Electronics (ISSN: 2320-8996) page no. 26-33, volume No. 3, Issue No. 2, July- December- 2015.
- S. B. Lande, Jyoti D. Gawali, and S. M. Kharad Pande "Performance Evolution of SC-FDMA for Mobile Communication System", International Journal of Future Generation Communication and Networking 2016, Vol. 09, issue -02, ISSN: 2233-7857 pp. 231-242.
- Sudhir B. Lande, Dr. J. B. Helonde, and Dr. Rajesh Pande, "Comparison of resource allocation techniques in OFDMA for wireless communication." International Journal of Engineering and Innovation Technology (IJEIT) (ISSN: 2277-3754) Volume 2, Issue 6, December-2012, Paage No. 430-436.

## 20. Areas of consultancy and income generated

Sr. No.	Year	Name of Faculty	Area of Project	Organization/ Industry	Amount in Rs.
1	2013-14	Mr. S S Jagdale	VSBT video conferencing Setup	VP's School of Biotechnology Baramati	3000
2	2012-13	Mr. S.S. Jagdale	Lab Development	VP New Bal Vikas Mandir Pimpri	2500

## 21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards....

a) National committees: - 01

Sr. No.	Year	Faculty	Committee	Worked as
1	2013-14	Dr. S. B. Deosarkar	Recognition of Centre for PG, Local Inquiry Committee, Selection of post of Principal	Member
2	2012-13	Dr. S. B. Deosarkar	University Interview panel, Local Inquiry Committee	Member

b) International Committees: Nil

C) Editorial Boards - 02

Sr. No	Year	Name of Faculty	Committee	Category
1	2015-16	Mr. P.K. Kadbe	International Journal of Information Technology Convergence and Services (IJITCS)	International

2		Dr. S. B. Lande	IEEE CICON-2015	International (Session Chair)
3	2013-14	Dr. S. B. Lande	ICTC-2013	International

## 22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/ programme
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies

- a) Percentage of students who have done in-house projects including inter departmental/ programme

Programme	Academic Year	In-house projects (%)	
		Departmental	Interdepartmental
UG	2015-16	92.72	00
	2014-15	93.51	00
	2013-14	92.48	00
	2012-13	87.39	00
PG	2015-16	100	00
	2014-15	100	00
	2013-14	100	00
	2012-13	100	00

- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies

Programme	Academic Year	Outside projects (%)
UG	2015-16	07.28
	2014-15	06.49
	2013-14	07.52
	2012-13	12.61
PG	2015-16	00
	2014-15	00
	2013-14	00
	2012-13	00

## 23. Awards / Recognitions received by faculty and students

- a) Awards / Recognitions received by Faculty:



Sr. No	Year	Name of Faculty	Awards/ Recognitions	Organization	Details
1	2015-16	Mr. V.J. Nagalkar	Second Position	Maharashtra State Inter University Research Convention- Savitribai Phule Pune University	Medicine and Pharmacy Category
2		Mr. B. H. Patil	Second Position	VPCOE in association with CSI student branch and IET	NCRTCET-2015
3	2014-15	Mr. V. J. Nagalkar	First Position	Maharashtra State Inter University Research Convention- North Maharashtra Uni. Jalgaon	Engineering and Technology Category
4	2013-14	Mr. V. J. Nagalkar	First Position	Maharashtra State Inter University Research Convention- Balasaheb Sawant Konkan Krishi Vidyapeeth Dapoli	Engineering and Technology Category
5	2012-13	Mr. S. S. Jagdale	Appreciation for Contribution	IIT Bombay under NME-ICT MHRD Govt. of India	Contribution to Spoken Tutorial Project
6		Mr. V. J. Nagalkar	Second Position	KIIT University	Research Convention

## b) Awards / Recognitions received by Students

Sr. No.	Year	Name of Student	Awards/ Recognitions	Organization	Details
1	2015-16	Netake Tejal Panchvishe Shreedevi	Second Position	Dattakala Group of Institutions	Poster presentation

2		Vende Vishal Gandre Pooja	Second Position	College of Engg. Phaltan	Project competition
3		Vende Vishal Gandre Pooja Jiwtode Shubham	Third position	IEEE	MTT Video competition
4		Vende Vishal Gandre Pooja	Runner up	SVERI CoE Pandharpur	Paperfest of Olympus 2k15
5		Gandre Pooja	Third position	VPCOE CESA	Poster presentation STHAPATYA1 6
6		Gandre Pooja	Second Position	College of Engg. Phaltan	Project competition
7	2014- 15	Mutha Sambhav Patekar Sudarshan	Shortlisted for Second Round	SPPU, Pune	Avishkar 2014 Project competition
8		Mutha Sambhav Patekar Sudarshan	Third Position	Natarajan Education Society	Innovation Award
9	2013- 14	Shelke Shweta V. Sawant Pooja R. Sonawane Vasundhra	Runner –up Prize	SPPU, Pune	Inter-Collegiate Sports Basketball- Girls Tournament
10		Bhapkar Amruta	Runner –up Prize	SPPU, Pune	Inter-Collegiate Sports Basketball- Girls Tournament
11		Mayur Polakhare	First Position	IIT Guwahati	Techscribe event
12		Mayur Polakhare	First Position	IIT Guwahati	Platform 101
13		Chaitanya More Nayan Modve Pawan Nikam	Shortlisted for the final round	National Instruments	NI-Yantra 2014 National Level Project Competition

#### 24. List of eminent academicians and scientists/visitors to the department

Sr.No.	Year	Name of academicians and scientists/visitors	Designation	Organization
1	2015-16	Dr. Annuradha Ganesh	Director Production Engg	Cummins India Ltd. Pune
2		Dr. Veenaranjini Manjunath	Director Research and Development	Cummins India Ltd. Pune
3		Dr. Yogesh Angal	Associate Professor and HOD	Bhiwraibai Sawant Engg. College, Pune
4		Mr. Sunil Pawar	Head IT Infrastructure	Piaggio Vehicles Pvt Ltd Baramati
5	2014-15	Dr. Ajay Deshmukh	Chair IEEE Signal Processing Chapter	IEEE Bombay Section.
6		Mr. Bhushan Thatte	Manager Finance	Piaggio Vehicles Pvt Ltd. Baramati
7		Ms. Pooja Bansal	Senior Manager HR	Piaggio Vehicles Pvt Ltd. Baramati
8		Mr. Atul Thodge	Manager Quality Control	Piaggio Vehicles Pvt Ltd. Baramati
9		Prof. M .A .Joshi	Professor	College of Engineering, Pune
10		Dr. Ravindra Jaybhaye	Officer on Special Duty(OSD)	BCUD, Pune
11		Mr. Balan Selva	Scientist	CWPRS, Pune
12		Prof. R. K. Shevgaonkar	Vice Chancellor Pune University	Pune University
13		Dr. Hemant Abhyankar	Vice President	VIIT group
14	2013-14	Mr.M. M. Kshirsagar	Principal	RTTC Pune
15	2012-13	Dr. S. R. Gengaje	Professor and Head Dept. of Electronics	WIT Solapur

## 25. Seminars/Conferences/Workshops organized & the source of funding

### a) National b) International

Sr.No.	Year	Seminars/Conferences/ Workshops	Conducted by	Source of funding
1	2015-16	Embedded Systems: PICK d PIC	Jyoti Rangole, Nagesh Kulkarni Bhavika Shah	VPKBIET, Baramati
2		Basics of Antenna and IE3D EM simulation software	M.M. Jadhav VPKBIET, Baramati	VPKBIET, Baramati
3		Two Day Workshop on Basics of Antenna Design and Hands on CST Microwave Studio	Dr. Mahesh P. Abegaonkar (CARE, IIT Delhi)	VPKBIET, Baramati
4		Embedded Systems : PIC Microcontroller workshop	Nagesh Kulkarni Bhavika Shah VPKBIET, Baramati	VPKBIET, Baramati
5		TWO - WEEK ISTE Short Term Training Programme (STTP) on Pedagogy for Effective use of ICT in Engineering Education	Prof. Sahana Murthy Prof. Sridhar Iyer, IIT Bombay	NMEICT, MHRD Govt. of India
6	2014-15	Two Week ISTE Workshop on Control System under the NMEICT, MHRD Govt. of India conducted by IIT Kharagpur at VPCOE, Baramati	Dr. Prof. Siddhartha Mukhopadhyay Prof. Tapan Kumar Ghoshal, IIT Kharagpur	NMEICT, MHRD Govt. of India
7		Workshop on National Programme on Technology Enhanced Learning (NPTEL)	Dr. Hemant Abhyankar, Vice President, VIIT group Prof. R. K. Shevgaonkar, Director of IIT Delhi	IIT Bombay
8		Workshop on Research Methodology	Dr. Manesh Kokare , S.G.G. S. I. E.& T. Nanded	VPKBIET, Baramati

9	2013-14	Two week ISTE Workshop on Signals & Systems	Prof. Vikram M. Gadre, IIT Bombay, Prof. Somnath Sengupta, IIT Kharagpur.	NMEICT, MHRD Govt. of India
10		Two week workshop on Analog Electronics	Prof. Anindya Sundar Dhar, Prof. Pradip Mandal, Prof. Indrajit Chakrabarti, Prof. Achintya Halder, IIT Kharagpur	NMEICT, MHRD Govt. of India
11		Workshop on Programmable System-on-chip(PSOC)	Mr.A.N. Shrinivasan Mr.Krutin Karia Tiny Chip Embedded Solutions, Bangalore	VPKBIET, Baramati
12		Two Days short term course on Research Methodology	Dr. Manesh Kokare, S.G.G. S. I. E.& T. Nanded	VPKBIET, Baramati
13	2012-13	2 Days ISTE Workshop on Research Methods in Educational Technology	Prof. Sahana Murthy & Prof. Sridhar Iyer, IIT Bombay	NME-ICT, MHRD Govt. of India
14		2 Days ISTE workshop on Aakash for Education	Team Aakash, IIT Bombay	NME-ICT, MHRD Govt. of India

### 26 Students Profile Programme/Course wise

Year of Admission	Name of the Course	Applications received	Selected	Enrolled		Pass percentage
				*M	*F	
2015-16	BE (E&TC Engineering)	Applications are received by Directorate of Technical Education, Mumbai through Centralized Admission Process		39	50	91.95
2014-15				65	51	91.56
2013-14				56	62	97.83
2012-13				57	69	93.69
2015-16	ME	Applications are received		3	8	94.12

2014-15	(Electronics-Digital Systems)	by Directorate of Technical Education, Mumbai through Centralized Admission Process	2	15	94.12
2013-14			5	12	88.89
2012-13			2	16	82.35

\*M=Male \*F=Female

## 27. Diversity of Students

Year of Admission	Name of the Course	% of students from the same state	% of students from other state	% of students from abroad
2015-16	BE (E&TC Engineering)	98.87	1.13	00
2014-15		99.13	0.87	00
2013-14		99.15	0.85	00
2012-13		99.21	0.79	00
2015-16	ME (Electronics - Digital Systems)	100	00	00
2014-15		100	00	00
2013-14		100	00	00
2012-13		100	00	00

## 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc?

	No. of Students Cleared the exam			
Academic Year	2015-16	2014-15	2013-14	2012-13
GATE	08	07	04	05
Civil Services	00	00	00	00
Defense Services	00	00	00	01
Other Exam.	00	00	00	00

## 29. Student Progression

Student Progression	Against % enrolled			
	2015-16	2014-15	2013-14	2012-13
UG to PG	5.84	1.42	1.11	0.00
PG to Ph.D.	0.00	0.00	11.76	11.11
Campus selection	13.13	0.00	0.00	0.00
Other than campus recruitment	27.01	40.42	33.33	47.16
Entrepreneur/ Self Employment	1.00	0.00	1.11	0.00

**30. Details of infrastructure facilities****a) Library****b) Internet facilities for staff and students****c) Class rooms with ICT facility****d) Laboratories****a) Department Library**

<b>Sr. No</b>	<b>Particulars</b>	<b>Total No.</b>
1	Books	159
2	Hand book	15
3	Data book	40
<b>Total</b>		<b>214</b>

**Other Available Resources**

- Project Reports
- Question Papers

**b) Internet facilities for staff and students**

- Staff seating places are fully furnished and equipped with, Internet connections
- Wi-Fi and wired network facility is available in the building, labs and classrooms.

**c) Total number of class rooms-04****Class rooms with ICT facility -01****d) Laboratories**

<b>Sr. No.</b>	<b>Name of the Laboratory</b>	<b>Area (Sq.Mtr.)</b>
1	Solid State Devices Lab	80.04
2	Project Lab	105.39
3	Digital Electronics Lab	80.04
4	VLSI and Embedded Systems Lab	72.90
5	Communication System Lab	83.16
6	PG Research Lab – Electronics	71.55
8	RF and Microwave Lab	90.36
9	Linear IC Lab	105.39
10	Signal Processing Lab	68.22

**31. No. of Students receiving financial assistance from the college, University, Govt or other agencies**

<b>Name</b>	<b>Type</b>	<b>2015-16</b>	<b>2014-15</b>	<b>2013-14</b>	<b>2012-13</b>
<b>College</b>		00	01	01	00
<b>University</b>		00	00	00	00
<b>Government</b>	EBC	93	108	144	142

(scholarship)	OBC	73	79	52	41
	SC	32	39	21	21
	ST	02	03	07	01
	VJ/NT	50	53	15	19
	SBC	08	10	06	04
Government (Freeship)	OBC	12	18	16	30
	SC	19	19	12	09
	VJ/NT	12	05	10	14
	SBC	03	03	02	03
Other Agency	Pawar Charitable Trust	04	02	05	04
PTC & NTC	PTC	05	06	05	08
	NTC				

**32. Details on student enrichment programmes (special lectures/workshops/Seminar) with experts.**

Sr.No.	Year	Name	Designation	Details
1	2015-16	Mr Ganesh Bhosle	Dwij IT solution Pune	Raspberry pi: hands on Training conducted from 5-7 March 2016.
2		Prof. Shreepad Karmalkar.	Professor,IITM	QEEE Lecture on Solid State Devices conducted on Aug-Nov 2015
3		Prof. Shanthi Pavan	Professor,IITM	Fundamentals of Small Signal Analysis conducted on Aug-Nov 2015
4		Prof. Deepa Venkitesh	Professor,IITM	Electromagnetic Waves conducted on Aug-Nov 2015
5		Prof. G. Venkatesh	Professor,IITM	Graphs and Strings conducted on Aug-Nov 2015
6		Prof. Zafar Ali Khan	Professor,IITH	Space Time Codes MIMO and Massive MIMO- Part 1 - Wireless Communication conducted on Aug-Nov 2015
7		Prof. Zafar Ali Khan	Professor,IITH	Space Time Codes MIMO and Massive MIMO- Part 2 - Wireless conducted on



				Aug-Nov 2015Communication
8		Prof. Gopal Srinivasan	Professor,IITB	Algebra conducted on Aug- Nov 2015
9		Prof. Tushar Jain	Prof IIT Mandi	Design of Feedback in Control Systems conducted on Jan-April 2016
10		Prof. Devendra Jalihal	Professor IITM	Introduction to Signal and Systems conducted on Jan- April 2016
11		Prof.Balakrishnan M	Professor IIT Delhi	Low Power Embedded Systems conducted on Jan- April 2016
12		Prof. Tushar Jain	Professor IIT Mandi	Time domain analysis of first and second order system - Control Systems conducted on Jan-April 2016
13		Prof. Aurobinda Routray	Professor IIT Kanpur	Digital Signal Processing conducted on Aug-Nov 2014
14		Prof. Pradeep Kumar	Professor IIT Kanpur	Analog Circuits conducted on Aug-Nov 2014
15		Prof. Ashok Jhunhunwala	Professor IITM	Fibre Optic Communications conducted on Aug-Nov 2014
16	2014-15	Prof. Nandita Dasgupta	Professor IITM	Electronic Devices & Circuits conducted on Jan- April 2015
17		Prof. Giridhar K	Professor IITM	Digital Communication conducted on Jan-April 2015
18		Prof. Deepa Venkitesh	Professor IITM	Antenna and Wave Propagation conducted on Jan-April 2015

19		Prof. Ashok Jhunhunwala	Professor IITM	Wireless and Mobile Technology conducted on Jan-April 2015
20		Prof. Gopal Srinivasan	Professor IITB	Digital Signal Processing conducted on Jan-April 2015
21	2013-14	Vineet Jaganathan	Coordinator, IIT BHU	PLC and SCADA conducted on 22, 23 March 2014.
22		Prof. D. Venkatesh	Professor IITM	Electromagnetic Fields conducted on Jan -April 2014
23		Prof. A. Jagannathan	Professor IITK	Wireless Communication conducted on Jan -April 2014
24		Prof. S. Sabnis	Professor IITB	Probability & Statistics conducted on Jan -April 2014
25		Mr. Sharad Joshi	Godrej and Boyce Pvt. Ltd.	PLC Course conducted from 16 Sept to 29 Sept 2013
26	2012-13	BSNL Pune	RTTC BSNL Pune	BSNL Training conducted on 18/3 to 24 April 2013

### 33. Teaching methods adopted to improve student learning:-

- The senior faculty members guide the other faculty members for the understanding of the fundamentals and key aspects of the subject.
- Guest lectures and workshops organization by expertise for better understanding of the subject.
- Use of power-point presentations
- Use of NPTEL video lectures
- Interactive lecture method
- Organization of activities like aptitude test and group discussion, paper presentation, project exhibition etc.
- Massive Open Online Courseware (MOOCs)

### **34. Participation in Institutional Social Responsibilities (ISR) and Extension activities**

Our department students formed “Sparsh group” which works for the benefit of the society and to serve needy people. Few activities carried out by the group are –

- Clothes bank activity – Our students collected unused clothes and donated to Bharatmata Adiwasi Pardhi Samaj and Bhatake Vimukt Vikas Pratishthan, Mohol”.
- Street play for social awareness for women empowerment.
- Street play for social awareness regarding traffic rules.
- No vehicle day celebrated in the college.

### **35. SWOC analysis of the department and Future plans**

#### **Strengths**

- Well defined teaching learning processes and its execution supported by lab facilities and world class infrastructure to keep learning on toes.
- Qualified and dedicated faculties are always in front to upgrade their skills and knowledge by participating in summer schools, remote workshops and industry interactions.
- Various learning platforms like NPTEL, MOOC’s and industry relevant courses.
- Integrated co curricular and extracurricular activities for the comprehensive development of student’s personality with ethical values.
- Contributing to girl’s education by providing conducive environment to pursue engineering education.

#### **Weakness**

- Placement status is not upto the mark
- Lacking in research and consultancy work.
- Less number of faculties with Ph.D.

#### **Opportunities**

- Initiation of R&D activities with the help of various funding agencies like AICTE, DST, etc.
- Encouraging the students for interdisciplinary projects.
- Collaboration with higher learning Institutes for student and faculty development
- Delivery of industry based curriculum
- To focus on entrepreneurship development

#### **Challenges**

- To identify exact requirement of admitting students (student profiling) and upgrade it to offer choice based career.
- To use university defined road map and deliver the industry expected outcomes
- Enhancing interaction with nearby industries to get consultancy and opportunity to do Project work
- To grow towards autonomy to embark as leading technical Institute

**Future Plans**

- Enhancing Industry Institute Interaction for conducting value added programs to improve placements and consultancy.
- Encouraging the faculties to pursue Ph.D.
- Establishing R&D Center and Center of Excellence in association with Industries.

## Evaluative Report of Mechanical Engineering Department

1. **Name of the Department** : Mechanical Engineering
2. **Year of establishment:** 2002
3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)**

Level	Programme Offered	Commencement Year	Intake
UG	BE-Mechanical Engineering	2002	60
PG	1.ME (Design Engineering)	2012	18
	2. ME (Energy Engineering)		18

### 4. Names of Interdisciplinary courses and the departments/units involved

Sr. No	Year	Semester	Course Code	Subject	Department Involved
1	SE	I	207002	Engineering Mathematics III	General Science and Engineering
2	SE	II	203152	Electrical and Electronics Engineering	Electrical Engineering & Electronics and Telecommunication Engineering
3	SE	II	202047	Soft Skill	General Science and Engineering

### 5. Annual/Semester/Choice Based Credit System –

Sr.No	Program Level	Program	Annual/Semester/Choice Based Credit System
1	UG	BE Mechanical Engineering	Semester based credit system from 2015-16
			Semester Pattern till 2015
2	PG	1.ME-Design Engineering 2.ME-Energy Engineering	Semester based credit system from 2015-16
			Semester Pattern till 2013

### 6. Participation of the department in the courses offered by other departments

Sr.No	Year	Semester	Course Code	Subject	Department Involved
1	TE	I	311121	Industrial Engineering and Technology Management	Electrical Engineering

**7. Courses in collaboration with other universities, industries, foreign institutions, etc.**

Sr. No	Course	Duration	Collaborating Institute/Industry	Coordinator
2015-16				
1	QEEE-Phase V Balancing of Rotating Machines - Theory of Machines	Jan-Apr.2016	A Project by MHRD Govt. of India and IIT Madras	Mrs.P.D.Kale
2	Intensive Classroom Program (ICP) for GATE'15	July-Dec.2015	GATE Forum, Hyderabad	Mrs.S.S.Kulkarni
3	QEEE-Phase IV-Basics of Design of Machine Elements	Aug-Nov.2015	A Project by MHRD Govt. of India and IIT Madras	Mr.S.E.Zarekar
4	QEEE-Phase IV - Physical and Mathematical Foundations - Fluid Mechanics	Aug-Nov.2015		Mr.A.C.Chaudhry
2014-15				
5	Intensive Classroom Program (ICP) for GATE'14	July - Dec.2014	GATE Forum, Hyderabad	Mrs.S.S.Kulkarni
6	QEEE-Phase III- Pure Substance	Jan-Apr.2015	A Project by MHRD Govt. of India and IIT Madras	Mr.K.M.Jadhav
7	QEEE-Phase III - Introduction to Operation Research	Jan-Apr.2015		Mr.Y.V.Aaher
8	QEEE-Phase II-Basics of Machine Design	Aug-Nov.2014		Mr.S.E.Zarekar
2013-14				
9	QEEE-Phase I- Engineering Thermodynamics	Jan-Apr.2014	A Project by MHRD Govt. of India and IIT Madras	Mr.K.M.Jadhav
10	QEEE-Phase I Computational	Jan-April.2014		Mrs.P.D.Gharge

	Methods in Thermal & Fluid Engineering			
11	ANSYS Training Program	23 <sup>rd</sup> -28 <sup>th</sup> Dec.2013	INNOVENT Engineering Solutions Pvt. Ltd. Bangalore	Mr.S.V.Shelge
<b>2012-13</b>				
12	Two days CEP course on Interdisciplinary Aspects in Modeling of Manufacturing Processes	21-22 March 2013	IIT, Bombay	Mr.S.M.Bhosle

#### 8. Details of programs discontinued, if any, with reasons -Nil

#### 9. Number of teaching posts

Designation	Sanctioned	Filled
Professors	2	Nil
Associate Professors	6	1
Assitant Professors	17	17

#### 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)

Sr. No	Name	Qualification	Designation	Specialization	No of years of Experience	No. of Ph.D. student guided for the last 4 years
1.	Dr.S.C. Bali	ME ( Metallurgy) Ph.D.	Asso. Professor	Material Science and Corrosion	5	Nil
2	Mr.P.R. Chitrakar	ME (Mechanical) Ph.D. (Pursuing)	Asst. Professor	Thermal and Fluids Engineering	16	Nil
3	Mr.D.G. Joshi	ME (Mechanical) Ph.D.	Asst. Professor	Manufacturing Engineering	25	Nil

		(Pursuing)				
4	Mr.A.H. Kolekar	ME (Mechanical) Ph.D. (Pursuing)	Asst. Professor	Heat Power Engineering.	13.5	Nil
5	Mr.S.M. Bhosle	ME (Mechanical) Ph.D. (Pursuing)	Asst. Professor	Manufacturing Engineering	11	Nil
6	Mr.S.V.Shelge	M.Tech (Mechanical)	Asst. Professor	CAD-CAM Engineering	7	Nil
7	Mrs.P.D.Kale	ME (Mechanical)	Asst. Professor	Design Engineering	10	Nil
8	Mr.D.D.Rupnwar	M.Tech (Mechanical)	Asst. Professor	Design Engineering	8	Nil
9	Mr.V.B.Bhagwat	M.Tech (Mechanical)	Asst. Professor	Manufacturing Technology	5.5	Nil
10	Mr.H.P.Borate	ME (Mechanical)	Asst. Professor	Design Engineering	13	Nil
11	Mr.K.M.Jadhav	ME (Mechanical)	Asst. Professor	Thermal and Fluids Engineering	7	Nil
12	Mr.P.V.Dhandore	ME (Mechanical)	Asst. Professor	Design Engineering	4	Nil
13	Mr.S.H.Kumbhar	ME (Mechanical)	Asst. Professor	Design Engineering	2.5	Nil
14	Mrs.M.S.Yadav	M.Tech (Mechanical)	Asst. Professor	Heat Power Engineering	0.5	Nil
15	Mr.A.A.Bhaskar	ME (Mechanical)	Asst. Professor	Design Engineering	2	Nil
16	Mr.M.S Gaikwad	ME (Mechanical)	Asst. Professor	Energy Engineering	-	Nil
17	Mr.P U Galande	ME (Mechanical)	Asst. Professor	Design Engineering	-	Nil
18	Mrs.S S Kulkarni	BE (Instrumentation)	Asst. Professor	Instrumentation Engineering	16	Nil

### 11. List of senior visiting faculty:

Sr. No	Name	Qualification	Designation /Affiliation	Specialisation	Experience in years
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2015-16					
1	Dr. Vijay Jatti	Ph.D.	Asst. Professor-Symbiosis Institute of Technology, Pune	Manufacturing Engineering	10
2014-15					
2	Mr.Achyut Mehendale	B.Tech	Consultant, Enrich Consultant Pune	Mechanical Engineering	22
2013-14					
3	Dr.Hemant Warhadkar	Ph.D.	Asso. Professor-BATU, Lonere	Impact Biomechanics	18
2012-13					
4	Dr.A.K.Bhat	Ph.D.	Principal & Professor, SSPM,COE, Kankawali	Thermal Engineering	35

**12. Percentage of lectures delivered and practical classes handled (Program wise) by temporary faculty**

Sr. No.	Name	Qualification	No. of lectures delivered	% of lectures delivered	No. of practical's handled	% of practical's handled
2015-16						
1	Dr. Vijay Jatti	Ph.D.	16	5%	Nil	Nil
2014-15						
2	Mr.Achyut Mehendale	B.Tech	5	2.5%	Nil	Nil
2013-14						
3	Dr.Hemant Warhadkar	Ph.D.	4	2.5%	Nil	Nil
2012-13						
4	Dr.A.K.Bhat	Ph.D.	10	0.2%	Nil	Nil

**13.Student -Teacher Ratio (program wise)**

Sr.No	Program	Student -Teacher Ratio
1	UG	18:1
2	PG	18:1

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

Sr.No	Staff	Sanctioned	Filled
1	Technical	9	9
2	Supporting	04	04

**15. Qualifications of teaching faculty with DSc/ D.Litt./ Ph.D./ MPhil / PG.**

Ph.D.	Ph.D. Pursuing	PG-M.Tech./M.E.
01	04	12

**16. Number of faculty with ongoing projects from a) National b) International funding agencies and funding agencies grants received.**

a) National-02

Sr. No .	Principal Investigator	Title of the Project	Funding Agency	Grant Received in Rs	Duration (Year)
1.	Mr.V.B. Bhagwat	Characterization and comparison of solar selective coatings between Ni Al and Ni-Co on Al substrate.	BCUD, SPPU, Pune	85,000	2014-16
2	Mrs.P.D.Kale	Experimental Investigation and Analysis of Dynamic Response of Conical Compression Spring in Comparison with cylindrical in Shock absorber	BCUD,SPPU, Pune	1,70,000	2016-18

<b>Total Grant Received</b>	<b>2,55,000</b>	
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b) International- Nil

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received.**

<b>Sr. No</b>	<b>Principal Investigator</b>	<b>Title of the Project</b>	<b>Funding Agency</b>	<b>Grant Received in Rs.</b>	<b>Duration (Year)</b>
1	Mr. S.M.Bhosle	Experimental investigations and Analysis of Recast Layer formation in wire EDM	BCUD, SPPU, PUNE	2,15,000	2013-15

**18. Research Centre /facility recognized by the University -Nil**

**19. Publications: Publication per faculty**

<b>Sr. No</b>	<b>Name of the Teacher (s) Author</b>	<b>Conference</b>		<b>Journal</b>		<b>No. of Paper with</b>		
		<b>National</b>	<b>International</b>	<b>National</b>	<b>International</b>	<b>Citation</b>	<b>H Index</b>	<b>Impact Factor &gt; 1</b>
1	Dr.S.C Bali	0	2	0	0	1	1	1
2	Mr.P.R.Chitrakar	0	1	0	5	0	4	2
3	Mr.D.G.Joshi	0	0	0	7	0	0	0
4	Mr.A.H.Kolekar	0	1	0	2	0	0	1
5	Mr.S.M.Bhosle	0	3	0	1	1	1	1
6	Mr.S.V.Shelge	0	0	0	3	0	0	1
7	Mrs.P.D.Kale	1	2	0	1	0	0	0
8	Mr.D.D.Rupanwar	0	0	0	2	0	0	0
9	Mr.V.B.Bhagwat	0	2	0	2	1	1	1
10	Mr.H.P.Borate	1	1	0	2	1	1	1
11	Mr.K.M.Jadhav	0	0	0	4	0	0	3
12	Mr.P.V.Dhandore	0	0	0	1	0	0	0

13	Mr.S.H.Kumbhar	2	1	0	2	0	0	0
14	Mrs.M.S.Yadav	0	0	0	3	0	0	3
15	Mr.A.A.Bhapkar	0	0	0	0	0	0	0
16	Mr.P.U.Galande	0	0	0	1	0	0	0
17	Mr.M.S.Gaikwad	0	0	0	1	0	0	0
18	Mrs.S.S.Kulkarni	0	0	0	0	0	0	0

**-Number of papers published in peer reviewed journals (national /International) by faculty and students: 3**

**-Number of publications listed in International Database: 3**

## **20. Areas of consultancy and income generated-**

Sr. No	Year	Name of the Faculty	Area of the Project	Organization/ Institute	Amount (Rs)
1	2015-16	Mr.A H Kolekar and Mr.K.M.Jadhav	Practical Conduction on Boiler	Dattakala COE, Swami Chincholi	15,000
2	2014-15	Mr.H.P.Borate	Practical conduction on Universal Testing M/C	Someshwar COE, Someshwar	38,000
3		Mr.K.M.Jadhav	Practical Conduction on Boiler	Someshwar COE, Someshwar	20,000
4				Dattakala COE,Swami,Chincholi	30,000
5				SVPM'S COE, Malegaon	25,000
6	2013-14	Mr.K M Jadhav	Practical Conduction on Boiler	H.S.B.P. V.T.' S COE , Kasti	30,000
7				Dattakala COE, Swami Chincholi	35,000
8				H.S.B.P. V.T.' S COE , Kashti	20,000
9				SVPM'S COE, Malegaon	15,000
10	2012-13	Mr.K.M.Jadhav	Practical Conduction on Boiler	H.S.B.P. V.T.' S COE , Kashti	40,000
11				SVPM'S COE, Malegaon	15,000

## **21. Faculty as members in, a) National committees b) International Committees c) Editorial Boards....**

a) National committees – Nil

## b) International committees-02

Sr. No	Year	Name of Faculty	Committee	Worked as
1	2015-16	Mr.K.M.Jadhav	International	Recognized Reviewer of International Journal on “Renewable And Sustainable Energy Reviews”, Published by Elsevier
2	2015-16	Dr. S.C.Bali	International	Recognized reviewer of International Journal on ‘Corrosion Science’ published by Elsevier
3				Recognized reviewer of International Journal on ‘Corrosion’ published by NACE
4				Reviewer for 17th Asian Pacific Corrosion Control International Conference held at IIT Bombay, 2016

## c) Editorial Boards - Nil

Any other-03

Sr.No	Name of Faculty	Committee	Nature of Work
1	Mr.A.H.Kolekar	PGCON-2015	Reviewer of the paper submitted to the conference
2	Mr.S. V. Shelge		
3	Mrs.P.D. Kale		

**22. Student project**a) **Percentage of students who have done in-house projects including inter departmental/program.**b) **Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies**

a) Percentage of students who have done in-house projects including inter departmental/program.

Name of the Program	Academic Year	In House Projects (%)	
		Departmental	Inter-Departmental
UG- BE (Mechanical	2015-16	81.24	14

Engineering)	2014-15	85.48	5
	2013-14	70.24	18
	2012-13	80	10
PG- ME (Design Engineering)	2015-16	91	0
	2014-15	62.5	12.5
	2013-14	100	0
	2012-13	NA	NA
PG- ME (Energy Engineering)	2015-16	100	0
	2014-15	100	0
	2013-14	100	0
	2012-13	NA	NA

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Name of the Program	Academic Year	Outside Organization Project (%)
UG- BE (Mechanical Engineering)	2015-16	4.76
	2014-15	9.52
	2013-14	11.76
	2012-13	10
PG- ME (Design Engineering)	2015-16	9
	2014-15	25
	2013-14	0
	2012-13	NA
PG- ME (Energy Engineering)	2015-16	0
	2014-15	0
	2013-14	0
	2012-13	NA

### 23. Awards / Recognitions received by faculty and students

a) Awards / Recognitions received by faculty

Sr. No	Year	Faculty	Award/ Recognition	Organization	Details
1	2015-16	Mr.S.E Zarekar	Best Coordinator 2015	IIT, Madras	Basics of Design of Machine Elements - QEEE-Phase IV
2		Mr.D.D. Rupanwar	Best Learner Award	IIT Delhi	Short term course "Integrated Automation

	2014-15				Technologies”, conducted by IIT Delhi
3		Mr.K. M. Jadhav	Received Research Fellowship	IIT Delhi.	Summer Faculty Research Fellow Program 2015
4		Mr.K. M. Jadhav	2 <sup>nd</sup> Topper	IIT, Madras	NPTEL Online course on Numerical Methods and Programming
5	2012-13	Mr.S.M.Bhosle	Received Research Fellowship	IIT Delhi	Summer Faculty Research Fellow Program 2013

## b) Awards / Recognitions received by students

Sr. No	Year	Name of student	Award/ Recognition	Event/Organization	Details
1	2015-16	Mr.Siddhant Deshpande	1 <sup>st</sup> Prize	Builders Association of India-Engineer’s Day	Inter collegiate Debate Competition.
2		Mr. Datta Shinde	Received Elite Grade	IIT, Madras	NPTEL Online course on MATLAB program for Numerical Computation
3	2014-15	Mr.Rahul Doiphode & Mr. Mohan Kumbhar	1st prize	GMRT Khodad	State Level - Science Day Exhibition
4	2013-14	Ms.Sayali More and Shruti Patil	1 <sup>st</sup> prize	IIT, Bombay Powai	National level- “Angry Nerds” Radiance 2013
5	2012-13	Mr.Suhan Shetty	Selected for U-21 Maharashtra Team	Kaustbh All India Opens Basketball, Pune	Selection for U-21 by Kaustbh All India Opens Basketball
6		Mr.Akshay Bamnote	3 <sup>rd</sup> Prize	Kolhapur District Indoor Cricket Association	12 <sup>th</sup> Senior Open National Cricket Championship 2012,Jaysingapur
7	2012-13	Mr.Vijay Kulakarni	Best Batsman	COEP, Pune	

8		Mr.Akshay Bamnote	Best Bowler		Inter college – Tournament COEP ZEST
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#### 24. List of eminent academicians and scientists / visitors to the department

Sr. No	Year	Academicians and Scientists / Visitor	Designation and Affiliation	Organization
1	2015-16	Mr. Frank Lochner	Global Head, Quality Planing	PREH GmbH, Germany
2		Mr. Kai Uwe Lesch	Development Engineer	PREH GmbH, Germany
3		Dr. Anuradda Ganesh	Director	Cummins India Ltd. Pune
4	2014-15	Dr. William.W. Predebon	Professor and Department Chair	Michigan Technological University, Houghton, MI, USA
5		Dr. Craig R. Friedrich	Associate Chair and Director of Graduate Studies	, Michigan Technological University, Houghton, MI, USA
4	2013-14	Dr. Y K Dikshit	Scientist.	ISRO, Bangalore

#### 25. Seminars/ Conferences/Workshops organized & the source of funding

a) National -06 b) International- Nil

Sr. No	Year	Seminars/ Conferences/Workshops	Conducted by	Source of Funding
1	2014-15	Two day's workshop Critical Issues in Nuclear Technology	Dr J B Doshi, COE, Pune & Dr Suneet Singh, IITB Bombay	SPPU, Pune
2		ISTE workshop on Fluid Mechanics by IIT Kharagpur	Dr. S K Som and Dr. Suman Chakroborty	MHRD, Govt. of India
3	2013-14	Two Week ISTE Workshop Engineering Mechanics by IIT Bombay Through ICT,	Prof. Mandar M. Inamdar and Prof. Sauvik Banerjee, IIT Bombay	MHRD, Govt. of India
4		Two-Week ISTE Workshop On Engineering	Prof.Sukhatame, IIT Bombay	MHRD, Govt. of India



		Thermodynamics Conducted by IIT Bombay		
5	2012-13	Two Week ISTE Workshop on Introduction to Research Methodologies Conducted by IIT Bombay Through IIC	Prof. Shreepad Karmalkar, IIT Madras & Prof. Uday Gaitonde, IIT Bombay	MHRD, Govt. of India
6		Two Week ISTE Workshop on Computational Fluid Dynamics Conducted by IIT Bombay Through ICT	Prof. Bhalchandra Puranik & Prof. Atul Sharma, IIT Bombay	MHRD, Govt. of India

## 26. Student profile program/course wise

Academic Year	Name of the Course	Application Received	Selected	Enrolled		Pass %
				*M	* F	
2015-16	UG(BE Mechanical Engineering)	Admission process is as per the rules and regulation of DTE		65	16	96.10 %
2014-15				62	15	86.57 %
2013-14				61	09	98.66 %
2012-13				61	15	81.16 %
2015-16	PG –ME (Design Engineering)			09	01	70 %
2014-15				12	02	50 %
2013-14				14	01	13.33 %
2012-13				NA		
2015-16	PG- ME(Energy Engineering)			02	00	100%
2014-15				01	00	100%
2013-14				06	01	57.14 %
2012-13				NA		

\*M = Male \*F = Female

## 27. Diversity of Students

Academic Year	Name of the Course	% of Students from the Same State	% of Students from other States	% of Students from Abroad
2015-16	UG	98.5%	1.5%	0%

2014-15		98.5%	1.5%	0%
2013-14		98.5%	1.5%	0%
2012-13		98.5%	1.5%	0%
2015-16	PG	100%	0%	0%
2014-15		100%	0%	0%
2013-14		100%	0%	0%
2012-13		100%	0%	0%

**28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?**

Competitive Examination	No of Students			
	2015-16	2014-15	2013-14	2012-13
GATE	15	20	7	10
PSU	0	01	0	2
Civil Services	0	0	0	0
Defense Services	0	1	0	0
Other Exams: GRE /TOFEL /BMC/MSRTC/ MAHAJANCO	3	0	1	2

### 29. Student Progression

Student Progression	Against % Enrolled			
	2015-16	2014-15	2013-14	2012-13
UG to PG	5	15.58	5.97	16
PG to Ph.D.	0	0	1.26	0
Campus selection	6.06	9.45	22.38	10.66
Other than campus recruitment	34.84	35.14	59.7	56
Entrepreneurship/Self-employment	0	1.13	2.53	5.33

### 30. Details of infrastructure facilities

- a) Library
  - b) Internet facilities for staff and students
  - c) Class rooms with ICT facility
  - d) Laboratories
- a) Department Library

Sr.No	Particulars	Total No.
1	Text Book	200
2	Reference Book	6
3	Hand Book	1
4	Technical Papers	11
<b>Total</b>		<b>218</b>

## Other Available Resources

- B.E. Project Reports/CDs
- E-Books/CDs
- Question Papers

## b) Internet facilities for staff and students

- Staff cabins are fully furnished , Internet connections, Book Racks and Pin Board
- Wi-Fi and wired network facility is available in the building, labs and classrooms.

## c) Total number of classrooms-02

## d) Classrooms with ICT facility-01

## e) Students' laboratories

Sr. No.	Name of Laboratory	Area (Sq.Mtr)
1	I.C .Engine	84.97
2	Thermodynamics and Basic Mechanical Engineering	134.42
3	Fluid Mechanics and Turbo Machinery	208.80
4	Heat Transfer & Refrigeration and Air Conditioning	121.38
6	Theory of Machines & Dynamics of Machinery	90.55
8	Power Plant Engineering	79.50
9	Metallurgy Lab	119.90
10	Metrology and Quality control	
11	CAD Center (CAD Lab-1 and CAD Lab-2)	125.06
12	Vibration and Mechanics	87.56
13	Material Testing	66.96
14	Mechatronics and Automation Laboratory	87.56
15	Workshop	
	1.Machine Shop	278.55
	2.Fitting & Carpentry shop	168.88
	3.Welding & Black smithy	79.50

**31. Number of students receiving financial assistance from college, university,  
Government or other agencies.**

Name	Type	2015-16	2014-15	2013-14	2012-13
<b>College</b>		0	0	0	0
<b>University</b>		0	0	0	0
<b>Government</b>	EBC	52	47	54	54
	Minority	1	2	3	2
	Free ship (SC/ST/SBC)	27	27	26	27
	Scholarship(OBC/NT/VJ )	64	62	50	46
	PTC/NTC	0	1	0	1
	TFWS	9	9	8	9
<b>Other</b>	Cummins India Ltd	2	2	1	1

**32. Details on student enrichment programs (special lectures / workshop/seminars)**

**Guest Lectures**

Sr.No	Year	Resource Person	Organization
1	2015-16	Dr Neeraj Agrawal -Associate Professor	BATU, Lonere
2		Mr. Nitin Akhade -Consultant	Lloyds registered consulting, Mumbai
3		Mr.Vikrant Bhalerao – Project Mnager	Cummins India Ltd, Pune
4	2014-15	Mr. Achyut Mehandale –Energy Auditor	Enrich Consultant, Pune
5	2013-14	Mr. Vinayak Gogate-AGM	Tata Motors Ltd, Pune

**Workshop Organized for Students:**

**Industrial Visits**

Sr. No	Year	Resource Person	Details	Source of Funding
1	2015-16	Ms. Nirmala Bhingare-SVERI'S COE, Pandharpur	3 Days Workshop on FEA using ANSYS	VPKBIET Baramati
2	2014-15	Dr. Suneet Singh -Dept of Energy studies, IIT Bombay	State level workshop on "Critical issues in Nuclear Technology "	BCUD,SPPU-Pune
3	2013-14	Mr. Aashish Mittal-INNOVENT Engineering Solutions Pvt Ltd, Bangalore	One Week Workshop on ANSYS	VPKBIET Baramati
4	2012-13	Dr. Suhas Joshi (IITB) & Dr. Shiv Kapoor (University of Illinois, USA)	CEP on "Interdisciplinary Aspects in Modeling of Manufacturing Processes"	BCUD,SPPU-Pune
5		Dr. Suneet Singh -Dept of Energy studies, IIT Bombay	CEP on "Nuclear Power Generation"	

Sr.No	Class	Year	Company/Organization	Place	No of Students
1	S.E	2015-16	Relience Thermal Power Plant	Dahanu, Mumbai.	46
2	B.E		A/C lant at Ga.Di Ma Auditorium	Baramati	60
3	TE		Volkswagon	Pune	46
4	S.E		Piggio Pvt Ltd	MIDC Baramati	38
5	T.E		Kirloskar Brothers Ltd.	Pune	25
6	S.E		Nandan Dairy and Sugar Factory	Malegaon	77
7	BE		Automation 2015	Mumbai	47
8	BE		Kirloskar Brothers Ltd.	Sangli	25
9	B.E	2014-15	Kirloskar Brothers Ltd.	Pune	29
10	S.E		Nandan Dairy and Sugar Factory	Malegaon	73

11	S.E		Raj Industries MIDC Baramati.	MIDC Baramati	06
12	S.E		Jawaharlal Neharu port trust.	Dhahanu, Mumbai.	47
13	S.E		Relience Thermal Power Plant	Dahanu, Mumbai	47
14	B.E	2013-14	Pioneer Engineers & Graphitech Casting	MIDC, Baramati	70
15	S.E		Nandan Dairy and Sugar fFactory	Malegaon	76
16	BE		BILT Graphics Pvt Ltd	Baramati	35
17	TE		Bharat forge Pvt Ltd	MIDC Baramati	68
18	S.E	2012-13	Radiance IIT Bombay	Mumbai	14
19	BE		Nuclear Power Staion	Tarapur	46

### Internship

Sr. No.	Class	Year	Company Name	No of Students
1	ME	2015-16	RPK India ,Shirwal	2
2	ME		PRANAVVIKAS (INDIA) Pvt. Ltd. Ranjangaon	1
3	SE		PIAGGIO, India Pvt. Ltd Baramati	2
4	SE		Indreshwar Sugar Industry Barshi	4
5	SE		Endurance E-94 MIDC Industrial Area Waluj Aurangabad	1
6	TE		Piaggio Vehicles Pvt. Ltd .Baramati	2
7	TE		Dynamix Baramati	4
8	TE		Jayshree industries Aurangabad	3
9	TE		Whirlpool, Ranjangaon	1
10	TE		Fiat India Ltd, Ranjangaon	3
11	TE		Ferrero India Pvt. Ltd. Baramati	4
12	TE		Tata Power pvt. Ltd Mahul Road Chembur Mumbai	1
13	TE		Hi.Tech Engg Corporation India Private Limited Baramati	3
14	TE		Cooper corporation pvt. Ltd Satara	1
15	TE		Volkswagen India Private Limited ,Whirlpool	4
16	TE		Thermax Pvt. Ltd Pune	3
17	TE		Fiat India Ltd, Ranjangaon	2
18	TE		Atlas Copco Pune	3

19	TE		Mahindra Vehicles Manufacturers Ltd Chakan	1
20	TE		Cummins Inc Ltd, Phaltan	3
21	TE		Bharat Forge Ltd. Baramati	4
22	TE		Force Motors Ltd.(Pimpri-Chinchwad)	3
23	TE		TAL,Manufacturing Ltd.Pune	1
24	TE		Fiat India Ltd, Ranjangaon	3
25	TE	2015-16	Kirloskar Brothers Ltd, Kirloskarwadi,Palus, Sangli,	3
26	TE		Vehicle Reasearch and Development Establishment,A,Nagar	1
27	TE		Pranav Vikas (INDIA) Pvt ltd Ranjangaon	3
28	TE		Scheiber Dynamix, Baramati	1
29	TE		Heavy Vehicle Factory,Chennai	1
30	TE		North chennai thermal power station	1
31	BE		Mahindra Arise,Nashik	1
32	BE		Walchandnagar Industries Ltd, Walchandnagar	1
33	BE		Force Motores, Pune	2
34	BE	2014-15	Prime Technologies,Pune	1
35	BE		Sanjay Techno product pvty ltd,Aurangabad	1
36	BE		kirloskar oil engine ltd, Kagal	1
37	TE	2013-14	Tata Cummins Private Limited, Phaltan	7
38	BE	2012-13	PIAGGIO Baramati	8
39	BE		Kavitsu Transmission Pvt Ltd, Pune	1
40	BE		James Tata Motars,Pune	2
41	BE		Power Deal, Nashik	1
42	BE		Walchandnagar Industries Ltd, Walchandnagar	3
43	BE		Pranav Vikas (INDIA) pvt ltd, Ranjangaon	3

### 33. Teaching methods adopted to improve student learning

- Use of colorful wall charts are used to explain the concept of the topic.
- Use of Power point presentation and NPTEL resource materials.
- Arranging guest lectures, industrial visits to get in-depth knowledge about current topics.

- Conducting workshops to provide hands- on for students under ICI students' chapter.
- Organizing internship program are organized to bridge the gap between theory and practical.
- Organizing competitions like poster presentation and model making are arranged.

### **34. Participation in Institutional Social Responsibility (ISR) and Extension activities**

Students from Mechanical department actively participating in NSS,PRERNA Club which are conducting the following activities

- Blood Donation
- Tree Plantation
- Swacch Bharat Abhiyan
- NSS camp

### **35. SWOC analysis of the department and Future plans**

#### **Strengths**

- Exposure to the students and faculties for training and internship in industries.
- Encouragement for faculty development and continuous education program.
- Well-equipped laboratories with modern equipment.
- Consistently maintaining good academic results and qualifying GATE and GRE Examinations.

#### **Weakness**

- Lacking in Industrial consultancy work.
- Less number of faculties with Ph.D.
- Less expertise faculties in the area of simulation modeling, vibration and management.

#### **Opportunities.**

- Initiation of R&D activities with the help of various funding agencies like CSIR, AICTE, DST, BRNS, MNRE etc.
- To promote faculties and students to present their work at national and international level.
- Faculties and students to be motivated towards innovative ideas and real time projects to cater the needs of rural people.
- Active participation in national and international students' competition like SAEBAJA, Avishkar etc.
- Encouraging the students for more interdisciplinary projects.

#### **Challenges**

- Enhancing interaction with nearby industries to get consultancy and opportunity to do Project work at their premises.
- Motivating to the students for fellowship at premier and international Institutes.



**Future Plans**

- Enhancing industry Institute interaction for conducting value added
- Programs to improve placements and consultancy.
- Encouraging the faculties to pursue Ph.D.

## Evaluative Report of Civil Engineering Department

**22. Name of the Department:** Civil Engineering

**23. Year of Establishment:** : 2006

**24. Names of Programs/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)**

Level	Program Offered	Commencement year	Intake
UG	BE Civil Engineering	2006	60
PG	ME Structural Engineering	2011	18

### 4. Names of Interdisciplinary courses and the departments/units involved

Sr.No.	Year	Semester	Course Code	Subject	Department Involved
1	S.E	I	207001	Engineering Mathematics III	General Science
2	S.E.	II	201010	Soft Skill	General Science
3	M.E.	I	501405	Elective-I-Cyber security	Computer Engg.

### 5. Annual/Semester/Choice based credit system (Program wise)

Sr.No.	Program Level	Program	Annual/Semester/Choice based credit system
1	UG	BE Civil Engineering	Semester Based Credit System w.e.f. 2015
2	PG	ME Structural Engineering	Semester Based Credit system w.e.f. 2013

### 6. Participation of the department in the courses offered by other departments

Sr.No.	Year	Semester	Course Code	Subject	Department Involved
1	F.Y. Arch.	I & II	1201504&1201512	Theory of structure –I&II	School of Architecture

2	S.Y. Arch	III & IV	2201520&2201529	Theory of structure – III & IV	School of Architecture
3	T.Y. Arch	V	2201525	Survey & leveling	School of Architecture

**7. Courses in collaboration with other universities, industries, foreign institutions, etc.:-**

Sr. No	Course	Duration	Collaborative Institute	Coordinator
2015-2016				
1	Online Certification Courses	18 Hrs	QEEE,IIT Bombay	C.B. Nayak B.V. Sawant S.B. Walke
		30 Hrs	QEEE,IIT Madras	R.R. Deshmukh D.G. Patil U.T. Jagdale A.A. Vaidya S.B. Walke
		6 Hrs	QEEE,IIT Khargpur	R.R. Deshmukh C.B. Nayak
		80 Hrs	NPTEL in Association with MHRD, GOI	S.R. Deshmukh D.G. Patil S.B. Walke
2014-2015				
2	Online Certification Courses	9 Hrs	QEEE,IIT Madras	M.N. Sadanand
		6 Hrs	QEEE,IIT Bombay	S.B. Patil
2013-2014				
3	Online Certification Courses	2 Hrs	QEEE,IIT Madras	D.G. Patil
		9 Hrs	QEEE,IIT Bombay	S.B. Patil
		9 Hrs	QEEE,IIT Delhi	N.R. Bhosle

**8. Details of Courses discontinued (if any) with reasons: Nil**

**9. Number of Teaching Posts:**

Designation	Sanctioned	Filled
Professor	02	Nil
Associate Professor	04	01
Assistant Professor	12	13

**10. Faculty Profile with name, qualification, designation, specialization:**

Sr. No	Name	Qualification	Designation	Specialization	Experience in years	No. of Ph.D. Students Guided for the last 4 years
01	Dr. L.S.Pammar	M. Tech., Ph.D.	Associate Professor	Construction Management	06	Nil
02	Mr. G.N.Narule	M.E.	Assistant Professor	Structural Engineering	22	
03	Mr. C.B.Nayak	M.Tech.	Assistant Professor	Structural Engineering	09	
04	Mr. D.G.Patil	M.Tech.	Assistant Professor	Town Planning	06	
05	Mrs. S.B.Walke	M.E.	Assistant Professor	Structural Engineering	06	
06	Mr. U.T.Jagdale	M.E.	Assistant Professor	Structural Engineering	03	
07	Ms. S.R.Deshmukh	M.Tech.	Assistant Professor	Water resources	03	
08	Ms. J.C.Bhong	M.Tech.	Assistant Professor	Geotechnical Engineering	02	
09	Dr. S.G.Morkhade	M. Tech.,Ph.D.	Assistant Professor	Structural Dynamics and Earthquake Engineering	1.5	
10	Mr. D.D.Ahiwale	M. Tech.	Assistant Professor	Structural Engineering	02	

11	Mr. R.R.Khartode	M.Tech.	Assistant Professor	Structural Engineering	0.5	
12	Mr. A.M.Gaikwad	M.E.	Assistant Professor	Structural Engineering	02	
13	Dr. S.L.Ghodke	M. Tech.,Ph.D.	Assistant Professor	Structural Dynamics and Earthquake Engineering	01	
14	Dr.R.J.Patil	M. Tech.,Ph.D.	Assistant Professor	Environmental Engineering	01	

### 11.List of senior visiting faculty: UG Level

Sr.No.	Name	Qualification	Designation with affiliation	Specialization	Experience in years
<b>2015-16</b>					
1	Dr. S. S.Pimplikar	Ph.D.	Professor, MIT,Pune	Construction Management	29
2	Dr. Sanjay Bhoyar	Ph.D.	Professor, NICMAR,Pune	Construction Management	15
3	Mrs. Prachi Sathe	M. Sc	Asst Prof., University of Pune	Geo informatics	12
4	Mr.Amarsinh Shinde	M. Sc Agri	Deputy Sup. of Land Records, Baramati	Surveying and land measurement	05
5	Dr.M.R.Waghchure	Ph.D.	Professor, S.C.O.E, Sangamaner	Structural Engineering	28
<b>2014-15</b>					
1	Dr. S. S.Pimplikar	Ph.D.	Professor, MIT,Pune	Construction Management	28
2	Er. Pravin Kolhe	M. Tech	Executive Engineer Gov.W.R.D, Pune	Water resources Engineering	09

Sr.No.	Name	Qualification	Designation with affiliation	Specialization	Experience in years
<b>2013-14</b>					
1	Ms. P. R. Dixit	M. E.	Asst Prof., VIIT,Pune	Hydraulics	07
2	Er. Pravin Kolhe	M.Tech.	Executive Engineer	Water resources Engineering	08
3	Dr. S. S.Pimplikar	Ph.D.	Professor, MIT,Pune	Construction Management	27
<b>2012-13</b>					
1	Dr. P.D. Sabale	Ph.D.	Professor, D.C.P &R I,Pune	Geology	20
2	Dr. S. N. Londhe	Ph.D.	Professor, VIIT,Pune	Hydraulics	25
3	Dr. S. S.Pimplikar	Ph.D.	Professor,MIT,Pune	Construction Management	26

**PG Level:**

Sr.No.	Name	Qualification	Designation	Specialization	Experience in years
<b>2015-16</b>					
1	Dr.Mrs.K.N.Kadam	Ph.D.	Professor, G.O.C.E, Amaravati	Structural Engineering	20
2	Prof.G.R.Patil	Ph.D.	Professor, JSPM,Tathawade	Structural Engineering	28
<b>2014-15</b>					
1	Dr.S.N.Khante	Ph.D.	Professor, G.O.C.E, Amaravati	Structural Engineering	28
2	Dr.Mrs.K.N.Kadam	Ph.D.	Professor, G.O.C.E, Amaravati	Structural Engineering	19

1	Prof. Ms. P. R. Dixit	M. E.	5	0.81	0	0
2	Dr.S. S.Pimplikar	Ph.D.	6	0.98	0	0
<b>2012-13</b>						
1	Dr. P.D. Sabale	Ph.D.	6	0.98	2	1.78
2	Dr. S. N. Londhe	Ph.D.	5	0.81	0	0
3	Dr. S. S.Pimplikar	Ph.D.	5	0.81	0	0
<b>2013-14</b>						
1	Dr.Mrs.K.N.Kadam	Ph.D.	Professor, G.O.C.E, Amaravati	Structural Engineering	18	
<b>2012-13</b>						
1	Prof.G.R.Patil	Ph.D.	Professor, JSPM, Tathawade	Structural Engineering	25	

**12. Percentage of Lectures delivered and practical classes handled (Program wise) by temporary faculty: UG Level**

Sr. No	Name	Qualification	No. of lectures delivered	% of lectures delivered	No. of practical's handled	% of practical's handled
<b>2015-16</b>						
1	Dr.S. S.Pimplikar	Ph.D.	06	0.98	Nil	Nil
2	Mrs. Prachi Sathe	M. Sc Geoinfo.	05	0.81	01	0.89
3	Mr. Amarsinh Shinde	M. Sc Agri	0	0	01	0.89
4	Dr.M.R. Waghchure	Ph.D.	06	0.98	0	0
<b>2013-14</b>						
1	Dr. S. S.Pimplikar	Ph.D.	6	0.98	0	0

**PG Level:**

Sr. No.	Name	Qualification	No. of lectures delivered	% of lectures delivered	No. of practical's handled	% of practical's handled
<b>2015-16</b>						
1	Dr.Mrs.K.N. Kadam	Ph.D.	11	5.5	0	0
2	Prof.G.R.Patil	Ph.D.	08	04	0	0
<b>2014-15</b>						
1	Dr.S.N.Khante	Ph.D.	06	03	0	0
2	Dr.Mrs.K.N. Kadam	Ph.D.	06	03	0	0
<b>2013-14</b>						
1	Dr.Mrs.K.N. Kadam	Ph.D.	06	03	0	0
<b>2012-13</b>						
1	Prof.G.R.Patil	Ph.D.	06	03	0	0

**13. Student Teacher Ratio (Program wise)**

Sr.No.	Program	Student-Teacher Ratio
1	UG	18:1
2	PG	18:1

**14. Number of academic support staff (Technical) and administrative staff, sanctioned and filled**

Staff	Sanctioned	Filled
Technical	1	0
Supporting	2	2

**15. Qualification of Teaching Faculty with DSc/D.Litt/Ph.D./M.Phil/PG**

Ph.D.	Ph.D. Pursuing	PG-M.Tech./M.E.
04	02	08

**16. Number of faculty with ongoing projects from****a) National: 01****b) International: Nil****Funding agencies and grants received:**

Sr. No.	Principal Investigator	Title of the project	Funding Agency	Grant Received ( Rs)	Duration of the project
1	Mr. Nayak C.B.	Vibration control of	BCUD,	1.80 Lacs	2014-2016



		Civil structures using Piezoceramic Smart Materials	SPPU, Pune		
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**17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received: 01**

Sr.No.	Principal Investigator	Title of the project	Funding Agency	Grant Received (Rs)	Duration of the project
1	Mr. Narule G.N.	Non – Destructive testing of existing structure & rehabilitation	(AICTE-MODRO BS)	Rs. 6.00 Lacs	2012-2013

**18. Research Center/Facility Recognized by the University – Nil**

**19. Publications:**

• **Publication per faculty:**

Sr. No	Name of faculty	Conference		Journal		No. of Paper with		
		National	International	National	International	Citation	H Index	Impact Factor > 1
1	Dr.L.S.Pammar	0	01	0	04	0	2	2
2	Mr. G.N.Narule	01	07	0	09	1	0	0
3	Mr. C.B.Nayak	10	09	02	02	0	0	0
4	Mr. D.G. Patil	0	0	0	0	0	0	0
5	Mrs. S.B.Walke	01	03	0	02	0	0	0
6	Mr. U.T.Jagdale	04	01	0	0	0	0	0
7	Ms. S.R.Deshmukh	0	0	0	01	0	0	0
8	Ms. J.C. Bhong	0	0	0	0	0	0	0
9	Dr.S.G.Morkhade	02	03	0	04	2	0	2
10	Mr. D.D. Ahiwale	0	0	0	0	0	0	0
11	Mr. R.R.Khartode	0	01	0	01	0	0	1
12	Mr. A.M.Gaikwad	0	0	0	02	0	0	0
13	Dr.S.L.Ghodke	0	01	0	02	0	0	2
14	Dr.R.J.Patil	0	0	0	01	1	0	1

**20. Areas of consultancy and income generated**

Sr. No.	Year	Name of Faculty	Area of Project	Organization/Industry	Amount in Rs.
1	2015-16	1. Mr. Narule G.N. 2. Mr. Patil D.G. 3. Mr. Jagdale U.T.	Consultancy & Construction material Testing	Gas project India pvt.ltd,	1,93,878/-
2				Bhambare infrastuture pvt ltd,	
3				M/S S.J vastunirmity pvt ltd,	
4				Karne construction Baramati,	
5				Hardik properties, promoters, builders and developers,	
6				Buildfab structure system, Shri. Chhatrapti SSK ltd Bhawaninagar.	
7	2014-15	1. Mr. Narule G.N. 2. Mr. Patil D.G. 3. Mr.Jagdale U.T. 4. Mr. Nayak C.B. 5. Mrs. Walke S.B. 6. Mr. Sukhdeve A. 7. Mr. Lonpande H.K.	Consultancy & Construction material Testing	Bhamare Infra. pvt ltd,	1,95,500/-
8				Borade Associate pvt. ltd.,	
9				Vedshree Infrastr. pvt ltd,	
10				S.J. Vastunirmitee pvt ltd,	
11				Karne construction pvt ltd.,	
12				Swarli Earthmovers pvt.ltd.	
13	2013-14	1. Mr. Narule G.N. 2. Mr. Nayak C.B. 3. Mr. Lonpande H.K. 4. Mr. Patil S.B.	Consultancy & Construction material Testing	Manoj Potekar and Asscoiates,	1,13,680/-
14				K.M. Build homes pvt ltd.,	
15				Saswad nagar parishad,	
16				Agri. Cult. Dev.Trust,	
17				Krushni Vid. Kendra , Shardanagar	
18				Trust Sascon Infra, Baramati	
19				M.I.D.C., Sandeepa Power Lines	
20	2012-13	1. Mr. Thakare S.B. 2. Mr. Narule G.N. 3. Mr. Nayak C.B. 3. Mr.Patil D.G. 4. Mr. Patil S.K. 5. Mr. Lonpande H.K. 6. Mr. Patil S.B.	Consultancy & Construction material Testing	D.P. Jagtap and company pvt.ltd.,	3,44,193/-
21				BVG India pvt.ltd.,	
22				Gourav Engineers pvt.ltd.,	
23				NJR construction pvt.ltd.	
24				Sabve Rohini construction pvt. ltd.	
25				Dhotre constructions pvt.ltd.,	
26				Rohan builder india pvt ltd.,	

27				A.M. Jagadale construction pvt.ltd.,	
28				Bharat forge pvt.ltd.,	
29				Puja construction pvt ltd.,	
30				Kanchan construction pvt.ltd.	
31				Baramati agro pvt. ltd.	

**21. Faculty as members in****a) National committees: Nil****b) International Committees: Nil****c) Editorial Boards: 02**

Sr.No	Year	Name of Faculty	Committee	Worked as
1	2015-16	Dr.S.G.Morkhade	Journal of research on Engineering Structure and Materials	Editor
2	2014-15	Dr.S.G.Morkhade	Journal of research on Engineering Structure and Materials	Editor

**22. Student projects****a) Percentage of students who have done in-house projects including inter departmental/ program:**

Sr No.	Year	Program	In-house projects (%)	
			Departmental	Interdepartmental
1	2015-16	UG	100	00
2	2014-15		100	00
3	2013-14		100	00
4	2012-13		100	00
1	2015-16	PG	100	00
2	2014-15		100	00
3	2013-14		100	00

**b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: Nil****23. Awards / Recognitions received by faculty and students:****a. Awards / Recognitions received by Faculty:**

Sr. No	Name of	Awards/Recogniti	Year	Organizati	Details
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	Faculty	ons		on	
1	Mr. G. N.Narule	Elite Certificate	2015-16	IIT Madras	Score: 84.00, Course on Technical English for Engineers
		Elite Certificate	2015-16	IIT Madras	Score: 76.00 Course on Basics of Finite Element Analysis-I
2	Mr. C.B.Nayak	Elite Certificate	2015-16	IIT Madras	Score: 68.00, Course on Basics of Finite Element Analysis-I
3	Mr. D.G.Patil	Elite Certificate	2015-16	IIT Madras	Score: 83.00, Course on Project Planning and Control
4	Ms. S.B.Walke	Elite Certificate	2015-16	IIT Madras	Score: 64.00, Course on Basics of Finite Element Analysis-I

**b. Awards / Recognitions received by Students:**

Sr. No.	Year	Name of Student	Awards/Recognitions	Organization	Details
1	2014-15	Mr. Vivek Deshmukh	3 <sup>rd</sup> Prize	National Fencing Federation	National Level
2		Mr. Swapnil Mane	Gold Medal and 4 <sup>th</sup> Prize	National Boxing association	National Level Boxing Tournament
3	2012-13	Ms. S. B. Shinde	1)P.S.Sharangpani Gold medal, 2)Tek M. Felo award Tek Mahindra Ltd Gold Medal, 3)G.H.Raisoni Gold Medal 4)Principal G.K.Ogale Memorial Prize 5)Shri.V.N.Vartak Prize 6)R.M.Francy Memorial Prize 7)Dinkar Vishwanath Gokhale Prize 8)Late Prin.V. K. Jog Prize 9)Shri.Moti M. Makhijani Prize 10)Late Smt. Saraswatibai Tulpule Prize 11)Shri, Dinkar Krishna Datey Memorial Prize	University of Pune	University Level
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

17			12)Late Shri. Vishnu Balkrishna Joglekar Prize		
18			13)Late shri. D.K.Bhave Memorial Prize 14)Late shri. Dattatraya Laaxmanrao Deshmukh 15)M.V.Sathe Prize 16)Surayakant Dhundiraj Deshpande Memorial Prize		

#### 24. List of eminent academicians and scientists/visitors to the department

Sr.No.	Year	Name of academicians and scientists/visitors	Designation	Organisaiton
1	2015-16	1)Mr.Amarsinh Patil	Deputy Superintendent	Govt. of Maharashtra, Land Record Department, Baramati
2		2)Mr.Jaideep P.Raje	Director	Precast India Infrastructures Pvt. Ltd.,Pune
3	2014-15	1)Er.Pravin Kolhe	Executive Engineer	Govt. of Maharashtra Water Resource Dept.
4		2)Dr.R.K.Ingale	Professor	Dept. of Applied Mechanics ,VNIT,Nagpur
5		3)Dr.Vasant Matsagar	Asso.Professor	Dept.Civil Engineering, IIT,Delhi
6		4)Dr.Ratnesh Kumar	Asst.Professor	Dept. of Applied Mechanics ,VNIT,Nagpur
7	2013-14	Mr.M.B.Shankesh warkar	ChiefExecutive officer	Hitech Textile Park, Baramati
8	2013-14	Mr. Ranjeet R. More	Vice Chairman& MD	Universal Construction Machinery & Equipmentpvt.ltd

#### 25. Seminars/Conferences/Workshops organized and source of funding

a) National: 01 b) International: Nil

Sr.No.	Year	Seminars/Conference s/ Workshops	Conducted by	Source of funding
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1	2014-15	Three days' workshop on Seismic Design, Evaluation, Retrofitting and Optimization of Multi – Storied Buildings	1. Dr. R. K. Ingle, VNIT, Nagpur 2. Dr. Vasant Matsagar, IIT, Delhi 3. Dr. Ratnesh Kumar, VNIT, Nagpur	VPKBIET, Baramati
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**26. Students Profile Program/Course wise:**

Academic Year	Name of the Course Programme	Applications received/ Selected	Enrolled		Pass percentage
			M	F	
2015-16	BE Civil Engineering	Applications are received by Directorate of Technical Education, Mumbai through Centralized Admission Process	47	17	92.04
2014-15			51	14	100
2013-14			52	11	98.73
2012-13			56	12	98.80
2015-16	M.E. Structural Engineering	Applications are received by Directorate of Technical Education, Mumbai through Centralized Admission Process	10	03	61.53
2014-13			10	02	83.33
2013-14			13	04	82.35

**27. Diversity of Students**

Academic Year	Name of the Course	% of students from the same state	% of students from other state	% of students abroad
2015-16	BE ( Civil Engineering)	98.44	1.56	Nil
2014-15		96.92	3.07	Nil
2013-14		95.23	4.76	Nil
2012-13		97.06	2.94	Nil
2015-16	M.E. Structural Engineering	100	Nil	Nil
2014-15		100	Nil	Nil
2013-14		100	Nil	Nil
2012-13		100	Nil	Nil

**28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?**

	No. of Students
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<b>competitive examinations</b>	<b>2015-16</b>	<b>2014-15</b>	<b>2013-14</b>	<b>2012-13</b>
GATE	01	01	01	01
Engineering Services	06	01	03	0
Defense Services	0	0	01	0

**29. Student Progression**

<b>Student Progression</b>	<b>Against % Enrolled</b>			
	<b>2015-16</b>	<b>2014-15</b>	<b>2013-14</b>	<b>2012-13</b>
UG to PG	5.68	13.58	14.28	8.14
PG to Ph.D.	0	0	0	0
Employed Campus selection	9.87	15.58	28.57	0
Off campus selection	9.75	53.85	30.95	55.81
Entrepreneur/ Self Employment	36.38	2.47	9.52	6.98

**30. Details of infrastructure facilities****c) Department Library**

<b>Sr.No.</b>	<b>Particulars</b>	<b>Total Count</b>
1	Text Book	256
2	Reference Book	06
3	Manuals	02
4	Hand Book	01

**Other Available Resources**

- B.E. Project Reports = 40
- Question Papers = 30

**d) Internet facilities for staff and students**

- Staff seating places are fully furnished and equipped with Internet connections
- Wi-Fi and wired network facility is available in the building, labs and classrooms.

**e) Total number of class rooms- 03**

## f) Class rooms with ICT facility and 'smart' class rooms- 02

## e) Laboratories

Sr. No.	Name of Laboratory	Area (Sq.Mtr)
1	Environment Lab	137.12
2	Engg. Mechanics & Basic Civil Engineering Lab.	158.54
3	Strength of Material & Transportation Engineering Lab.	160.00
4	Concrete Technology Lab	87.40
5	Geotechnical Engineering Lab.	88.47
6	Surveying & Engineering Geology Lab.	86.96
8	Civil Computer Lab.	106.24
09	Fluid Mechanics	88.24

## 31. No. of Students receiving financial assistance from the college, University, Govt. or other agencies

Name	Type	2015-16	2014-15	2013-14	2012-13
College		0	0	0	0
University		0	0	0	0
Government	EBC	45	54	57	70
	OBC+SBC	86	84	17	13
	SC+ST+NT	51	40	11	15
	Free ship	33	28	09	08
	Minority	01	0	02	0
	PTC	03	0	01	0
	STC	02	01	07	06
	NTC	0	0	02	0
Other Agency	Cummins India Ltd/ Pawar Charitable Trust	03	01	0	0

## 32. Details on student enrichment programmes (special lectures/workshops/Seminar) with experts.



Sr No.	Year	Resource person	Designation	Details
1.	2015-16	Prof. Koshy Varghese. (IITM)	Professor	Construction Planning and Control
2.		Prof. Deepankar Choudhury (IITB)	Professor	Earth Pressures on Retaining Structures
3.		Prof. V.B. Maji. (IITM)	Professor	Site Investigation and Exploration
4.		Prof. S R Satish Kumar (IITM)	Professor	Basic Design of Steel Structures
5.		Prof. Manu Santhanam (IITM)	Professor	Cement Production, Composition and Chemistry
6.		Prof. Ashish Juneja (IITB)	Professor	Compaction of Soil - Soil Mechanics
7.		Prof. Nirjhar Dhang (IITKGP)	Professor	Design of earthquake resistant design of RCC multi-storeyed frames - Design of Concrete Structures
8.		Prof. Suman Chakraborty (IITKGP)	Professor	Fundamental Concepts in Fluid Mechanics - Fluid Mechanics
9.		Prof. Devdas Menon (IITM)	Professor	Moment Distribution Method- SA.
10.		Prof. Ashish Kale (VIIT, Pune)	Asst. Prof.	One day workshop on Advanced Surveying using total Station
11.		Er. Anand Uplenchwar	Technical Expert, Engineering Design	Workshop on HIT OFFICE

			Software & services pvt.ltm.,Pune	
12.	2014-15	Prof. Gitakrishnan Ramadurai (IITM)	Professor	Transportation and Traffic Engineering.
13.		Prof.AshwinMahalingam. (IITM)	Professor	Construction Management
14.		Prof.Deepankar Choudury. (IITB)	Professor	Foundation Engineering
15.		Prof.S.B.Walke(VPKBIET)	Asst.Prof.	One day workshop on Applications of QGIS Software for Civil Engineers
16.		Er.Vikram Bagade	Technical Expert, DEXTER company pvt.ltd. Pune	10 day Workshop on Auto-Cad
17.		Er.Anand Uplenchwar	Technical Expert, Engineering Design Software & services pvt.ltd.,Pune	Workshop on HIT OFFICE
18.	2013-14	Prof. B.S.Murthy (IITM)	Professor	Engineering Fluid Mechanics
19.		Prof A.Juneja (IITB)	Professor	Geotechnical Analysis
20.		Prof. Sanjeev Sanghi, (IITD)	Professor	Engineering Mechanics
21.		Prof.A.P.Dange(RMITR,Badnera)	Professor	Workshop on Yoga and Meditation
22.		Er.Sanjay Uprade (Ultratech pvt. Ltd.,Pune)	Senior Technical officer	Seminar on Advances in Cement and Concrete Production in collaboration

				with Ultratech pvt. Ltd.
23.		Er.Vikram Bagade	Technical Expert	10 day workshop on STAADPro in collaboration with CAAD Center, Pune

### 33. Teaching methods adopted to improve student learning

1. Arranging expert lectures from external faculties
2. Conducting industrial visits to explore real life problems
3. Special courses through IIT remote center like NPTEL and QEEE are organized
4. Assignments/Semester Class Tests
5. Demonstration of civil engineering models and charts
6. Mentoring the students to build a confidence

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities (at department level):

- Tree plantation through Purna Club of Civil Department
- Participation in NSS Activities
- Save birds campaign through Purna Club of Civil Department

### 35. SWOC analysis of the department and Future plans

#### Strengths

- Blend of young, experienced and research oriented faculties for sharing knowledge and best practices.
- Well-equipped testing facility, which enhances R&D and consultancy, works.
- Certification facility is available in department for external civil works.
- Innovative practices through preparation and demonstration of models using scrap materials.

#### Weaknesses:

- Majority of students from the rural background, it becomes challenge for faculties to enhance their learning performance.
- Lack of research funding from the external bodies to take research to next level.

#### Opportunity

- Scope to develop entrepreneur in field of Civil Engineering.
- Project based learning for student's through live projects allotted by the government bodies.
- Emergence of skill based training facility in various areas of civil engineering.

**Challenges:**

- Mandatory to follow university curriculum
- Inadequate advanced analytical research facility
- Difficulty in acquiring costly books & journals

**Future plans:**

- Increase qualifying number students in GATE, GRE, TOFEL and Competitive Examinations.
- To improve communication skill among students
- To improve Industry –Institute interaction for benefit of student's training and placement works.
- Arrange technical programs to get platform for students to project their ideas and research work.
- Develop entrepreneurship cell at departmental level.
- Updating of faculties of Civil Engineering by promoting them for QIP Programs
- Develop research laboratory for PG students along with software related to structural Engineering.
- To get more number of funded research projects in the department

## Evaluative Report of Electrical Engineering Department

1. **Name of the Department: Electrical Engineering**
2. **Year of Establishment: 2010**
3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)**

Level	Programme offered	Commencement year	Intake
UG	B.E. in Electrical Engineering	2010	60

4. **Names of Interdisciplinary courses and the departments/units involved**

Sr.No.	Year	Semester	Course Code	Subject	Department Involved
1	S.E	I	207006	Engineering Mathematics-III	General Science
2	S.E	I	203143	Analog and Digital Electronics	Electronics and Telecommunication Engineering
3	S.E	II	203149	Fundamentals of Microcontroller and Applications	Electronics and Telecommunication Engineering
4	S.E	II	203148	Numerical Methods and Computer Programming	Electronics and Telecommunication Engineering
5	T.E	I	311121	Industrial & Technology Management	Mechanical Engineering
6	T.E	I	303141	Advanced Microcontroller and its Applications	Electronics and Telecommunication Engineering

5. **Annual/ semester/choice based credit system (Programme wise)**

Sr. No.	Program Level	Program	Annual/ semester/choice based credit system
1	UG	B. E. Electrical Engineering	1. Semester pattern with credit based system w.e.f. 2015
			2. Semester pattern till 2015

#### 6. Participation of the department in the courses offered by other departments

Sr. No.	Year	Semester	Course Code	Subject	Department Involved
1	S.E.	Sem II	203152	Electronics and Electrical Engineering	Mechanical Engineering
2	B.E	Sem I	404185	PLC and Automation	Electronics and Telecommunication Engineering

#### 7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Sr. No	Course	Duration	Collaborating Institute/Industry/University	Coordinator
<b>2015-2016</b>				
1	Online Certification Courses	6 Hrs	QEEE,IIT Madras	Mrs. S. D. Rokade
		40 Hrs	NPTEL, IIT Madras	
2	Course on: PLC SCADA	3 days	BIT Electronics, Baramati	Mrs. S. D. Rokade
3	Barclays Training Campus Connect CRT	8 days	Global Talent Track, Pune	Mr. P. D. Upadhye
<b>2014-2015</b>				
4	Course on: PLC SCADA	4 days	BIT Electronics ,Baramati	Mrs. S. D. Rokade

5	Campus to Corporate	2 days	Grad2Guru Mumbai	Mr. P. D. Upadhye
<b>2013-2014</b>				
6	Course on: PLC SCADA	3 days	Prolific Systems,Pune	Mrs. S. D. Rokade
7	Illuminate workshop	1 day	Team- E-Cell IIT Bombay	Mr. R. S. Tarade
<b>2012-2013</b>				
8	Course on: PLC SCADA	3 days	Prolific Systems, Pune	Mrs. S. D. Rokade

8. **Details of courses / Programmes discontinued (if any) with reasons:** Nil

9. **Number of teaching posts**

Designation	Sanctioned	Filled
Professor	01	01
Associate Professor	04	NIL
Assistant Professor	09	11

10. **Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)**

Sr. No.	Name	Qualification	Designation	Specialization	No. of years of Experience	No. of Ph.D. students guided for the last 4 years
1	Dr. N.B. Wagh	M.E., Ph.D	Professor	Electrical Power System	30	NIL

2	Mr. R. S. Tarade	M.Tech	Assistant Professor	Power System Engineering	4
3	Mrs. P. N. Jaiswal	M.Tech	Assistant Professor	Power Electronics	4.5
4	Mrs. S. D. Rokade	M.Tech	Assistant Professor	Power System Engineering	6
5	Mr. P. D. Upadhye	M.Tech	Assistant Professor	Power System Engineering	6
6	Mr .D. Govind	M. Tech	Assistant Professor	Electric Drives and Power Electronics	6
7	Mrs. J. S.Kulkarni	M.Tech	Assistant Professor	Power System Engineering	15
8	Mr. D. S. Yeole	M.Tech	Assistant Professor	Power System Engineering	11 Months
9	Mr. N. C. Vaidya	M.E.	Assistant Professor	Electrical Power Systems	1 Yr 06 Months
10	Mr. M. P. Thakre	M.Tech, Ph. D. (Thesis Submitted)	Assistant Professor	Power System Engineering	11
11	Mr. R. A. Rakate	M.E.	Assistant Professor	Power System Engineering	3 Months
12	Miss. Prachi Jeevane	M.E.	Assistant Professor	Power System Engineering	3 Months

**11. List of senior visiting faculty:**

Sr. No.	Name	Qualification	Designation	Organization	Specialization	Experience in years
<b>2015-2016</b>						
<b>1</b>	Dr. M. M. Waware	Ph. D.	Associate Professor	Walchand College of Engineering, Sangli	Power Electronics and Power Quality	23



2014-2015						
2	Dr. P. K. Katti	Ph. D.	Professor	Dr. Babasaheb Ambedkar Technological University, Lonere	Renewable Energy sources	34
2013-2014						
3	Dr. N. G. Bawane	Ph. D.	Professor	S. B. Jain Institute of Engineering & Technology, Nagpur	Condition Monitoring & Fault Identification of Electrical Machines	23
4	Dr. M. B. Daigavane	Ph. D.	Professor	Suresh Deshmukh College of Engineering, Selukate, Dist- Wardha	Power Electronics & Drives	20
2012-2013						
5	Dr. Vitthal Shirang Bandal	Ph. D.	Professor	College of Engineering, PUNE	Control System	32

**12. Percentage of lectures delivered and practical classes handled (Programme wise)**

**by temporary faculty**

Sr. No.	Name	Qualification	No. of lectures delivered	% of lectures delivered	No. of practicals handled	% of practicals handled
2015-16						
1	Dr. M.M. Waware	Ph. D.	4	3.64	NIL	NIL
2014-15						
2	Dr. P. K. Katti	Ph. D.	6	5.45	NIL	NIL
2013-14						
3	Dr. N. G.	Ph. D.	5	10.40	NIL	NIL

	Bawane					
4	Dr. M. B. Daigavane	Ph. D.	4	7.00	NIL	NIL
<b>2012-13</b>						
5	Dr. Vitthal Shrirang Bandal	Ph. D.	6	12.50	NIL	NIL

**13. Student -Teacher Ratio (Programme wise)**

Sr. No	Programme	Student-Teacher Ratio
1	UG	18:1

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

Staff	Sanctioned	Filled
Technical	4	4
Supporting	1	1

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.**

Ph.D.	Ph.D. Pursuing	PG-M.Tech./M.E.
01	01	10

**16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil****17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil****18. Research Centre /facility recognized by the University: Nil****19. Publications:**

Publication per faculty

Sr. No.	Name of Faculty	Conference		Journal		No. of Papers with			
		National	International	National	International	Citation	I Index	H Index	Impact Factor > 1
1.	Prof. Dr. N. B. Wagh	0	0	0	11	3	0	1	7
2.	Mr. R. S. Tarade	0	0	0	0	0	0	0	0
3.	Mrs. P. N. Jaiswal	0	1	0	1	0	0	0	1
4.	Mrs. S. D. Rokade	0	0	0	0	0	0	0	0
5.	Mr. P. D. Upadhye	0	0	0	0	0	0	0	0
6.	Mr. D. Govind	0	0	0	0	0	0	0	0
7.	Mrs. J. S. Kulkarni	0	1	0	1	0	0	0	0
8.	Mr. D. S. Yeole	1	4	0	2	0	0	0	1
9.	Mr. N. C. Vaidya	0	1	0	2	0	0	0	1
10.	Mr. M. P. Thakre	0	3	2	5	1 2	0	0	3
11.	Mr. R. A. Rakate	0	0	0	0	0	0	0	0
12.	Miss. Prachi Jeevane	0	0	0	0	0	0	0	0

## 20. Areas of consultancy and income generated

Sr. No.	Year	Name of Faculty	Area of Project	Organization/ Industry	Amount in Rs.
1	2014-2015	Mrs. P. N. Jaiswal	Practical Conduction	YIT under YCMOU Nashik	2,000

2	2015-2016	Mr. D. Govind	Surya Mitra Skill Development Program	VIIT, Baramati	10,000
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## 21. Faculty as members in

a) National committees: 02

Sr. No.	Year	Faculty	Committee	Worked as
1	2015-16	Dr. N. B. Wagh	IETE Paper contest	Judge
2	2013-14	Dr. N. B. Wagh	Conference EERA-2014	Co-Convener

b) International Committees: 01

Sr. No.	Year	Faculty	Committee	Worked as
1	2015-16	Dr. N. B. Wagh	International Conference-IC-QUEST 2016	Judge

c) Editorial Boards: 01

Sr. No.	Year	Name of Faculty	Committee	Category
1	2015-16	Dr. N. B. Wagh	International Journal of Advanced Innovative Technology in Engineering (IJAITE)	Associate Editor

## 22. Student Projects:

a) Percentage of students who have done in-house projects including inter departmental/ programme

Sr No.	Year	In-house projects (%)	
		Departmental	Interdepartmental
1	2015-16	85.19	00
2	2014-15	78.26	00
3	2013-14	89.47	00
4	2012-13	NA	NA

- b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies

Sr. No.	Year	Outside projects (%)
1	2015-16	14.81
2	2014-15	21.74
3	2013-14	10.53
4	2012-13	NA

### 23. Awards / Recognitions received by faculty and students:

#### a. Awards / Recognitions received by Faculty:

Year	Name of Faculty	Award/Recognition Details	Awarding Organization
2013-14	Mr. D. S. Yeole	Best Paper Award in National Conference EERA- 2014	Dhamangaon Education Society's College of Engineering and Technology, Dhamangaon, Amravati, Maharashtra

#### b. Awards / Recognitions received by Students:

Sr. No.	Year	Name of Student/s	Award/Recognition Details	Awarding Organization
1	2015-2016	Kaustubh Bhalegare	Best Actor	Purushotam Karandak SPPU, Pune
1	2014-2015	Pandurang Kuchekar and Sanket Deo	Best Paper Award	KK Wagh Institute of Engineering Education & Research, Nasik
1	2013-2014	Tushar Nawale	Medal in 1500 M. Running Athletics	Intercollegiate Athletics Tournament Savitribai Phule Pune University
2		Pranali Chopade	Secured 3 <sup>rd</sup> rank in Workshop of PLC & SCADA	Technex'14 IIT BHU, Varanasi.

#### Scholarship Received:

Sr. No	Year	Name of Student	Scholarship Received
1	2015-2016	Teja Ananda More	Cummins Scholarship Program
2		Vidhya Prakash Shinde	Cummins Scholarship Program

**24. List of eminent academicians and scientists / visitors to the department:**

Sr. No.	Year	Name of academicians and scientists/visitors	Designation	Organization
1	2015-16	Mr. S. P. Ranade	Founder Director	MITCON, Pune

**25. Seminars/ Conferences/Workshops organized & the source of funding**

- a) National: Nil
- a) International: Nil

**26. Student profile programme/course wise:**

Academic Year	Name of the Course/programme	Applications received /Selected	Enrolled		Pass percentage
			*M	*F	
2015-2016	UG	Applications are received by Directorate of Technical Education, Mumbai through Centralized Admission Process	43	20	92.18
2014-2015			34	24	95.38
2013-2014			45	15	95.08
2012-2013			NA	NA	NA

\*M = Male \*F = Female

**27. Diversity of Students**

Academic Year	Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2015-2016	UG	98.43	1.57	0
2014-2015		100	0	0
2013-2014		100	0	0
2012-2013		98.43	1.57	0

**28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.**

Competitive Examination	2015-16	2014-15	2013-14	2012-13
<b>GATE</b>	08	01	00	NA
<b>GRE/GMAT</b>	01	00	00	NA
<b>CAT</b>	01	01	00	NA
<b>Civil Services</b>	00	00	00	03
<b>Defence Services</b>	00	00	00	NA
<b>Other Exams</b>	02	02	01	NA

**29. Student progression:**

Student Progression	against % enrolled			
	2015-16	2014-15	2013-14	2012-2013
UG to PG	3.20	5.32	11.38	NA
Employed Campus Selection	1.29	1.31	0	NA
Employed off Campus Selection	38.96	39.47	45.39	NA

Entrepreneurs/Self Employment	0	0	2	NA
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### 30. Details of Infrastructural facilities

#### g) Department Library

Sr. No.	Particulars	Total Count
1	Text Book	194
2	Reference Book	06
3	Technical Magazines	06
4	Educational CDs	0
5	Conference proceedings	5

#### Other Available Resources

- B.E. Project Reports/CDs = 69
- E-Books/CDs = 0
- Question Papers = 30
- NPTEL Video Lectures = 32
- E Journal Papers = 116

#### h) Internet facilities for staff and students

- Staff seating places are fully furnished and equipped with internet connections
- Wi-Fi and wired network facility is available in the building, labs and classrooms.

#### i) Total number of class rooms- 03

#### j) Class rooms with ICT facility and 'smart' class rooms- 01

#### k) Laboratories

Sr. No.	Laboratory	Area (Sq. Mtr)
1	Basic Electrical Engineering	70.00
2	Computer Lab and Microcontrollers	70.81
3	PLC SCADA and Control Systems	69.00
4	Electrical Network and Electrical Workshop	67.59
5	Power System and Switch Gear Protection	70.00
6	Electrical Machine I and Electrical Measurement & Instrumentation	132



7	Electrical Machine II	137
8	Power Electronics , Controlled Drives and Power Quality	135.46
9	High Voltage Engineering and Material Science	135.46

**31. Number of students receiving financial assistance from College, University,  
Government or other agencies**

Name	Type	2015-16	2014-15	2013-14	2012-13
College	Student Welfare Fund	0	0	2	0
University	-	0	0	0	0
Government	(OBC/SBC)	50	47	67	41
	(SC/ST/VJ)	56	64	65	27
	(EBC)	69	71	151	105
Other Agency	Pawar Charitable Trust	0	0	2	2
PTC & STC	PTC	3	1	0	0
	STC	3	3	2	1

**32. Details on student enrichment programmes (special lectures / workshops /  
seminar) with external experts:**

Sr. No.	Year	Resource Person	Designation	Organization	Details
1.	2015-16	Mr. Abhijit A. Shinde Mr. Padamakar D.Sawane	Director Director	BIT Electronics, Baramati	PLC SCADA Workshop
2.	2014-15	Mr. Abhijit A. Shinde Mr. Padamakar D.Sawane	Director Director	BIT Electronics, Baramati	PLC SCADA Workshop
3.	2014-15	Dr. S. S. Dambhare	Professor	College of Engineering, Pune	Avishkar Orientation program

4.	2013-14	Mr. Abhijit A. Shinde	Director	Prolific Systems, Pune	PLC SCADA Workshop
5.	2012-13	Dr. Vitthal Shrirang Bandal	Professor	College of Engineering, Pune	Control System & Introduction to MATLAB

### 33. Teaching methods adopted to improve student learning:

- Frequent Teaching Methodology
  - a) Chalk and Board teaching
  - b) Power point presentation, animated videos
  - c) Listening and explaining video lectures by IIT professors in a class
  - d) Conducting quizzes, preparing puzzles, asking students to prepare posters on project topics
- Conducting different courses offered by IITs through QEEE remote Centers
- Staff and students are registering and getting certified for different online courses provided by EDX, NPTEL etc.
- Educational visits to IITs , Industries and Expert talks
- Conducting workshop on specific subject
- Mock practical, preliminary exams and written assignments are given to students for practice; before final examinations.

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

- 1) Department of Electrical Engineering delivered a very basic technical orientation lecture for School children in NSS camp at Medad (Tal. Baramati) on 11<sup>th</sup> Jan 2016. The lecture included generation of electricity, importance of renewable energy sources, electrical safety.



Inaugural Program



VPKBIET students giving information on Electrical safety



Faculties from VPKBIET explaining the importance of generation of electricity, renewable energy sources and electrical safety

2) Tree Plantation programme was held at Medad (Tal. Baramati) on 9<sup>th</sup> Dec 2016. Faculties and supporting staff of Electrical Engineering Department along with NSS students actively participated in the programme and planted various types of plants such as Indian laburnum, Copper pod (tamrashircbi), Mountain Ebony, Purpleorchid tree (kachanar), Rain tree and Jurul tree. Importance of tree plantation and detail information of plants were also explained by the faculties.



Tree plantation program

### **35. SWOC analysis of the department and future plans:**

#### **Strengths:**

- Dynamic and dedicated faculty
- Better infrastructure and state of art laboratories
- Good academic practices to manage the teaching learning process
- More stress on practical approach involvement of students

#### **Weaknesses:**

- Placement of students not up to mark
- Lack of facilities for research and consultancy
- Less interaction with industry for industry need based projects.

#### **Opportunities:**

- Enhance industry Institute interaction through collaborative approach
- Enhance R&D activities through grants under various funding schemes
- Work in interdisciplinary area
- Industry need based professional elective courses
- Starting PG program in Electrical Engineering discipline

- Enhance the number of research publications

**Challenges:**

- Mushroom growth of engineering colleges
- To produce quality graduates satisfying the dynamic requirements of industry.
- To compete with academic Institutes of repute
- To keep faculty abreast with latest technologies

**36. Future plans of the department.**

- To start PG program
- To start R&D center and consultancy services
- To make the department as center of excellence in Power Quality for Renewable Generation system
- To increase the number of faculty members to pursue Ph. D. from reputed Institutes
- To have more interaction with industry

## Evaluative Report of General Sciences and Engineering Department

1. **Name of the Department:** General Sciences and Engineering
2. **Year of Establishment:** 2000
3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) (BE)**

Level	Programme Offered	Commencement Year	Intake Details	Intake
UG	FE-common to all Branches	2000	COMP (60), IT (60) and ENTC (60)	180
		2002	MECH (60)	240
		2006	CIVIL (60) and ENTC (30) in addition to above	330
		2010	ELECTRICAL (60)	390
		2011	ENTC (30) in addition to above	420

4. **Names of Interdisciplinary courses and the departments/units involved:**

5. **Annual/ semester/choice based credit system (programme-wise):**

Sr. No.	Year	Semester	Course Code	Subject	Department Involved
1	F.E	I and II	104012	Basic Electronics Engineering	Electronics and Telecommunication Engineering
2	F.E	I and II	103004	Basic Electrical Engineering	Electrical Engineering
3	F.E	I	101005	Basic Civil and Environmental Engineering	Civil Engineering
4	F.E	II	101011	Engineering Mechanics	Civil Engineering
5	F.E	II	102013	Basic Mechanical Engineering	Mechanical Engineering
6	F.E	I	102006	Engineering Graphics –I	Mechanical Engineering
7	F.E	II	102014	Engineering Graphics –II	Mechanical Engineering
8	F.E	I	111007	Workshop Practices	Mechanical Engineering
9	F.E	I	110003	Fundamentals of Programming Languages-I	Computer Engineering and Information Technology
10	F.E	II	110010	Fundamentals of Programming Languages- II	Computer Engineering and Information Technology

UG - FE Semester Credit System (2015)

Sr. No.	Program Level	Program	Annual/semester/choice based credit system
1	UG	FE (Common to all branches)	Semester Pattern with Credit Based System w.e.f. 2015.
			Semester Pattern till 2015

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**6. Participation of the department in the courses offered by other departments:**

Sr. No.	Year	Semester	Course Code	Subject	Department Involved
1	SE	I	207001	Engineering Mathematics –III	Civil Engineering
2	SE	I	207002		Mechanical Engineering
3	SE	I	207006		Electrical Engineering
4	SE	I	207005	Engineering Mathematics –III	Electronics and Telecommunication
5	SE	I	207003		Computer Engineering
6	SE	I	207003		Information Technology
7	SE	I	214449	Communication Skills	Information Technology
8	SE	I	210249	Soft Skills	Computer Engineering
9	SE	I	203151		Electrical Engineering
10	SE	II	204191	Employability Skills Development	Electronics and Telecommunication
11	SE	II	202047	Soft Skills	Mechanical Engineering
12	SE	II	201010		Civil Engineering
13	TE	I	301006	Employability Skills Development	Civil Engineering



14	ME	I	507201	Advanced Mathematics	Mechanical (Design Engineering)
15	ME	I	507101	Advanced Mathematics and Numerical Methods	Mechanical (Energy Engineering)

**7. Courses in collaboration with other universities, industries, foreign institutions, etc.:**

Sr. No	Course	Duration	Collaborating Institute/Industry/ University	Coordinator
<b>2015-2016</b>				
1	English for Employability	Aug. – Nov. 2015	QEEE,IIT Madras	Mr. A B Patil
2	Spoken English [Orientation and Consonant Sounds]	Jan. – April 2016	QEEE,IIT Madras	Mr. A B Patil
<b>2014-2015</b>				
3	Mathematics - I	Aug. – Nov. 2014	QEEE,IIT Madras	Mr. D S Sonawane
4	Physics	Aug. – Nov. 2014	QEEE,IIT Madras	Mr. Y M Chitare
5	Employability Skills Development Lab	Jan – April 2015	QEEE,IIT Madras	Mr. A B Patil

**8. Details of courses/programmes discontinued (if any) with reasons: Nil**

**9. Number of Teaching posts:**  
(Faculties of Mathematics, Physics, Chemistry and English)

<b>Designation</b>	<b>Sanctioned</b>	<b>Final</b>
Professors	02	02
Associate Professors	0	0
Assistance Professors	08	08

**10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,):**

<b>Sr. No.</b>	<b>Name</b>	<b>Qualification</b>	<b>Designation</b>	<b>Specialization</b>	<b>No. of Years of Experience</b>	<b>No. of Ph. D Students guided for the last 4 years</b>
1.	Prof. N K Sahuji	M. Sc. (Physics), Ph. D.	Professor	Low temp Physics, Data acquisition tools, computer programming	28	Nil
2.	Prof. A P Hiwarekar	M. Sc. (Mathematics) M. Phil., Ph. D.	Professor	Differential equation, integral transforms, applied Mathematics	27	Nil
3.	Mr. A S Disale	M. Sc. (Physics) B Ed, Ph. D. (Pursuing)	Assistant Professor	Spectroscopy	16	Nil
4.	Dr. A G Sajjan	M. Sc. (Chemistry) Ph. D., NET	Assistant Professor	Inorganic Chemistry	14.5	Nil
5.	Mr. D S Sonawane	M. Sc. (Statistics)	Assistant Professor	Probability theory	14	Nil
6.	Dr. G A Dhanorkar	M. Sc. (Mathematics), Ph D	Assistant Professor	Functional analysis, Fixed Point Theory	10	Nil

7.	Mrs. G G Bhoite	M. Sc. (Mathematics), SET, NET	Assistant Professor	Group theory and linear algebra	10	Nil
8.	Mr. A B Patil	M. A., (English), M. Phil., SET, Ph D (Pursuing)	Assistant Professor	English literature, Soft skills, commun. skills	6	Nil
9.	Mr. Y M Chitare	M. Sc. (Physics), B Ed,	Lecturer	Thin film, semiconductor Physics	3.5	Nil
10.	Mr. S H Pawar	M. Sc. (Chemistry), SET, NET	Assistant Professor	Organic Chemistry	5.5	Nil

**11. List of senior visiting faculty:**

Sr. No	Name	Qualification	Designation/Affiliation	Specialization	Experience in years
2014-15					
1	Dr. Pradip V Patil	M Sc Physics Ph.D.	Associate Professor in VP's Arts Science and Commerce College, Baramati	Material Science	20
2	Dr. Sangita S Satpute	M Sc Chemistry Ph.D.	Associate Professor in VP's Arts Science and Commerce College, Baramati	Organic Chemistry	20
2013-14					
3	Mrs. Meghana P Deshpande	M Sc Mathematics	Assistant Professor in VP's Arts Science and Commerce College, Baramati	Numerical Methods	20
4	Dr. Rajkumar L Kadam	M A English Ph.D.	Associate Professor in VP's Arts Science and Commerce College, Baramati	Literature	22

**12. Percentage of lectures delivered and practical classes handled (programme wise)**  
**by temporary faculty:**

Sr. No.	Name	Qualification	No. of lectures delivered	% of lectures delivered	No. of practical's handled	% of practical's handled
2014-15						
1	Dr. Pradip V Patil	M Sc Physics Ph.D.	4	5 %	Nil	Nil
2	Dr. Sangita S Satpute	M Sc Chemistry Ph.D.	3	4 %	Nil	Nil
2013-14						
3	Mrs. Meghana P Deshpande	M Sc Mathematics	4	5 %	Nil	Nil
4	Dr. Rajkumar L Kadam	M A English Ph.D.	2	3 %	Nil	Nil

**13. Student -Teacher Ratio (programme wise):**

Sr.No	Programme	Student-Teacher Ratio
1	UG	18:1

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:**

Staff	Sanctioned	Fille
Technical	02	02
Supporting	02	01

**15. Qualifications of teaching faculty with D.Sc/ D.Litt/ Ph.D/ MPhil / PG.:**

16.	Ph.D.	Ph. D. Pursuing	M. Phil	PG- M.Sc.
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Number of faculty with ongoing projects from a) National b) International

04	02	00	04
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**funding agencies and grants received: Nil**

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:**

Sr. No.	Principal Investigator	Title of the Project	Funding Agency	Grant Received in Rs.	Duration of the Project
1	Prof. A P Hiwarekar	Better Network Security Using Generalized Hill Cipher Algorithm	BCUD, SPPU	1,25,000.00	2012-2014
2	Mr. A S Disale	Spectroscopic Study of Medicinal and Edible Mushrooms for Development of Optical Sensors for Industrial and Agriculture Applications	BCUD, SPPU	1,00,000.00	2012-2014

**18. Research Centre /facility recognized by the University: Nil**

**19. Publications:**

**a) Publication per faculty:**

Sr. No.	Name of Faculty	Conferences Publications		Journal Publications		No. of Paper with		
		National	International	National	International	Citation	H Index	Impact Factor > 1
1	Prof. N K Sahuji	1	3	0	0	0	0	0
2	Prof. A P Hiwarekar	5	2	0	8	05	4	3
3	Mr. A S Disale	1	1	0	0	0	0	0
4	Mr. D S Sonawane	2	0	0	1	0	0	1

5	Dr. G. A. Dhanorkar	2	2	2	5	3	2	2
6	Mrs. G G Bhoite	1	0	0	0	0	0	0
7	Mr. A B Patil	6	2	1	3	0	0	1
8	Mr. Y M Chitare	1	0	0	0	0	0	0
9	Mr. S H Pawar	0	0	0	2	1	0	1

**20. Areas of consultancy and income generated:**

Sr. No.	Year	Area of Project	Organization/ Industry	*Amount in Rs.
1	2015-16	Practical Conduction	Yashashwi Institute, Pune	52,540.00
2	2014-15			73,202.00
3	2013-14			70,100.00
4	2012-13			67,300.00

\*Amount is shared with four departments.

**21. Faculty as members in:**

**a) National committees: 01**

Sr.No.	Year	Name of Faculty	Committee	Worked as
1	2015-16	Prof. A P Hiwarekar	National Conference	LOC Chairman for TIME-2015, National Conference at VPCOE Baramati, in coordination with IIT Bombay Dec.2015

**b) International Committees: 01**

Sr.No	Year	Name of Faculty	Committee	Worked as
1	2015-16	Prof. N K Sahuji	All IEEE young Engineers Humanatarion challenge (AIYEHUM) project competition, IEEE region 10 (Asia-Pacific)	Jury Coordination committee member

**c) Editorial Boards:** Nil

## 22. Student projects

**a) Percentage of students who have done in-house projects including inter departmental/programme:** Projects are handled by respective departments.

**b) Percentage of students placed for projects in organizations outside the institution**  
**i.e.in Research laboratories/Industry/ other agencies:** Projects are handled by respective departments.

## 23. Awards / Recognitions received by faculty and students:

### a. Awards / Recognitions received by Faculty:

Sr. No.	Year	Name of Faculty	Awards/Recognition	Organization	Details
1	2015-16	Prof. N K Sahuji	Verified Certificate of Achievement for Successfully completed "Python for Data Science"	Microsoft Inc	EDX online course
			Successfully completed a course entitled "Big Data using Apache Spark with score of 65 %	Rice University	EDX online course
2	2015-16	Prof. A P Hiwarekar	Recognized as Ph D Guide form SPPU, Pune by SPPU, Pune	SPPU, Pune	Recognition by SPPU, Pune

3	2015-16	Mr. A S Disale	Verified Certificate of Achievement for Successfully completed “Optics and Modern Physics”.	Rice University	EDX online course
4	2015-16	Dr. A G Sajjan	Chair Person for oral presentations of Chemical Science subject in National Conference on “Recent Trends in Physical, Chemical and Biosciences – (RTPCB)	Department of Chemistry, VP’s ASC College, Baramati	17th Dec 2016. Conference was sponsored by BCUD, SPPU, Pune
			PG teacher recognition for Chemistry	SPPU, Pune	SPPU, Pune w.e.f. Aug 2015.
5	2015-16	Mr. D S Sonawane	PG teacher recognition for subject Statistics by SPPU	SPPU, Pune	SPPU, Pune w.e.f. Aug 2015.
6	2015-16	Mr. A B Patil	Fourth Topper all over India and Gold Medal Certificate in NPTEL-IIT Madras Online Course	NPTEL IIT Madras	Online Course in Technical English for Engineers
7	2015-16	Mr. Y M Chitare	Certificate of Achievement for Successfully completed “Optics and Modern Physics”	Rice University	EDX online course
8	2014-15	Dr. N K Sahuji	Invited as session chair for WCE-2014 held during 2to 7 <sup>th</sup> July 2014 at Imerial college London	International Association of Engineers Hongkong	Imperial college London



9	2014-15	Dr. G A Dhanorkar	Won Zonal level II <sup>nd</sup> prize in ISTE Srinivasa Ramanujan Mathematical Competitions (SRMC) Exam.	ISTE New Delhi	SRMC Exam 2014-15
10	2014-15	Mrs. G G Bhoite	Won National level and Zonal level III <sup>rd</sup> prize in ISTE Srinivasa Ramanujan Mathematical Competitions (SRMC) Exam	ISTE New Delhi	SRMC Exam 2014-15
11	2013-14	Dr. G A Dhanorkar	Won Zonal level I <sup>st</sup> prize in ISTE Srinivasa Ramanujan Mathematical Competitions (SRMC) Exam.	ISTE New Delhi	SRMC Exam 2013-14
12	2013-14	Mrs. G G Bhoite	Won Zonal level II <sup>nd</sup> prize in ISTE Srinivasa Ramanujan Mathematical Competitions (SRMC)	ISTE New Delhi	SRMC Exam 2013-14

**b. Awards / Recognitions received by Students:**

Sr. No.	Year	Name of Student	Awards/ Recognitions	Organization	Details
1	2015-16	Navgire Kirankumar	National Level Rank for SRMC	ISTE New Delhi	Rank No 204
2	2015-16	Kharade Jui	National Level Rank for SRMC	ISTE New Delhi	Rank No 293
3	2015-16	Shinde Monika	National Level Rank for SRMC	ISTE New Delhi	Rank No 431
4	2015-16	Hipparkar Sayali	National Level Rank for SRMC	ISTE New Delhi	Rank No 434
5	2015-16	Gole Sanket	Best wicket keeper	SPPU Pune	Cricket
6	2015-16	Chavan Srushti	Cummins Scholarship	Cummins India, Pune	Received on merit base

**24. List of eminent academicians and scientists / visitors to the department: 01**

Sr. No.	Year	Name of academicians and scientists/visitors	Designation	Organization
1	2015-16	Dr. I. K. Rana	Emeritus Professor	IIT Bombay

**25. Seminars/ Conferences/Workshops organized & the source of funding:****a) National: 01**

Sr. No.	Year	Seminars / Conferences / Workshops	Conducted by	Source of funding
1	2015-16	National conference on “Technology Innovations in Maths Education” (TIME-15) during 4 -7 Dec 2015	Dr. I. K. Rana and VPCOE, Baramati	IIT Bombay

**b) International: Nil****26. Student profile programme/course wise:**

Academic Year	Name of the Course/ Programme	Applications received	Selected	Enrolled		Pass percentage
				M	F	
2015-16	UG	Applications are received by Directorate of Technical Education, Mumbai through Centralized Admission Process		242	155	78.41
2014-15				244	173	89.00
2013-14				240	185	83.25
2012-13				252	193	92.62

**27. Diversity of Students**

Academic Year	Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2015-2016	UG	98.99	1.01	Nil
2014-2015		99.05	0.95	Nil
2013-2014		98.82	1.18	Nil
2012-2013		98.87	1.13	Nil

**28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?**

Details are available with respective departments.

**29. Student progression:**

Details are available with respective departments.

**30. Details of Infrastructural facilities**

a) Total number of class

rooms - 04

b) Class rooms with ICT facility and 'smart' class rooms - 01

c) Laboratories

Sr. No.	Name of Laboratory	Area (Sq. Mtr.)
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1.	Engineering Physics	123
2.	Engineering Chemistry	123
3	Computer Center	123
4	Language Lab	66

**31. Number of students receiving financial assistance from college, university, government or other agencies:**

Name	Type	2015-16	2014-15	2013-14	2012-13
College		0	0	0	0
University		0	0	0	0
Other Agency		01	0	0	0
Government	EBC	93	189	158	76
	OBC	41	67	63	42
	SC	10	28	48	30
	NT	0	52	51	38
	SBC	0	5	6	8
	MCM	0	0	0	2
	State Minority	3	0	0	1
	PTC	2	1	1	5
	STC	0	4	5	5
	J&K	2	4	4	5

### 32. Details on student enrichment programmes (special lectures / workshops / Seminar) with external experts

Sr. No.	Academic Year	Resource Person Topic	Topic
01	2015-16	Mr. Akash Sharma, IIT Bombay	Solar Photovolatics programme
		Mr. Kiran Dhawan Grad2guru, Mumbai	Two- Day training programme -Campus to Corporate- Etiquettes and Values
02	2014-15	Mr. Kiran Dhawan Grad2guru, Mumbai	Two- Day training programme -Campus to Corporate- Etiquettes and Values

### 33. Teaching methods adopted to improve student learning

- Chalk and Board teaching
- Power point presentation, unit wise PPT's are provided for summarizing the topics.
- Staff registers to different online courses provided by EDX, NPTEL etc.
- NPTEL resource materials are used by faculty as a reference for relevant topics.
- Competitions like poster presentation and model making are arranged
- Continuous assessment through internal unit tests, prelim exam, remedial classes for needy students.
- ISTE Student Chapter formation for active participation of students and faculty in Professional Societies.
- Skill based training programs are organized for students.
- Demonstration of models and charts.

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- Conducted patriotic program for staff members and students on 26<sup>th</sup> Jan 2016.
- Organized “No Vehicle Day” on 16<sup>th</sup> Feb 2016.
- Conducted cloth bank activity on 3<sup>rd</sup> April 2016, visited “ Bharatmata Adiwasi Pardhi Samaj and Bhatake Vimukt Vikas Pratishthan, Mohol” and donated the collected clothes.
- Celebrated “Azaadi 70” “Independence 70” from 9<sup>th</sup> to 23<sup>rd</sup> August 2016 based

on theme  
 “Yaad Karo Qurbani”. Based on this on the occasion of 15 Aug. 2016 students have  
 organized a cultural event of one hour during 9.30 to 10.30 am in college in which more  
 than 40 students of different departments have participated.

### **35. SWOC analysis of the department and Future plans**

#### **Strengths:**

- Experienced faculty members, having 02 professors.
- Out of 10 faculty members, 4 faculty members are having Ph D degree
- Ability to work in a team and meet deadlines
- Strong academic monitoring
- Adapting pedagogy in teaching- learning process
- Mentoring students

#### **Weaknesses:**

- Consultancy needs to improve.
- Students are from rural area and are weak in communication skills.
- Lack of opportunity to teach higher classes and to guide their classes.
- Lack of research lab with sophisticated instruments.

#### **Opportunities:**

- Collaboration with more reputed Institutes and industries.
- Research funding from government agencies.
- Need to seek more number of faculty up gradation.
- Need modernization of laboratories

#### **Challenges:**

- To attract meritorious students from different regions.
- To turn students into professionals: FE students come from diverse academic, social and rural backgrounds. Therefore, bridging academic gap and bringing them on common platform is challenging
- To develop student as an all –round personality.
- To percolate basic knowledge strongly within the give time-frame.

**Future Plans:**

- To encourage faculties for research publication and consultancy work.
- To organize training programs and guest lecturers for FE students for their all-round development.
- To upgrade laboratories with sophisticated equipments.
- To encourage faculty to pursue their research degrees (Ph D and Post Doctorate)
- To organize orientation programs for faculty development.



**VIDYA PRATISHTHAN'S  
KAMALNAYAN BAJAJ INSTITUTE OF  
ENGINEERING & TECHNOLOGY, BARAMATI**

विद्या प्रतिष्ठानचे कमलनयन बजाज इंस्टिट्यूट ऑफ इंजिनिअरिंग अँड टेक्नॉलॉजी, बारामती  
(Formerly College of Engineering, Baramati)

Approved by AICTE & Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University, Pune  
University Id. No. /PU/PN/Engg./152/2000 | DTE Code : 6284

**7. Declaration by the Head of the Institution**

I certify that the data included in this Self-Study Report (SSR) are true to the best of my knowledge. This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced. I am aware that the peer team will validate the information provided in this SSR during the peer team visit.

**Signature of the Head of Institution**

**Principal**

Vidya Pratishthan's

**Kamalnayan Bajaj Institute of**

**Engineering & Technology, Baramati**

Vidyanagari, Baramati-413133



**Date: 22/03/2017**

**Place: Baramati - 413133**

Vidyanagari, Bhigwan Road, Baramati, Dist. Pune (Maharashtra)-413 133, India  
Tel. No. +91-2112-23 9503, 23 9500 | E-mail : principal@vpkbiет.org  
Fax No.+91-2112-23 9514 | Web : www.vpkbiет.org



## **ANNEXURE**



VIDYA PRATISHTHAN'S  
**KAMALNAYAN BAJAJ INSTITUTE OF  
ENGINEERING & TECHNOLOGY, BARAMATI**

विद्या प्रतिष्ठानचे कमलनयन बजाज इंस्टिट्यूट ऑफ इंजिनिअरिंग अँड टेक्नॉलॉजी, बारामती  
(Formerly College of Engineering, Baramati)

Approved by AICTE & Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University, Pune  
University Id. No. /PU/PN/Engg./152/2000 | DTE Code : 6284

### Certificate of Compliance

This is to certify that Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering & Technology, Baramati 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.

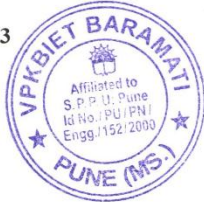
In case the affiliation / recognition is conditional, then a detailed enclosure with regard to compliance of conditions by the institution will be sent.

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: 22/03/2017

Place: Baramati-413133



Dr. M. G. Devamane

**Principal**

Vidya Pratishthan's  
**Kamalnayan Bajaj Institute of  
Engineering & Technology, Baramati**  
Vidyanagari, Baramati-413133

Vidyanagari, Bhigwan Road, Baramati, Dist. Pune (Maharashtra)-413 133, India  
Tel. No. +91-2112-23 9503, 23 9500 | E-mail : principal@vpkbiet.org  
Fax No. +91-2112-23 9514 | Web : www.vpkbiet.org

## Savitribai Phule Pune University

(Formerly University of Pune)

Telephone Nos. :

020 – 25691233

25601258

25601259

25601257



ACADEMIC SECTION

Ganeshkhind, Pune – 411007, INDIA

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Website : [www.unipune.ac.in](http://www.unipune.ac.in)

E-mail : [dvracademic@unipune.ac.in](mailto:dvracademic@unipune.ac.in)

Ref. No. : CA/234

Date : 21/03/2017

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering & Technology, Vidyanagari, Bhigwan Road, Baramati-413 133, Dist-Pune is affiliated to the Savitribai Phule Pune University, since 2000 (PU/PN/Engg./152/2000) and the following courses are taught in the said college as per approval.

<b>Courses Under Graduate</b>	<b>Duration of the Course</b>	<b>Affiliation (Permanent / Temporary)</b>	<b>Validity Period</b>
Information Technology	4 Year	Temporary	Upto 2016-17
Electrical Engineering	4 Year	Temporary	Upto 2016-17
Electronics and Telecommunication Engineering	4 Year	Temporary	Upto 2016-17
Computer Engineering	4 Year	Temporary	Upto 2016-17
Mechanical Engineering	4 Year	Temporary	Upto 2016-17
Civil Engineering	4 Year	Temporary	Upto 2016-17

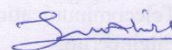
P.T.O.



..2..

<b>Courses Post Graduate</b>	<b>Duration of the Course</b>	<b>Affiliation (Permanent / Temporary)</b>	<b>Validity Period</b>
Energy	2 Year	Temporary	Upto 2016-17
Electronics (Digital System)	2 Year	Temporary	Upto 2016-17
Computer Engineering	2 Year	Temporary	Upto 2016-17
Mechanical Engineering (Design)	2 Year	Temporary	Upto 2016-17
Civil (Structural Engineering)	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. VPKBIET/NAAC/03/2017/179, dated 16/03/2017 so as to submit it to the National Assessment and Accreditation Council (NAAC), Bangalore.



Dy. Registrar  
(Academic Section)



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

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

F.No. Western/1-2809325198/2016/EOA

Date: 25-Apr-2016

To,

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

**Sub: Extension of approval for the academic year 2016-17**

Ref: Application of the Institution for Extension of approval for the academic year 2016-17

Sir/Madam,

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

Regional Office	Western	Application Id	1-2809325198
Name of the Institute	VIDYA PRATISHTHAN'S KAMALNAYAN BAJAJ INSTITUTE OF ENGINEERING & TECHNOLOGY, BARAMATI	Permanent Id	1-1559911
Name of the Society/Trust	VIDYA PRATISHTHAN BARAMATI	Institute Address	VIDYANAGARI, MIDC (RESI. ZONE), BARAMATI, DIST. PUNE - 413133, MAHARASHTRA STATE, INDIA, BARAMATI, PUNE, Maharashtra, 413133
Institute Type	Unaided - Private	Society/Trust Address	VIDYANAGARI, BHIGWAN ROAD, BARAMATI, DIST. PUNE, BARAMATI, PUNE, Maharashtra, 413133

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

Old Name of Institute:	VIDYA PRATISHTHAN'S COLLEGE OF ENGINEERING BARAMATI
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To conduct following courses with the intake indicated below for the academic year 2016-17

Application Id: 1-2809325198			Course	Full/Part Time	Affiliating Body	Intake 2015-16	Intake Approved for 2016-17	NRI Approval status	PIO / FN / Gulf quota Approval status	Foreign Collaboration/Twinning Program Approval status*
Program	Shift	Level								



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

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

ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER ENGINEERING	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DESIGN ENGINEERING	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DIGITAL SYSTEMS	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	ENERGY ENGINEERING	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	STRUCTURAL ENGINEERING	FULL TIME	University of Pune, Pune	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	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	ELECTRICAL ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING	FULL TIME	University of Pune, Pune	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION TECHNOLOGY	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA



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

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

ENGINEERING AND TECHNOLOGY	1st Shift	UNDERGRADUATE	MECHANICAL ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
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The above mentioned approval is subject to the condition that VIDYA PRATISHTHAN'S COLLEGE OF ENGINEERING BARAMATI 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](http://www.aicte-india.org)**

**Dr. Avinash S Pant**  
**Vice - Chairman, AICTE**

Copy to:

- The Regional Officer,**  
All India Council for Technical Education  
Industrial Assurance Building  
2nd Floor, Nariman Road  
Mumbai - 400 020, Maharashtra
- The Director Of Technical Education,**  
Maharashtra
- The Registrar,**  
University of Pune, Pune
- The Principal / Director,**  
VIDYA PRATISHTHAN'S COLLEGE OF ENGINEERING BARAMATI  
VIDYANAGARI, MIDC (RESI. ZONE),  
BARAMATI, DIST. PUNE - 413133, MAHARASHTRA STATE, INDIA,  
BARAMATI,PUNE,  
Maharashtra,413133
- The Secretary / Chairman,**  
VIDYA PRATISHTHAN BARAMATI  
VIDYANAGARI, BHIGWAN ROAD,  
BARAMATI, DIST. PUNE,  
BARAMATI,PUNE,  
Maharashtra,413133
- Guard File(AICTE)**



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

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दूरध्वनी क्रमांक :

०२०-२५६९१२३३

२५६०१२५७

२५६०१२५८

२५६०१२५९



15120064

सावित्रीबाई फुले पुणे विद्यापीठ  
(पूर्वीचे पुणे विद्यापीठ)



टेलिग्राफ : 'युनिपुणे'

फॅक्स : ०२०-२५६९१२३३

वेबसाइट : www.unipune.ac.in

ई-मेल : dyracademic@unipune.ac.in

शैक्षणिक विभाग  
गणेशखिंड, पुणे-४११००७.

संदर्भ क्र.:CA/ 728

दि.: 02/04/2016

प्रति,

मा. प्राचार्य,

विद्या प्रतिष्ठाण विद्या प्रतिष्ठानचे कॉलेज ऑफ

इंजिनिअरिंग बारामती पत्ता: विद्यानगरी, भिगवण रोड,

बारामती ता.: बारामती जि: पुणे

विषय:- शैक्षणिक वर्ष २०१६-२०१७, या वर्षाकरिता संलग्नीकरणाचे 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 संलग्नीकरणाच्या 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 महिन्याच्या आत पूर्ण करण्याच्या अटीवर परवानगी देण्यात येत आहे .

प्रती वर्षी मा. संचालक तंत्रशिक्षण मुंबई यांना ज्या महाविद्यालयांनी संलग्नीकरणाच्या सर्व अटी पूर्ण केलेल्या आहेत व कोणत्याही अटी शिवाय ज्या महाविद्यालयांना विद्यापीठाने शैक्षणिक वर्ष २०१६-२०१७ साठी ज्या अभ्यासक्रमांना संलग्नीकरण 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/व्दितीय पाळी	संलग्नीकरणाचा प्रकार
1	एम ई एनर्जी	18	2016-2017 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
2	एम.इ. (इलेक्ट्रॉनिक्स) डिजिटल सिस्टीम्स	18	2016-2017 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
3	एम.इ. (कॉम्प्यूटर)	18	2016-2017 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
4	एम.इ. (मेकॅनिकल डिझाइन)	18	2016-2017 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
5	एम.इ. (सिविल) स्ट्रक्चरल इंजिनियरिंग	18	2016-2017 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
6	बी.ई. (इन्फर्मेशन टेक्नॉलॉजी)	60	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण
7	बी.ई. (इलेक्ट्रिकल)	60	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण

8	बी.ई. (इलेक्ट्रॉनिक्स अँड टेलिकम्यूनिकेशन)	120	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,- वर्ष पहिले ते चौथे- Div No.2,,	नूतनीकरण
9	बी.ई. (कॉम्प्यूटर)	60	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण
10	बी.ई. (मेकॅनिकल)	60	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण
11	बी.ई. (सिविल)	60	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण

कळावे,

आपला,

सोबत : अहवाल

*for Persecution*  
 उपकुलसचिव  
 शैक्षणिक  
 02/04/16

दूरध्वनी क्रमांक :

०२०-२५६९१२३३

२५६०१२५७

२५६०१२५८

२५६०१२५९



15120064

# सावित्रीबाई फुले पुणे विद्यापीठ

(पूर्वीचे पुणे विद्यापीठ)



शैक्षणिक विभाग

गणेशखिंड, पुणे-४११००७.

टेलिग्राफ : 'युनिपुणे'

फॅक्स : ०२०-२५६९१२३३

वेबसाइट : www.unipune.ac.in

ई-मेल : dyracademic@unipune.ac.in

संदर्भ क्र.: सी/१३३०

दि.: २५/०५/२०१६

प्रति,

मा. प्राचार्य,

विद्या प्रतिष्ठापन विद्या प्रतिष्ठानचे कॉलेज ऑफ

इंजिनिअरिंग बारामती पत्ता: विद्यानगरी, भिगवण रोड,

बारामती ता.: बारामती जि: पुणे

**विषय:- अटीच्या पूर्ततेच्या पडताळणी अहवालबाबत...**

महोदय,

वरील विषयासंदर्भात विद्यापीठ अधिकार मंडळाने घेतलेल्या निर्णयानुसार आपणास कळविण्यात येते की, आपल्या महाविद्यालयास शैक्षणिक वर्ष २०१६-२०१७, या वर्षाकरिता खालील रकान्यात नमूद केलेल्या अभ्यासक्रमांच्या संलग्नीकरणाच्या नुतानिकरणास / नैसर्गिकवाढीस अखिल भारतीय तंत्रशिक्षण परिषद, नवी दिल्ली व तंत्रशिक्षण संचालनालय, महाराष्ट्र शासन यांचे अभ्यासक्रम व प्रवेश क्षमता मान्यतेच्या अधीन राहून अटी पूर्ततेचा पडताळणी अहवाल स्वीकारण्यात आलेला आहे.

शैक्षणिक वर्ष २०१६-२०१७ करिता अटी पूर्तता अहवालाचे पत्र देत असताना स्थानिक चौकशी समितीच्या अहवालात नमूद केलेल्या ज्या शिक्षकांच्या तदर्थ नेमणुका करण्यात आलेल्या आहेत अशा सर्व शिक्षकांना शैक्षणिक वर्ष २०१६-२०१७ मध्ये कायम ठेवण्यात यावे.तसेच याबाबत विद्यापीठामार्फत वेळोवेळी तपासणी करण्यात येईल.

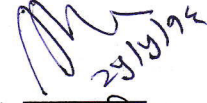
अनु. क्र.	अभ्यासक्रमाचा तपशील	विद्यार्थी संख्या	प्रथमपाळी/व्दितीय पाळी	संलग्नीकरणाचा प्रकार
1	एम ई एनर्जी	18	2016-2017 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
2	एम.इ. (इलेक्ट्रॉनिक्स) डिजिटल सिस्टीम्स	18	2016-2017 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
3	एम.इ. (कॉम्प्युटर)	18	2016-2017 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
4	एम.इ. (मेकॅनिकल डिझाइन)	18	2016-2017 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
5	एम.इ. (सिविल) स्ट्रक्चरल इंजिनियरिंग	18	2016-2017 : - वर्ष प्रथम व व्दितिय- Div No.1,,	नूतनीकरण
6	बी.ई. (इन्फर्मेशन टेक्नॉलॉजी)	60	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण
7	बी.ई. (इलेक्ट्रिकल)	60	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण



8	बी.ई. (इलेक्ट्रॉनिक्स अँड टेलिकम्यूनिकेशन)	120	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,- वर्ष पहिले ते चौथे- Div No.2,,	नूतनीकरण
9	बी.ई. (कॉम्प्यूटर)	60	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण
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11	बी.ई. (सिविल)	60	2016-2017 : - वर्ष पहिले ते चौथे- Div No.1,,	नूतनीकरण

कळावे,

आपला,



उपकुलसचिव  
शैक्षणिक विभाग

# Glimpses of VPKBIET



Dr. Mohan Kolhe's Expert Talk on "Home Energy Management System  
Smart Grid, Micro Grid Architecture" 2016-17



Workshop on PCB Design 2016-17



Alumni Meet- 2016-17



Inter Engineering Sports Meet: Spirit 2015





Industry Institute Interaction Meet 2016-2017



Convocation Ceremony 2017



**Indian Society of  
Structural Engineers**



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Vidyanagari, Bhigwan Road, Baramati, Dist. Pune : 413 133, MAH, India

Fax: +91 02112 239514 Email: [principal@vpkbiel.org](mailto:principal@vpkbiel.org) Visit us at: [www.vpkbiel.org](http://www.vpkbiel.org)