SELF-STUDY REPORT
(SSR)

Submitted to

National Assessment and Accreditation Council, Bangalore

Submitted by

SPSPM
|| ज्ञान दान पवित्र दान ||

Savitribai Phule Shikshan Prasarak Mandal's

SKN SINHGAD COLLEGE OF ENGINEERING

Korti, Tal-Pandharpur, Dist.-Solapur 413304

Maharashtra

OCTOBER 2017

Savitribai Phule Shikshan Prasarak Mandal's

SKN SINHGAD COLLEGE OF ENGINEERING

(Approved by AICTE, Recognized by DTE (MS) & Affiliated to Solapur University)

DTE Code : EN-6643

Prof. M. N. Navale	Mr. Rohit M. Navale	Dr. K. J. Karande
M. E. (Elect.), MIE(I), MBA	M. E. (Mech.)	M. Tech. Ph. D. (E&TC)
PRESIDENT	**GENERAL SECRETARY**	**PRINCIPAL**

Outward No. : SKNSCOE / 2016-17/1153

Date : 26.04.2017

To,
The Advisor,
National Assessment and Accreditation Council,
P.O. Box No: 1075, Opp. NLSIU,
Nagabhavi, Bangalore- 560 072.

Sub: Submission of Self Study Report (SSR)

Ref: LOI bearing Track ID **MHCOGN27519**

Respected Sir,

With reference to our LOI bearing Track ID **MHCOGN27519** submitted on 30 March 2017 and acceptance of the same on 22 April 2017, please find herewith the Self Study Report (SSR) of the institute. The SSR is uploaded on our institute website www.sknscoe.ac.in on 29 March 2017 for your kind perusal. The complete URL is as follows:

http://www.sknscoe.ac.in/NAAC/SKNSCOE_NAAC_SSR_2017.pdf

The institute is ready for assessment and accreditation by the peer team from NAAC. You are kindly requested to consider the SSR of this institute for further processing.

This is for your kind information and consideration please.

Thanking you.

With kind regards

(Dr. K. J. Karande)
PRINCIPAL

ABBREVIATIONS

AICTE	All India Council for Technical Education
ACSES	Association of Computer Science Engineering Students
AMC	Academic Monitoring Committee
AMCAT	Aspiring Minds Computer Adaptive Test
ARC	Application Form Receipt Centre
BCUD	Board of College and University Development
BOS	Board of Studies
CAD	Computer Aided Drafting
CAE	Computer Aided Engineering
CAM	Computer Aided Manufacturing
CAP	Centralized Admission Process
CAT	Common Admission Test
CBCS	Choice Based Credit System
CC	Class Co-ordinator
CCNA	Cisco Certified Network Associate
CDAC	Centre for Development of Advanced Computing
CGPA	Cumulative Grade Point Average
CEO	Chief Executive Officer
CET	Common Entrance Test
CSE	Computer Science & Engineering
Dept.	Department
DSP	Digital Signal Processing
DTE	Directorate of Technical Education
E & TC	Electronics & Tele-Communication
EBC	Economically Backward Class
EESA	Electrical Engineering Student Association
EDP	Entrepreneurship Development Programme
EDPC	Entrepreneurship Development Programme Cell
EoA	Extension of Approval
EPBX	Electronic Private Branch Exchange
ERP	Enterprise Resource Planning
ET	Employability Test
ETAB	Extended 3-D Analysis of Building System
ETELSA	Electronics and Telecommunication Engineering Students Association
FDP	Faculty Development Programme
FE	First Year Engineering
FTP	File Transfer Protocol
GATE	Graduate Aptitude Test in Engineering
GB	Governing Body
GD	Group Discussion

GEMS	Governing Educational Management System
GMAT	Graduate Management Admission Test
GoI	Government of India
GoM	Government of Maharashtra
GRE	Graduate Record Examination
HoD	Head of Department
ICA	Internal Continuous Assessment
ICT	Information and Communication Technology
IES	Indian Engineering Services
IETE	Institution of Electronics and Telecommunication Engineers
IIT	Indian Institute of Technology
IQAC	Internal Quality Assurance Cell
ISE	In-Semester Evaluation
ITP	Internship Training Program
JEE	Joint Entrance Examination
LIC	Local Inspection Committee
LMC	Local Management Committee
MCED	Maharashtra Centre for Entrepreneurship Development
ME	Master of Engineering
MESA	Mechanical Engineering Student Association
MHCET	Maharashtra Common Entrance Test
MHRD	Ministry of Human Resource Development
MOODLE	Modular Object Oriented Dynamic Learning Environment
MoU	Memorandum of Understanding
MPSC	Maharashtra Public Service Commission
M.Tech.	Master of Technology
NA	Not Applicable
NAAC	National Assessment and Accreditation Council
NBA	National Board of Accreditation
NIT	National Institute of Technology
NITIE	National Institute of Technology in Industrial Engineering
NPTEL	National Programme on Technology Enhanced Learning
NSS	National Service Scheme
OBC	Other Backward Class
OMS	Other than Maharashtra State
PCB	Printed Circuit Board
PEO	Programme Educational Objectives
PG	Post Graduate
PI	Personal Interview
PLC	Programmable Logic Controller
PO	Programme Outcomes
PRI	Primary Rate Interface
QIP	Quality Improvement Program

RA	Result Awaited
R&D	Research and Development
RDC	Research and Development Cell
RO	Reverse Osmosis
SC/ST	Scheduled Cast/ Scheduled Tribe
SEP	Students Enrichment Program
SGPA	Semester Grade Point Average
SKN	Smt. Kashibai Navale
SKNSCOE	SKN Sinhgad College of Engineering
SPSPM	Savitribai Phule Shikshan Prasarak Mandal
STES	Sinhgad Technical Education Society
STP	Student Training Programme
STTP	Short Term Training Program
STAAD	Structural Analysis And Design Computer Programme
SUS	Solapur University, Solapur
SWOC	Strengths, Weaknesses, Opportunities and Challenges
TG	Teacher Guardian
TOEFL	Test of English as Foreign Language
UG	Under Graduate
UGC	University Grant Commission
VAP	Value Addition Program
VLSI	Very Large Scale Integration

NAAC STEERING COMMITTEE

Sr. No.	Name	Designation and Affiliation	Designation for Steering Committee
1.	Dr. K. J. Karande	Principal	Chairman
2.	Dr. C. P. Pise	Dean Admin & HoD, Civil Engineering	Coordinator
3.	Dr. R. T. Vyavahare	Dean Academics & HoD, Mechanical Engineering	Coordinator
4.	Prof. S. S. Kulkarni	Dean, PG Programmes	Member
5.	Dr. S. G. Kulkarni	Dean, R&D	Member
6.	Prof. S. D. Katekar	Dean, Alumni	Member
7.	Prof. A. I. Nikam	Dean Students & HoD, First Year Engineering	Member
8.	Prof. S. P. Ganjewar	HoD, Electrical Engineering	Member
9.	Prof. S. V. Pingale	HoD, Computer Science & Engineering	Member
10.	Prof. A. O. Mulani	HoD, E & TC Engineering	Member
11.	Prof. M. B. Kulkarni	Sr. Faculty Member	Member

CONTENTS

PREFACE

Savitribai Phule Shikshan Prasarak Mandal (SPSPM) was established under the able and dynamic leadership of Prof. M. N. Navale with an objective of providing quality education in the field of Engineering, Management, Computer Science, School and Kindergarten onwards. All the institutes under the SPSPM are recognized by the concerned statutory authority and meticulously meet the norms and standards laid down by them. SPSPM has handpicked eminent personalities from the field of education and industry as members of the management committee who are committed to provide necessary guidance on academic and professional fronts from time to time. To serve the interest of the student's community as well as the corporate and industrial sectors SPSPM maintains a close liaison with the industry and other leading organizations.

SKN Sinhgad College of Engineering (SKNSCOE), Pandharpur is established in year 2010, housed in beautiful campus of 20 acres with excellent infrastructure and facilities. SKNSCOE is approved by All India Council for Technical Education (AICTE), New Delhi and Directorate of Technical Education (DTE), Government of Maharashtra. It is affiliated to Solapur University, Solapur (SUS). The Institute is located at holy city Pandharpur. The institute runs five undergraduate courses and four postgraduate courses. Undergraduate courses include Mechanical Engineering, Electronics & Telecommunication Engineering, Computer Science & Engineering, Civil Engineering and Electrical Engineering. Post-graduate courses include Mechanical Engineering (Design Engineering), Electronics Engineering, Computer Science & Engineering and Civil Engineering (Structural Engineering).

At SKNSCOE, we ensure the overall development of students through well-defined teaching learning process and skill based activities. Students get an exposure for experiential learning through value-based education and on campus projects. We, the team of faculty members of SKNSCOE are committed to prepare our students as tomorrow's leaders to match the need of fast changing world. The teaching learning at SKNSCOE is student centric based on Learning Psychology and well supported by "Willing to Work" team of qualified and experienced faculty members. All the departments at SKNSCOE are well equipped with all required hardware and software. The institute is having fully fledged library with all required reference books, journals, periodicals and reading hall with 500 seating capacity supported by qualified staff.

SKNSCOE has the continuous assessment based on well-defined internal assessment norms and supported by two unit tests and prelim exam during the semester. We have incorporated LCD presentations, Group Discussions, as regular co-curricular activities and performance of these activities is reflected in term work marks. Invited Lectures by experts from industries & academia, Technical Festivals, Workshops, and Seminars are the regular activities conducted for overall development of students. Through the process of active Teaching-Learning and activity based learning, we are preparing our students to face tomorrow's challenges in globalized world. To understand academic progress and individual problems, a scheme of Local Teacher Guardian for around 20 students exist in each department and this initiative helps for shaping our students as good human beings. The value addition programs (VAPs) are designed with the help of industry and corporate

experts to match the need of ever changing world. VAPs also help to bridge gap between academics and today's need of industry.

SKNSCOE believes that it is contribution to engineering education of country to shape future of tomorrow's youth. In continuation to this, we are applying for NAAC is a step towards assurance for quality in engineering education. Furthermore, institute is willing to assess its educational system and academic culture. In addition to this, it is essential for professional institute to receive stakeholder's perception towards teaching learning process and supporting entities by the journey ahead. We consider this opportunity of applying for NAAC is a step towards self-introspection leading to further development of the institute towards excellence.

(Dr. K. J. Karande)
    Principal

EXECUTIVE SUMMARY

Criterion I: Curriculum Aspects:

SPSPM's SKN Sinhgad College of Engineering is affiliated to the Solapur University, Solapur. The institute is a self-financed institution and follows the curriculum of the university. Faculty members actively contribute in the curriculum design by participating and conducting syllabus revision workshops. The stakeholders' views and inputs are duly considered in framing the syllabus. The identified gaps in curricula are bridged by conducting certificate courses, seminars, VAPs and interaction with leading industries and extending the contents of the course beyond the prescribed syllabi. The institute encourages self-employability by conducting Entrepreneurship Development Programmes. The institute caters to the needs of slow learners through extra inputs and remedial classes. Social awareness and community service are inculcated in the students through various National Service Scheme (NSS) activities.

Criterion II: Teaching-Learning and Evaluation:

The institute follows admission process as per DTE norms. Each year, institute organizes orientation program for the students of first year to make them well acquainted with the institute rules, regulations, campus culture, course curriculum and various aspects of their graduation period. Faculty members follow a student centric teaching and learning approach.

All the faculty members are encouraged to take up IIT workshops and other training programmes so that they can upgrade their knowledge and improve the quality of teaching and learning about new informative tools. Teachers are trained to mentor students and to provide learner-centred education. They are also motivated to participate in faculty development programs, conferences, industry trainings, seminars etc. to improve their capabilities. This helps them to interact more closely to the students and know their learning aptitude.

The latest technological improvement and innovations in educational sector are well undertaken by the institution to make a visible impact on academic development as well as on assessment. To make sure that students grasp what they study, faculty members place assignments in various innovative formats as self-learning sessions and open source learning tools like MOODLE assignments, MOODLE tests etc. In addition to this, project based learning and skill enhancement programmes are also conducted on a regular basis.

Remedial classes are conducted for identified slow learners. Institute is more cautious about quality of faculty and its recruitment process. Institute maintains healthy environment and transparency in the system for better retention of faculty members. The students' learning outcomes and performance in the exams are reviewed and monitored by Academic Monitoring Committee (AMC / IQAC) to assess academic progress of the institute.

Criterion III: Research, Consultancy and Extension:

SKNSCOE promotes the research culture among faculty and students by ensuring their participation in research and related activities. The institution offers support in terms of financial, manpower required and suitable organizational decisions to

enable faculty for mobilizing resources for research. The institution encourages faculty members to utilize existing facilities and engage in inter-departmental research activities. In addition to this, faculty members and students are involved in research work and publications, beneficial for the discipline and society. Consultancy activities planned by the faculty members are fetching the input for the expertise in the specific domain. Extension activities and institutional social responsibility are the noticeable part for developing sensitivity towards community issues, gender disparities and social inequity etc. Collaborations of the institute with other organizations are converted into formal MoUs for training/student exchange/faculty exchange/ research/resource sharing etc.

Criterion IV: Infrastructure and Learning Resources:

SKNSCOE is sprawled over an area of 20 acres at 5 km distance from city with well maintained and lush green campus. About 60% faculty and staff reside in the campus. The instructional area covers spacious class rooms with modern ICT tools, tutorial rooms, seminar halls and A/C auditorium, laboratories and faculty rooms, computing center. In addition to this, other facilities like photocopying, health care center, ATM, Laundry, Gents and Ladies Parlour, canteen etc. are available in the campus. The hostel facility for girls and boys, residential blocks for staff members along with play ground with sports facilities such as basketball, shuttle courts, indoor gymnasium and games like table tennis, chess and carrom are made available. Institute is also having R.O. water plant, uninterrupted power supply through express feeder with generator back-up and bus facility for staff and students.

A digital well – equipped library with OPAC, e-journals and NPTEL material enrich the learning experience of staff and students. Internet connectivity of 32 Mbps with wi-fi facility is also available. The maintenance of institute and campus facilities are carried and monitored by estate office. Appropriate funds are made available in the annual budget for infrastructural development and its utilization is monitored.

Criterion V: Student Support and Progression:

The student progress is continuously monitored by respective Teacher-Guardian to ensure overall development of students. Students are supported by Teacher Guardian, external counselor and authorities to ensure academic progress along with intense involvement of students in all co-curricular and extra-curricular activities.

The placement cell is headed by placement officer who coordinates with the prospective employers and arranges for on-campus interviews. Extra help is given to those who wish to progress towards higher studies and competitive examinations like GATE, MPSC, UPSC, TOFEL, IES, CAT and GMAT etc. Development of entrepreneurial skills is encouraged in the students through Entrepreneurship Development Programme Cell (EDPC).

Alumni meet is arranged every year, which provides feedback on developmental activities of the institute. Every year institute conducts several sports, extracurricular and co-curricular activities for overall development of the students. Students represent in various associations and committees. All students' bodies are encouraged to provide constructive feedback on the institutional academic and

administrative environment. All relevant information is available on the institute website.

Criterion VI- Governance, Leadership, and Management:

The vision and mission of institute are designed in harmony with higher education policies of government. The institute has the governing body works under the SPSPM, which is lead by the founder President Prof. M. N. Navale, a well-known academician. Faculty members on the management committee are actively involved in the decision-making process at various levels. Periodical interaction is made with all stakeholders for strategic planning and monitoring of policies. The various institute level committee are comprised of the Principal, Deans, Heads of Department, senior faculty members, and student's representative for grooming the leadership at various levels. The institute organizes annual Technical Festival (SPECTRUM), Project exhibition (WEENGS), the annual gathering (Carnival), workshops, seminars and conferences for the overall development of the students to inculcate leadership qualities amongst them.

The institute has well-defined strategies for faculty recruitment and promotion through the performance appraisal. Institute reviews the performance of all the faculty members. These appraisals are designed considering various parameters of the teaching-learning process and all other allied activities. Improvement in the qualification is duly appreciated through scale improvement and promotion. In addition to this, faculty members are encouraged to participate in the staff development programmes.

Criterion VII- Innovations and Best Practices:

The institute is committed to adopt environment-friendly policies by tree plantation, waste management, use of renewable energy resources (solar water heating system, Solar Vehicle etc), and water harvesting. Institute has started many innovative programmes, which creates positive impact and improvement in academic culture. These mainly include STP, e-Yantra, TG, SLS and faculty training programmes. The use of ERP software (GEMS), Pinnacle for bulk SMS, MOODLE Server etc. for the academic-administrative purpose have shown our commitment to a green environment. The MoUs with various industries have added impact on training and placement. The foremost best practices are the Students' Enrichment Programmes for overall development of students, Internship Training Programmes to give exposure to industrial environment.

SWOC ANALYSIS OF THE INSTITUTION

Strengths:

- Mechanism of empowering the diversified group of students resulting in upliftment of socio-economic status of the country
- Campus for elite
- Well defined teaching learning process resulted in consistent better university results supported by strong feedback mechanism
- Dedicated and qualified team of faculty members with foreign exposure and high retention ratio
- Personal monitoring of students' progress through TG scheme
- MoUs with more than 20 industries and training agencies for strong industry interaction
- IIT remote center (RCID-1260), spoken tutorials and e-Yantra for training of staff and students
- Well defined STP and Value Addition Programmes as per the current need of industry and for overall development
- All curricular and co-curricular activities supported by experiential and project based learning
- Good placement record.
- Entrepreneurship Development Cell for self-employability of students
- UG fellowships for students at various foreign universities
- Non-conventional energy based projects
- Emphasis on women empowerment through different platforms
- Social awareness to students through various NSS activities

Weaknesses:

- Difficulty to fulfill higher cadre ratio for teaching due to scarcity of Ph.D. holders
- Location of institute in rural area.
- R&D and consultancy activities are inadequate.

Opportunities:

- Center of excellence in key areas for supporting various stakeholders and nearby farmers community
- To fetch more research funding from agencies like AICTE, UGC, DST, CSIR etc.
- To get the status of Autonomous Institute
- To increase institute's visibility at State and National level

Challenges:

- To maintain cadre ratio in rural background
- To develop communication level of rural based Marathi medium students.
- To make 100% students employable for reputed industries
- To strengthen research and development activities.

PART C: PROFILE OF THE INSTITUTE

PROFILE OF THE AFFILIATED/CONSTITUENT COLLEGE

1. **Name and Address of the College:**

Name :	SKN SINHGAD COLLEGE OF ENGINEERING
Address :	At Post Korti, Karad Road, Taluka- Pandharpur, District- Solapur.
City : Pandharpur	**Pin :** 413304 **State :**Maharashtra
Website :	www.sknscoe.ac.in

2. **For Communication:**

Designation	Name	Telephone with STD code	Mobile	Fax	e-mail
Principal	Dr. K. J. Karande	(02186) 250103	7350508899	250142	principal.sknscoe@ spspm.org
Steering Committee Co-Ordinator	Dr. C. P. Pise	(02186) 250005	9922136606	250142	chetan.pise @sknscoe.ac.in
	Dr. R. T. Vyavahare	(02186) 250004	8805688470	250142	ravindra.vyavahare @sknscoe.ac.in

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 a recognized minority institution?**

    Yes ☐

    No ☑ √

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

6. **Sources of funding:**

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

7. **a. Date of establishment of the college:** 13/07/2010

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

    Solapur University, Solapur

    c. Details of UGC recognition:

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

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

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

Under Section/ clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
i.	F.No. Western/1-3322386688/2017/EOA	10/04/2017	1 Year	Approval to be renewed annually

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

Yes ☐   No ☑

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

Yes ☐   No ☑

9. Is the college recognized?

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

Yes ☐   No ☑

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

b.   For its performance by any other governmental agency?

Yes ☐   No ☑

If yes, Name of the agency……………………and

Date of recognition :……………………(dd/mm/yyyy)

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

Location*	Rural
Campus area in sq.mt.	20 acres (80937.46 sq.mt.)
Built up area in sq.mt.	45378 sq.mt.

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

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

- **Auditorium/seminar complex with infrastructural facilities**: 730 sq. mt. area available with seating capacity of 1800.
- **Sports facilities:** Sport club of around 656 sq.mt. is provided.

     * Playground   ☑

     * Swimming pool   ☐

     * Gymnasium   ☑

- **Hostel** $\boxed{\surd}$

∗ **Boys' hostel:**

    i. Number of hostels $\boxed{04}$

    ii. Number of inmates $\boxed{710}$

    iii. Facilities (mention available facilities) – Four hostel buildings with 1504 students capacity, 384 self-sufficient well furnished rooms each with area of 25 sq.mts. Reading room, Mess, Indoor games, Gents parlour, Laundry, Solar water heater, RO water purifiers with water coolers, Firefighting equipments, Guesthouse, Security, Gymnasium etc.

    ∗ **Girls' hostel:**

    i. Number of hostels $\boxed{02}$

    ii. Number of inmates $\boxed{295}$

    iii. Facilities (mention available facilities) – Two hostel buildings with 752 students capacity, 192 self-sufficient well furnished rooms each with area of 25 sq. mt. Reading room, Mess, Indoor games, Beauty parlour, Laundry, Solar water heater, RO water purifiers with water coolers, firefighting equipments, Guest house, Security, Gym etc.

    ∗ **Working women's hostel**: Yes
- Residential facilities for teaching and non-teaching staff (give numbers available-cadre wise): Yes
  (1 RK - 64, 1 BHK -32, 2 BHK - 48, 3 BHK -08)
- **Cafeteria**- Building of around 236 sq. mt. equipped with all required infrastructure facilities and furniture.
- **Health centre**– First aid, Outpatient, Emergency care facility, Medical, Ambulance (Emergency Vehicle)
  Health centre staff–

Qualified doctor   Fulltime $\boxed{\surd}$ Part-time $\boxed{}$

Qualified Nurse   Fulltime $\boxed{\surd}$ Part-time $\boxed{}$

- **Facilities like**

Banking:

| √ |

Canara Bank ATM is provided in the area of 18.3 sq. mt.

Post office:

| √ |

Post office box is available

Bookshops:

| √ |

Bookshop is provided having area of 18.3 sq. mt. each.

- Transport facilities to cater to the needs of students and staff: **Available**
- Animal house: **NA**
- Biological waste disposal: **Yes**
- Generator or other facility for management/regulation of electricity and voltage: **Yes**
- Solid waste management facility: **Yes**
- Waste water management: **Yes**
- Water harvesting: **Yes**

12. Details of programmes offered by the 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	Civil Engineering	4 Years	12th (HSC) Class Physics, Mathematics and Chemistry/ Biology/ Vocational subject and Score in CET	English	60	55
		Computer Science & Engineering				60	63
		Electronics & Tele-Communication Engineering				60	21
		Mechanical Engineering				180	70
		Electrical Engineering				60	48

2	Post Graduate	Structural Engg.	2 Years	Graduation in Concerned UG Programmes	English	24	24
		Computer Science & Engg.				24	10
		Electronics Engg.				24	06
		Design Engg.				24	10
3	Integrated Programs PG	NA					
4	Ph.D.	Electronics Engg.	2 Years	PG	English	8	Nil

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

Yes [√]   No [ ]

If yes, how many?   [01]

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

Programmes:

| Yes | | No | √ | Number | |

Courses:

| Yes | √ | No | | Number | 04 (PG), 01 (Ph.D.) |

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

Faculty	Departments (e.g. Physics, Botany, History etc.)	UG	PG	Research
Engineering and Technology	Civil Engineering	√	√	
	Mechanical Engineering	√	√	

	Computer science and Engineering	√	√	
	Electronics and Telecommunication Engineering	√	√	√
	Electrical Engineering	√		

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

   a. Annual system

   b. Semester system   10

   c. Trimester
      system

17. **Number of Programmes with:**

   a.   Choice Based Credit System   09

   b.   Inter/Multidisciplinary Approach

   c.   Any other (specify and provide details)

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

   Yes ☐   No ☑ √

   If yes,

   a. Year   of   Introduction   of   the
      programme(s)…………………(dd/mm/yyyy)

   and number of batches that completed the programme ☐

   b. NCTE recognition details (if applicable)
      Notification
      No.:……………………………………
      Date: ……………………………
      (dd/mm/yyyy)
      Validity:

   c. Is the institution opting for assessment and accreditation of Teacher Education Programme separately?
      Yes ☐   No ☑ √

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

    Yes ☐   No ☑

    If yes,

    a. Year of Introduction of the programme(s)………………(dd/mm/yyyy) and number of batches that completed the programme ☐

    b. NCTE recognition details (if applicable)
        Notification No.:…………………………………
        Date: ……………………………(dd/mm/yyyy)
        Validity:……………………

    c. Is the institution opting for assessment and accreditation of Physical Education Programme separately?

        Yes ☐   No ☑

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

Positions	Teaching faculty						Non Teaching Staff		Technical staff	
	Professor		Associate Professor		Assistant Professor					
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC/University/ State Government *Recruited*	01	00	01	00	72	06	NA	NA	NA	NA
Yet to recruit	06	04	14	07	10	34	NA	NA	NA	NA
Sanctioned by the Management/ society or other authorized bodies *Recruited*	06	00	08	01	43	09	86	10	26	04
Yet to recruit	00	04	06	06	-33#	25	00	00	00	00

*M-Male   *F-Female

 # Negative sign indicates excess of male Assistant Professors filled in place of higher cadre and female posts.

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

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.	-	-	-	-	-	-	-
Ph.D.	03	-	01	01	-	02	07

M.Phil.	-	-	-	-	-	-	-
P.G.	-	-	03	00	107	13	123
Temporary teachers							
Ph.D.	04	-	02	-	-	-	06
M.Phil.	-	-	-	-	-	-	-
PG	-	-	03	-	08	-	11
Part-time teachers							
Ph.D.	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	-	-	-

22. Number of Visiting/Guest/Adjunct Faculty engaged with the College: 17

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

Catego-ries	Year 2013-14		Year 2014-15		Year 2015-16		Year 2016-17		Year 2017-18	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
SC	28	15	36	25	31	09	37	14	23	14
SBC	13	08	33	29	08	10	16	05	09	06
OBC	87	17	99	47	61	26	80	27	66	19
General	194	74	239	83	207	77	263	88	195	80
Others	52	18	103	86	63	15	78	30	44	28

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

Type of students	UG	PG	M.Phil.	Ph.D.	Total
Students from the same State where the college is located	483	50	NA	00	533
Students from other states of India	02	00	NA	00	02
NRI students	00	00	NA	00	00
Foreign students	00	00	NA	00	00
Total	**485**	**50**		**00**	**535**

25. Drop out rate in UG and PG (average of last two batches):

UG	4.62%	**PG**	-

26. Unit Cost of Education:
(Unit cost= total annual recurring expenditure (actual) divided by total number of students enrolled)

(a) **Including the salary component**   Rs. 69,138.00

(b) **Excluding the salary component**   Rs. 15,454.72

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

Yes ☐   No ☑

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

UG: Engineering & Technology: 1:14.27

PG: Engineering & Technology: 1:10.87

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

Accreditation: Cycle1 ☑   Cycle2 ☐

Cycle3 ☐   Cycle4 ☐

Re-Assessment: ☐

(Cycle 1 refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to re- accreditation)

30. **Date of accreditation***
(Applicable for Cycle 2, Cycle 3, Cycle 4 and Reassessment only):

Cycle 1: NA
Cycle 2: NA
Cycle 3: NA

*Kindly enclose copy of accreditation certificate(s) and peer team report(s) as an annexure.

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

247

32. **Number of teaching days during the last academic year:**
(Teaching days means days on which lectures were engaged excluding the examination days)

180

33. **Date of establishment of Internal Quality Assurance Cell:**
    IQAC is established from academic year 2017-18. Similar body (AMC) was in function from 13 July 2010.

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 (Do not include explanatory/descriptive information):** Nil

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:

We are committed to transform SKNSCOE, as a leading technological institute in India which offers a dynamic learning environment with value based education through self-learning and innovative thinking in students.

Mission:

SKN Sinhgad College of Engineering offers a unique culture to enhance Self Esteem, Team Spirit and Life Skills of students to match the need of emerging world. The institute focuses on self-learning abilities, Project Based Learning through well-defined curricular and co-curricular activities.

Objectives:

1. To provide quality education in the field of engineering.
2. To offer value based education through innovative thinking in students.
3. To serve the interest of the student community as well as the corporate and industrial sectors.
4. To achieve academic excellence.
5. To maintain a close liaison with the industry and other leading organizations.
6. To build the institution as a knowledge hub.
7. To imbibe self-learning abilities in the engineering students through project based learning.
8. To provide platform to the students for their overall development through co-curricular and extracurricular activities.
9. To improve employability and competency of the students.

Communication to Stakeholders:

The vision, mission and objectives of the institution are communicated to all the stakeholders and society through institute website, noticeboards at various locations in the institute such as the Principal office, HOD cabin, training and placement office, library etc. These statements also communicated to the students through notice boards of all the departments and institute brochure. It is communicated to the students and their parents through the induction programs and parent meets.

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

Institute develops and deploys action plans for effective implementation of curriculum in following manner:

- As per the guidelines from the university, every semester academic calendar is prepared well before the start of semester consisting of various activities such as

unit tests, preliminary examination, test results declaration dates, technical events, cultural festivals, project exhibitions, tentative dates for university oral and written exams etc. Class wise separate academic calendars are prepared in consideration with the first year and direct second year admission schedule.

- In addition to this, activity calendars are prepared by all the departments which includes tentative schedule of expert/invited lectures, industrial visits, conferences, workshops, value addition programmes, parent meets, LCD presentations etc.
- Academic and activity calendars are communicated to all stakeholders through notice boards, website and intranet server (FTP).
- Required equipments, software, consumables, books etc. are procured as per the requirements raised by the departments before commencement of academic sessions.
- Course files are prepared as per the guidelines of AMC before the start of semester. All modern tools and techniques are being used for effective delivery of course contents.
- To fulfil the outcome of subject, teaching plans are prepared by faculty members in line with academic and departmental activity calendar. In addition to this, teaching plan includes contents beyond the syllabus to have insight of recent advancements and applications of the subject.
- Teaching plan is certified and monitored by Head of the Department and accordingly corrective measures are taken.
- Students are motivated to attend the classes on regular basis. Every day students attendance is compiled, monitored and communicated to the parents if the student remains absent. Monthly attendance and defaulter list is displayed on the notice board for the information of the students and necessary corrective actions.
- Continuous assessment and evaluation is done by individual faculty member and timely completion of submission is ensured by head of the department.
- Remedial classes are conducted by subject teacher for academically weak students/ slow learners.
- Prior to university practical/oral examinations, internal mock practical oral examination is conducted to ensure readiness of the students for final university examination.
- To make the students aware about the university examination pattern, previous university question papers and model question papers are made available to the students.

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?

Support from University:
- Subject orientation workshops related to specific subjects are conducted for concerned faculty at various affiliating institutes
- Financial assistance is provided to the institute for conducting workshops, conferences on advanced topics related to curriculum
- University provides the academic calendar to ensure standards laid down by UGC for the compliance of minimum number of working days.

- Time to time changes in curriculum patterns and its assessment norms are communicated to the institute.
- University identifies experts from academic institutes and industry as internal and external examiners for oral/practical examinations.
- Meetings are conducted for ensuring proper curriculum delivery, question paper pattern and its assessment norms.
- University facilitates with necessary support to assessment centres (CAP) to ensure timely declaration of results.

Support from Institute:
- Institute supports faculty members to contribute in curriculum designing, workshops arranged for syllabus framing, orientation programmes at university level. We have sufficient pool of experienced faculty members contributing for any curriculum transformations in consultation with all Board of Studies (BOS) members.
- Institute keeps updating changes happening in curriculum through website, social media, and FTP server to keep all stakeholders updated in this regard.
- There is significant contribution by faculty members of the college in paper setting, evaluation and assessment work.

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.

Efforts by the institute for communicating curriculum to students and teachers:
Time to time changes in curriculum are made available to the teachers and students via FTP/MOODLE server, institute website and library.

Guidelines for preparation of course files and use of ICT tools:
AMC constituted by the institute plays vital role in deciding the guidelines for the preparation of course files to deliver curriculum given by university. The contents set by AMC for course file are:
1. Course Objectives/outcomes
2. Syllabus
3. Individual Time Table
4. Teaching Plan with contents beyond the syllabus
5. University Question Papers
6. Question Bank Theory
7. Oral Question Bank/Objective Question Bank
8. Students Attendance Record
9. Unit Test I, II and Prelim Examination record
10. Assignments/Tutorials
11. Continuous Assessment Record
12. Subject Notes (hard copy, soft copy and PPT for all lectures)
13. Use of various ICT tools for effective teaching learning

Execution of teaching plan:
Subject teacher prepares teaching plan before start of the semester and keeps updating the topics covered in the teaching plan. HODs take monthly review and suggest corrective actions, if any.

Feedback from the students:
For effective delivery of the curriculum, students' feedback is taken into consideration to achieve the set course outcomes.

Mid semester evaluation:
As a part of continuous evaluation process mid-term submission is introduced, to ensure timely submission of the term work, assignments and tutorials. This includes repetition turn for the practicals missed by some students due to absenteeism, revision of the practical(s) and completion of pending assessment work if any.

Review of syllabus completion and provision for make-up sessions:
HODs take the syllabus completion review via written, oral feedback from the students and concerned faculty members and accordingly provision of make-up sessions is made whenever required.

Continuous evaluation/assessment:
Practicals/assignments/tutorials are evaluated on continuous (weekly) basis and details of the evaluation are recorded in the formats available in the attendance register.
Academic performance of the students is assessed on continuous basis with the help of internal examinations (unit test-I, unit test-II and prelim exam) scheduled at regular intervals during the semester. This academic performance evaluation at various stages are beneficial to take early measures.
Above performance of the students is linked with internal marks given by the institute to motivate the students for continuous assessment.

Internal Assessment Norms for term work marks allocation:
Institute has developed transparent system for giving internal term work marks to the students based on their performances and the norms are communicated to the students well in advance.

Subject specific training to the teachers:
Institute encourages faculty members to upgrade the knowledge by providing duty leaves for attending FDP, STTP, QIP, workshops, National/International Conferences and financial assistance in terms of registration fees, travelling allowance etc.

Effective use of software:
Institute has made significant investment in the software which is beyond the minimum requirement of the curriculum. Apart from this, faculty members and system administrators are encouraged to use open source software tools for effective delivery of curriculum.

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

- Institute always takes efforts to strengthen consultancy/research activity by interacting with industries, research bodies and the university.
- The institute has signed Memorandum of Understanding (MoUs) with various industries and professional training institutes. These MoUs help to bridge the academic and industry gap through expert sessions by the industry persons, industrial visits, vocational in-plant training during summer and winter vacation, value addition programs by industry experts for skill up gradation and consultancy. This provides opportunity to faculty members and students to deal with challenges faced by industry.
- Institute has linkages with research organizations, industries and academic institutions for industrial visits, VAPs etc.

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.)

- Strength of the institute in the form of well qualified and experienced faculty members has been reflecting in the development of curriculum like BOS chairman and members, subject chairman in paper setting committee, paper assessment members, moderators, senior supervisors, external examiners for oral/practical exams at other colleges under Solapur University and other universities, CAP coordinators etc.
- All senior faculty members are involved in the syllabus revision workshops, orientation programmes to incorporate suggestions/feedbacks of the stakeholders in the development of the curriculum. Details of the role of faculty members in the development of the curriculum by the university are as follows:-

Table 1.1.6: SUS Curriculum Development Contribution

Name of Department	BOS Chairman/ Member	Curriculum Development Members	Paper Setters/ Chairmans	LIC Members	Senior Supervisors	Examiners/ Moderators
Civil.	01	09	06	05	04	14
CSE	--	02	07	-	02	16
E&TC	01	05	05	--	01	13
Electrical	01	11	07	01	02	11
Mechanical	01	17	10	--	04	34
First Year	--	03	04	--	05	13

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 ('Need Assessment', design, development and planning) and the courses for which the curriculum has been developed.

- Yes, as affiliating university syllabus has limitations to fulfil the current requirement of industries and to bridge this gap institute takes effort through well-defined Value Addition Programmes (VAP).
- The curriculum for such VAP courses is designed in consultation with experts from the industries and corporates. The programme includes various courses like soft skill and technical skills.
- Suggestions from AMC (IQAC), training and placement cell, employers, alumni, experts from the MoU organizations etc. are taken into consideration for the curriculum development for such courses. Curriculum of few courses set at institute level is as follows:

Table 1.1.7: Details of few Courses

Sr. No.	Name of Course	Contents of the course
SE-I	Communication Skill (VAP)	Pre-test, attitude, confidence, effective communication, listening skills, extempore, email writing, speaking practice.
SE-II	Communication Skill(VAP)	Pre-Test, effective communication, common communication errors, NV communication, letter writing, Listening skills, speaking practice, Assertive communication, Public speaking skills.
TE-I	Personality Development & Soft Skill	Healthy Personality, Learning Attitude, Self-Awareness, Staying Motivated, Nurturing Creativity, Nurturing Creativity, Designing your Goal, Managing Time, Interpersonal Relationship Management, Team Alliance, Stress Management, Corporate Etiquette, Resume Building, Group Discussion, Personal Interview.
TE-II	Quantitative Aptitude	Logarithms, Divisibility, HCF and LCM, Power, Decimal Fractions, Numbers, Permutations and Combinations, Probability, Word Problem, Word Problem Profit, Word problem Interest, Word Problem Speed, Word Problem inverse.
BE-I	Verbal Aptitude	Synonyms, Antonyms (Select the opposite of the given word.) Sentence meaning, Sentence completion, Sentence error, Sentence improvement, Comprehension (order), Reading Comprehension (RC).
BE-II	Logical Aptitude	Analogy Pattern recognition, Classification Pattern recognition, Coding Pattern recognition, Number Series Pattern recognition, Direction sense, CDL, Blood relations, Puzzles, Logical word sequence, Selection Decision table, Data sufficiency.

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

The institution ensures the achievement of stated objectives of the curriculum in course of implementation in following ways:

- All the departments have defined their program specific objectives and outcomes in line with the university curriculum.

- Subject allocation is done well in advance to get sufficient time to teachers for preparation of course contents to ensure effective teaching learning process.
- Faculty members explain the course objectives and outcomes to the students in initial sessions. Faculty members prepare teaching plan and follow the same for effective curriculum completion as per schedule.
- Effective syllabus completion and attainment of course outcomes is assessed through seminars, internal exam/mock orals/ practical, assignments/tutorials, project orals, unit tests and feedbacks. The stage of attainment is informed to the stakeholders regularly.

1.2 Academic Flexibility

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

Apart from the university curriculum, institute offers certification courses which help in skill development of students resulting into employability. The goals and objectives of various VAP are given in detail as follows:

Table 1.2.1: Goals and Objectives of VAP

Sr. No.	Course Name	Goals	Objectives
1.	C #.Net	To make students competent with object oriented language and framework	To develop windows client applications, XML web services, distributed components
2.	CATIA	To train students on 3-D PLM software	To design multi-disciplinary project with CAD, CAM, CAE with 3D experience platform
3.	C++	To make students aware of object oriented programming language	To develop database application, generic programming, system programming features
4.	JAVA PGM	To practice general programming language	To design and develop platform independent, concurrent, class based application
5.	MATLAB	To enhance awareness about mathematical modeling and simulation tool	To model, design and simulate engineering systems and project modules with graphical user interface
6.	AUTOCAD & Integrated Advance CAD Course	To make students aware of CAD design and development software	To design and develop mechanical and civil engineering drawing for various structures
7.	PRO-E	To enhance awareness of design suit for collaborative applications	To design and develop solid modeling, assembly modeling, 2D graphics view

8.	ANSYS	To introduce students finite element analysis	To make analyze the system using finite element analysis, structural analysis, fluid dynamics and heat transfer
9.	CCNA	To create awareness among students about advanced computer networking concepts	To understand and practice network programming and software technology for routing
10.	STAAD Pro	To make civil engineering students aware about structural analysis and design platform	To design and verify structural designs for civil structures. To understand limitations and problems associated with designed structures
11.	Basic English (ALL FE)	To enrich students vocabulary	To improve written and spoken English helpful in professional life.
12.	Communication Skills (ALL SE)	To make students competent with market requirement and enrich soft skills	To improve verbal communication, body language, confidence and presentation skills.
13.	Aptitude (ALL TE)	To make students prepared for placement drives and competitive exams	To understand and practice techniques for solving problems in general reasoning and engineering
14.	Entrepreneurship Development Workshop	To make students aware of need and entrepreneurship development in engineering	To make student familiar with industrial registration procedure, government norms and support to start new business.
15.	Non Destructive Testing Workshop	To give hands on training to students on NDT	To make students ready for industrial technologies.
16.	VAP on solar Electric system Design operation & installation	To teach students the design procedure for PV systems for commercial use	To estimate and calculate power requirement for setup and design photo-voltaic system for the same.
17.	HYPERMESH	To introduce students mechanical design platform	To make analysis with finite element analysis platform
18.	SOLIDWORKS	To introduce students CAD and CAE tool	To create model and assemblies using parametric feature based approach
19.	Hands on training on Android Robotics	To make students aware of android robotic development platform	To practice development procedure for robot and sensor control using micro computing platform.

20.	IoT with Python	To enhance the knowledge of students in internetworking field.	To create real time modules using Raspberry Pi.

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

No, such programmes are not offered by affiliating university.

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 programmes and courses
• Enrichment courses

The academic flexibility is given by the SUS to some extent and further the institute has taken various measures to provide academic flexibility to help the students in improving skill development, academic mobility, progression to higher studies and enhancing employability.

a. Range of Core / Elective options offered by the University curriculum:
The electives are offered in the university curriculum
• At third and/or final year UG courses and
• At first and/or second year PG courses
The various electives offered by the SUS in the curriculum and opted by the students of various departments are as follows:

Table 1.2.3 (a): Details of Electives Offered

Programme	Sem-ester	Elective subject(s) offered by SUS	Elective opted by the students
UG Courses:			
Civil Engineering	VII	**Elective-I** 1. Open Channel & River Hydraulics 2. Air Pollution & control 3. Design of Foundations 4. Advanced Design of Steel Structures 5. Managerial Techniques 6. Computer Applications in Civil Engg. 7. Advanced structures 8. Advanced Concrete Technology	1. Advanced Design of Steel Structures 2. Advanced Concrete Technology

		9. Remote Sensing and GIS Applications	
	VIII	**Elective-II**	
		1. Advanced Engg. Geology 2. Ground Improvement Techniques 3. Traffic Engg. & Control 4. Infrastructural Engineering 5. Project Appraisal 6. Solid and Hazardous & Waste Management 7. Dynamics of Structures 8. Environmental Management 9. Design of Bridges	1. Design of Bridges 2. Solid and Hazardous & Waste Management
		Elective-III	
		1. Advanced Design of Concrete Structures 2. Industrial Waste Treatment 3. Water Power Engg. 4. Entrepreneurship 5. Reliability Engg. 6. Finite Element Method 7. Experimental Stress Analysis 8. Optimization Techniques. 9. Disaster Management	1. Advanced Design of Concrete Structures 2. Optimization Techniques 3. Disaster Management
Computer Science and Engineering	VII	**Elective-I**	
		1. Human Computer Interaction 2. Digital Signal Processing 3. Software Testing & Quality Assurance 4. Business Intelligence	1. Software Testing & Quality Assurance
		Elective-II	
		1. Object Oriented Modeling & Design 2. Wireless Ad hoc Networks 3. Intelligent Systems 4. Mobile Application Development	1. Object Oriented Modeling & Design
	VIII	**Elective-III**	
		1. Data Warehousing & Mining 2. Image Processing 3. Information Retrieval 4. Cloud Computing	1.Information Retrieval
		Elective-VI	
		1. Storage Area Network 2. Web 2.0 & Rich Internet Application 3. Artificial Neural Network 4. Big Data Analytics	1. Artificial Neural Network 2. Big Data Analytics

		Elective-I	
Electrical Engineering	VII	1. PLC and SCADA 2. Digital Signal Processing 3. Energy Audit & Management 4. Extra High Voltage AC Transmission	1. Energy Audit & Management
		Elective-II	
	VIII	1. Power System Dynamics 2. High Voltage Engineering 3. Renewable Energy Sources 4. Power Quality	1. Renewable Energy Sources
Electronics and Telecommuni-cation Engineering	VII	**Elective-I**	
		1. Advance DSP 2. Image Processing 3. Artificial Neural Network	1. Image Processing
	VIII	**Elective-II**	
		1. Pattern Recognition 2. Fuzzy Logic 3. DSP Processors & Application	1. Pattern Recognition 2. Fuzzy Logic
Mechanical Engineering	VII	**Professional Elective III**	
		1. Finite Element Methods 2. Automobile Engineering 3. Process Engineering	1. Automobile Engineering
		Free Elective I	
		1. Industrial Robotics 2. Sugar Engineering 3. Entrepreneurship Development	1. Industrial Robotics 2. Entrepreneurship Development
	VIII	**Professional Elective IV**	
		1. Mechatronics 2. Computational Fluid Dynamics 3. Production and Operation Management	1. Mechatronics 2. Production and Operation Management
		Free Elective II	
		1. Software Engineering & cyber security 2. Agro Machine Engineering 3. Plastic Engineering 4. Economics for Engineers	1. Plastic Engineering 2.Agro Machine Engineering
PG Courses			
ME Civil (Structural Engg.)	I	**Elective –I**	
		1. Design of Foundations 2. Advances in Concrete Composites 3. Structural Optimization	1. Advances in Concrete Composites
	II	**Elective –II**	
		1. Stability of Structures	1. Design of R.C.C.

		2. Design of R.C.C. Bridges 3. Structural Reliability 4. Design of Folded Plates &Shells	Bridges
ME (Computer Science &Engg.)	I	**Elective –I**	
		1. Data Mining 2. Mobile Computing 3. ANN & GA 4. Enterprise software development	1. Mobile Computing
	II	**Elective –II**	
		1. Grid Computing 2. Real Time Operating System 3. Natural Language Processing 4. Infrastructure management	1. Real Time Operating System
		Elective –III	
		1. Web Technology 2. Business Intelligent System 3. Object Oriented Software Engineering and Design Patterns 4. Wireless Ad-hoc Network	1. Object Oriented Software Engineering and Design Patterns
ME (Electronics Engg.)	I	**Elective –I**	
		1. Design of Wireless System 2. Advanced Digital System Design 3. Image and Video Processing 4. Neural Networks & Fuzzy Control Systems	1. Image and Video Processing
	II	**Elective –II**	
		1. Mobile Technology 2. Real Time Systems 3. VLSI in Signal Processing 4. PLC, SCADA and Distributed Control System	1. VLSI in Signal Processing
ME Mech. (Design Engg.)	I	**Elective –I**	
		1. Synthesis & Analysis of Mechanisms and Machines 2. Industrial Instrumentation 3. Reliability Engineering 4. Mechanical System Design	1. Industrial Instrumentation
	II	**Elective –II**	
		1. Industrial Tribology 2. Engineering Fracture Mechanics 3. Theory and Analysis of Composite Materials 4. Engineering Design Optimization	1. Engineering Fracture Mechanics 2. Theory and Analysis of Composite Materials

In addition to this, the, self-learning subjects are offered to the students in all the departments in the 5th and 6th semester. This effort is being taken for improvement in self-learning abilities of students.

Self-Learning Subjects – Part of syllabus:
Details of self-learning subjects are as follows:

Table 1.2.3 (b): Details of Self-learning Subjects

Course	Vth Sem. Self-Learning-Elective common to all courses (Humanity and Social Science (HSS))	VIth Sem. Self-Learning-Elective course specific (Technical)
UG:		
Civil Engineering	1. Economics 2. Intellectual Property Rights for Technology Development and Management 3. Introduction to Sociology 4. Stress and Coping 5. Professional Ethics & Human Values	1.Geosynthetics and Reinforced Soil Structures 2.Pavement Analysis and Design 3.Planning for Sustainable Development 4.TQM and MIS in Civil Engineering 5.Earthquake Resistant Non Engineered Construction
Computer Science and Engineering		1. Computer modeling & Simulation 2.Network Setup and Management Tools 3. Software Licensing and Practices
Electrical Engineering		1.Safety Engineering & Disaster Management 2. Intellectual Property Rights 3. Value Engineering
Electronics and Telecommuni-cation Engineering		1.Computer Organization 2. Operating System 3. Robotics
Mechanical Engineering		Mini Project/Case study
PG:		
ME (Computer Science & Engg.) Sem-III	1. Big Data 2.Open Source Technology 3. Computer Network Administration	1. Computer Network Administration

ME (Electronics Engg.) Sem-III	1. Network & internet security 2. Programmable system on chip 3. Advanced signal and Image Processing 4. Advanced process control	1. Advanced signal and Image Processing

b. Choice Based Credit System:
With effect from academic year 2015-16, SUS has implemented CBCS curriculum pattern for offering increased flexibility in choice of subjects.

c. Lateral and vertical mobility within and across programmes and courses:
The institute is affiliated to SUS, and as per the SUS/AICTE/DTE norms, a student can opt for change of Programme in 3rd semester. The students from other colleges can take transfer to respective programme in 3rd, 5th or 7th semesters.

d. Enrichment courses:
- Based on performance and initiative, institution has been recognized as a Resource Center for e-Yantra Lab facilities funded by AICTE and supported by IIT Bombay.
- Various students groups and team of faculty members are developing robotics related projects under the guidance of IIT Bombay.
- TATA technology sponsored Distance Ready Engineer (DRE) course is being run successfully in the institute for the students.
- PSPL sponsors problem and project based learning to enhance employability skill of students.
- Regular guest lectures by experts from industries and academic institutes are arranged for the students
- Various STTP and workshops are conducted for students and faculty through IIT remote centre
- Spoken tutorials are conducted in the institute to upgrade technical skills.
- Value addition programs are conducted to bridge the academic-industry gap and improve employability of the students.
- MoUs with various organizations are made time to time as per the industry institute need.

e. Progression to higher studies:
- GATE coaching to the final year students by institute faculty members
- Separate practice sessions on GATE Tutor software for GATE preparation
- Competitive exams study center for preparation of exams like GRE, TOEFL, CAT, MPSC, UPSC etc.

Table 1.2.3 (c): Progression to higher studies

Sr. No.	Academic Year	No. of Graduating Students	No of students opting for higher studies	UG to PG Progression (%)
DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING				
1.	2016-17	69	06	8.70
2.	2015-16	72	07	9.72

3.	2014-15	67	10	14.93
4.	2013-14	55	10	18.18
DEPARTMENT OF ELECTRICAL ENGINEERING				
1.	2016-17	65	-	-
2.	2015-16	72	02	2.77
3.	2014-15	48	06	12.5
4.	2013-14	31	05	16.13
DEPARTMENT OF CIVIL ENGINEERING				
1.	2016-17	73	06	08.22
2.	2015-16	59	15	25.42
3.	2014-15	45	17	37.78
4.	2013-14	31	14	45.16
DEPARTMENT OF MECHANICAL ENGINEERING				
1.	2016-17	228	05	2.19
2.	2015-16	192	12	6.25
3.	2014-15	123	14	11.38
4.	2013-14	59	19	32.20
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING				
1.	2016-17	74	05	6.76
2.	2015-16	64	-	-
3.	2014-15	56	03	5.36
4.	2013-14	64	11	17.19

Department wise Details of GATE / GRE /TOEFL etc. Qualifiers

Academic Year	GATE Appeared	GATE Qualified	GRE/TOFEL	State Services
DEPARTMENT OF CIVIL ENGINEERING				
2016-17	60	04	-	-
2015-16	48	01	01	01
2014-15	31	-	-	-
2013-14	19	03	-	-

DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING				
2016-17	68	01	-	-
2015-16	45	02	-	-
2014-15	67	01	-	-
2013-14	55	0	-	-
DEPARTMENT OF ELECTRICAL ENGINEERING				
2016-17	56	01	-	01
2015-16	-	0	-	04
2014-15	46	0	-	-
2013-14	-	0	-	-
DEPARTMENT OF MECHANICAL ENGINEERING				
2016-17	218	07	02	0
2015-16	176	05	03	0
2014-15	118	04	0	0
2013-14	49	01	0	0
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING				
2016-17	63	03	-	-
2015-16	20	0	-	-
2014-15	42	0	-	-
2013-14	15	0	-	-

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.**

SKNSCOE is a private un-aided institution affiliated to SUS. Institute offers following self-financed undergraduate and post-graduate programmes:

Table 1.2.4 (a): Details of Self-financed Courses

Sr. No.	Programme Level	Name of the Programme/ Course	Duration
1.	**Under-Graduate (UG)**	Civil Engineering	4 years
		Computer Science and Engineering	
		Electrical Engineering	
		Electronics and Telecommunication Engineering	
		Mechanical Engineering	

2.	Post-Graduate (PG)	M.E.(Structural Engg.)	2 years
		M.E.(Computer Science and Engineering)	
		M.E.(Electronics and Telecommunication Engineering)	
		M.E.(Design Engg.)	
3.	Doctorate	Ph.D. (Electronics and Telecommunication Engineering)	2 years

Governing Rules/Regulating Body for the parameters such as admission, curriculum, fee structure, teacher qualification and salary are as follows:

Table 1.2.4 (b): Governing Rules/Regulating Body

Sr. No.	Parameter	Governing Rules/Regulating Body
1.	Admission	i. As prescribed by Directorate of Technical Education (DTE), Govt. of Maharashtra ii. Based on CET/JEE and PCM score in 12th standard.
2.	Curriculum	As prescribed by Solapur University, Solapur
3.	Fee structure	As approved by Shikshan Shulk Samiti
4.	Teacher qualification	As prescribed by the All India Council for Technical Education (AICTE), New Delhi
5.	Salary	As prescribed by the All India Council for Technical Education (AICTE), New Delhi and Govt. of Maharashtra

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

Yes, the details of such programmes are as follows:

Table 1.2.5: Skill Oriented Programmes

Sr. No.	Name of the Program	Beneficiaries
1.	Aptitude Training Programme	Students
2.	Soft Skill Training Programme	Students
3.	CATIA	Students
4.	PRO-E	Students
5.	ANSYS	Students
6.	STAAD Pro	Students
7.	PCB Design	Students
8.	LCD Presentations	Students
9.	Group Discussion (GD) Sessions	Students
10.	Project Based Learning from Second Year onwards	Students
11.	Industrial Visits and Industry Sponsored Projects	Students/Faculty

12.	Android Robotics Training	Students/Faculty
13.	Non-conventional Machining Training	Students/Faculty
14.	Distance Ready Programme (DRE) by TATA Technologies	Students
15.	Vibration Analysis Training	Students/Faculty
16.	CCNA	Students
17.	AUTO CAD& Integrated Advance CAD Course	Students
18.	HYPERMESH	Students
19.	SOLIDWORKS	Students
20.	Non-destructive Testing Workshop	Students
21.	Entrepreneurship Development Workshop	Students
22.	PLC Programming	Students
23.	Transformer Design Workshop	Students
24.	Total Station	Students
25.	IoT With Python	Students
26	C#.Net	Students
27.	JAVA Programming	Students
28.	Solar Energy Workshop	Students
29.	Arduino Workshop	Students/ Faculty
30.	IBM WATSON IoT	Students/ Faculty
31.	General Vehicle Maintenance of Two Wheelers.	Students
32.	Adobe Photoshop Workshop	Students
33.	Image Manipulation Software Workshop	Students
34.	Computer Aided Engineering (CAE) Workshop	Students
35.	Raspberry Pi with Python	Students
36.	Green Building	Faculty
37.	Self-Compacting Concrete	Faculty
38.	Geodetic Surveying	Students/ Faculty
39.	Corrosion Prevention of Steel Structure	Students/ Faculty
40.	Disaster Management	Faculty
41.	Advanced Building Material	Faculty
42.	Research Methodology in Engineering and Technology	Faculty
43.	Patent Filing	Students/ Faculty
44.	Basics of Vibration and FFT Analyzer	Faculty
45.	3-D Printing and Rapid Prototyping	Faculty
46.	Vibration analysis and Consultancy Opportunities	Faculty

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 takes advantage of such provision for the benefit of students?

No**.** The University does not provide this flexibility at present.

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

Efforts made by the institution to supplement the University's Curriculum:

- Institute is always behind the overall development of students with technological enrichment suggested by university curriculum.
- To make students aware of recent market trends and to enhance technological awareness each department organizes scheduled programs like guest lectures of experts from industry or academics.
- To enhance academic performance of weak students remedial classes are conducted by subject teachers.
- Departmental associations organize workshops, seminars, training programs etc.
- To enhance hands on experience, students undertake mini projects in every semester which is also evaluated by external experts during college project exhibition. In addition to UG and PG students, faculty members are encouraged to develop experimental and research setups.
- Student participation in national and international project competitions like ROBOCON, ESVC, and DIPEX etc. is encouraged by providing financial support towards purchase of project material, transport and travelling expenditure.
- The provision has been made in academic calendar such that every admitted student become part of soft skill training program which can improve verbal and nonverbal skills like communication skill, group discussion, personal interview and team building.
- Institute organizes Entrepreneurship Development Workshops under guidance and supervision of trainers from MCED, Solapur to motivate self-employability skills.

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?

- With the help of industry institute collaboration, students are always kept aware of recent industrial trends.
- Industry sponsored projects make students familiar with best industrial practices and current technologies.
- Industrial visits and in-plant trainings are helping students to get awareness of various developments and industrial expectations.
- Soft skill development programmes are regularly conducted by faculty members and experts from professional organizations.
- Departmental associations organize various activities to enhance leadership and managerial skills of students.
- Institute is also conducting programmes like STP and VAP to improve employability skills.
- IIT remote centre, spoken tutorials and e-Yantra laboratory facilitates the advanced learning abilities amongst faculty members and students.

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

Institute is taking endless efforts to integrate the cross cutting issues as Gender, Climatic change, Environmental Education, Human Rights, ICT etc.

In order to draw attention of young generation on these issues, subjects like Professional Ethics and Human Values, Environmental Sciences, Introduction to Sociology have been included in the existing curriculum of affiliating university. As ours is professional institute, students are well aware about ICT. Moreover, entire campus has Wi-Fi connectivity with 32 Mbps internet connection.

Gender:

In order to improve women percentage in the higher education, every effort is taken by the institute to make the campus safe for girl students. This includes anti-sexual harassment committee, grievance redressal committee, and separate hostel for girl students with round the clock security, lady wardens at girls' hostel, girls' common room, supporting gender equality through all co-curricular and extra-curricular activities.

Climate Change and Environmental Education:

Various efforts are made by the Institute to create awareness about Climate Change and Environment among students and the society as follows:

i) Organizing various programmes under NSS such as camps in various nearby villages by the students to help village panchayats for enhancing awareness about cleanliness, pollution, preserving water resources, renewable energy sources, water harvesting and tree plantation.

ii) Institute practices many things which enlighten students to protect environment and save water. These includes, reuse of waste water for gardening, biogas generation on waste food, use of solar vehicles, use of ERP to minimize stationary use etc.

Human Rights:

Every student is under the kind observation and in close contact with local teacher guardian. The teacher guardian is counselling student problems and helping him or her to overcome them. This personal touch increases student moral and enhances respectful relationship. To make them aware of human rights institute regularly organizes programs for guidance from personnel of law and order. Institute has formed 'Grievance Redressal Cell' to resolve the student issues. Students are encouraged to address social and human rights issues through programmes like street plays which are performed during institutes and university cultural festivals.

Institute has maintained close interaction with Palavi- A Rehabilitation project of HIV/AIDS affected orphan children in India which is situated at 1km from institute. This interaction encompasses celebration of birthdays, Shiv-Jayanti with these affected orphan children, tree plantation at Palavi, provision of monetary help on account of various occasions donated by students and college staff.

Through technical awareness programs too, institute generates awareness amongst students about their social responsibilities, hygiene, health issues in association with Lion's Club, members from bar association and well known doctors.

ICT:
i. As a professional institute our course curriculum includes various subjects related to ICT such as programming languages (C, C++, and Java etc.), operating systems and various communication technologies.
ii. In addition to this, students are addressed by personnel from cyber cell department and experts from industries in the ICT field.

1.3.4 What are the various value-added courses/enrichment programmes offered to ensure holistic development of students?
- **moral and ethical values**
- **employable and life skills**
- **better career options**
- **community orientation**

Holistic development of students is one of the key objectives of the institute and many efforts are being taken by the institute for the same. Some of the measures to note are as follows:

i. Moral and ethical values
Through organization of various activities like street plays, speeches by social workers, donations to NGOs on special occasions etc. efforts are made to make aware students about moral and ethical values.

ii. Employable and life skills
Student training programs and guest lectures are arranged to enhance employability and life skills of students.

iii. Better career options
Regular counselling of final and pre-final year student is done through various career guidance and counselling sessions to line up with better career option.

iv. Community orientation
NSS organizes different programs to increase interaction with local community and make student aware of community issues.

Table - 1.3.4. – Value-Added Courses/Enrichment Programmes Conducted By the Institute

Sr. No.	Value added courses / enrichment programmes offered - Categories	2013-14	2014-15	2015-16	2016-17	2017-18
01.	Moral and ethical values (Street plays)	03	03	04	04	---
02.	Employable and life skills (Student training programs and guest lectures)-VAP & EDP	17	19	23	27	01
03.	Better career options (Regular counseling of final and pre-final years student - STP)	15	15	10	15	10
04.	Community orientation (NSS Programs)	02	02	03	07	03

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

i. Feedback from the alumni, parents and industries is taken into account for revision in the curriculum.

ii. Institute organizes alumni meet every year and seek their views and suggestions. Their feedback and shared views are considered in enriching curriculum and various systems in the institute.

iii. Students are trained with STP which is designed by considering industrial needs and requirements.

iv. Persons from various industries are invited while syllabus setting/revision workshops and their views are incorporated into curriculum to develop students ready to employ.

v. Student feedback is used to improve the teaching learning process, understand students' expectations, and improve faculty performance, administrative system and infrastructural facilities.

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

Institute has taken following initiatives to monitor and evaluate the enrichment programmes:

- Institute practices continuous monitoring and evaluation process by knowing the status of the students before start of programme and after completion of the enrichment program.
- VAP conducted in every department is followed by verbal and written feedback. Feedback helps in further improvement of contents and conduction of forthcoming programmes.
- Certificates with grades are provided for various skill development programs conducted. Students get motivation to acquire higher grades.
- For more practice/study, course material and related knowledge base is provided in hard copies and the same is also made available on MOODLE server.
- At the end of VAP, a mini project based on contents covered in VAP is given to the students. Students work on this project/assignment over the period of 2-3 months followed by evaluation by experts.
- Aptitude and general reasoning tests are conducted and evaluated online by training placement department regularly.

1.4 Feedback System:

1.4.1. What are the contributions of the institution in the design and development of the curriculum prepared by the University?

The teachers of the institution participate in the workshops arranged by university as well as various institutes for syllabus revision prior to the formation of curriculum structure.

Following table illustrates the number of faculty members contribution in the design and development of curriculum (syllabus revision committee):

Table 1.4.1: Number of Faculty Contributed in Curriculum Development

Name of the Department	No. of Faculty Members
Civil Engineering	09
Computer Science and Engineering	03
Electrical Engineering	11
Electronics and Telecommunication Engineering	06
Mechanical Engineering	17
First Year Engineering	04

1.4.2. Is there a formal mechanism to obtain feedback from students and stakeholders on curriculum? If 'yes', how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?

- Institute has formal mechanism to obtain feedback from stakeholders as follows:
  a. Feed back from parents is taken during parents meets and during parents visit to TG & HODs.
  b. Feedback from alumni is taken during alumni meet arranged every year. Also alumni gives feedback through social media.
  c. Institutes' online feedback system is in place for students feedback. Also, students suggestions are received through suggestion box and TG system.
  d. Industrial experts are invited by University for curriculum development.
- Feedback from various stakeholders is conveyed to university authorities for consideration while making revision in curriculum.
- Based on the gap between university curriculum and industry expectations, various VAPs are designed and offered to students for curriculum enrichment.
- Various VAP programmes are conducted for curriculum enrichment as shown in Table 1.2.1.

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

The governing body of the institute on the recommendations of local management committee and stakeholders,takes decision to add new programmes/courses. Following are the new courses/programs inducted in the institute during the last four years.

Table 1.4.3:New Programmes/Courses Added

Academic Year	New programmes/Courses introduced	Shift	Additional Intake	Rationale
2011-12	Mechanical Engineering (UG)	First	60	To provide opportunities for higher education in a specific branches

2012-13	M.E. (Design Engg.)	First	24	It was observed that there is scarcity of students with P.G. qualification. Moreover, there was demand for these courses. Also, to develop institute on R & D front, these courses were introduced.
	M.E. (Electronics Engg.)	First	24	
	Mechanical Engineering (UG)	Second	60	To provide opportunities for higher education in a specific branches
	Electronics and Telecommunication Engg. (UG)	First	60	
2013-14	M.E. (Computer Science &Engg.)	First	24	It was observed that there is scarcity of students with P.G. qualification. Moreover, there was demand for these courses. Also, to develop institute on R & D front, these courses were introduced.
	M.E. (Structural Engg.)	First	24	
	Mechanical Engineering (UG)	First	60	To provide opportunities for higher education in a specific branches
	Mechanical Engineering (UG)	Second	60	

Other relevant information regarding curricular aspects:

- UG fellowships are offered in various foreign universities such as Technical University of Sofia (TUS), Bulgaria; Tor-Vergata University, Rome and Ural Federal University, Russia. Many students have completed various courses and project based learning assignments at these universities.
- Project Exhibition is conducted every year to explore the innovative ideas of students.
- Institute plans LCD presentations for all second year students to develop stage daring and in depth subject knowledge on the advanced topics.
- Every department arranges Group Discussion sessions for third year students as part of the academic schedule.
- Various competitions like Quiz Competition, GD competition, conferences, best outgoing student competition are conducted by departments/college to groom the personality of students.
- Students are actively involved in national/state/university level technical events organized in the institute e.g. SPECTRUM and WEENGS.

- Solar vehicles are the centre of attraction of SKNSCOE, which is the result of efforts taken by faculty members as well as students. Solar vehicles developed by students have won prizes in various national level events such as Electrical Solar Vehicle Championship (ESVC), Go-Cart competition, Sinhgad Solar Vehicle Championship (SSVC) etc.

CRITERION II: TEACHING-LEARNING AND EVALUATION

2.1 Student Enrolment and Profile
2.1.1 How does the college ensure publicity and transparency in the admission process?

Publicity and transparency in the admission process is ensured as below:

Publicity:
- Admission notification is scheduled on DTE website and also published in all the leading national and regional daily newspapers.
- The institute publishes advertisements for admission to different courses in all leading newspapers including information about courses, eligibility, admission process and academic as well as support facilities.
- The institute also participates in various exhibitions at major cities across Maharashtra.
- Institute counsel the students regarding MHT-CET/JEE through counselling cell.
- The institute organizes programmes for parents and students regarding admission process, course selection and schedule for various stages of CAP rounds.

Transparency:
- The admission process is strictly controlled by the State Common Entrance Test Cell (CET), DTE, Maharashtra state through CAP. The detailed procedure is as shown in Figure 2.1.1
- The application forms are available on DTE portal. Students interested in seeking admission have to register online through DTE admission portal in the stipulated time.
- Facilitation Center (FC) verifies, update and confirms the application form for admission and gives acknowledgement cum receipt to the candidate.
- Provisional merit list is displayed on DTE website and after the cognizance of the entire grievance; final state merit list is displayed.
- Candidates have to fill up and confirm option form for CAP Round I, II, and III through their Login.

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│   1. JEE/CET Examination Notification            │
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┌─────────────────────────────────────────────────┐
│ 2. Online registration of application for        │
│    admission in Engineering through CAP          │
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                        ↓
┌─────────────────────────────────────────────────┐
│ 3. Documents verification, updating and          │
│    confirmation of Application Form for Admission │
│    in person at Facilitation Center (FC)          │
└─────────────────────────────────────────────────┘
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│ 4. Display of the provisional merit list         │
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│ 5. Submission of grievance, if any, at FC        │
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│ 6. Display of the final merit list               │
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│ 7. Online Submission & Confirmation of Option    │
│    Form for CAP Round I, II, III-through          │
│    candidates Login                               │
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┌─────────────────────────────────────────────────┐
│ 8. Display of Provisional Allotment of CAP Round I│
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┌─────────────────────────────────────────────────┐
│ 9. Reporting to the Admission Reporting Centre    │
│    (ARC) for CAP Round I                          │
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┌─────────────────────────────────────────────────┐
│ 10. Repeat 8 and 9 for CAP Round II and III      │
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┌─────────────────────────────────────────────────┐
│ 11. Display of Vacant Seats for CAP Round IV     │
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┌─────────────────────────────────────────────────┐
│ 12. Online Submission & Confirmation of fresh     │
│     Option Form for CAP Round IV through          │
│     candidates Login                              │
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┌─────────────────────────────────────────────────┐
│ 13. Display of Provisional Allotment of CAP       │
│     Round IV                                      │
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┌─────────────────────────────────────────────────┐
│ 14. Reporting to the ARC as per Allotment of CAP  │
│     Round IV                                      │
└─────────────────────────────────────────────────┘
                        ↓
┌─────────────────────────────────────────────────┐
│ 15. Reporting to the Allotted Institute and       │
│     Confirmation of Admission by submitting       │
│     required documents and paying remaining fees, │
│     as per the Allotment                          │
└─────────────────────────────────────────────────┘
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┌─────────────────────────────────────────────────┐
│ 16. Commencement of academic activities          │
└─────────────────────────────────────────────────┘
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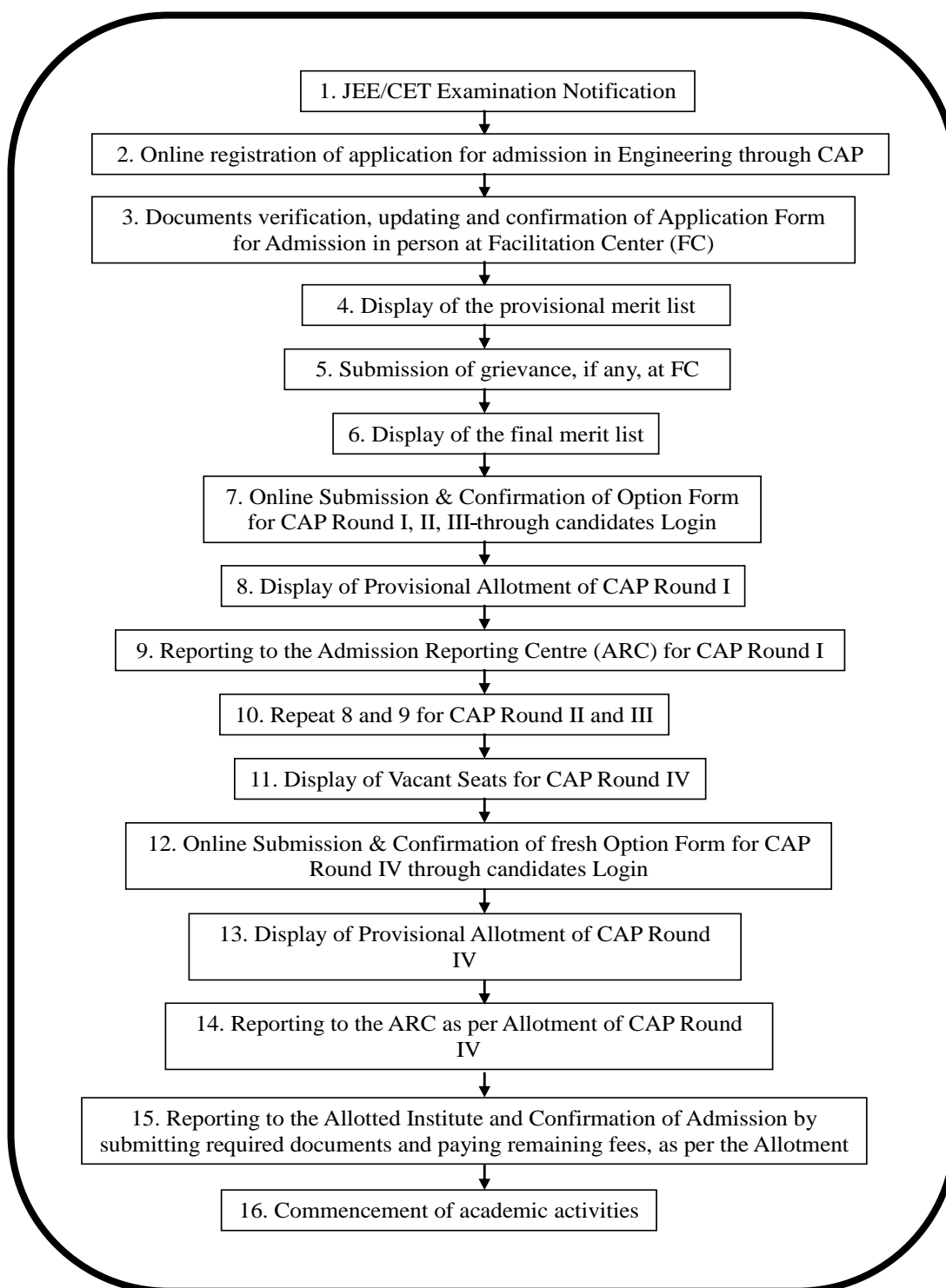
Figure 2.1.1 Flow chart of admission process

- After display of Allotment of CAP I, II & III, candidate has to report and accept the offered seat at Admission Reporting Centre (ARC).
- After final CAP round IV, the candidate shall report to the institution as per final allotment and confirm his/her admission by submitting required

documents and paying fees. The flow chart of admission process is shown in Figure 2.1.1.

- As per the directives of DTE and Government of Maharashtra, 20% of the total seats are filled by Institute. For this admission, Institute strictly adhere to the rules and regulations prescribed by DTE and Government of Maharashtra.
- DSE and PG admission process is strictly monitored and carried out transparently as per DTE, Government of Maharashtra.

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

Criteria and process implemented for admission is as follows:

i. Merit:
- During admission process FE and DSE merit criteria is adopted as per the directives of DTE, Government of Maharashtra State.
- For PG admissions, score of GATE is considered as per DTE rules.

ii. Common admission test conducted by state agencies and national agencies:
- At entry level for FE Common Entrance Test (CET) or Joint Entrance Examination (JEE) examination valid score is considered as per directives of DTE.
- There is no CET/JEE for DSE admission at entry level.

iii. Combination of merit and entrance test or merit, entrance test and interview: NA

iv. Any other to various programmes of the Institution: NA

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 provides a comparison with other colleges of the affiliating university within the city/district.

Minimum and Maximum percentage of marks for admission at entry level for each programmes offered by the college as indicated in Table 2.1.3 (a)

Table 2.1.3 (a): FE Admission Minimum and Maximum Percentage of SKNSCOE, Pandharpur

Sr. No.	Programme	Year of admission	Min. CET Marks/ composite score of Admitted Student	Max. CET Marks/ composite score of Admitted Student
1	E & TC Engineering	2013-14	38.00	92.00
		2014-15	47.04	91.55

		2015-16	52.86	64.58
		2016-17	46	91
		2017-18	43	93
2	Computer Science & Engineering	2013-14	38.00	92.00
		2014-15	17.25	77.07
		2015-16	14.17	74.77
		2016-17	46	100
		2017-18	25	119
3	Civil Engineering	2013-14	27.00	90.00
		2014-15	12.89	72.17
		2015-16	11.25	75.53
		2016-17	53	110
		2017-18	43	107
4	Mech. Engineering	2013-14	15.00	102.00
		2014-15	9.55	79.24
		2015-16	13.71	79.30
		2016-17	37	117
		2017-18	41	99
5	Electrical Engineering	2013-14	38.00	95.00
		2014-15	17.72	81.23
		2015-16	6.00	68.79
		2016-17	34	90
		2017-18	48	166

Minimum and Maximum marks of students affiliated to college/ university within the City/district:

- The entry-level admissions are through CAP only and managed by Directorate of Technical Examination (DTE), Maharashtra.
- TFWS Admission is not considered.

SKNSCOE Admission from Academic Year 2013-14 to 2015-16:
Table 2.1.3 (b), (c) and (d) gives details of FE Admission in minimum and maximum percentage from academic year 2013-14 to 2015-16 with respect to nearby colleges (VVP, KEC) under Solapur University, Solapur.

Academic Year 2013-14:

Table 2.1.3 (b): FE Admission Minimum and Maximum Percentile 2013-14 with respect to nearby Colleges under SUS

Department	SKNSCOE		VVP		KEC	
	Min.	Max.	Min.	Max.	Min.	Max.
Computer Science & Engg.	49	103	53	59	22.39	89.99
Civil Engg.	72	127	33	113	11	80.26
E & TC Engg.	56	104	48	103	25.29	86.80
Electrical Engg.	63	81	53	57	-	-
Mechanical Engg.	52	120	36	87	5.37	80.26

Academic Year 2014-15:

Table 2.1.3(c): FE Admission Minimum and Maximum Percentile 2014-15 with respect to Nearby Colleges under SUS

Department	SKNSCOE		VVP		KEC	
	Min.	Max.	Min.	Max.	Min.	Max.
CSE	50.08	77.06	26.90	61.60	5.75	39.43
Civil	59.90	72.17	--	--	21.72	46.57
E & TC	64.93	91.54	38.20	41.90	24.01	42.29
Electrical	58.75	81.23	33.98	45.54	--	--
Mechanical	66.31	79.24	24.30	36.90	11.73	38.29

Academic Year 2015-16:

Table 2.1.3 (d): FE Admission Minimum and Maximum Percentile 2015-16 with respect to Nearby Colleges under SUS

Department	SKNSCOE		VVP		KEC	
	Min.	Max.	Min.	Max.	Min.	Max.
CSE	40.23	64.81	13.66	57.82	10.90	14.90
Civil	31.52	75.53	--	---	19.97	86.74
E & TC	52.82	63.20	23.41	40.29	11.93	31.04
Electrical	40.15	68.79	15.36	37.38	---	---
Mechanical	44.55	78.30	15.83	45.98	25.14	35.45

Academic Year 2016-17:

Table 2.1.3 (e): FE Admission Minimum and Maximum Percentile 2016-17 with respect to Nearby Colleges under SUS

Department	SKNSCOE		VVP		KEC	
	Min.	Max.	Min.	Max.	Min.	Max.
CSE	48	127	14	85	41	96
Civil	51	112	0	0	35	89
E & TC	46	95	46	46	26	73
Electrical	34	109	63	64	--	--
Mechanical	43	126	46	73	44	72

Academic Year 2017-18:

Table 2.1.3 (f): FE Admission Minimum and Maximum Percentile 2017-18 with respect to Nearby Colleges under SUS

Department	SKNSCOE		VVP		KEC	
	Min.	Max.	Min.	Max.	Min.	Max.
CSE	25	119	57	65	40	80
Civil	43	107	56	68	30	76

E & TC	43	93	0	95	50	90
Electrical	48	166	0	49	--	--
Mechanical	41	99	40	76	53	74

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, to make admission process easy, separate admission cell has been established at institute level.

- Advertisement regarding admission is published in all leading newspapers and available at institute website *www.sknscoe.ac.in*.
- All brochures related to admission process from DTE/AICTE are made available at counseling cell.
- Institute organizes awareness sessions on changes in admission criterion of DTE.
- Various awareness programs like Career Opportunities in Engineering, Session on Digital India, Make in India and E-Learning through AKASH Tablet are organized at nearby Junior Colleges.
- Counselling programme for aspiring students along with their parents is being organized in the Institute before commencement of admission process.
- Suggestions received from parents are taken into consideration.
- Feedbacks are taken from Faculty Members of Admission Cell and Counseling Cell for significant improvement in the admission.
- Institute prepares Activity Calendar, which elaborates different activities conducted by each department.
- Recruitment of qualified and experienced faculty members to improve teaching learning process
- Branch wise cut-off merit data helps students to fill option in subsequent CAP rounds.

The above measures have improved the overall academic progress of the students in the campus thus creating a positive impact on overall admission process.

2.1.5. Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion.* SC/ST, * OBC, * Women, * Differently- abled, * Economically weaker sections * Minority community, * Any other

The institute stands by the National commitment to diversity and inclusion of students from all strata of society. The institute strives to create inclusive culture in which difference is recognized and valued. The Government of Maharashtra prescribes the reservation policies for admissions of various categories of students. As per national and state govt. policy in respect of reservation, 52% seats are reserved for socially and physically deprived categories and 30% seats are reserved for women.

As admissions are processed by DTE, due care is taken to give justice in this respect. This policy is implemented in the central admission process (CAP) of the 'Directorate of Technical Education' (DTE), Government of Maharashtra, which is followed by the institute. This is reflected in the student profile presented in Table 2.1.5(a):

SC/ST/OBC:
- The seats under these categories are filled only through DTE/GoM
- The seats under these categories are provided with scholarship by the GoM for tuition fees.

Women:
- There is special quota for the women admission.
- Table: 2.1.5(b) shows the year wise Boys and Girls strength in the institute.
- Table: 2.1.5(c) shows category-wise Boys and Girls strength in the Institute.

Economically Weaker Students:
- Institute provides all the information regarding scholarship for economically backward class (EBC) students and it is also available on DTE web site.
- Institute provides assistance to students for private trust scholarships through Yedkar trust.
- Institute offers installment to pay fees.
- Earn and learn facility is available.

Minority Community:
- Scholarships for minority students are offered by GOI /GOM

Any Other:
- As per the DTE norms separate quota is available for out of Maharashtra state as well as J&K candidates and admissions of these seats are carried out as per DTE norms.

Differently Abled:
- Separate classrooms are allotted on ground floor for differently abled students. Barrier free environment is provided to those students.
- Awareness regarding benefits reserved for physically challenged students such as scholarships from government and non-governmental organizations, special employment opportunities and reservations in higher studies in various sectors is continually provided by social welfare, scholarship and training and placement section respectively.

Table: 2.1.5(a): Category-wise student's strength for last four years (FE)

Category	2017-18	2016-17	2015-16	2014-15	2013-14
SC	14	22	21	17	20
ST	01	01	0	0	0
VJ	04	01	05	01	06
NT-1	0	04	04	02	02
NT-2	34	48	27	26	32
NT-3	0	02	01	01	03

OBC	60	55	51	42	57
SBC	10	10	10	4	12
OPEN	134	133	109	115	135
ESBC	0	0	0	0	0
SBC-A	0	0	0	0	0
TOTAL	**257**	**276**	**228**	**208**	**267**

**The talent in economically weaker sections is attracted through the quota under Tuition Fee Waiver Scheme (TFWS) which is over and above the sanctioned intake.

Table: 2.1.5 (b) Year wise Boys and Girls strength in the institute (FE)

Branch	Gender	2017-18	2016-17	2015-16	2014-15	2013-14
Mech.	Boys	66	89	82	84	150
	Girls	04	21	6	4	3
Civil	Boys	45	48	40	35	30
	Girls	09	12	18	14	4
Electrical	Boys	25	31	19	18	12
	Girls	24	8	7	14	7
Computer	Boys	26	29	10	2	3
	Girls	37	12	22	22	24
E&TC	Boys	05	10	0	0	6
	Girls	16	16	24	15	28
TOTAL		**257**	**276**	**228**	**208**	**267**

Table: 2.1.5 (c): Category wise Boys and Girls strength in Institute (FE)

Category	Gender	2017-18	2016-17	2015-16	2014-15	2013-14
SC	Male	09	20	15	12	14
	Female	05	2	6	5	7
ST	Male	01	0	0	0	0
	Female	00	1	0	0	0
OBC	Male	40	41	30	40	49
	Female	20	14	21	10	11
SBC/NT1,2,3 /DT/VJ	Male	30	50	30	36	41
	Female	18	15	17	16	14
OPEN	Male	87	96	76	66	98
	Female	47	37	33	23	33
TOTAL		**257**	**276**	**228**	**208**	**267**

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.

- The institute offers five programmes viz. E&TC, CSE, MECH, Civil & Electrical Engineering for UG and four programmes viz. CSE, Electronics Engg., Design Engg., Structural Engineering for PG students, controlled by DTE, Government of Maharashtra. The admission process is carried out by DTE through online process.

- Since our institution is affiliated to Solapur University, Solapur and approved by AICTE & DTE, the students do not directly apply to the college but apply for admission through centralized admission process (CAP) conducted by DTE Government of Maharashtra, therefore the mentioned demand ratio cannot be computed.

Reasons for increase/decrease in admissions:
- National and global employment scenario projected by industry and society survey.
- There is a demand for skilled graduate engineers from the industry.
- Compared to other professional courses, engineering courses have a wider scope of employment and entrepreneurship. Thus, engineering education is a preferred profession.
- As the numbers of engineering colleges are increased in the state, so ratio of available seats with eligible candidate for engineering admission is less and ultimately it affects on engineering admission.
- There are other job oriented courses available at low cost, which can give Global and National employment.
- In certain programmes e.g. E&TC, demand is decreased due to lack of employment of graduates in the core electronics companies. Thus, most of the students are opting for IT profession. The same case had happened with postgraduate courses where, students have shown less interest.
- As the college is in rural area, there is less awareness about professional education amongst students and parents.
- There is industrial recession from last few years, so admissions are decreased in the engineering education.
  As per the outcome, Institute's admission cell takes different steps to improve the number of admissions as follows:

Improvement Steps:
- The Institute initiates counselling of the students and parents who wish to take admission in professional course about the scope and future opportunities in engineering field.
- SPSPM arranged science exhibition for 11th and 12th standard science students to visit our college and get awareness about different engineering fields.
- Institute arranges expert sessions on career opportunities in engineering for 11th and 12th standard science students in nearby junior colleges.
- Institute arranges various programmes at Taluka and District level for awareness about engineering education amongst the stakeholders.
- Since inception, Institute always tries to keep affordable hostel and mess fees as per demand of stakeholders in nearby region.
- Being in rural area, Institute has descent infrastructure facilitated with amenities such as ATM, Laundry, grocery and general stores, book stall, fruit stall etc. which makes campus elite.
- Institute helps in providing awareness for educational loan facility through nationalized bank for economically weak students.
- Institute provides facility to pay college fees in easy installments for economically weaker students.

- Advertisement through daily newspapers, electronic media and educational fairs.

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?

- Adhering to government policies, institute provides facilities like ramp, wheel chair, hand railing etc. for ease of mobility.
- As per the university norms, institute provides extra time and writer assistance for physically handicapped students during exam periods as per directives of Solapur University, Solapur.
- Institute provides amenities such as western toilet, cupboard, intercom etc. for differently abled students.
- Institute provides seat reservation in college bus and mess for such students.
- Institute provides additional book bank facility for differently abled students.
- Priority services are given to differently abled students for issuing and submitting books in the library.
- Institute provides separate seating arrangement in the class room in order to provide ample space and comfort.

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

Yes, in order to assess the needs of students in terms of academics, the institute implements the following:
- The Head of the Department conducts an orientation session for FE and DSE students before commencement of academic year, so as to mentally prepare the students to face the demands of the programme.
- Institute makes continuous efforts to take feedbacks and suggestions from students aspiring for engineering education through proper discussion and orientation programmes.
- As per the diversity of students admitted to the institute, we design different value added programs for second and third year students in terms of additional skill enhancement programmes.
- Institute provides information and opportunities for students to explore further academic and professional growth.
- Institute invites industry experts and academicians from various reputed organizations to explore the current trends in engineering and technology for aspiring students.

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

Institute focuses following strategies, in order to bridge the knowledge gap of the enrolled students:

- Faculty conducts sessions for the enrolled students about scope and opportunities of their choice of program.
- Experts from the industry and academia are invited for delivering sessions to bridge the knowledge gap of students.
- Every subject teacher assesses the student knowledge by asking oral questions and discussing basic concept with them.
- Institute has own MOODLE sever for daily practices, video, notes available to all students and for online MCQ examination.
- Institute conducts value addition programmes (VAP) & project based learning (PBL) for students to meet the gap between curriculum and current industry requirement.
- Institute makes provision for industrial visit as per curriculum to enhance practical knowledge.
- Guest Lectures/training/ workshops/ seminars are conducted to improve knowledge of currents developments of their curriculum.
- Institute organizes spoken tutorials by IIT Bombay, workshops through IIT remote center to upgrade technical skills.

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

Gender:
- Currently in the institute, we have significant percentage of girl students and women employees. Through regulations from government and by taking progressive initiatives from the Institute side, gender equality is ensured.
- Institute organizes functions such as Savitribai Phule Jayanti, Women's Day, etc. to bring due awareness on gender equality.
- In assigning the tasks, it is not the policy of the institute to give special gender consideration unless and until it is naturally necessary.
- Institute takes all the efforts to educate its staff and students on the issue of gender equality in following ways:
  - ✓ Savitribai Phule Girls Forum (SPGF) is formed in the institute to insure safety, equality and representation of girls.
  - ✓ To empower women, motivational/inspirational guest lecturers are arranged within institute.
  - ✓ Institute/department work is delegated to various faculty and staff irrespective of their gender and/or social background.
  - ✓ Class Representatives or Student Council are appointed without gender bias.

Inclusion:
- NSS activity has formed wherein girls and boys together along with staff work together for the social cause.
- Various activities and camps are arranged to create awareness among villages about cleanliness, health care, and women education etc.
- Various activities like SPECTRUM, WEENGS, CARNIVAL, Sports are being carried out with help of formation of students committees where girls and boys are given equal opportunity to work for event.

Environment:

- Teacher Guardian (TG) is appointed for batch of around 20 students by every department to keep the environment free from gender or religious issue and to guide and counsel students on such issues.
- Institute organizes various activities for students where, all students either work for event or participate in it, this helps in maintaining healthy environment and unity amongst them.
- Institute has formed Women Grievance Cell to address the issues regarding women employees and girl students.
- Institute creates environment about gender equality by encouraging students to select subject, based on human values and ethics.

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

The institute has following process to identify and responds to special educational/learning needs of advanced learners:

- Institute measures different parameters to identify the advanced learner through score in preceding examination, classroom performance, attendance, interpersonal communication, regularity in submission of term work (ICA), assignments etc.
- Institute organizes spoken tutorials on technical topics in collaboration with IIT Bombay.
- Institute has good interaction with industries and also signed MoUs with various reputed Industries like Reliance JIO, Tata Technology, Rio (3D printer), Geometric etc.
- Advanced learners are separately guided by the faculty members for seeking extra knowledge.
- Advanced learners are motivated to do interdisciplinary research projects based on their interest in respective streams. Ex. solar vehicles, robotics under e-Yantra lab, computerized water treatment plant etc.
- Institute has initiated Value Addition Programs (VAP) under Project Based Learning (PBL) activities.
- GATE Tutor software has been made available and GATE classes are also conducted as per the need of the students.
- Experts are invited to guide the students for the preparation of competitive examination like MPSC, UPSC etc.
- EDP cell has signed MoU with Maharashtra centre for entrepreneurship development (MCED), certification courses for entrepreneurship has been started in collaboration with it.
- NPTEL Videos are made available for self-learning.
- Library provides reference books, review articles, reports, CDs, e-journals and internet facilities, for such students.
- Language lab is provided to the students.
- All departments encourage the students to participate in various seminars/ workshops/ competition held in the institute as well as in other colleges and universities to get enough exposure.

- Institute organizes SPECTRUM, technical event every year where, the students are encouraged to participate in various innovative technical competitions. These events are totally organized by the students.
- Students are also motivated to participate in different project competitions like WEENGS, Solar Vehicle competitions etc.
- The training under Ministry of Small & Medium Entrepreneurs (MSME), MITCON, & Institute of engineers-India (IEI) carried for advanced learners.
- Mini projects are allotted to all the students of second year and third year to bridge the gap between industry and institute apart from the curriculum.
- Resource persons from industry as well as academia are invited for guest lecture on advanced trends in engineering and technology.
- Institute has MoU with foreign universities for project based learning, internship programs for advance learners.
- Advanced learners are motivated by awarding best outgoing student.

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

Institute obtains and analyzes information about the students at the risk of dropout or having consistent poor academic performance in the following manner:

Collection of data:
- University exam result analysis is available with each department, which helps in getting the academic performance of students in preceding examination.
- The record of results of internal examinations viz. unit tests, MOODLE online test, preliminary examination, mock oral and practical are maintained by the department.
- The TG regularly interacts with the students, from which institute gets information about slow learners, physically challenged and economically weak students.
- Class coordinators are also appointed to keep a record of students of their respective class like leave record, result analysis record, record of extra and co-curricular activities etc.
- The details about the students in various categories like SC/ST, OBC, minority, EBC, physically challenged etc. can be available from admission information.
- The class coordinator and teacher guardian scheme is executed as per Figure 2.2.6
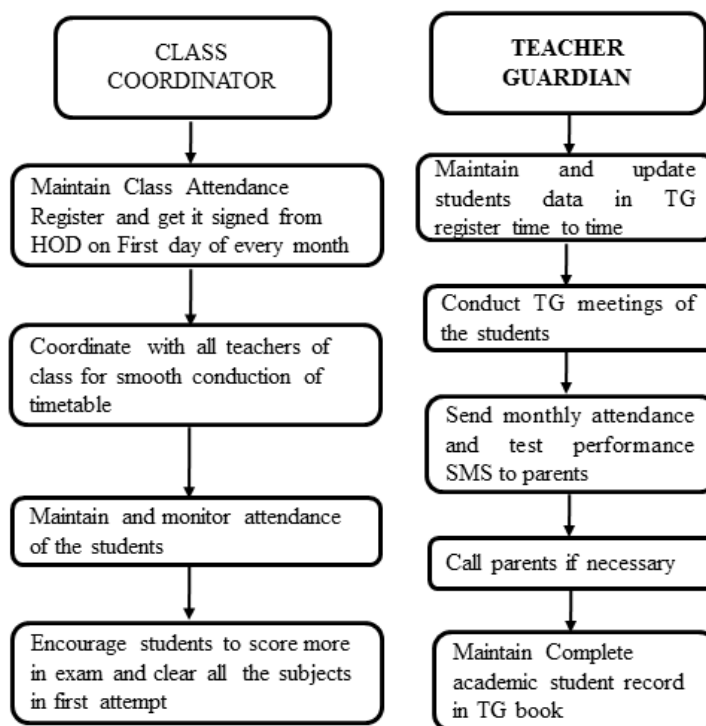
Figure 2.2.6 Execution of class coordinator and teacher guardian scheme

Analysis of information:

- The student progress monitoring sheet is prepared by each department with the help of various sources mentioned, where the record of each student in terms of attendance, test result and university result are available.
- The analysis of the student progress monitoring sheet helps in identifying the students at the risk of drop out and slow learners.
- Students are analyzed through continuous evaluation and interactions with various subject teachers during the course, self-learning sessions and practical sessions.
- Communicating students academic performance to parents in parents-meet and seeking their feedback and support in resolving the difficulties of the students.

Institute uses the data and analyze above information as follows:

Support for physically challenged:

- Providing extra time while writing exam papers and /or providing a writer to students with physical disabilities.
- Physically challenged students are availing reserved benefits such as scholarships from government and non-governmental organizations and special employment opportunities and reservations in higher studies in various sectors.

Support for Slow learner:

- Regular TG meetings are arranged to find out and discuss the problems of weak students. Accordingly separate tasks are assigned to individual cases to improve academic performance.
- Conducting additional lectures for difficult courses like mathematics, engineering graphics and fundamentals of programming at the first year level for academically weak students to bring them at par with the others.

- Extra input sessions are arranged on individual basis before examinations in preparatory leave to boost their confidence.

Support for Economically Weaker Section:
- Institute addresses and gives benefit to the scholar and needy students through the TFWS /EBC scheme of the government.
- Since inception of SKNSCOE, hostel and mess fees are kept affordable considering economical background of students.
- Awareness about different education loan scheme is made available to them.
- Students under economically weaker section are allowed to pay fees in instalments.
- Information about different scholarship schemes from various government and non-government organization is provided by the institute.

2.3 Teaching-Learning Process

2.3.1 How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blueprint, etc.)

The institute has the following process to plan and organize the teaching and learning as well as evaluation schedules:

Teaching and learning process:
- Solapur University provides the schedule for teaching and evaluation before the commencement of semester which gives a guideline to frame an institute level academic calendar.
- Institute level academic calendar including all activities is prepared and provided to all departments before the commencement of semester.
- Principal conducts meeting with all the HoDs and gives necessary guidelines on the basis of previous records.
- The requirement of instruments/software/equipment for laboratory is fulfilled before commencement of semester.
- Subject choices are asked for the next semester before the Faculty members proceed for vacation and load distributions is done by HoD taking into consideration their choices.
- HoD also assigns the responsibilities to the faculty members for various activities to be conducted in the semester.
- The teaching plan is prepared by every subject teacher before the commencement of the semester which includes lecture number, topics planned date, topics covered date etc. This is approved and monitored periodically by the HoDs.
- The subject teachers are asked to prepare/update course file which contains academic calendar, syllabus, teaching plan, study material, PPTs, question bank on each unit, previous university question papers with model solution etc.
- The HoD discuss the problems if any and to take updates of teaching-learning process for smooth functioning, conducts meeting of faculty members.

Evaluation:

- Continuous evaluation of the students is carried out by university examinations as well as internal examinations and a continuous assessment is carried out at Institute level as indicated in Table 2.3.1 (a) and (b). The evaluation of teaching learning process is performed as shown in the Figure 2.3.1(a).
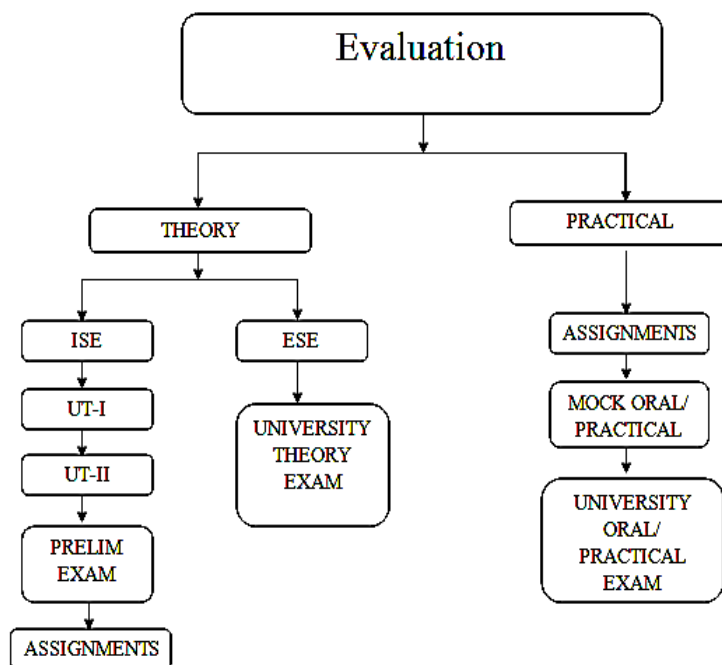
Figure 2.3.1(a): Evaluation Procedure

Table 2.3.1(a): Assessment components of Theory Courses – ISE (SUS CBCS)

Sr. No.	Assessment Component	Max. Marks
First Year		
1	Minimum Two Tests & Mid-Term Written Test conducted & evaluated at Institute Level (Mandatory)	30
In-Semester Evaluation (ISE) **Total**		**30**
Second, Third and Final Year		
1	Minimum Two Tests & Mid-Term Written Test conducted & evaluated at Institute Level (Mandatory)	20
2	Teacher's Assessment based on One or more appropriate activities related to course curriculum and conducted & evaluated at Institute Level which includes- Assignments, viva-voce, quizzes, subject seminars with report writing, field visit, subject mini project, application software training, case study with report writing.	10
In-Semester Evaluation (ISE) **Total**		**30**

Table 2.3.1 (b) Internal Continuous Assessment (ICA) marking scheme

Category of Subject	Attendance	Test Performance	Continuous Assessment	Mock Practical Exam	VAP/ GD/ Project	Total
Subject with POE, TW and Theory	10	15	10	10	05	50
Subject with POE and TW	15	---	15	15	05	50
Subject with TW and Theory	10	20	15	---	05	50
Subject with only TW	25	---	20	---	05	50
Subject with only Theory	Attendance & Test performance will be considered with TW marks of other subjects.					

- All the information about continuous assessment process is given to the students at the beginning of semester and monthly report like attendance, defaulter list is displayed on the notice board.
- Institute conducts two unit tests and preliminary examination in a semester. After the result of tests, performance of the students is conveyed to the students and parents. TG counsels and gives guidelines to the students about their academic performance.
- At the end of the semester, Solapur University conducts examination and evaluates student's performance. Result analysis of university examination is carried out and necessary information is conveyed to respective faculty and AMC (IQAC) for improving students' performance.

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

Presently, the teaching-learning process is monitored and governed by Academic Monitoring Committee (AMC/IQAC), which aims to develop a system for conscious and consistent improvement of academic and administrative performance of the institution. AMC keeps the transparency in teaching, non-teaching staff and management with respect to objectives towards achievement of mission and vision of the institute.

The mechanism and procedure of AMC (IQAC) includes:
- AMC promotes the measures for academic and administrative functioning through quality culture and best practices.

- Develop policies and quality benchmarks parameters for academic and administrative activities.
- AMC develop a unique work culture in the institute by creating healthy environment among faculty, staff, students and management.
- Ensure the adequacy, maintenance and functioning of the support structure and services.
- Develop research culture in the institute by promoting faculty members to Ph.D. course.
- AMC gives guidelines and suggestions for feedback from students, parents and other stakeholders for improvement in quality at institutional level.
- Develop institutional database management system for enhancing quality.
- Suggest remedial actions/ plans to improve academic and administrative activities of the institution.
- AMC looks after performance appraisal and counselling of faculty.
- AMC encourages faculty members to adopt new teaching methodologies, creation of student centric environment, faculty empowerment to enhance teaching learning process.

Benefits:
- The analysis and suggestions by AMC benefits the institute in terms of quality of education and research. It also makes sure about keeping the transparency in faculty, staff and management to get impact on quality policy and objectives of the institute.
- AMC use to monitor all the academics, student feedback and overall teaching learning process to achieve better academic performance of the students.
- Guidance of AMC in terms of teaching load distribution, new faculty recruitments and procurement of new equipment & library books is always helping the individual department to improve their performance.
- Faculty member and staff appraisals are also looked after by AMC where it monitors the performance of individual faculty as well as guide them to achieve their own objectives.
- Ensuring the adequacy, maintenance and functioning of the support structure and services.

The details of committee are indicated in Table 2.3.2

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

Sr. No.	Name of Staff member	Designation at institute level	Designation
1	Dr. K. J. Karande	Principal	Chairman
2	Prof.. M. G. Bhat	Advisor, SPSPM	Advisor
3	Prof. S. B. Pharkute	Advisor, SPSPM	Advisor
4	Dr. C.P. Pise	HoD, Civil and Dean Administration	Member
5	Dr. R.T. Vyavahare	HoD, Mechanical and Dean Academics	Member
6	Mr. S.V. Pingale	HoD, CSE	Member
7	Mr. A.O. Mulani	HoD, E&TC	Member
8	Mr. S.P. Ganjewar	HoD, Electrical	Member

9	Mr. A.I. Nikam	Student's Dean	Member
10	Mr. S.S. Kulkarni	Dean, PG Programmes	Member
11	Dr. S.G. Kulkarni	Dean, R&D	Member
12	Dr. R.N. Badge	Training and Placement Officer	Member
13	Mr. S.D. Katekar	Dean, Alumni	Member
14	Mr. .S.G. Deshmukh	Senior Faculty Member	AMC Coordinator

Internal Quality Assurance Cell (IQAC) is established in this academic year 2017-18. IQAC is headed by Principal and consists management representative, all the heads of the departments and senior faculties of the institute as members.

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

Sr. No.	Name of Staff member	Designation at institute level	Designation
1	Dr. K. J. Karande	Principal	Chairman
2	Prof. M. G. Bhat,	Dean Engineering (STES,SPSPM)	Management Representative
3	Prof. S. B. Pharkute	Advisor (STES,SPSPM)	Management Representative
4	Mr.Ashok Pawar	Director, Ashraly , Ranjhangaon Pune	Member
5	Mr.Vishal Bhange	HR,D.Y.Power India ,Pvt.Ltd.Pune	Member
6	Mr.Deepak Kasar	HR, Wheels India Pvt.Ltd.Pune	Member
7	Dr.Hariram Chavan	Associate Professor & HOD of IT Dept. Father Angel COE Vashi	Member
8	Dr.S.N.Talbar	Professor, Electronics Dept. SGGS , Nanded	Member
9	Dr. R.T. Vyavahare	HoD, Mechanical and Dean Academics	Member
10	Dr.C.P.Pise	HoD, Civil and Dean Administration	Member
11	Mr.S.P. Ganjewar	HoD, Electrical	Member
12	Mr.S.V. Pingale	HoD, CSE	Member
13	Mr.A.O. Mulani	HoD,E&TC	Member
14	Mr.A.I. Nikam	Student's Dean	Member
15	Mr.S.S. Kulkarni	Dean, PG Programmes	Member
16	Dr.S.G. Kulkarni	Dean, R&D	Member
17	Dr.R.N. Badge	Training and Placement Officer	Member
18	Mr.S.D. Katekar	Dean, Alumni	Member
19	Mr.C.M.Deshmukh	NSS Program Coordinator	Member
20	Mr.A.B.Jagdale	Associate Prof. E&TC Dept.	Member

Associate Mr. E&TC Dept.

Mr.

21	Mr. N.M.Sawant	Assistant Prof. CSE Dept.	Member
22	Mr. S.H.Gidde	Assistant Prof. Electrical Dept.	Member
23	Mr. S.V.Uppin	Assistant Prof. Civil Dept.	Member
24	Mr. M.B.Kulkarni	Assistant Prof. Mech. Dept.	Member
25	Mr. S.S.Mali	Nominee of Parent	Member
26	Mr. Viraj Domkundwar	Nominee of Alumni	Member
27	Mr. Anup Deodhar	Nominee of Alumni	Member
28	Miss. Shruti Nagane	Nominee of Student Representative	Member
29	Miss. Savita Gujare	Nominee of Student Representative	Member
30	Mr. .A.A.Rajguru	Assistant Prof. CSE Dept.	IQAC Coordinator

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?

Interactive Learning:
- Separate sessions are provided in timetable for the development of soft skills of the students.
- During lectures and practicals PPT presentations, videos and animations are being used which make the session more interactive and informative.
- Industrial visits and interactive sessions with industrial experts are also arranged to make the students aware of the modern issues of the industry.

Collaborative Learning:
- Students undertake projects in groups, right from SE which help them in collaborative learning practice.
- Students are also allowed to do interdisciplinary projects together.
- Students are motivated to participate in events like Go-kart, ROBOCON, Solar Vehicle championship, e-Yantra etc.
- Students are encouraged to organize technical, co-curricular and extra-curricular activities.
- Competitions like QUIZ and GD are arranged in the institute.

Independent Learning:
- Mini projects, assignments, seminars, LCD presentations are the activities which improve self-learning ability of individuals.
- Self-Learning Sessions (SLS) are allocated in the timetable itself to ensure independent learning of each student.

- Self-learning subjects are included in curriculum to enhance independent learning ability.
- Central Library is developed with text and reference books, personality development books, e-journals, magazines, etc. which give ample opportunity to a student for independent learning
- Separate lab with AAKASH tablets is developed and the entire campus is connected through Wi-Fi.
- GATE and Competitive exam centre is developed in order to develop future course students.
- Students are encouraged to take online independent learning courses such as 3-D blender animation, Thermodynamics, Green building etc. offered by IIT Bombay.

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

The institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators in the following manner:

- Value Added Programs (VAPs) are designed to promote critical thinking, creativity and scientific temper of students.
- Teachers ensure that assignments and SLS problems given to the students stimulate critical thinking and help to develop scientific temper amongst students.
- Students are encouraged to get involved in industry sponsored projects.
- The articles published by the students and teachers in the conferences and magazine expose students to latest technology and innovation.
- Students are motivated and supported to work on creative mini projects.
- Institute runs a study centre where, students get guidance for the preparation of various competitive examinations like GATE, UPSC/MPSC etc.
- Institute organizes various events like Project exhibitions, software development, model development, poster competition, etc. to develop creativity and critical thinking among the students. Institute also encourages students to take part in various competitions organized by other institutes.
- Creativity is nurtured through the co-curricular and extra-curricular activities. Technical, non –technical and literary events are a part of the academic calendar and are implemented meticulously. Students who organize and participate in such events will get opportunity to exhibit and improve their creativity, management skills and problem solving abilities.
- Students are also involved in funded research projects and consultancy work so that they obtain experience of working on live and challenging projects given by industry.
- Institute has "Yuva Vivek" library which provides various books on Personality Development, Aptitude Preparation etc.
- Institute is having MoU with European universities where, our students get opportunity to explore their knowledge and understand the new methods of learning.

- Faculty members of the institute are engaged with their research work in association with students and they always try to share their innovative concepts with the students.
- Financial assistance is provided for the project work for nurturing the scientific temper of the students.
- Entrepreneurship Development program (EDP) cell is formed to provide knowledge and information to inspire students to become entrepreneur.
- Institute rewards students for their outstanding performance in academics, research and other relevant fields.

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

Faculty of our institute use following resources to enhance effective Teaching Learning Process:

- Institute has IIT Remote Centre (RCID 1260), as a part of National mission on education through information and communication technology (NMEICT) funded by MHRD GoI.
- Institute organizes STTP/WORKSHOP/FDP/Conference for development of faculty member under IIT Remote centre.
- Institute encourages faculty members to use AAKASH LAB which is equipped with 246 AAKASH Tablets & separate server with Wi-Fi facility.
- Institute encourages faculty members to use NPTEL Video Lectures, Journals available in digital library, Open Source Software's for making effective Teaching Learning.
- Institute has officially registered with GATE tutor online application portal for all branches for unlimited user subscription.
- Each class room of Institute is equipped with LCD Projector and Wi-Fi.
- Institute has MOODLE Server Setup, faculty members upload their Teaching Learning Material on MOODLE, it is available to Students in the form of Videos, Notes, Question papers etc. for making teaching more effective.
- Institute has licensed software like MATLAB, ANSYS, NASTRAN, STADPRO etc. to support effective teaching learning practices.
- Institute conducts spoken tutorials for enhancement of technical skills and in addition to these Virtual (A-View) classroom is also used to conduct various Webinars and online courses.

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

Students and faculty members are exposed to advanced level of knowledge and skills by various means as shown in Figure 2.3.6.
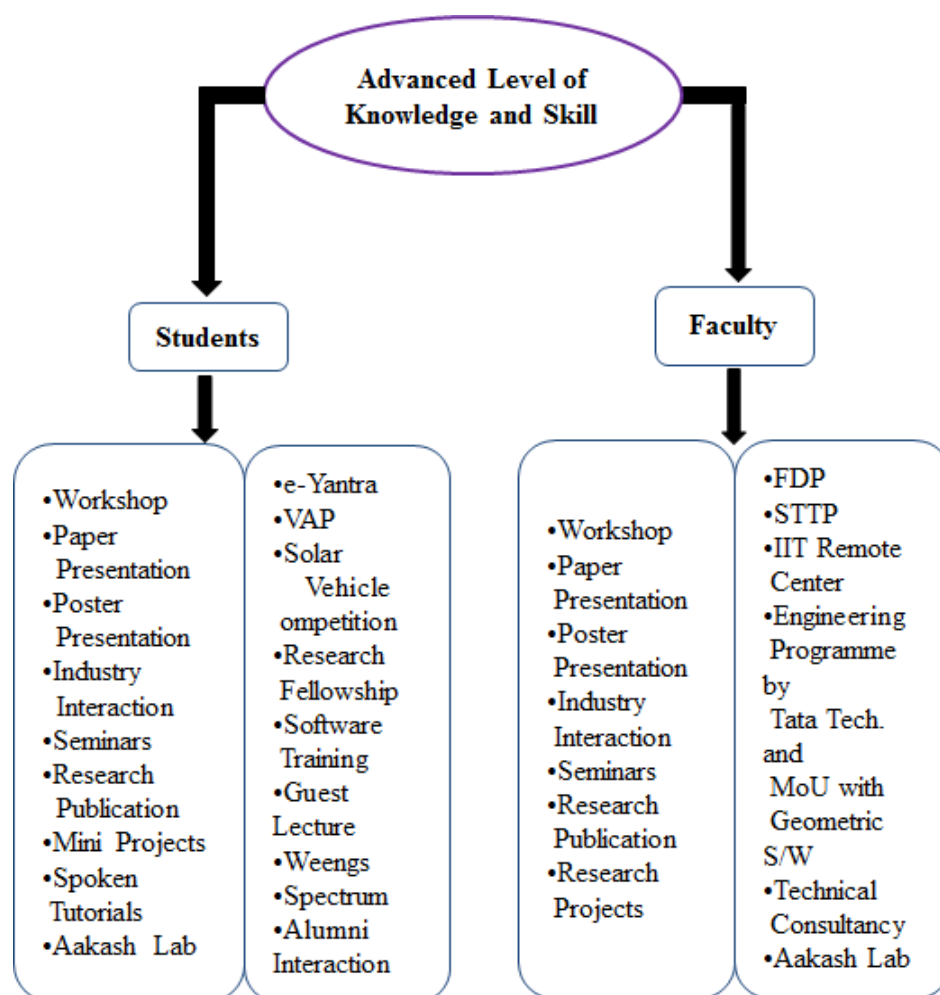
Figure 2.3.6 Advanced Level of Knowledge and Skills by Students and Faculty

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 the students?

Students admitted to the institute come from diverse socio-economic backgrounds. These students face various challenges when they are exposed to a professional course like engineering. Support and guidance to the students to address their academic, personal and psychosocial issues are given in the following ways as indicated in Table 2.3.7:

Table 2.3.7: Mentoring system to help at Individual Level

Mentoring by	Type of mentoring	Number of students	Frequency of meeting
Principal	Critical personal, financial, Psychological	One at a time	As and when required

Dean Students	Personal, General and Psychological	One at a time	As per the need
Head of Department	General counselling, academic, discipline, awareness	Around 70 at a time	Twice in a semester
Class Coordinator	About discipline and general behavior	Around 70 at a time	At least four times in a semester
Teacher Guardian (TG)	Personal, technical difficulties, general problems ,etc.	Around 25	Weekly
Professional Counsellor	Psychological	One at a time	As per need
Police Dept.	Awareness camp on social and cyber security	Institute level	Twice in a year
Social Activist	Social Awareness	Institute level	Twice in a year

Guidance Services:
- Institute arranges various programmes and sessions in order to understand, solve and improve the students psychology.
- Job related career guidance, inputs and counselling on personality development and soft skill training is being provided through Training and Placement cell.
- Guidance and counselling/mentoring is also done by TG teacher. Regular meetings between TG and students are conducted to solve students' problems.
- Institute supports healthy environment for students to approach any teacher or authorities without any hesitation for any issue related to career and personal counselling.
- The personality, professional development and entrepreneurship awareness sessions are organized for students.
- Institute provides guidance for competitive exams.
- Remedial classes are taken time to time for slow learner students.
- Suggestion box is maintained in the department and office where students, faculty members can give their suggestions on any issue.
- Weaker students and advanced learners are identified and special attention and counselling is given time to time.
- Residential wardens along with residential faculty continuously monitor the behavior of students inside the hostel and campus and report to the Principal about abnormal case if any, immediately.

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?

For innovative teaching, following approaches/ methods are adapted by the faculty members:

- Faculty members of all departments upload assignments, experiments, tutorials, notes and study material for the students on FTP/MOODLE Server.
- Faculty members use computers, projector while conducting lectures, they also use digital library and online journals to download lectures, study materials and data from internet.
- Institute has developed smart classrooms with internet connectivity, teachers use online resources while teaching. The faculty utilizes these facilities to illustrate the concept clearly through audio/video mode.
- Institute has signed MoUs with Industries like Reliance JIO to innovate teaching learning process for students and faculty members.
- T10kT training program for faculty members organized by IITB.
- Blog spots are created by faculty members for students to make teaching learning interactive.
- Faculty members have uploaded their video lectures on you tube as innovative teaching learning approach.
- Institute encourages faculty members through communication skill, Group discussions and frequent meetings.
- The faculty members conduct test on multiple choice questions on MOODLE platform.
- Institute has implemented mini projects apart from curriculum, which helps to build technical skill and teamwork qualities.
- Use of AAKASH tablets helps students and faculty members to work on their academic projects.
- Institute invites experts from reputed industries to know current trends and advances in technology.
- Inter disciplinary projects are assigned to students under project based learning.
- Faculty members arrange Industrial visit for fulfilment of syllabus as well as beyond syllabus contents.
- Institute has FTP server on which NPTEL videos and resources are made available.
- Access to online e-journals from anywhere in the campus.
- Organizing inter college and intra college technical contests.
- Institute has e-Yantra Lab associated with IIT Bombay.
- Institute has open access facility to library. Also, e-learning facility is provided in the library.
- Institute provides spoken tutorial facility in collaboration with IIT Bombay.
- GATE tutor software is available and is used for GATE preparation.

Impact of innovative practices on student learning:
- Students secure placements in reputed companies and MNCs.
- Numbers of students qualify for competitive exams like GATE, GRE, CAT etc.
- Most of the time, overall result of institute is better than university result.
- Students of various departments have secured place in university ranking.
- Participation and prizes in various technical and non-technical events.

- Students get more interest and involvement in learning process. This process helps the students not only to enjoy learning but also to acquire the necessary skills that empower them and develop their learning abilities.
- Students have emerged as young entrepreneurs, right from the first pass-out batch of the institute

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

Institute offers following library facilities and easier access to the library resources. Ultimately, it increases quality in teaching learning process.
- College has separate building for central Library, as it is residential campus.
- The library is facilitated with
  - ✓ No. of Volume: 13041
  - ✓ No. of Titles: 1911
  - ✓ Journals/ Periodicals: 80
- Library comprising 10 computers with internet facility is connected with institute's LAN.
- Faculty and students refer the library resources like textbooks, educational CDs, reference books, UG project reports, handbooks, seminars reports and research journals. It helps to improve teaching learning process.
- Books are stacked department wise and subject wise to provide more ease to the students and faculty to access.
- Automation and bar coding of books is implemented in library.
- Easy Lib is used in institute library and it is hosted by LAN with OPAC (Online Public Access Catalogue) facility which is convenient to the users to know about the Library collection and its new arrival.
- e-journals and e-books access is IP based: such as DELNET, Science Direct, IEEE access, so that all users of the institute can access it from any computer in the campus at any time. It increases more utilization of library resources.
- Separate discussion room, newspaper and magazine sections, digital library section and reading room facility are available in the library. In addition to the College Level library, each department has its own departmental library to provide easy access to the faculty and students.
- Institute has extended library timings before and after institute hours.
- Suggestion box and feedback system is made available in the library premises.
- Reprographic facility is made available in library premises.
- Daily newspapers in regional and English language, magazines and journals are subscribed by library.
- Aptitude, reasoning and general knowledge books made available in the library.
- Reading rooms are provided with proper seating arrangement, facilities like Wi-Fi, fan, tube lights, tables, ventilation and water.
- Encouraging faculty members and students to use NPTEL video lectures of various IIT/NIT professors.

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

Yes, Institute faces occasional challenges in completing curriculum within planned period and calendar.

Challenges:
- As institute is located in rural area, most of admitted students are poor in communication skills.
- Slow learners is also the challenge, while completing curriculum within planned time frame.
- Based on difficulty level of the subject, extra lectures may be required for curriculum completion.
- State government admission process of the different engineering programmes.
- Delay in result declaration by University.
- Delay in the admission process of direct second year diploma students makes less time available for completion of the syllabus.
- Need to bridge the gap between curriculum and industry expectations.

Approaches to Overcome:
- In order to monitor the progress of lecture deliveries, a teaching plan is designed for the monitoring of syllabus completion. If a faculty falls short of the stipulated schedule, additional lectures are allotted to him/her by the concerned department.
- Furthermore, weekly departmental meetings are conducted to ensure smooth implementation of curriculum. These procedures ensure synchronization between the planned schedule and actual deliveries.
- Additional guest lecture / expert lecture / seminars / industrial visits/ workshops are arranged.
- Extra sessions are arranged for the subjects which are difficult from student point of view to make them better understand with an additional working days (Some of Saturdays and Sundays).
- To compensate delay in admission process, some additional working days are planned during semester and even after end of the semester.
- Faculty uses the previous result analysis to analyze student's understanding for teaching current subject.
- Special efforts and coaching is planned for direct second year admitted students.

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

Monitoring:
- Course file of individual faculty member is monitored by HOD. This contains study material, Assignments, Question Papers etc.
- All faculty members prepare and verify their subject teaching plan before commencement of academic programme to ensure completion of syllabus in time.

- HODs take frequent follow up for completion of syllabus of faculty members.
- A batch of around 20 students is monitored by TG and interaction is made about difficulties in learning.
- Institute takes online feedback in each semester from students about teaching learning process.

Evaluation:
- Quality of learning is assessed by students' performance in unit tests, experiments conducted.
- Students with poor attendance and performance are counseled and interaction is made with their parents.
- Institute conducts project competition to evaluate projects completed by students.
- Remedial Classes are arranged for identified slow learners.
- Institute keeps the record of result analysis with respect to subject, class and faculty member, which helps in improvements of teaching-learning process.
- Teaching learning process is evaluated by the students through online feedback system. Based on student's feedback, instructions and guidelines are given to concern faculty member. Head of institute and HOD observe lectures and practical sessions of faculty member based on student's feedback. Following parameters are considered in students' feedback system as indicated in Figure below:
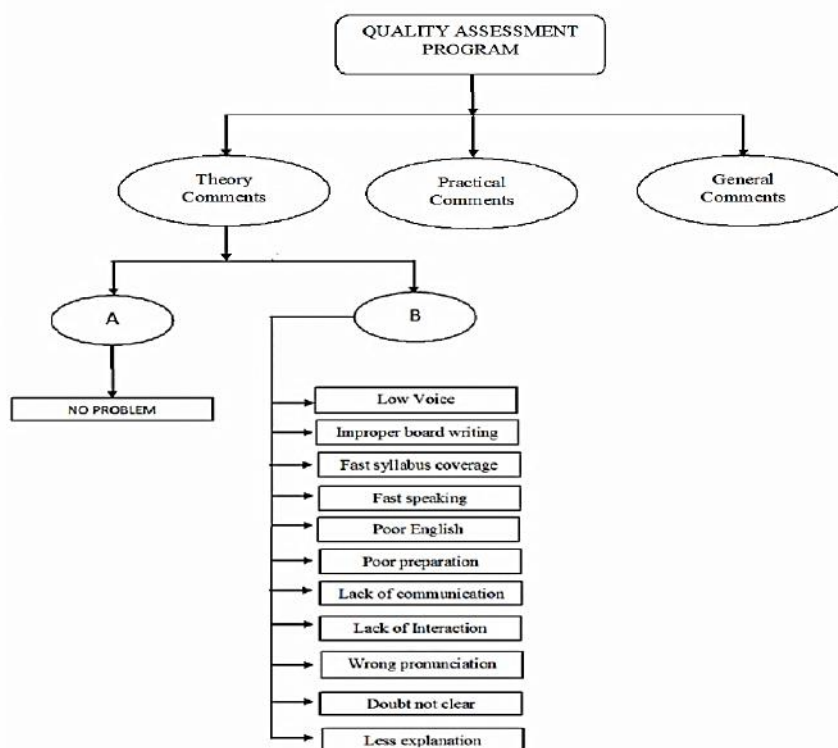
Fig 2.3.11: Student Feedback system

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.

Recruitment strategies:
Competent faculty and staff members are recruited as per the AICTE/SUS guidelines by AMC. The selection strategy is as follows:
- The reservation roster is verified by the Registrar (Reservation Cell, SUS).
- After approval from the Reservation Cell and SUS, advertisements are published in leading newspapers as per the relevant norms.
- Applications for recruitment are screened as per the norms.
- Technical and personal interviews of the candidates are conducted and followed by demo lectures by duly constituted selection committee.
- Qualified candidates are selected on merit as well as on performance through cautious selection process.
- This selection is based on the changing needs of the curriculum.
- List of selected candidates are submitted to the University for Approval.

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

1. Academic atmosphere:
- The institute takes every effort to maintain best academic and study atmosphere in the campus. The faculty members are encouraged in every way to engage in academic pursuits like attending conferences, writing research papers, books and inviting experts to address faculty members.
- Provide academic autonomy for adopting various strategies of teaching methodology for attaining desired learning outcome.
- Assigning roles and challenging responsibilities as per their capabilities and making them strive further.

2. Research and development environment:
- In order to inculcate research culture amongst faculty members, the institute has a Research and Development (R & D) Cell. Several faculty members take advantage of this facility and enhance their career by way of obtaining doctorates, publishing technical papers, books etc.

3. Regular appreciation of faculty performance:
- Based on overall academic performance, faculties are appreciated in every year by the institute.

4. Others:
- Institute has time bound and performance based promotion policy.
- Institute deputes/sponsors the faculty for higher studies as well as conferences and workshops.
- Institute provides Staff Quarters, Free Medical and Sports facility, CBSE School for children, Emergency Transport facility to faculty members.

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

Table 2.4.1: Faculty Details

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.	-	-	-	-	-	-	-
Ph.D.	03	-	01	01	-	02	07
M.Phil.	-	-	-	-	-	-	-
PG	-	-	04	00	106	13	123
Temporary teachers							
Ph.D.	04	-	02	-	-	-	06
M.Phil.	-	-	-	-	-	-	-
PG	-	-	03	-	08	-	11
Part-time teachers							
Ph.D.	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	-	-	-

Figure 2.4.1: Faculty Retention Details

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

To cope up with the growing demand in specialized area, following measures are taken:

- Institute has appointed qualified, experienced faculty members in various departments through recruitment process.
- Recruitment is done on the basis of subject specialization.
- Institute organizes various FDP, workshops for faculty members under IIT Remote Centre funded by MHRD (NMEICT).
- Eminent Personalities from Various Industries, Institutes are invited as Expert to discuss about latest trends in Engineering and Technology.
- Institute promotes and encourages Faculty Members to attend FDP, Seminars, and Conferences to learn advance knowledge.
- Institute motivates Senior Faculty Members for Ph.D.
- Project based learning helps for students and faculty members to adopt with the current happenings in industries.
- All above efforts help the students to make them employable and to meet the expectations of stakeholders.
- In the last three years, the institute has invited the visiting faculty/experts from the different fields. Sample topics from each department are listed below.

Table 2.4.2 Details of sessions by expert/invited faculty

Mechanical Engineering			
AY 2013-14			
Sr. No.	Name of Expert	Topic of Lecture	Date
1	D. Jayasinha Reddy	Basic overview on CAD/ CAM/ CAF in the present market.	17/07/2013
2	Shri. T. G. Bhise	Personality Development	22/02/2014
3	Dr. Vinayak V. Diwan	Soft skill development & interview Technique	04/04/2014
4	D. Rajkumar	ANSYS	28/04/2014
AY 2014-15			
1	Pushkar Deshpande	Metallurgical & materials Engg.	11/09/2014
2	Mr. BhalchandraYadav	MPSC/UPSC Preparation	25/09/2014
AY 2015-16			
1	Er. Shekhar A. Jeurkar	Heat Treatment	05/08/2015
2	Dr. Gawade S.S.	Design of machine component.	12/08/2015
3	Mr. Nitin Kolekar	Motivation and Career Opportunity	15/08/2015
4	Rajshekhar R. Shinde	Entrepreneurship & Motivation	15/08/2015
5	Arvind D. Joshi	Entrepreneurship on a career	15/08/2015
6	Dr. M.V. Nhavakar	Entrepreneurship skills- Goal setting & planning	16/08/2015
7	Mr. K.A. Mulla	Personality Development & discover your unlimited power	16/08/2015
8	Mr.Ramchandra Waghmare	Marketing Survey	17/08/2015
9	Mr. Nagesh Kokare	General EDP Triggering Mechanism	17/08/2015
10	Mallikarjun Borigidde	Awareness for GATE Exam	15/09/2015
11	Mr. S.A. Jeurkar	Forging Technology	29/01/2016
12	Mr. S.M. Savant	IPR- Intellectual Property Right.	16/02/2016
13	Mr. Rajshekhar R. Shinde	Entrepreneurship	26/02/2016

14	Arvind D. Joshi	Entrepreneurship& E Personality	26/02/2016
15	Prabha Tivari	Communication skill	26/02/2016
16	Mr.Waghmare Ramchandra	Marketing & Motivation	27/02/2016
17	Mr. Vishnu Patankar	Entrepreneurship Development	27/02/2016
18	Mr. S.E. Thobde	Govt. sponsored Scheme for Industries	27/02/2016
19	Mrs. Sneha Vinayak Kurri	Entrepreneurship Skill	28/02/2016
20	Dr. Mahadev Nhavkar	Business opportunity/ skill/ management	28/02/2016
21	Dr. Joshi Sarang	Casting method	04/03/2016
22	Mr. Jeurkar S.A.	Inauguration- chief Guest at Advance in Manufacturing Seminar	05/03/2016
23	Mr. A.M. Gadage	Composite Manufacturing Aspects	05/03/2016
24	Mr. J.K. Shaikh	Advanced in Inspection & Metrology	05/03/2016
25	Mr. Avinash G. Kambale	Gas metal are welding of 3C2 12 Steel	05/03/2016
26	Mr. Shrinivas Metan	Mechatronics what, Hoe? & Why?	11/03/2016
AY 2016-17			
1	Miss Namrata Ghag	Emerging trends in Mechanical Engineering	22/07/2016
2	Mr.Shaikh Bidwai	FEA Based Simulation using Hyper mesh	28/07/2016
3	Dr.Sandip A Kale	Patent Filling	9/8/2016
4	Mr. Vinayak B Bhosale	Economic Planning and Literacy	27/8/2016
5	Mr. Raghuraj N Deshpande	SWOT analysis steps in SSI	29/0/2016
6	Mr. Balaso S Dhumal And Mr. Vardhan D Jadkar	Modeling design using AutoCAD	01/09/16
7	Mr. Hari V Dhudhankar	Career Guidance and counseling for Mechanical Engineering	19/09/16
8	Er.Shekhar A Jeurkar	Conventional Heat Treatments	23/09/16
9	Er.Shekhar A Jeurkar	Forging Technology	02/02/2017
10	Mr. Kedar S. Kulkarni	Career Guidance on Merchant Navy	6/02/2017
11	Dr. Sandip A. Kale	Innovative Wind Turbines	28/02/2017
AY 2017-18			
1	Mr. Shrikant Bidwai	Hyperloop and Career in Designing	14/07/2017
2	Mr. Muzamil A. Shaikh	Design Software's and Opportunities in Industry	18/07/2017
3	Mr. S. A Jeurkar	Fe – Fe3C diagram in Metallurgy	21/08/2017
4	Mr. Santosh Damodare	Industrial Engineering and Management	23/08/2017
5	Dr. Pradeep A. Jadhav	Advances in Manufacturing	05/09/2017
Electronics & Telecommunication Engg.			
AY 2013-14			
1	Mr. Vijay Surywanshi	PLC	20/07/2013
2	Mr. Kirti Thakhur	MATLAB & Simulink in Signal Processing	16/08/2013
3	Dr. V. N. Pawar	Seminar on "Robotics in Industrial Applications"	18/01/2014
4	Mr. Dr. B. P Ladgaonkar	Guest Lecture on "Embedded System/ VLSI"	18/02/2014
5	Dr. A. N. Gaikwad	Seminar on "Biometrics"	09/03/2014
6	Mr. Laxman Shinde	Guest Lecture : on "Optical Fiber Manufacturing"	12/03/2014
7	Dr. Shankar Nawale	Guest Lecture on "Passive RFID Tag Design"	14/07/2014

8	Ms. Megha Gore	Guest Lecture on "Matlab Graphic User Interface"	27/09/2014
9	Dr. S. N. Talbar	Seminar on "Image Processing And Histogram Normalization"	18/10/2014
AY 2014-15			
1	Dr. Shankar Nawale	Passive RFID Tag Design	14/07/2014
2	Dr. V. L. Patil	Electronic Product Design	06/02/2015
3	Dr. Sanjay Pawar	Seminar on "Advanced Wireless Communication and Security"	21/02/2015
4	Mr. V. V. Ratnparakhi	Antenna Design and Optimization using 4NEC2X	01/05/2015
5	Mr. Bhingare Yashwant	Guest Lecture on "Personality Development"	31/08/2015
6	Mrs. Pushpa Bangare	Guest Lecture on "Broadband Communication"	07/09/2015
7	Mr. B. P. Ladgaonkar, Dr. A. Pawar	Seminar on Advances in Microcontroller	12/09/2015
8	Mr. Yogesh Chavan	Seminar on Recent Trends in Aircraft Engineering	23/09/2015
AY 2015-16			
1	Mrs. Pushpa Bangare	Broadband Communication	07/09/2015
2	Ms. Pallavi Bhivare	Guest Lecture on "AVR Microcontroller Programming"	09/01/2016
3	Mr..Kashinath Joshi	Guest Lecture on "Value Added Course after BE (Embedded/ VLSI)"	22/02/2016
4	Mr. Shatrughan Ransumbhe	Guest Lecture on "Recent trends on Programmable Logic Devices"	23/07/2016
5	Dr. Achala Deshmukh	Guest Lecture on "Wireless Technologies"	16/08/2016
AY 2016-17			
1	Mr. Shatrughan Ransumbhe	Guest Lecture on "Recent trends on Programmable Logic Devices"	23/07/2016
2	Dr. Achala Deshmukh	Guest Lecture on "Wireless Technologies"	16/08/2016
3	Mr. Pravin Kolhe	Guest Lecture on "Guidance on Competitive Exam"	03/01/2017
4	Mr. Ravindra Bhutada	Guest Lecture on "Career Guidance and competitive exam preparation"	25/01/2017
Civil Engineering			
AY 2013-14			
1	Ms. Minal Londhe	Sofware Applications in Civil Engineering	26/07/2013
2	Mr. Sameer Alone	Basics of Project Management in Construction	24/08/2013
3	Mr. V. M. Rotte	Expert Lecture on "GATE Preparation"- For All Final Year Students	15/01/2014
4	Mr. Nandkumar Dupade (An Entrepreneur)	Expert Talk on : Entrepreneurship	08/02/2014
5	Mr. M. Y. Sathe	Expert Lecture on "Project Evaluation & Financing"- For T.E. & B. E. Students	22/03/2014
AY 2014-15			
1	Mr. Ibrahim Shaikh, SICA India Pvt Ltd.	Expert Lecture on Advances in concrete	10/08/2014
2	Mr. Prasad Indi	Guest Lecture on "Tips for GATE Preparation"- For All Final Year Students	15/01/2015

	AY 2015-16		
1	Mr. Namdev Ghodake (Sr.Executive, SICA India Pvt Ltd.Pune)	Expert Lecture on Self Compacting concrete	18/08/2015
2	Mr. Abhaysinh Mohite	Guest Lecture on "General Competitive Examinations - For All Students	16/01/2016
3	Mr. Londhe R.C., MITCON, Solapur	Guest Lecture on 'Entrepreneurship Development ' association with MITCON, Solapur	24/01/2016
4	Mr. Vikas Patil, INFINY, Pune	Guest Lecture - On Career Guidance by INFINY, Pune	20/03/2016
	AY 2016-17		
1	Dr. Ashok Khade, MD,Das Offshore LTD; Mumbai	Motivational lecture by Dr..Ashok Khade (MD,Das Offshore LTD; Mumbai)	14/07/2016
2	Ms. Namrata Ghag, CAD Centre, Mumbai	Interaction Session on "Software Applications in Civil Engineering" by CADD Center, Pandharpur.	20/07/2016
3	Disha Institute, Pandharpur.	Interaction Session on "Applications of AutoCAD in Civil Engineering" by Disha Institute, Pandharpur.	27/07/2016
4	Mr.Chidambaram Kotibhaskar, Kotibhaskar Group, Sangli.	A lecture on "Success Story of an Entrepreneur" by Mr. Kotibhaskar (Kotibhaskar Builders,Sangli)	25/08/2016
5	Mr. Pravin Kolhe	Lecture on Compititive Examination and Career Opportunities in different field of Civil Engineering	03/01/2017
6	Mr. Dilip Nalgirkar	Expert Talk on : Stress Management	03/01/2017
7	Mr. Vijay Nalgirkar	Career Opportunities in Civil Engineering	03/01/2017
8	Mr. Vinay Patrawale Pune	Youth Day Celebration	12/01/2017
9	Mr. C. R. Kulkarni Structural Consultant , Pune	Expert Talk on : Entrepreneurship	25/01/2017
10	Mr. Sameer Alone	Basics of project management and evaluation	23/03/2017
	AY 2017-18		
1	Mr. Muzammil Shaikh	Applications of Design Softwares in Civil Engg. Industries, upcoming softwares and job opportunities.	18/07/2017
2	Mr. S. V. Sodal,	Impact of Climate change on Environment – Climate change and You!	06/09/2017
Computer Science & Engineering			
	AY 2013-14		
1	Mr. Amit Borkar	Future of Android	19/08/2013
2	Mr. Vikrant Chavan	Software Project & its Scope	20/09/2013
3	Ms.Sneha Thigale	TCS Recruitment Preparation & Procedure.	09/03/2013
4	Mr. Vishal Sarada	GRE / TOEFFL awareness session	16/02/2014
5	Mr. Tulip	Skill Required for Software Engineers	14/09/2013
	AY 2014-15		
1	Mr. Amol Hake	Open Source Technology-Linux	16/02/2015
2	Mr.Punit TC	Career In IBM	08/07/2014
3	Mr.Imtiyaj Sheikh	Personality Development Soft Skill	11/07/2014
4	Mr.ParagTiwari	Employment Grooming	02/08/14
5	Mr.SagarPujari	Software Project Management &SDLC.	09/08/14

6	Mr. Yashwant Bhigare	Personality Development	19/01/2015
7	Mr.Mukund Gadhave	Software Testing Life Cycle	14/03/15
8	Mr.Ragnish Majeta	Career in Indian Army	11/01/14
AY 2015-16			
1	Mr. V. S. Kadam	Information Storage & Management	17/2/2016
2	Mr. Prakash Janawade.	Cyber Security & Ethical Hacking	22/02/2015
3	Ms. Trupti Satpute.	Augmented Reality & Virtual Reality	24/03/2016
4	Mr. V. S. Kadam	Information Storage & Management	17/2/2016
5	Mr.Abhiseikh Pande	T &P Awareness Camp	06/08/2015
6	Mr. Sachin Mogale	Financial literacy	20/09/2015
7	Dr.Ms. Kiran Khosala	AAKASH FOR EDUCATION	23/09/2015
8	Mr.Dyanand Gawade	Cyber Security Awareness Camp	22/02/2015
AY 2016-17			
1	Mr. SachinMogale	Financial Literacy: Mutual Fund	14/07/2016
2	Mr.T.A.Chavan	Auditing for Data Storage Security	05/08/2016
3	Mr.Tushar Shiva	Software Project Management	08/09/2016
4	Mr.Amol S. Kulkarni	IBM Watson IoT	24/01/2017
5	Mr. Deepak Badgujar	Career in IT with Required skill set	01/02/2017
6	Dr.V.B.Nikam	Scalability in Big data Analytics	03/03/2017
7	Dr.S.K.Shinde	Recent trends in data mining	23/03/2017
AY 2017-18			
1	Mr. Vinayak Chatke	GSM & Networking Scenario of 4G	26/07/2017
2	Mr.Sanjay Shinde	Career opportunities in IT after B.E.CSE	04/08/2017
Electrical Engineering			
AY 2013-14			
1	Mr. S.V. Thokale	Future Scope and Industrial Trends in Electrical Engineering	06/08/2013
AY 2014-15			
1	Mr. Sanjay Jamdade	Project Management, Execution and Energy Management	11/09/2014
AY 2015-16			
1	Mr. Arun Ukarande	Signals and Systems	07/03/2016
2	Mr. Vithhal Jagtap	Embedded System	07/03/2016
AY 2016-17			
1	Adv. S. K. Navale	Opportunities for Young Generation	07/09/2016
2	Mr. Gururaj Kulkarni	Entrepreneurship and opportunities in solar power sector	23/08/2016
AY 2017-18			
1	Mr. Vishwas Nangare-Patil	A Motivational Speech on to Dream the Impossible dream	26/06/2017
2	Dr. Neelima Iyer	To deliver a lecture on Embedded Systems	29/07/2017
First year Engineering			
AY 2013-14			
1	Mr.Vikrant Gailkwad	NarendrateVivekanad-EkSangharsh	15/10/2013
2	Mr.Ashok Kortikar	Swami Vivekanand	10/01/2014
AY 2014-15			
1	Dr.Rajendra Jadhav	Sadyastitit Gandhi Vichar	02/10/2014

AY 2015-16			
1	Mr.J.P.Desai	Swami Vivekananda	12/01/2016
AY 2016-17			
1	Mrs.Maitreyee Keskar	Motivational Lecture	17/08/2016
2	Mrs.Aprnatai Ramtirthkar	JaraAsudyaBhan	20/09/2016
3	Dr.DilipNalgirkar	SahajYog	03/01/2017
4	Mr. VinayPatravale	Yogi Sanyasi- Swami Vivekanand	12/01/2017
5	Mr. Ganesh Shinde	AajachaVidyarthi: BhavishyaAaniAavhane	07/03/2017
6	Dr. Nanda Patil	Aajachi Stree (Only for Girl Students)	08/03/2017

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 encourages /deputes faculty members to take part in development programmes conducted at the institute or in other institutes/organizations. Special budgetary provision is made under faculty development head to make sure that faculty members upgrade their knowledge by attending various training programmes.

a) Nomination to staff development programmes:

Table No. 2.4.3 (a): Staff development Programmes

Academic Staff Development Programs	Number of faculty Nominated				
	2013-14	2014-15	2015-16	2016-17	2017-18
Refresher Courses	23	35	21	9	17
HRD Programs	21	3	102	107	129
Orientation programs	47	16	19	15	17
Staff Training conducted by the University	7	7	8	34	0
Staff Training conducted by other Institutions	31	14	16	22	17
Summer/Winter Schools, Workshops, etc.	42	48	61	86	12

b) Faculty Training programmes 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.**

College has been proactive in organizing lecture seminars/ workshops, which focus on the overall professional growth and development of teachers. Some of the programmes organized are as indicated in Table 2.4.3 (b):

Table No. 2.4.3 (b): Faculty Training programmes organized by the institution

Sr. No.	Training Program	Focus	Date /Frequency
1	Induction Programme by AMC	Awareness about vision, mission, quality policy of the institution, teaching learning process, organizational structure, standard procedures and formats in quality management system, e-resources, e-journals and OPAC in central library.	At the start of academic year
2	Lab view /Virtual Lab Training	Using new teaching tools, Circuit design and simulation, Using remotely triggered experimental setups.	Often
3	Training on vibration analyzer, exciter	Training & Handling of instrument with software	26 to 27/05/2016
4	3D printer Training	Design & Development of 3D Models	21/11/2016
5	Faculty training by course coordinators on new curriculum implementation	Understanding the course delivery (teaching) methods, discussing and enriching learning resources and student Evaluation methods. Course planning, Documentation and monitoring.	Often
6	Encouragement of use of NPTEL video lectures, e-journals and e-books on Intranet server.	Selection/ Development and use of enrichment materials	Often

| 7 | Workshop on Technical Communication organized by IITB | Improving technical communication skill while writing Research articles, new teaching –learning methodology. | 08/10/ 2015 to 5/12/ 2015 |
| 8 | Experts sessions on R & D by Dr. S.H. Pawar | Research proposals & Publications | 20/8/2016 |

(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.**

Table No. 2.4.3 (c): Faculty involvement seminars/conferences/workshops

	Percentage of faculty involved				
	2013-14	**2014-15**	**2015-16**	**2016-17**	**2017-18**
Invited as Resource Person in Workshops / seminar/ conferences	38.78	35.45	40.17	52.8	0
Participated in Workshops/ Seminar / conferences	42.86	43.64	52.14	68.80	9.30
Workshop/Presented papers in Workshops/ Seminars/ Conferences	30.61	18.18	18	51.20	0.78

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

Provision of Research grants:
- The institute encourages faculty members to avail research grants from University/organizations.
- The institute supports the research activity by providing various facilities like major equipment's, software's, e-journals, library books, etc.

Study leave and research support:
- The institute deputes faculty members for FDP/ Workshop/ Conferences / Seminars / Industrial training on-duty leave.
- Institute provides opportunity to faculty members to work with STES Kigali, Rwanda campus, a foreign-based sister Institute.

- The institute always put efforts to inculcate the research attitude in department by faculty as well as students.
- Institutes grants duty leave according to nature of work.

Academic Publications:
- For attending national/international conferences conducted at various places, the financial support and partial duty leave is provided by the institute.
- The interactive sessions on research methodology, technical report writing, Patent filing and various research areas are arranged wherein the faculty members can take inputs from renowned personalities such as IITs.

Others:
- The institute provides isolated cabin with internet facility to faculty member for enhancing the knowledge of research.

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.

Table 2.4.5: Awards / Recognitions received by the Faculty

Sr. No.	Name of Faculty	Awards/ Recognition
1	Dr. K.J. Karande	Navratna Prerana Puraskar.
2	Dr. K.J. Karande	Chairman Board of Studies for Electronics & Telecommunication Engineering at Solapur University Solapur.
3	Dr. K.J. Karande	Received Prestigious European Fellowship for training at Aalborg University Denmark on Project Based Learning.
4	Dr. K. J. Karande	Best Technical Paper Award in International Conference on "Innovation in Engineering & Technology" (CIET-2016)
5	Dr.C.P.Pise	Ph.D. awarded
6	Dr.C.P.Pise	Patent : Process and Device for Water Purification Using Novel Coagulant Patent Application no: 3376/MUM/2013
7	Dr.C.P.Pise	DST funded project under Young Scientist scheme
8	Dr. R. T. Vyavahare	Completed Ph.D. in Ergonomic Considerations in Machine Design
9	Dr.S.G.Kulkarni	PhD.Awarded in composite material
10	Dr. R. T. Vyavahare	Selected as reviewer for reputed journals like Elsevier and Inderscience.
11	Dr. R. T. Vyavahare	Selected as reviewer for International Journal of Industrial and Systems Engineering (IJRSE).
12	Mr. A. S. Aradhye	Faculty Advisor For ISIE, RPM International Racing Circuit, Bhopal
13	Mr. S. G. Deshmukh	Received best paper award in ICEM 2014 at Chennai.
14	Mr. S. G. Deshmukh	Received consolation award in ICC 2015 at Bikaner.
15	Mr. S. G. Deshmukh	Invited by IIT Hyderabad to present his research paper in ChEmference 2015.
16	Mr. S P Ganjewar	Reviewer for International Conference on Energy Systems and Applications,(ICESA-2015) held at Dr. D. Y. Patil Institute of Engineering and Technology, Pimpri, Pune-18.
17	Mr. S.H.Gidde	Selected as supporting reviewer for International Journal of Innovations in Engineering Research and Technology (IJIERT)
18	Mr. S. G. Kashid	Reviewer for 4th International Conference on Advances in Computing, Communications and Informatics (IEEE International Conference ICACCI)

19	Mr. S.H.Gidde	Selected as Member, Editorial Board for International Journal of Research Publications in Engineering Research and Technology (IJRPET)
20	Mr. S. S. Kulkarni	Selected as reviewer for Hindawi Publication 2015.
21	Mr. A. A. Rajguru	1. Appreciation Letter from IIT Bombay 2. GATE Score (2006, 2007, 2008)
22	Mr. S. B. Thigale	1. Appreciation as a Resource Person from GNDEC, Bidar. 2. Appreciation as a Resource Person from MSSMV, Pandharpur
23	Prof G. B. Birajadar	Appreciation Certificate from Imperial Society of Innovation Engineers (ISIE) as Faculty Advisor organized at Bhopal, Madhya Pradesh from 25th - 29th March 2016
24	Mr. A. S. Kulkarni	Appreciation from Sinhgad Technical Education Society Rwanda, Kigali Campus.
25	Mr. A. D. Jadhav	Appreciation from Sinhgad Technical Education Society Rwanda, Kigali Campus.
26	Mr. G. D. Lakade	Appreciation from Sinhgad Technical Education Society Rwanda, Kigali Campus.
27	Mr. D.D. Mohite	Appreciation from Sinhgad Technical Education Society Rwanda, Kigali Campus.

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

Yes, the institution introduced evaluation of teachers by the students. This is monitored by AMC and required guidelines are given to the HoD to improve the teaching learning process.

- Teachers are evaluated by the students through online feedback system where the following parameters are considered as indicated in Fig 2.3.11.
- AMC reviews feedbacks of faculty members in every semester and gives necessary suggestions for improvements.
- In order to have proper teaching learning process in every semester, HoD ensures course file of each subject in prescribed format allotted to the respective faculty member.
- Students evaluate the communication skills of faculty members through feedback system to improve teaching learning process.
- The feedbacks received from students are the reflections of teachers' perspective in the eyes of students. This may be due to the overall impression created by teacher through regular interaction and his initiatives to make students comfortable about his teaching learning process.
- The self-appraisal forms are also filled by respective faculty member and are verified by the HoD with their marks and remarks on various performance parameters. The AMC also gives specific remarks to individual faculty for the improvement of teaching learning process.

2.5. Evaluation Process and Reforms

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

- The institution creates awareness in the stakeholders regarding evaluation process before commencement of the programme by HoDs and Principal and same is notified on departmental notice board.
- The evaluation is done by institute in line with university guidelines. Faculty members are deputed to university meetings like syllabus structure revision, syllabus setting, exam work etc.
- Students are made aware of the evaluation process during induction programmes, periodically addressing by HoD, regular information by concern faculty in the class and are directed to visit university and institute website.
- The institute evaluates the student's term work (ICA) by means of continuous assessment.
- Schedule of unit test and tentative dates of university exam is displayed in academic calendar in advance.
- Faculty member evaluates attendance of theory and practical, assignment marks, unit test marks and mock oral performance, which is monitored by HoDs and AMC.
- The university evaluates the students by conducting theory exam and external oral/ practical examination. Theory papers are assessed through Central Assessment Program (CAP), where faculty members contribute at various levels.
- The institute notifies all these schedule of evaluation on notice board.

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?

As an affiliated College, our Principal, Deans, BOS members attend and participate in all the meetings conducted by the university. The evaluation reforms are adopted and followed by the institute as per university norms. The major evaluation reforms of the university that the institution has adopted are given as below:

University Reforms:
- Institute has taken initiative for shouldering the responsibility of Centralized Assessment Process (CAP) successfully under Solapur University Solapur, where university papers are assessed by faculty members from university affiliated institution.
- Examiners other than university are appointed for final year project evaluation; every department has formed project evaluation committee, which regularly monitors the progress of project activity.
- The university has started "Digital Exam Paper Delivery System (DEPDS)" from academic year 2014-15, where all question papers are received online at all exam centers before one hour of the commencement of exam.
- From the academic year 2014-15, University has developed software for filling internal marks online because of which paper work is reduced as well as accuracy is maintained in results.
- From the academic year 2014-15, university has started implementing credit and grading system (CGPA) which has ISE-ESE exams (30-70 patterns). In this 30 marks are allotted for In Semester Examination (ISE) which is

conducted at institute level; however 70 marks are allotted for End semester exam which is conducted by university. Student's marks in ESE are not considered unless he/she passes in ISE.

- Since the academic year 2015-16, university has started implementing Choice based credit system (CBCS) in which every course with specialization has a prescribed course structure with course outcome.

Institution Reforms:

Internal Marking Scheme:
- As per the directions of the university ISE grades are given to the students via tests/assignments/oral.
- While assigning the internal marks as per the syllabus of course following points are considered to avail the marks
  - ✓ Attendance (Lecture/Practical/Tutorials)
  - ✓ Test performance
  - ✓ LCD presentations/ GD/Mini-project
  - ✓ MOCK POE
  - ✓ Continuous assessment
  - ✓ Participation in State/National level events
  - ✓ Special contribution in Co-curricular and Extracurricular events.

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?

Effective implementation of the evaluation reforms is ensured in following manner:

University Level:
- University appointed internal and external senior supervisors for effective conduction of university exam.
- For smooth conduction of University exams, the institute has established separate examination section and Institute Exam Coordinator (IEC) is appointed for conducting all university examinations.
- University appoints external examiner for the POE.

Institute level:
- Strong room is provided for Digital exam paper delivery system (DEPDS) with all advanced facilities as per the university guidelines.
- Effective implementation of evaluation reforms initiated by the institute are ensured by the heads of the respective departments by making faculty, staff and students aware of the reform and monitoring their implementation rigorously.
- CCTV cameras are used in the campus for surveillance.
- For smooth conduction of university theory examination, institute appoints examination internal squads.
- Each department has examination cell for smooth conduction of internal tests. The results of each test are declared within three days of the conclusion of the

test. The students can see their respective answer books and discuss their queries with concerned staff.

- Respective subject teachers do the term work (ICA) evaluation. The performance evaluation of students is displayed on notice board through continuous assessment and student progress monitoring sheet.

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

Formative evaluation approaches:
These approaches are assessed by faculty members:
- Attendance to theory and practical sessions throughout the semester
- Class room interaction
- Unit test performance
- Assignments
- ISE (In Semester Evaluation)
- Continuous assessments
- MOODLE Examinations
- Mock on-line and practical/oral examinations
- Co-curricular activities viz. workshops / seminars /mini and major projects etc.
- Industrial visits
- VAP , STP
- Social Activities
- AMCAT Examination.

Summative Assessments approaches:
These approaches are assessed at the end of semester by faculty members:
- ESE (End semester Evaluation) made through theory paper examination conducted by university
- Oral / practical examination
- Project examination

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.)

- Institute has transparent internal assessment scheme, which is strictly implemented and practiced by faculty members of every department. These norms are displayed on notice board at the start of semester.
- To monitor student progress, institute has continuous internal evaluation system.
- Continuous assessment is carried out in terms of :

  - Regular assignment checking and timely submission.
  - Self-learning sessions.
  - Presentation and communication skills.
  - Performance and punctuality.

- Weightage of Term work is referred as Internal continuous assessment (ICA). (Refer -Table 2.3.1(b))
- In each department, final year projects are assessed and evaluated continuously using project diaries.

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

Solapur University articulates its graduate attributes in the vision statements as follows:

- Solapur University shall strive towards a world class Institution by producing professionals with high technical knowledge, professional skills, ethical values and compassionate human in the society.
- Solapur University implements the mentioned attributes by employing highly qualified and experienced teachers with technology enhanced learning resources.
- The students imbibe the ethical values while studying a course with professional ethos.

Graduates attributes specified by the college:
Learning outcomes of the programme i.e. Programme outcomes (POs) are defined in line with Graduate attributes (GAs) as adopted by Institute are as follows:

- **Engineering Knowledge**: Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
- **Problem Analysis**: Identify, formulate, research literature and analyze complex engineering problems reaching substantiate conclusions using first principles of mathematics, natural sciences and engineering sciences.
- **Design/Development of Solutions**: Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.
- **Conduct investigations of complex problems:** Using research-based knowledge and research methods including design of experiments, analysis, and interpretation of data and synthesis of information to provide valid conclusions.
- **Modern Tool Usage**: Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- **The Engineer and Society**: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.
- **Environment and Sustainability**: Understand the impact of professional engineering solutions in societal and environmental contexts, demonstrate knowledge and need for sustainable development.
- **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

- **Individual and Team Work**: Function effectively as an individual and as a member or leader in diverse teams and in multi-disciplinary settings.
- **Communication**: Communicate effectively on complex engineering activities with the engineering community and with society, such as being able to understand and write effective reports, design documentation, make effective presentations and give and receive clear instructions.
- **Life-long Learning**: Recognize the need for and have the preparation and ability to engage in independent and life- long learning.
- **Project Management and Finance**: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team to manage projects and in multidisciplinary environments.

Attainment of Graduate Attributes:

Institute takes all the efforts to provide many opportunities to learn and acquire skills through various activities. Following table 2.5.6 provides a mapping of graduate attributes and activities conducted by the institute. In addition, assessment pattern and respective evaluating agencies are noted in the table.

Table 2.5.6: Mapping of graduate attributes and activities

Graduate Attributes	Activity	Assessment	Evaluators
Engineering Knowledge	Lectures, SLS, STP	Tests , Oral, Practical's etc.	Internal and External (SUS)
Problem Analysis	Industrial and Mini Projects.	Q and A , Presentation	Internal and External
Design/Development of Solutions	Design and Model competitions, Software development competitions, Project competitions	Q and A , Presentation	Internal and External
Conduct Experiments	Lab experiments as per curriculum	Report/Journals Q and A	Internal
Modern Tool Usage	VAP, Workshop/Conference/ Seminars	Q and A, Communication, Presentation Project and Report	External
The Engineer and Society	Projects addressing Industrial and social problems like Agricultural, Safety	Q and A , Presentation Project and Report	Internal and external
Environment and Sustainability	Awareness programs Poster Presentations Magazine Page Design Competition	Q and A Observation	Internal

Ethics	Projects & Events Organization	Observation	Internal
Individual and Team Work	Projects & all type of Events (Tech/Social/Cult)	PI and Observation	Internal and external
Communication	LCD Presentations, Projects, Paper presentation,	Presentation and report writing	Internal and external
Life-long Learning	Competitive examinations like GATE,MPSC,UPSC	-	GATE Tutor
Project Management and Finance	EDP, Projects, Presentation and report writing	Evidence-based Q and A	Internal and external

- Innovative teaching methods and student centric teaching – learning approach is adopted to achieve course outcomes. Institute follows university-defined curriculum, which fulfills the graduate attributes attainment.
- Through co-curricular activities like STP, VAP, and GD, institute is paying attention for meeting the graduate attributes which is helpful to improve student's verbal and non-verbal communication and develop soft skill in them.
- Institute encourages the independent learning, which includes paper presentation, projects, innovative mini project, publishing the articles and papers in journals.

2.5.7. What are the mechanisms for Redressal of grievances with reference to evaluation both at the college and university level?

- After declaration of result, institute notifies the students about proper procedure for any grievances regarding evaluations declared by university results sheet.
- Once student apply for any kind of grievances about evaluation process to university through institute, university has standard procedure to be followed for redressal of grievances.
- At college level, students are always informed and supported for any grievance related to continuous assessment and evaluation process.

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, Institute has clearly defined program outcomes given to faculty, students. Learning outcomes are notified and made available on website.

The Programme outcomes of institute are as follows:
- To prepare graduates with sound engineering knowledge.
- To prepare graduates who will achieve good problem design and analysis skills.

- To prepare graduates who will achieve peer-recognition; as an individual or in a team through investigation of complex problems, project management, ethics and teamwork.
- To prepare graduates who will have ability to apply engineering knowledge for societal problems.
- To prepare graduates who will flourish life-long learning to fulfil their goals.

Awareness of programme outcomes:
- By imparting engineering knowledge through theory and practical sessions, fundamental concepts of engineering to students are made clear.
- Institute provides project based learning for understanding problem analysis, design and development skills.
- Various activities such as solar car, Robot designing, single phase to three phase converters are conducted to investigate complex problems.
- LCD presentations are conducted at respective departments to improve presentation skills.
- VAP, conference / Seminars are organized for students to get exposure of modern and innovative ideas.
- NSS / Sports / Cultural activities are organized by the institute to make students aware of social and community services.
- Institute has focused on projects that are beneficial to society like Agricultural sprinkler, solar based equipment etc.
- 'Communication skill and professional ethics' training is organized at the institute for students to learn teamwork and management.

Institute is promoting students for competitive exams like MPSC, UPSC, and GATE to flourish students as life-long learner.

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

- Institute conducts departmental wise UT-1, UT-2, Re-UT (for failed students), and preliminary examination.
- After completion of exams, results are displayed on notice board and it is conveyed by SMS to parents.
- University results are displayed on notice board.
- Continuous assessment for mock, practical and oral exam, are also displayed on notice board.
- TG teacher monitors attendance of student and monthly it is displayed on notice board.
- At the end of every month in a semester, defaulters list is displayed and appropriate actions are taken against defaulters.
- Based on performance in internal assessment, faculty members take corrective measures.

- As per Solapur university norms, ISE is assessed based on unit tests and assignments.
- Institute frequently organizes parents meet for communicating the performance of students and points are discussed such as UT results of students, strength and weakness of student.
- University toppers, college toppers are rewarded during parents meet.
- Based on the discussion in parents meet system is set to improve the performance of students.
- If a student remains absent, phone call is made to concern parents daily. Performance of student is monitored through student progress monitoring sheet as indicated in Table 2.6.2 (a)

Table 2.6.2 (a) Student's Progress Monitoring Card

1. ACADEMIC RECORD
Academic Year:

Month / Semester	Attendance in Percentage						Results (% & Subjects failed)	
	July	Aug	Sept& Oct	Avg. [1]	UT- I	UT-II	Prelim	University [2]
SE/TE/ BE								
Grades#								
Name & Sign. of Parents								
Date of Meeting								
Year End Grade (Based on SEM-II)	1) ____		2) _____		3) _____			Overall: __

2. ACTIVITY RECORD

Semester/ Activity	A] Value Addition Programs		B] Activities*	C]Achievements Sports/ Placement/ Social/ Cultural	Compla-ints, if any	Grade
	Programme	Atten-dance				
SE/TE / BE						

*Paper Presentation, Mini Project, Various Competitions, Workshops, etc
#Grades for

Attendance:	University Result:	Activities:	Overall:
Excellent – 85% & above, *Good* – above 75%, *Poor*- Less than 75%.	*Excellent* – 66.66% & above, *Good* – above 60%, *Poor*- below 60% & F. ATKT	*Excellent*-Participation in 3A,3B & 3C *Good*- Participation in any one, *Poor*- No Participation	*Excellent*-At least Good [1,2&3], *Good*- Good [2 &(1 or 3)], *Poor*-Remaining all

Result Analysis in percentage:

Course wise result analysis as shown in fig 2.6.2 (b), (c) and (d)
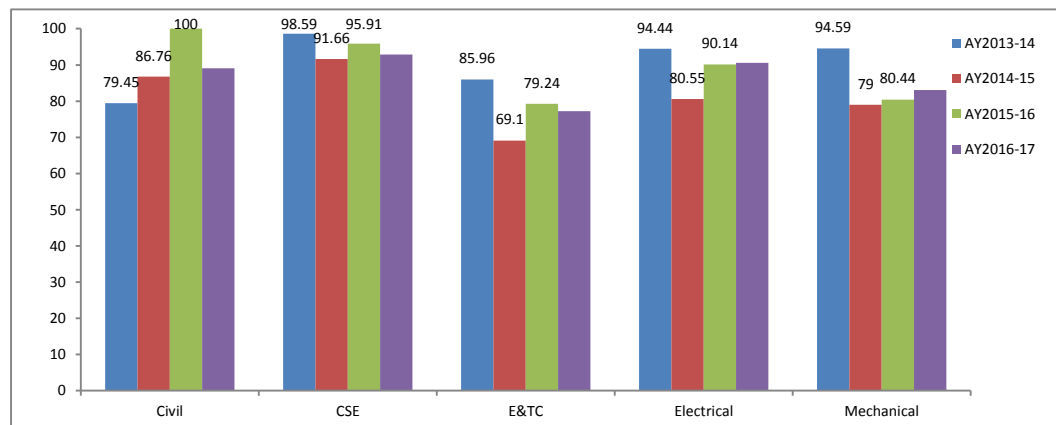
Fig. 2.6.2 (b): SE Result Analysis
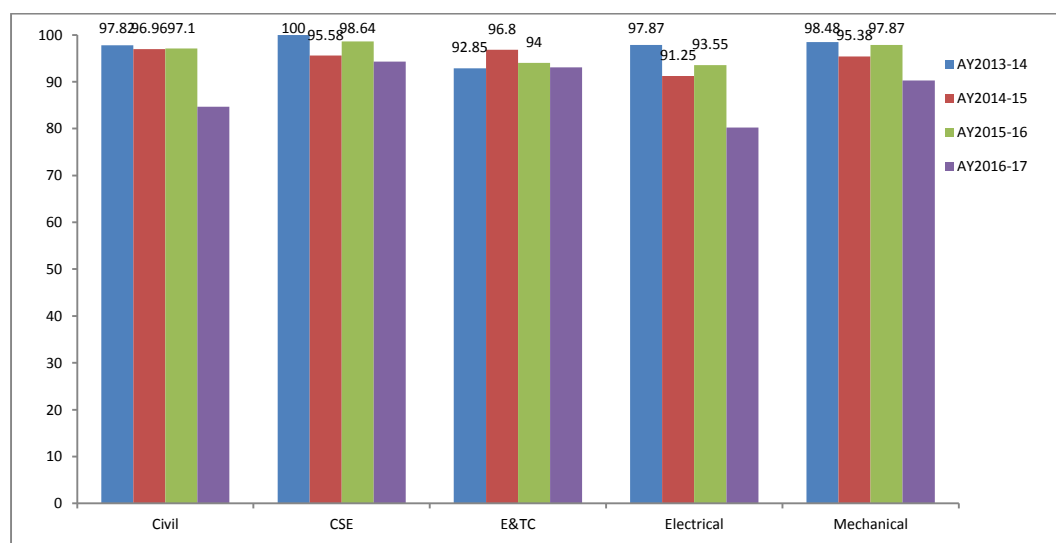
Fig. 2.6.2(c): TE Result Analysis
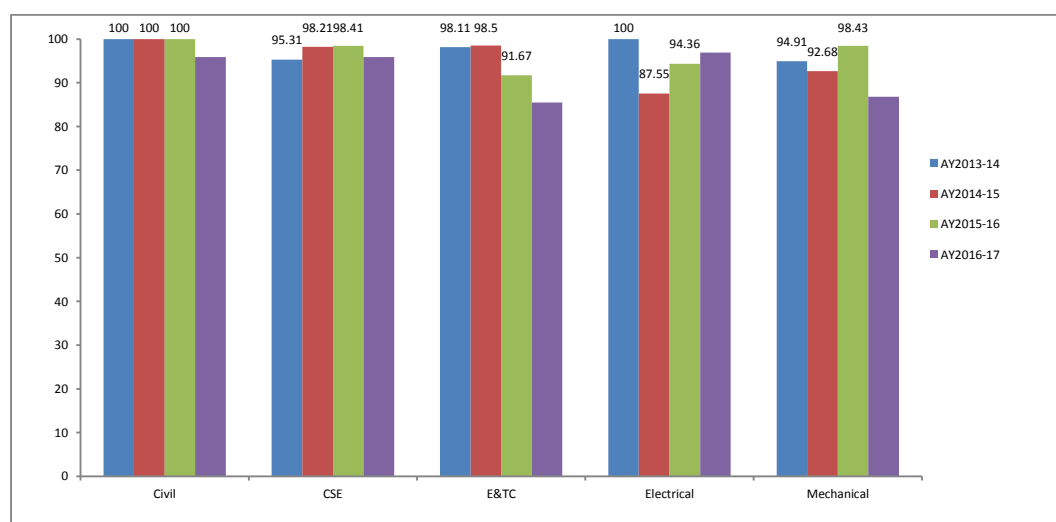
Fig. 2.6.2(d): BE Result Analysis

Course wise achievements of students are indicated in Table 2.6.2 (b)

Table 2.6.2 (b): Course wise achievements of students

Name of the Student	Department	Class	Academic Year	Percentage / CGPA	Rank in University
Pawar Rahul	Electrical Engg.	SE	2016-17	86.67	1st
Chougule Jyoti	Electrical Engg.	SE	2016-17	84.93	4th
Patil Geetanjali	Electrical Engg.	SE	2016-17	85.33%	3rd
Babar Yogesh	Electrical Engg.	SE	2016-17	82.67	7th
Pawar Pradnya	Electrical Engg.	TE	2016-17	79.94	6th
Sarawase Prajakta	Electrical Engg.	TE	2016-17	78.75	9th
Deomare Pallavi	Electrical Engg.	BE	2016-17	83.08	2nd
Pawar Pradnya	Electrical Engg.	SE	2015-16	9.53	5th
Kumbhar Dipali	Electrical Engg.	SE	2015-16	9.50	6th
Mulani Shahrukh	Electrical Engg.	SE	2015-16	9.45	7th
Deomare Pallavi	Electrical Engg.	TE	2015-16	76.38	4th
Ingawale Pravin	Electrical Engg.	TE	2015-16	76.38	4th
Gangthade Aarti	Electrical Engg.	TE	2015-16	73.63	6th
Deomare Pallavi	Electrical Engg.	SE	2014-15	81.93	4th
Ingawale Pravin	Electrical Engg.	SE	2014-15	80.33	6th
Sarika Jawale	Electrical Engg.	BE	2014-15	81.81	1st
Pawar Poonam	Electrical Engg.	BE	2014-15	76.75	4th
Bhore Bhagyashree	Electrical Engg.	BE	2014-15	76.63	5th
Dafale Dhanraj	Electrical Engg.	BE	2014-15	76	8th
Yelpale Priyanka	Electrical Engg.	BE	2014-15	75.94	9th
Pardesi Neha	Electrical Engg.	BE	2014-15	75.13	10th

Dhon Bhagyashree	Civil Engg	TE	2014-15	75.06	4th
Gaikwad Dinesh	Civil Engg	TE	2014-15	72.59	6th
Shinde Navnath	Civil Engg	TE	2014-15	71.41	8th
Mr. Jagadale Samadhan	Civil Engg	BE	2014-15	82.88	1st
Mr. Jagtap Rohit	Civil Engg	BE	2014-15	80.63	2nd
Mr. Shelake Santosh Maruti	Civil Engg	BE	2014-15	79.75	4th
Shinde Navnath	Civil Engg	BE	2015-16	81.88	5th
Dhon Bhagyashree	Civil Engg	BE	2015-16	80.59	7th
Kshirsagar Lakhan	Civil Engg	BE	2015-16	80.47	8th
Makandar Saifan	Civil Engg	BE	2015-16	80.47	8th
Doke Hari	Mech.Engg	SE	2014-15	80.75	4th
Shrishrimal Vishal	Mech.Engg	TE	2014-15	80.63	1st
Bhosale Dhanaji	Mech.Engg	BE	2014-15	78.93	5th
Jagtap Ashvini	Mech.Engg	SE	2015-16	84.56	2nd
Patil Shubham	Mech.Engg	SE	2015-16	83.13	5th
Ingole Snehal	E&TC	BE	2014-15	82.60	1st
Shruti Mane	E&TC	BE	2014-15	81.80	3rd
Gawali Kirti	E&TC	BE	2014-15	80.53	7th
Fugare Pooja	E&TC	TE	2014-15	80.67	1st
Jadhav Priyanka	E&TC	TE	2014-15	79.27	3rd
Jadhav Priyanka	E&TC	BE	2015-16	80.79	6th
Fugare Puja S.	E&TC	BE	2015-16	80.36	7th
Sule Snehal S.	E&TC	TE	2015-16	80.73	6th
Patil Amruta B.	E&TC	TE	2015-16	79.39	9th
Nagtilak Premala	E&TC	SE	2016-17	86.61	6th
Salunkhe Suchita	E&TC	BE	2016-17	79.76	6th
Jadhav Sachita V	CSE	SE	2016-17	10	3rd
Lengare Pooja D	CSE	TE	2016-17	9.84	10th
More Akash	FE		2014-15	10	
Jagtap Ashwini	FE		2014-15	10	
Kulkarni Divya	FE		2015-16	10	
Bhosale Vikram	FE		2016-17	10	
Suryawanshi Shubham	FE		2016-17	10	
Damodare Shubhankar	FE		2016-17	10	
Dhobale Jyoti	FE		2016-17	10	
Walajkar Priya	FE		2016-17	10	
Deshmukhe Akshay	FE		2016-17	10	
Gadage Prajkta	FE		2016-17	10	

Deshpande Aishwarya	FE	2016-17	10
Karve Gaurang	FE	2016-17	10
Babar Trupti	FE	2016-17	10
Kulkarni Swamini	FE	2016-17	10
Lengare Nilesh	FE	2016-17	10
Dhanawade Rahul	FE	2016-17	10
Kaldhone Onkar Shriram	FE	2016-17	10
Pise Mahesh Balasaheb	FE	2016-17	10
Gaikwad Suyash Dhananjay	FE	2016-17	10
Nazarkar Manthan Shrikrushna	FE	2016-17	10
Shinde Snehal Ramhari	FE	2016-17	10
Dethe Shekhar Dashrath	FE	2016-17	10
Bhinge Prachi Santosh	FE	2016-17	10
Jagtap Rushikesh Dipak	FE	2016-17	10
Bandgar Karishma Uttam	FE	2016-17	10
Kale Vaibhav Abasaheb	FE	2016-17	10

2.6.3 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

Teaching strategies:
- Before commencement of academic programme, institute prepares academic calendar in line with university academic calendar and is circulated to departments including all activities.
- Departmental time table is prepared with reference to academic calendar by time table coordinator.
- Teaching plan is prepared with details such as course objectives and course outcomes and is reviewed by HoD at the beginning of every semester.
- Departmental activity calendar is prepared at the start of semester which includes quiz, GD, soft skill, aptitude test, poster presentation and PI etc.
- All teaching material is made available on MOODLE/FTP server.

Learning Strategies:
- Classroom learning is made interactive by asking questions and by showing presentations.

- SLS of every subject are provided in regular timetable.
- Project based learning(PBL) is adapted during academic programmes.
- As per the curriculum, department plans industrial visit for students.
- VAP Programmes are arranged in every department.

Assessment strategies:
- In TG meet, faculty member interact with student to take feedback about learning problems, if any.
- ISE is conducted by making assessment through UTs and assignments.
- As per the university norms, Institute conducts practical and oral exams.

2.6.4 What are the measures/ initiatives 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?

To enhance the social and economic relevance of the courses offered following initiatives are taken up by Institute:

Student placements:
- Institute organizes soft skill and aptitude training; provides technical skill development programmes to the students. The training of the software like Creo, AutoCAD, CATIA, ANSYS, Matlab, Nastran, C, C++, JAVA etc. from the experts is provided to the students to improve their   employability
- Besides providing appropriate training, the institute conducts employability tests like AMCAT which form the entry pre-requisite for many high profile companies.

Entrepreneurship:
- Student undergoes Entrepreneurship Awareness Seminars organized by the institute.
- Entrepreneurship Development Programme (EDP) cell established in the institute which works to develop entrepreneurship qualities in students to launch their startups.
- Workshop/seminars/conferences are arranged in institute under EDP.

Innovation:
- Students are encouraged to engage themselves in innovative projects such as Solar Car/Robotics/Single to three phase converters etc. Their creativity is nurtured through various technical events at institute and national level.
- Institute organizes competition to provide platform for such innovative projects and ideas which also develops an attitude for research in students.
- Institute has established Research and Development Cell which plays an active role in improving the quality of research work at Institute.
- Students are encouraged to participate in state/ national/international technical events like Avishkar, Robotics, Go-kart, etc. outside the institute.

Research aptitude developed:
- Institute has adequate online and offline learning resources available in the library for teaching, learning as well as research.
- Industry sponsored projects help students to get direct industry exposure by virtue of which their employability enhances significantly.
- Faculty members involve the students in the research activities from SE/TE level itself and encourage sharing their ideas in the research work in the form of mini projects.
- Further, project groups are allotted at BE students select the topic with innovative idea by working with their project guides and encouraged to publish papers in international journal/conference.

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

Data Collection:
- Data of internal and external examination is compiled.
- TG meets are scheduled to interact with students to find the problem they are facing in academics.
- The feedback from the alumni is taken during the alumni meet.
- Students' leadership skills are observed while executing students' activities
- Suggestions received from stakeholders during academics and parents meet.

Data Analysis:
- Subject wise unit tests and prelim exams are conducted and assessment is done about the knowledge gained in respective subject.
- Continuous assessment in labs is done for each student throughout the semester.
- Assessment of practical knowledge of students is achieved through mock practical/oral examinations.
- Student monitoring report is maintained by faculty members to analyze their academic performance.
- Self-learning sessions are engaged to gain confidence of subject knowledge.
- Institute provides project based learning through mini projects/ projects where practical knowledge is analyzed.
- Departmental associations conduct activities such as GD, PI which allows students to get familiarize with campus environment.
- AMCAT and MOODLE tests are conducted to analyze employability of students.
- Spoken tutorial and MOODLE tests are conducted for technical and soft skill analysis.

Planning and overcoming barriers of learning:
- As the institute is residing in the rural area, major barrier is poor English communication. From first year of engineering, in-house training on communication skill and professional skills are organized. In addition, VAP courses are planned and conducted at the institute to overcome the barrier.

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

- Institute provides a Project Based Learning (PBL) to students from Second Year level to enhance team work, problem solving and leadership ability.
- To improve presentation skill of Students from Second year Level Institute has made provision of LCD Presentation in regular academic Time Table.
- Student Progress monitoring card is evaluated on regular basis by TG teacher and informed to respective parents through phone call /SMS /letters.
- Self-Learning Session (SLS) is implemented for interacting with students during Theory hours.
- Extra inputs are given to slow learners whenever needed.
- Result analysis, Internal Assessment is analyzed & Monitoring by HOD to ensure achievement of Learning outcome.
- Value Addition Program (VAP), Conference/Workshop/Seminars are organized by Institute to give exposures of Modern tools & ICT Technologies for Students throughout semester every year.
- In-house training on "Communication Skill & Professional Ethics" of 40 Hrs. sessions for Students every year.
- To have exposure on Project Management tools, workshops organized for all TE Students.
- NSS / Sports/ Cultural Activity are organized by the institute to develop social awareness in students.
- Institute is promoting students for various competitive exams like MPSC/UPSC/GATE. Monitor & Ensure Achievement of Learning Outcomes is depicted in Figure 2.6.6.

Teaching and Learning Process

Teaching learning process at SKNSCOE is Student centric & well focused on overall development of Students. We believe that all-round personality of student being shaped through four years of engineering & is a perfect blend of academics & activities in the college. Right platforms are made available to Students in following ways.

University Requirements (Curriculum)

Industry Requirements (Co -Curriculum & extra Co-Curriculum)

Five Subjects in each Semester, ISE & ESE (Theory-Practical Examination), SLS, Assignments, Remedial classes, Projects & University curriculum from 8.30 am to 5.30 pm from Monday to Friday through out semester.

Value Addition Program (VAP),Project Based learning (PBL),Expert / Guest Lectures, Workshop / Seminars, Industry Visits & Industry Sponsored Projects, Research Development ,Entrepreneurship Development Activities are carried with Students Involvement on Saturdays from 8.30 am to 5.30 pm as by organizing events like SPECTRUM/ WENEGG /SPORTS/ CARNIVAL etc. every year.

Outcome Achieved with excellent Results in University Exam, Better Placements etc.

Figure 2.6.6: Monitoring & Ensuring Achievement of Learning Outcomes

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

Yes, Institution and individual teachers use following guidelines to achieve learning objectives and planning for evaluating student performance.

Indicators to Institute:
- The programme outcomes of the institute are highly correlated with academic activities and vision and mission of institute.

Indicators to Department:
- Programme outcomes are aligned with engineering graduate attributes, which is expected to be developed by students after completion of the course.
- Programme outcomes are aligned with departmental activities.

Indicators to Teacher:
- The results of formative and summative method are measure source for evaluating student performance.
- Non-performing students are identified and proper preventive and corrective actions are planned under formative assessment method.
- In SLS students are interacted with teachers personally to take verbal feedback.
- Mock oral/practical examination is conducted for necessary course of action.
- In summative assessment method, concern subject teacher addresses non-performing students and appropriate actions are planned.
- Students participate in mini projects, aptitude tests, MOODLE online exam, quiz, oral, personal interview and group discussion are evaluated by faculty members during Spectrum, WEENGS and regular academic activities.

This will improve fundamental concepts of mathematical and engineering knowledge and effective communication skills.

CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

3.1 Promotion of Research:

Research & development cell of SKNSCOE works in collaboration with industry, academia and research promoting agencies. The institute has signed MoUs with 30 different industries, academic institutes and research agencies for training of students and teachers to keep them updated with new technologies and innovations. As a part of research promotion, all the faculty members are encouraged for higher education and supported for research activities. Almost 23 faculty members are pursuing their Ph.D. from reputed organizations and Universities. Students are encouraged and supported for research activities by assigning mini projects related to agriculture, rural development and industry related problems from the beginning of their engineering career. The research culture is inculcated among the faculty members and students by providing resources and facilities. Institute always motivates the students and staff for getting exposure at foreign universities like Technical University of Sofia, Bulgaria; Ural Federal University, Russia; Tor-Vergata University, Rome-Italy and Kigali, Rwanda.

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

Yes. The institute has recognized Ph.D. research centre for Electronics & Telecommunication Engineering under Solapur University, Solapur. In addition, the institute has signed MoU for R&D projects with various industries.

The details of the recognized research centre and its details are shown in the Table 3.1.1(a)

Table 3.1.1 (a): Details of research centre

Sr. No.	Name of the research centre	Name of the Guide	Year of Affiliation
1	Electronics Engineering	Dr. K.J. Karande	2015-2019

In addition to this, institute runs four PG programs affiliated to Solapur University with various specializations to promote the research as given in Table 3.1.1(b). The details of PG students working under PG approved teachers are shown in Table 3.1.1(c).

Table 3.1.1 (b): PG Programs at Institute

Sr. No.	Name of the Department	Specialization	Intake	Year of Affiliation
1	Civil Engineering	Structural Engineering	24	2013 – 2014
2	Computer Science and Engineering	Computer Science and Engineering	24	2013 – 2014
3	Electronics and Telecommunication Engineering	Electronics Engineering	24	2012 – 2013

| 4 | Mechanical Engineering | Design Engineering | 24 | 2012 – 2013 |

Table 3.1.1 (c): List of PG approved teachers

Sr. No.	Name of PG approved teachers	Number of students registered	Approval details
Department of Civil Engineering			
1	Dr. C. P. Pise	13	SUS/BCUD/PGBUTR/2013-14/733 (23.04.2014)
2	Mr. D.D. Mohite	6	SUS/BCUD/PGBUTR/2013-14/731 (23.04.2014)
3	Mr. Y.P. Pawar	12	SUS/BCUD/PGBUTR/2014-15/5269 (20.08.2014)
4	Mr. S.S. Kadam	12	SUS/BCUD/PGBUTR/2013-14/732 (23.04.2014)
5	Mr. C. M. Deshmukh	5	SUS/BCUD/PGBUTR/2014-15/5268 (20.08.2014)
Department of Computer Science &Engineering			
1	Mr. S. V. Pingale	16	SUS/BCUD/PGBUTR/2014-15/5255 (20.08.2014)
2	Mr. A. A. Rajguru	2	SUS/BCUD/PGBUTR/2016/9413 (04.10.2016)
3	Mr. V.G. Chavan	4	SUS/BCUD/PGBUTR/2015-16/2898 (17.03.2016)
4	Mr. N. M. Sawant	4	SUS/BCUD/PGBUTR/2015-16/5839 (19.09.2015)
Department of Electronics & Telecommunication Engineering			
1	Dr. K. J. Karande	16	SUS/BCUD/PGBUTR/2012-13/11598 (08.01.2013)
2	Mr. A. O. Mulani	10	SUS/BCUD/PGBUTR/2013-14/742 (23.04.2014)
3	Mr. A. B. Jagadale	9	SUS/BCUD/PGBUTR/2013-14/743 (23.04.2014)
4	Mrs. A. C. Pise	10	SUS/BCUD/PGBUTR/2012-13/11598 (08.01.2013)
5	Mr. A.D. Harale	6	SUS/BCUD/PGBUTR/2014-15/2399 (13.03.2015)
Department of Mechanical Engineering			
1	Mr. S. S. Kulkarni	10	SUS/BCUD/PGBUTR/2013-14/748 (23.04.2014)
2	Dr .R.T. Vyavahare	08	SOL/UTY/900/5172 (12.08.2008)

3	Mr. S. D. Katekar	10	SUS/BCUD/PGBUTR/2011-12/9852 (06.02.2012)
4	Mr. B. S. Gandhare	11	SUS/BCUD/PGBUTR/2012-13/2867 (18.07.2013)
5	Mr. S. A. Sonawane	7	SOL/UTY/900/5172 (12.08.2008)
6	Mr. N. L. Phule	-	SUS/BCUD/PGBUTR/2013-14/749 (23.04.2014)
7	Dr. S.G. Kulkarni	11	SUS/BCUD/PGBUTR/2014-15/8280 (21.11.2014)
8	Mr. M.B. Kulkarni	-	SUS/BCUD/PGBUTR/2014-15/8280 (21.11.2014)
9	Mr. A. S. Aradhye	03	SUS/BCUD/PGBUTR/2014-15/8280 (21.11.2014)

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

Yes. The institute has research committee to monitor, promote and address research activities at various levels. It plays an active role in improving the quality of research and development. The research committee aims to perform social contribution by supporting faculty to pursue research with the ultimate aim of development of student in all respect. Institute research advisory committee is as follows:

Table 3.1.2 (a): Research advisory committee

Sr. No.	Name of Member	Designation
1	Dr. K. J. Karande	Chairman
2	Dr. C. P. Pise	Member
3	Dr. R. T. Vyavahare	Member
4	Dr. S.R. Nalage	Member
5	Dr. S. G. Kulkarni	Member Secretary
6	Mr. S. G. Deshmukh	Member
7	Mr. Y.P. Pawar	Member
8	Mr. A.A. Rajguru	Member
9	Mr. M. B. Kulkarni	Member
10	Mr. S. S. Kadam	Member
11	Mr. B. S. Gandhare	Member
12	Mr. A. S. Aradhye	Member

I. Roles of research advisory committee:

a) Improving interaction between different departments for interdisciplinary research through project based learning and setting research supportive labs like Aakash, e-Yantra, etc.

b) Motivating faculty members and students to organize seminars, conferences and workshops. Committee always supports for all FDPs conducted under IIT remote centre of institute for enrichments of research activities.

c) Recommendation of research journals for encouraging faculty members and students to get acquainted with latest research work in their area of interest. Further, committee always motivates and monitors for publishing research articles and papers in reputed conferences and journals by faculty members and students.

d) Inspires the faculty members for writing funding proposals to different funding agencies in various thrust areas.

e) Monitoring the issues of research as mentioned below:

The research related issues are monitored at departmental levels under the guidance of research advisory committee as follows:

i. Monitoring the progress seminar of PG work by departmental experts and senior faculty members by making committee according to research area.

ii. The PG dissertation reports are forwarded to Solapur University for further process on the recommendation of departmental experts and senior faculty members.

iii. Assessing the quality, quantity and novelty to improve the research work by elaborative discussion and appropriate conclusions based on conducted study.

iv. The funded research proposals written by faculty members for submission to various funding agencies are scrutinized by examining presentation of the work. Also, the appropriate modifications in experimental setup, methodology, presentation of results, applications to social needs are suggested.

II.   Recommendations made by research advisory committee:
The research committee conducts the sessions for faculty members in the institute to provide research related information such as

1. Major thrust areas.
2. Preparation of research proposals.
3. Patents and copyright (IPR) awareness.
4. Reputed conferences and journals.
5. Development of innovative products.
6. Ascertaining potential industries.

III.   Impacts of recommendation:
The impact of above recommendation is as follows:

1.   Institute started research journals in various sectors as follows:
   a) International Journal of Research in Computer Science and Information Technology (IJRCSIT), ISSN : 2319-5010.
   b) Indian Journal of Research in Management, Business and Social Sciences (IJRMBSS), ISSN: 2319-6998.
   c) International Journal of Scientific and Multidisciplinary Engineering Research, (IJSMER), ISSN (under process).

2. Started training programmes in collaboration with IIT Bombay and IIT Kharagpur.
3. Received research project grants from DST, IEI and SUS.
4. Signed MOU's with industries and research organizations.
5. Institute has organized training and value addition programs for faculty members and students.
6. Institute has organized international conference to motivate the research activity.
7. Institute provides seed money for students' research projects.
8. Participation of students in various national and international conferences has increased.
9. Publications in reputed journals and conferences are increased.
10. Faculty members published books on their research work.
11. Patent filing has been started by faculty members.

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
- timely availability or release of resources
- adequate infrastructure and human resources
- time-off, reduced teaching load, special leave etc. to teachers
- support in terms of technology and information needs
- facilitate timely auditing and submission of utilization certificate to the funding authorities
- any other

The efforts taken by the institution for implementation of research schemes/ projects are as follows:

Autonomy to the principal investigator:
The principal investigator (PI) has complete autonomy to select research problem. The principal investigator efficiently utilizes the grant received for research project from the funding agency.

Timely availability or release of resources:
As per the requirement of PI resources are made available. As per the demand of PI, the funds are made available for the research work.

Adequate infrastructure and human resources:
Institute has well equipped laboratories, computing facilities, internet, library and workshop facilities for carrying out research projects. Institute human resources are made available as per requirement of PI.

Time-off, reduced teaching load, special leave etc. to teachers:
Institute encourages faculty members for research work by adjusting the teaching load. To carry out the research work, the resources like laboratory, library, computing and internet facilities are made available at any time within the campus for faculty members as well as students.

Support in terms of technology and information needs:
The institute has dedicated lease line of 32Mbps for internet connectivity along with Wi-Fi facility. The sufficient numbers of computers with licensed software are made available in all the departments to gain information and knowledge required for faculty members in respective area of interest. To support faculty members and students for research work, guest lectures, FDPs and seminars are arranged.

Facilitate timely auditing and submission of utilization certificate to the funding authorities:
The timely auditing of research projects and submission of utilization certificate is carried out with the help of account department and official chartered accountant of the institute.

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

The institute takes initiative to cultivate research culture and aptitude among the students with the help of curricular, co-curricular, project based learning and extra-curricular activities. All departments use various measures like:

- **Value addition programs**:
  The value addition programs are arranged in every semester in each department to strengthen the technical development of students.
- **IIT workshops**:
  The workshops like 3D blender animation and green building awareness are organized for students to improve scientific temper.
- **Lab innovations**:
  Students are motivated for implementation of innovative ideas by performing experiments beyond curriculum.
- **Mini projects**:
  Students are encouraged to perform mini projects on various topics related to technical problems.
- **Capstone projects**:
  Final year students are guided to carry out projects to address the complex problem from industry and society.
- **Interaction with industry expert**:
  Expert lectures help to create awareness about recent technologies in industries.
- **Industrial visits**:
  The industrial visits are arranged for students to gain industrial exposure.
- **Industrial internship**:
  During the internship, students understand industrial work culture and receive hands on experience as part of their curriculum.
- **Technical events**:
  Students are encouraged to participate in various technical events. Also, they are motivated to organize the inter college, state level and national level technical events like "Spectrum" and "Weengs" to exhibit their talents.

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.)

Institute runs affiliated PG courses for Civil, Computer, E&TC and Mechanical Engineering as well as institute has recognized research centre for Electronics Engineering under Solapur University, Solapur. Institute has four research labs consisting of equipments useful for research work, computers and software. Faculty members of all departments are actively guiding to research scholars in all respects. The department wise research areas are shown in Table 3.1.5 (a).

Table 3.1.5 (a): Different expertise in research for various departments

Department	Research Area (Expertise)
Civil Engineering	Environment, Water treatment, Hydraulics, Industrial water and waste water treatment and management, Self-compacting concrete, High strength concrete, Rigid pavement, Concrete material, Geology.
Computer Science and Engineering	Wireless Network, Internet of Things, Distributed System, Load balancing and Task Scheduling, Image Processing, Cloud Computing, HPC, Big data, Computer Networks, Software Engineering, Cyber security, Data Mining, Classification of Data Stream, Computer Network, Sensor Network, MANET.
Electrical Engineering	Speed Control techniques of Induction Motor, Solar Energy, New and Renewable Energy Sources, Network Analysis, Power Electronics and Drives, Electrical Machines, Modern Trends in Power System, FACTS Devices, Drinking Water Management, Image Processing, Electrical Measurement and Instrumentation.
Electronics and Telecommunication Engineering	Power casting designs in WSN, RF Energy Harvesting, Image Processing, VLSI Design, Network Security, Automation in power control, Communication, Antenna Design, Embedded System, Robotics, Biomedical Signal Processing, Signal Processing, Renewable Energy Sources, RTOS, Digital Signal Processing.
Mechanical Engineering	Ergonomics in Product Design, Machine Design, Body Vibration, Vibration analysis, Manufacturing Processes, Alternative fuels, Energy engineering, Industrial Ergonomics, Fracture Mechanics, Industrial Engineering, Bearing analysis, Solar energy, Bio gas energy, Composite material, Materials and alloys, Robotics and automation, Welding technology
First Year Engineering	Gas Sensor, Conducting Polymers, Metal Oxides, Nano Science, Thin Films, Solar Energy, Marketing management, Pure Mathematics, Differential Equations, Synthetic Organic Chemistry,

Faculty members are also actively involved in research projects sponsored by agencies like Persistence Pvt. Ltd., Maharashtra Police, Maharashtra State Road Transport Corporation, Department of Science and Technology, All India Council for technical Education. Individual and collaborative research projects in various departments are presented in Table 3.1.5 (b).

Table 3.1.5 (b): Individual/Collaborative Research Project

Sr. No.	Title of Project	Sponsoring Agency/ Company	Name of Researcher	Collaborative / Individual
Department of Civil Engineering				
1	Sustainable Solution for Turbidity Removal of Potable Water using Blended Coagulants	DST, New Delhi SR/FTA/ETA-90/2011	Dr. C. P. Pise	Individual
2	Self compacting concrete	Manisha constructions	Mr. Y. P. Pawar	Individual
3	Low cost treatment of waste water from dairy	Sahyadri Engineers and contractures	Mr. D. S. Jagtap	Individual
4	Low cost water treatment using Moringo aliofera seed extract and slow sand filter for removal of turbidity and e-coli	R S Associates	Dr. C. P. Pise	Individual
5	Study for effect of steel fibre on strength of conventional concrete.	Swastik Construction	Mr. S. S. Kadam	Individual
Department of Computer Science &Engineering				
1	Criminal Record Management System	Maharashtra police	Mr. M. B. Kulkarni	Individual
2	Web Portal For Agricultural Produce Market Committee	Persistent system Ltd.	Mr. P.R. Gadekar	Individual
3	Prescription Viewer App	Persistent system Ltd.	Mr. D.V. Koshti	Individual
4	Content Based Image Retrieval for Real Life	Persistent system Ltd.	Mr. N.M. Sawant	Individual
5	An Error Minimizing Framework For Localizing Jammer in Wireless	Persistent system Ltd.	Mr. S.V. Pingale	Individual

6	Training and Placement e-Portal	Persistent system Ltd.	Mr. N.M. Sawant	Individual
7	Solution for Dropout of Children of migrant families from school	NCPCR(Hackathon 2017)	Mr. B.M. Kore	Individual
8	Automatic Bus System	MSRTC, Pandharpur	Mr. V. A. Dhotre	Individual
9	Enterprise Resource Planning	H. P. Doshi Pvt. Ltd.	Mr. S. B. Thigale	Individual
Department of Electrical Engineering				
1	Solar Operated Hydroponic Grass Automation	Sagar Electricals Pvt. Ltd.	Mr. S.H. Gidde	Individual
2	Solar Powered Automatic Grass Cutter	Solar Power Flow Pvt. Ltd.	Mr. S.P. Ganjewar	Individual
3	Industrial crisis control by using Arduino	Shree Samarth Paper Products	Mr. S. S. Dadhe	Individual
Department of Electronics and Telecommunication Engineering				
1	Automation of Hybrid Vehicle	Pioneer Pvt. Ltd.	Mr. A.B. Jagadale	Individual
2	Digital Control for Servo Stabilizer	TEJ-JET Industries	Mr. A.B. Jagadale	Individual
3	Color Detection & Separation Using PLC	Vibro Automation	Mr. H.S. Deshpande	Individual
4	Base Server using Raspberry Pi	Meen Technology	Mr. A.D. Harale	Individual
5	Automatic Soda Welding Machine	Vibro Feed Tech	Mr. S. S. Patil	Individual
6	BLDC Motor Control Using ARM	Kanaad Electromation Pvt. Ltd.	Mr. A. D. Harale	Individual
7	Vehicle Tracking System Using GPS	Meen Technology	Mr. A.D. Harale	Individual
8	Passenger Vehicle distributed Automation System based on CAN Bus	Micro Intelligent Machines	Mr. A.O. Mulani	Individual
Department of Mechanical Engineering				
1	Numerical and Experimental Analysis of wind turbine Blade	GMV Engineering Services, Pune	Mr. B.S. Gandhare	Individual

2	Design and Analysis of Sugarcane Chopper Blade by using MCDM	Utopian Sugar Ltd, Kacharewadi	Mr. B.S. Gandhare	Individual
3	Design of Pressure vessel using MCDM	FabTech Sangola	Mr. B.S. Gandhare	Individual
4	Ergonomic evaluation of a foundry work station	Ashta Liners, Ashta	Dr. R.T. Vyavahare	Individual
5	Ergonomic evaluation of anIndustrial work station and suggesting improvement	MIDC, Aurangabad	Dr. R.T. Vyavahare	Individual
6	Bearing System Optimization for Differential Lock of Skidder Axle	John Deer, Pune	Mr. S.S. Kulkarni	Individual
7	Effect of Al_2O_3 addition in Al-356 alloy on mechanical properties	Visha Industries, Pune	Dr. S.G. Kulkarni	Individual
8	Edge detection technique using image processing in MATLAB	Top Gear Transmission, Satara	Mr. S.R. Koli	Individual
9	Sugarcane Bud cutting machine	Matoshri Nursery, P'pur	Mr. P.A. Dhawale	Individual
10	Design and analysis of sugar chopper blade	Utopian Sugars Ltd., Mangalvedha	Mr. B.S. Gandhare	Individual
11	Thermo siphon heat pipe using ultrasonic sound wave	Pipe Tech Engineering Services, Pune	Mr. N.L. Phule	Individual
12	Thermo siphon heat pipe using Nano particles	Pipe Tech Engineering Services, Pune	Mr. N.L. Phule	Individual
13	Performance Analysis Of Coated & Uncoated Single Point Cutting Tool In Turning Operation	Oerlikon Balzers Coating India Pvt. Ltd, Pune	Mr. S.A. Bansode	Individual
14	Optimization of WEDM for Ni-625	Ruturaj Wire cut Shiroli, MIDC Kolhapur	Mr. S.A. Sonawane	Individual
15	Optimization of WEDM for Ni-75	Ruturaj Wire cut, Shiroli MIDC Kolhapur	Mr. S.A. Sonawane	Individual

16	Critical success factor of TQM in Agro process industries	Pandurang sugar factory, Shripur	Mr. B.S. Gandhare	Individual
17	Design for boiler pump maintenance	Shri Vithal sugar factory, Gursale	Mr. B.S. Gandhare	Individual
18	Effect of WEDM Process Parameters on kerf width	Ruturaj Wire cut Shiroli MIDC Kolhapur	Mr. S.A. Sonawane	Individual
19	Hybrid Vehicle	Shivratna Motors	Mr. R. V. Dhokate	Individual

Faculty members involved in individual research activity are shown in Table 3.1.5 (C) below.

Table 3.1.5 (C): Individual research activity of faculty members in various Departments

Sr. No.	Name of Faculty	Qualification	Area of Research/title	University/ Research Organization
Department of Civil Engineering				
1	Dr. C. P. Pise	Ph. D.	Water treatment by Moringa Oleifera	Solapur University
2	Mr. D. D. Mohite	Ph. D. (Pursuing)	Industrial water and waste water Management.	VTU, Belgavi
3	Mr. Y.P. Pawar	Ph. D. (Pursuing)	Self-compacting concrete	Solapur University
4	Mr. S.S. Kadam	Ph. D. (Pursuing)	High strength concrete pavement	Shivaji University
5	Mr. C.M. Deshmukh	Ph. D. (Pursuing)	Dairy waste management	Shivaji University
6	Mr. D.S. Jagtap	Ph. D. (Pursuing)	Photo catalytic waste water treatment	SPPU
Department of Computer Science & Engineering				
1	Mr. A. A. Rajguru	Ph. D. (Pursuing)	Load balancing & task scheduling	Solapur University
2	Mr. V. A. Dhotre	Ph. D. (Pursuing)	Data Stream Classification	SPPU
3	Mr. R. A. Takalikar	Ph. D. (Pursuing)	Software Engineering	KLE University
Department of Electrical Engineering				
1	Mr. S. P. Ganjewar	M.E.(Drives and power electronics)	Sensorless Digital Signal Processor	BAMU

2	Mr. S.H. Gidde	M.Tech. (Electrical power systems)	Single Phase to Three Phase Converter	JNTU, Hyderabad
Department of Electronics and Telecommunication Engineering				
1	Dr. K. J. Karande	Ph. D.	Image Processing	SRTM University
2	Mr. A. O. Mulani	Ph. D. (Pursuing)	VLSI Design	SPPU
3	Mr. A. B. Jagadale	Ph. D. (Pursuing)	Image Processing	SPPU
4	Mrs. S. V. Surwase	Ph. D. (Pursuing)	RF Antenna Design	VTU Belgavi
5	Mr. A. D. Harale	Ph. D. (Pursuing)	Image Processing	SPPU
6	Mr. S.S. Gangonda	Ph. D. (Pursuing)	Image Processing	VTU Belgavi
7	Mr. G. B. Birajdar	Ph. D. (Pursuing)	Instrumentation Technology Engg.	VTU Belgavi
Department of Mechanical Engineering				
1	Dr. R. T. Vyavahare	Ph. D.	Ergonomics	Solapur University
2	Mr. S.S. Kulkarni	Ph. D. (Pursuing)	Distributed defect in ball bearing	SPPU
3	Dr. S.G. Kulkarni	Ph. D.	Composite Material	SVNIT, Surat
4	Mr. B.S. Gandhare	Ph. D. (Pursuing)	Industrial Maintenance in Process Industries	NITIE, Mumbai
5	Mr. S.D. Katekar	Ph. D. (Pursuing)	Longitudinal crack and its effects.	SPPU
6	Mr. S.A. Sonavane	Ph. D. (Pursuing)	Optimization of wire electrical discharge machining	Solapur University
7	Mr. A.S. Aradhye	Ph. D. (Pursuing)	Industrial Engineering	Solapur University
8	Mr.M.B. Kulkarni	Ph. D. (Pursuing)	Biogas energy	SPPU
9	Mr.N.L. Phule	Ph. D. (Pursuing)	Thermo siphon heat pipe and nano fluid	SPPU
10	Mr.S. R. Koli	Ph. D. (Pursuing)	Alternative fuel for automobiles	KL University

The faculty involvement in active research with applied project proposals for various funding agencies is summarized in Table 3.1.5 (d).

Table 3.1.5 (d): Project Proposals Applied for various Funding Agencies

S. N.	Name of proposal	Year of application	Name of Funding agency	Amount of Research Grants
1	Use of Foldscope for taking microscopic images of composite material to identify micro structural details like matrix and reinforcement phases, porosity, cluster formations grain formations etc.	2017-18	Department of Biotechnology	8,70,000
2	Design and Development of Large Scale 3-D Printer	2017-18	Rajiv Gandhi Science & Technology Commission, Bombay	7,50,000
3	Design and development of solar powered hot air blower dryer for peanuts, corn and jowar.	2014-15	Micro Nano Theme Meeting. BARC, Mumbai BRNS	24,09,500
			Total	**40,29,500**

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.

Institute is a part of national mission on education through information and communication technology (NMEICT). To organize training programs funded by MHRD, GoI, Institute has taken initiation to conduct the workshops, FDPs and STTPs. Under NMEICT institute organizes the workshops in collaboration with IIT Bombay and IIT Kharagpur. The faculty members from SKNSCOE attend the co-ordinators workshop at IIT, Bombay and Kharagpur and work as co-ordinator for the main workshop at institute. The main workshop is thereafter conducted at SKNSCOE for interested faculty members by online mode with the help of A-view software. The following workshops are attended by faculty members as co-ordinator at IIT Bombay and Kharagpur as shown in Table 3.1.6(a).

Table 3.1.6(a): Coordinators workshop details

Sr. No.	Name of Workshops attended by faculty members	Duration	Funded By
01	Orientation Workshop For Aakash Coordinator -Aakash Centers	25/10/ 2012	IIT Bombay
02	Engineering Thermodynamics	21 to 23/11/2012	IIT Bombay

03	Database Management Systems	06 to 10/05/2013	IIT Bombay
04	Analog Electronics.	01 to 05/04/2013	IIT Kharagpur
05	Engineering Mechanics	16 to 20/09/2013	IIT Bombay
06	Computer Programming	21 to 26/04/2014	IIT Bombay
07	Control Systems	15 to 19/09/2014	IIT Kharagpur
08	Environmental Studies	23 to 27/03/2015	IIT Bombay
09	Technical Communication	24 to 28/08/2015	IIT Bombay
10	Engineering Physics	07 to 11/09/2015	IIT Bombay
11	Electric power system	01 to 05/05/2017	IIT Kharagpur

In accordance with to above coordinators workshop, the following workshops are conducted at institute as shown in Table 3.1.6(b).

Table 3.1.6(b): Workshops/ training program conducted through NMEICT

Sr. No.	Name of workshops conducted by college	Duration	Funded By	Participants
01	Aakash for Education	10 to 11/11/ 2012	IIT Bombay	61
02	Engineering Thermodynamics	11 to 21/12/2012	IIT Bombay	26
03	Research Methods in Educational Technology	02 to 09/01/2013	IIT Bombay	45
04	Aakash Android Application Programming- Open Courseware	23/02/2013 to 03/03/2013	IIT Bombay	63
05	Database Management Systems	21 to 31/05/2013	IIT Bombay	23
06	Green Building Awareness – Open Courseware	24/08/ 2013	IIT Bombay	64
07	Engineering Mechanics	26/11/2013 to 06/12/2013	IIT Bombay	34
08	Computer Programming	16 to 21/06/2014	IIT Bombay	26
09	Environmental Studies	02 to 12/06/2015	IIT Bombay	23
10	Technical Communication	30/11/2015 to 05/12/2015	IIT Bombay	24
11	Engineering Physics	08 to 18/12/2015	IIT Bombay	18
12	Two Week Main Workshop on Control Systems.	2 to 12/12/2014	IIT Kharagpur	26
13	Two-Week Main Workshop on Analog Electronics.	04 to 14/06/2013	IIT Kharagpur	46

14	Use of ICT in education system for online and blended learning.	19/04/2016 to 02/05/2016	IIT Bombay	10
15	College to corporate program for students	27/11/2016	IIT Bombay	20
16	An Interactive Event on Hackathons	16/01/2017	IIT Bombay	60
17	Electric power system	10 to 15/07/2017	IIT Kharagpur	16
18	Foundation Program in ICT for Education	3/8/2017 to 7/9/ 2017	IIT Bombay	87
19	College to corporate program for students	7 to12/9/2017	IIT Bombay	32

In addition to NMEICT training programs, the departments organize conferences, seminars, FDPs and workshops for imbibing research culture among staff and students. The details of departmental efforts are depicted in below Table 3.1.6(c).

Table 3.1.6(c): Workshop/ training program/ sensitization programs Conducted

Sr. No.	Name of Department	Academic year	Number of Workshop/ training program/ sensitization programs
1	**Department of Civil Engineering**	2013-14	07
		2014-15	04
		2015-16	03
		2016-17	04
		2017-18	02
2	**Department of Computer Science & Engineering**	2013-14	04
		2014-15	05
		2015-16	02
		2016-17	03
		2017-18	--
3	**Department of Electrical Engineering**	2013-14	01
		2014-15	05
		2015-16	08
		2016-17	04
		2017-18	05
4	**Department of Electronics and Telecommunication**	2013-14	03
		2014-15	06
		2015-16	04
		2016-17	06
		2017-18	03

5	**Department of Mechanical Engineering**	2013-14	02
		2014-15	01
		2015-16	07
		2016-17	09
		2017-18	01

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

Institute has 8 Ph.D. holders and 26 faculty members pursuing their Ph.D. from various reputed organizations and universities. The details of prioritized research areas and the expertise available with the institution are shown in Table 3.1.7

Table 3.1.7: Research Areas and Expertise

Sr. No.	Prioritized Research Area	Expertise available
Department of Civil Engineering		
1	Water treatment	Dr. C.P. Pise, Mr. D.D. Mohite, Mr. C. M. Deshmukh, Mr. D. S. Jagtap
2	Structural Engineering	Dr. C.P. Pise, Mr. D.D. Mohite, Mr. C. M. Deshmukh, Mr. Y.P. Pawar, Mr. M. B. Shinde, Ms. S. V. Lale, Mr. D.H. Chavan, Mr. A. V. Kshirsagar
3	Self-compacting concrete	Mr. Y.P. Pawar,
4	High strength concrete rigid pavement	Mr. S.S. Kadam, Mr. G. D. Lakade
5	Engineering management	Mr. D.S. Jagtap, Mr. S.V. Uppin, Mr. V.S. Sherekar
Department of Computer Science & Engineering		
1	Distributed System, Load balancing & task scheduling, Image Processing, Cloud computing	Mr. A.A. Rajguru
2	Data Mining, Data Stream Classification, Image segmentation	Mr. V.A. Dhotre
3	Software Engineering	Mr. R.A. Taklikar
4	Networking	Mr. S. V. Pingale

	Department of Electronics & Telecommunication Engineering	
1	Image Processing & Speech Synthesis	Dr. K. J. Karande, Mr. G. V. Linge, Mr. S. S. Patil, Ms. M.V. Daithanakar, Mr. P. V. Bankar, Mr. V. B. Jundale, Mr. S. S. Gangonda, Mr. G. B. Birajdar
2	VLSI Design & Network Security	Mr. A. O. Mulani
3	Automation in Power control	Mr. A. B. Jagadale, Mr. A. D. Harale
4	Communication	Mrs. A.C. Pise
5	Antenna Design, RF Micro-strip patch Antenna Design for Wireless Energy Harvesting	Mrs. S. V. Surwase, Mr. H. S. Deshpande
	Department of Electrical Engineering	
1	Speed Control techniques of Induction Motor	Mr. S. P. Ganjewar
2	New and Renewable Energy Sources	Mr. S. H. Gidde Mr. G. Chandulal Mr. P. P. Kalubarme Mr. A. N. Wadekar, Mrs. A. A. Chandane
3	Power Electronics and Drives	Mr. G. Chandulal
4	Electrical Machines	Mr. S S Rashinkar
5	Power System	Mr. S.S.Dadhe
	Department of Mechanical Engineering	
1	Ergonomics Design, Industrial Engg.	Dr. R. T. Vyavahare, Mr. A. S. Aradhye, Mr. B. S. Gandhare, Mr.S.A. Sonawane
2	Vibration, FEM, Bearing Design	Mr.S.S. Kulkarni, Mr.S.D.Katekar, Mr.A.S.Aradhye,
3	Composite Material	Dr. S.G. Kulkarni
4	Advanced Machining Processes	Mr. S.A. Sonawane, Mr. S. S. Pathak
5	Non-conventional Energy, Biogas, Solar Energy	Mr. M.B. Kulkarni, Mr. A.S.Aradhye, Mr. S. A. Bansode
6	Thermodynamics, Heat Transfer	Mr. N.L. Phule,
7	I.C.Engine, Alternative fuels	Mr. S.R. Koli

8	CAD/CAM, FEM	Mr. P.P. Kulkarni, Mr. U. S. Gholap
Department of First Year Engineering		
1	Materials Science, Gas Sensor, Nano Science, Thin Films	Dr. S.R. Nalage
2	Solar Energy, Thin Films, Nano Science	Mr. S. G. Deshmukh
3	Marketing management	Mrs. S. K. Kotgiri, Dr. R. N. Badage
4	Synthetic Organic Chemistry	Mr. A. I. Nikam
5	Fixed Point Theory	Dr. S. S. Hiremath

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

The efforts taken by the institute in attracting researchers of eminence to visit the campus are as follows:

- Institute takes initiative to promote MOUs with industries, research organization and presumed academic institutes.
- Faculty development programs, workshops, value addition programs and conferences are conducted regularly by the Institute to motivate faculty and students for research activity.
- Foreign delegates from Kigali, Rwanda visited our institute to interact with faculties and our students to exchange their knowledge.
- Institute invites experts from industries/research institute to share their technical knowledge. The details of sessions delivered by the experts are shown in Table 3.1.8.

Table 3.1.8   Experts visited to different departments

Sr. No.	Name of Department	Academic year	Number of Experts visited
1	Department of Civil Engineering	2013-14	06
		2014-15	03
		2015-16	04
		2016-17	12
		2017-18	03
2	Department of Computer Science & Engineering	2013-14	06
		2014-15	09
		2015-16	07
		2016-17	07
		2017-18	02
3	Department of Electrical Engineering	2013-14	01
		2014-15	01
		2015-16	04
		2016-17	03
		2017-18	03

4	Department of Electronics and Telecommunication	2013-14	07
		2014-15	06
		2015-16	06
		2016-17	05
		2017-18	07
5	Department of Mechanical Engineering	2013-14	04
		2014-15	02
		2015-16	26
		2016-17	11
		2017-18	05

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?

Leave utilization:
- For the completion of research project and Ph.D. work, the institute grants study leave to faculty members.
- For participation and presenting papers in national and international seminars, conferences, industrial training and workshops institute provides duty leave.
- Faculty members visited to Kigali, Rwanda to improve quality of education and research, which is helpful to build international relationship.
- Following table shows details of leave/ vacation given for faculty members to carry research work.

Table 3.1.9: Details of study and duty leave

Sr. No.	Name of Staff	Dept.	Nature of Leave	Period of Leave
1	Mr. Gangonda Siddheshwar Sangameshwar	E&TC	Duty Leave	20.10.2014 to 25.01.2015
2	Mr. Gadekar Prakash Ramesh	CSE	Duty Leave	19.10.2015 to 20.01.2016
3	Mr. Sawant Namdev Manik	CSE	Duty Leave	14.04.2015 to 05.07.2015
4	Mr. Takalikar Ravindra Anil	CSE	Duty Leave	20.10.2014 to 25.01.2015
5	Mr. Gidde Shashikant Haridas	Electrical	Duty Leave	14.04.2015 to 05.07.2015
6	Mr. Waychal Ashish Subhash	Electrical	Duty Leave	20.10.2014 to 25.01.2015
7	Mr. Mohite Dhananjay Deepak	Civil	Duty Leave	14.04.2015 to 05.07.2015
8	Mr. Lakade Ganesh Dhareshwar	Civil	Duty Leave	20.10.2014 to 25.01.2015
9	Mr. Chavan Sachin Madhukarrao	Mechanical	Duty Leave	19.10.2015 to 28.12.2015
10	Mr. Jadhav Anil Dadaso	Mechanical	Duty Leave	20.10.2014 to 22.12.2014

11	Mr. Kulkarni Atul Suresh	Mechanical	Duty Leave	26.07.2014 to 29.09.2014
12	Mr. Shinde Rahul Keshavrao	Mechanical	Duty Leave	14.04.2015 to 05.07.2015
13	Dr. Nalage Sandhya Ravikant	General Science	Study Leave (LWP)	05.01.2012 to 30.04.2012

Inculcation of research culture in the campus

- Experience of senior faculty members helps in inculcating the research culture and improves the quality of the research in the campus.
- Faculty members are utilizing research laboratories for their research work.
- Some of the faculty members are working as reviewers of reputed international journals in their research areas.
- Faculty members have filed patents based on their research work.

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

- The institute is involved in the development of application-oriented products, which are useful for the society.
- Institute organizes project exhibition "WEENGS" every year, which helps to transfer research findings to students and community.
- The MHRD financed NMEICT programs are conducted in the institute. Presently 19 workshops are conducted by IIT Bombay and IIT Kharagpur for faculty and student development. As a part of this mission SKN Sinhgad College of Engineering has been recognized as "Super Remote Center".
- The IIT Bombay has developed Aakash lab at SKN Sinhgad COE, Pandharpur and presently 246 Aakash tablets are available in lab. The students are taking benefit of all these tablets for developing Android based various applications. Presently 45 android-based applications developed by students are available in Aakash lab.
- e-Yantra is one more activity funded by IIT Bombay and AICTE which is established in the institute to create the interdisciplinary awareness in the field of automation. This will help the student to increase the employability in future.
- Pandharpur is the location where thousands of pilgrims visit on every day. Our students developed "*Rana Pandharicha*" android based application with the help of Aakash tablet to help the pilgrims visiting Pandharpur.
- Agricultural equipments developed by students are really useful for the farmers.
- Institute has developed solar vehicle which works on non-renewable energy source and it saves national property.
- With the support of MHRD, Aakash tablet workshops were conducted at schools and colleges.
- Low cost water purification system developed by students is helpful to economically poor society.
- The institute has taken initiative to develop Bio gas plant from kitchen waste in institute premises to save national energy and to use renewable energy.

- Students have worked on computerized water treatment project and made demo model.
- Institute students are always working on Software development supportive for society application.
- The outcome of all these research initiative resulted into good number of research publications.
- Mr. A.S. Aradhye is working along with group of students on optimization of time duration to take darshan of God "Vitthal" by using optimization theories.
- Mr. M. B. Kulkarni is working on Bio-gas generation from flower waste used in "Vitthal temple"
- Dr. R.T. Vyavahare has made survey on ergonomic design of agriculture product and suggested modifications for farmers in Maharashtra for better utilization.
- Mr. B. S. Gandhare is working on maintenance planning and preventive maintenance of Sugar industry.

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.

Institute has distinctive culture to keep adequate budget for the promotion of research. Major heads of the disbursement includes sponsorship for PhD scholars, expenses for the lectures of resource person and other research promotion areas. Following Table 3.2.1 (a) and Table 3.2.1 (b) represent the amount allocated & actual utilization on research and development activities.

Table 3.2.1 (a): Institute Budget (In Lakhs)

	2017-18		2016-17		2015-16		2014-15		2013-14	
	Budget	Utilization	Budget	Utilization	Budget	Utilization	Budget	Utilization	Budget	Utilization
Library Books	20.0	0.0	20.00	19.69	20.00	19.37	20.00	19.82	22.50	22.29
Laboratory equipments and computers	12.21	1.61	17.60	13.25	57.42	43.06	35.43	32.49	84.06	83.80
Software	4.0	0.60	4.00	3.85	8.58	8.40	8.36	8.11	5.70	5.72
Games/ Sports/ Student Activity	0.75	0.0	0.75	0.61	0.25	0.61	0.50	0.80	0.50	0.29
Furniture	5.0	0.0	5.50	6.15	2.00	1.97	10.00	10.39	10.00	32.13
Administrative and others	40.0	13.73	35.10	32.94	35.00	33.87	28.00	22.81	38.10	37.40

Table 3.2.1 (b): Budget Utilized for the Research (In Lakhs)

Financial Year	Equipment and software Budget	e-resources	Equipment, software and e-resources	Budget utilized for research equipments	Budget utilized for research equipments and e-resources	Utilization of Research Budget (%)
2013-14	89.52	11.50	101.02	31.28	42.78	42.35
2014-15	40.6	12.7	53.3	9.79	22.49	42.19
2015-16	51.46	14.61	66.07	12.40	27.01	40.88
2016-17	17.10	15.15	32.25	1.90	17.05	52.88

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. Every year institute makes available research grant and workshop facility available for the faculty and students. The workshop, computer centers containing software, internet and research equipment are always available for the faculty and students to carry out their research. Institute has provision in the institution to provide seed money to the faculty for research. Following Table 3.2.2 shows the amount disbursed to the faculty members to carryout various research activities.

Table 3.2.2: The amount disbursed to the faculty members

Sr. No.	Academic year	Name of faculty	Research work carried	Financial support (Rs.)
1	2013-14	Mr. A. O. Mulani	Area optimization of robust digital water marking on reconfigurable platform.	20,828.00
2	2013-14	Mr. A.A. Rajguru	Performance improvement of distributed system through load balancing and task scheduling using fuzzy logic	34,600.00
3	2013-14	Mr. S.S. Kadam	A Study for effect of steel fiber and silica fume on high strength pavement quality course	7,000.00
4	2013-14	Mr. S. S. Kulkarni	Experimental Investigation of Rolling Element Bearing with Unbalanced Rotor	30,000.00
5	2014-15	Mr. D.V. Koshti	Segmentation and recognition of handwritten Devanagari scripts	35,500.00
6	2014-15	Mr. S.V. Pingale	An Error Minimizing Framework For Localizing Jammer in Wireless	40,919.00
7	2014-15	Mr. P.P. Kalubarme	Quazi Z Source Inverter For Photovoltaic Power Generation	5,000.00

8	2014-15	Dr. C.P. Pise	Turbidity Removal by Blended Coagulant Alum and Moringa Oleifera	3,999.38
9	2014-15	Mr. A. B. Jagadale	Biomedical Image Processing	22,873.40
10	2014-15	Mr. A. S. Aradhye	Solar energy operated equipment design	10,000.00
11	2015-16	Mrs. S. V. Surwase	RF Antenna Design	30,978.50
12	2015-16	Mr. R.A. Takalikar	Data leakage detection	30,000.00
13	2015-16	Mr. S.H. Gidde	Single Phase To Three Phase Converter Using Two Parallel Rectifier Units	8,015.00
14	2015-16	Mr. D.S. Jagtap	Photo-catalytic destruction of water contaminants using TIO_2 film with glass bottle	4,000.00
16	2016-17	Mr. S. S. Patil	Automatic Soda Vending Machine	20,000.00
17	2016-17	Mr. Y.P. Pawar	Evaluation of high volume fly ash based self-compacting concrete	2,802.21
18	2016-17	Mr. S. S. Gangonda	Image Processing	16,000.00
19	2016-17	Mr. S.D. Katekar	Dynamic Analysis of Rotating Shaft Subjects to Slant Crack	13,450.00

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

- Institute promotes the students for research projects, software, equipment etc. by providing financial assistance.
- Financial support provided by institute for presenting research papers at national and international conferences and project competitions.
- National level project exhibition SPECTRUM, national level technical event WEENGS, industrial visit, workshop organized by the institute to help research activity.
- The major equipments useful for students to carry out project as shown in table 3.2.3
- Institute provides support to the students' projects as shown in Table 3.2.4.

Table3.2.3(a): Student research projects and financial support

Sr. No.	Academic year	Name of Student research project/ technical event	Financial support provided
All departments			
1	2017-18	State level technical festival "Spectrum"	96,407.00
2	2016-17	State level project exhibition "WEENGS"	39,780.00

		Department of Civil Engineering	
1	2013-2014	A study for effect of steel fiber and silica fume on strength of conventional concrete	4,650.00
2	2014-2015	Low cost water treatment using moringa oleifera seed extract and slow sand filter for removal of turbidity and E-coli.	2,915.16
3	2015-2016	Low cost treatment of wastewater from dairy.	2,534.00
4	2016-2017	Self-compacting concrete	1,684.00
		Department of Computer science and Engineering	
1	2013-14	Criminal Record Management System	25,154.00
2	2014-15	Web Portal For Agricultural Produce Market Committee	14,600.00
3	2015-16	Content Based Image Retrieval for Real Life	34,500.00
		Department of Electrical Engineering	
1	2013-14	Automatic Fault Detection and Control of Distribution Transformer using PIC Controller	12,154.00
2	2014-15	Distance location for underground cable fault	2,389.00
3	2015-16	Remote Controlled Solar Powered Grass Cutter	10,000.00
4	2016-17	Solar Operated Hydroponic Grass Automation	10,663.00
		Department of Electronics and Telecommunication Engineering	
1	2013-14	Area optimized Implementation of FPGA	12,828.00
2	2014-15	Robust invisible digital image watermarking using discrete wavelet transform	14,873.4
3	2015-16	Image Volume Detection using MATLAB	20,978.5
4	2016-17	Automatic Soda Vending Machine	4,000.00
		Department of Mechanical Engineering	
1	2013-14	Solar vehicle design and manufacturing	7,710.00
2	2014-15	Participation in "Robocon"	30,927.00
3	2015-16	Robotics project under "e-yantra lab"	3,562.00
4	2016-17	Product development on 3D printer	10,000.00

In order to perform research related activities various departments has research related equipments as given in Table below.

Table 3.2.3(b): Research Equipment details

Sr. No.	Name of the equipment	Cost (Rs.)
	Department of Civil Engineering	
1	Compression Testing Machine	3,01,372.00
2	Concrete mixer	1,12,892.00
3	Tile Flexural Strength Testing Machine AIM 460	54,067.00
4	Unconfined Compression tester	86,062.00
5	Consolidation apparatus, Electronic one dimensional	90,000.00
6	Swell test apparatus, with Proving ring 2.5 KN	61,576.00
7	Direct/Residual Shear test apparatus, with Electronic	1,83,375.00
8	Triaxial outfit, motorized with electronic sensors	2,96,430.00
9	C.B.R. TEST Apparatus, Motorized, three speed.	2,04,143.63

	Department of Computer Science & Engineering	
1	Server	3,31,653.00
2	Aakash Server	60,000.00
3	Firewall Cyberoam (CR-300ING)	5,80,069.00
	Department of Electrical Engineering	
1	3-Phase lamp bank,415 V,10 A/phase	10,500.00
2	Aplab 30 MHz dual trace oscilloscope,model-3706c	18,500.00
3	Aplab 100 MHz 1GS/s color DSO model-D36100CA	54,750.00
4	3-Phase auto transformer,15A	16,600.00
5	Transformer rectifier unit	43,000.00
6	3-Phase induction motor	30,500.00
7	Slip-ring Induction motor with BDA	42,500.00
8	3-phase full controlled bridge DC drive	41,040.00
9	Solid state Sherbius Drive	55,950.00
10	Simulation Model for Mertz Price Protection of alternator/generator floor mounted panel	1,36,268.00
	Department of Electronics and Telecommunication	
1	PCB Coater Cum Photo Resist Dryer	22,550.00
2	Proto Circular Saw	11,550.00
3	FPGA Trainer Kit	12,500.00
4	CPLD XILINX	11,950.00
5	Dual Power Supply With Automatic Over load	6,900.00
	Department of Mechanical Engineering	
1	AVL 444 5-gas analyzer	2,84,130.00
2	Test rig of two-stage reciprocating air compressor	69,525.00
3	Refrigeration Tutor	61973.00
4	Air Conditioning Trainer	69,340.00
5	Vapor Absorption Refrigeration Trainer	52,777.00
6	Computerized VCR engine setup	6,39,000.00
7	Morse Test rig with 3-Cylinder, 4-stroke	3,82,500.00
8	Mitutoyo Surface Roughness Tester	1,25,985.00
9	Profile Projector	1,27,238.00
10	12"-Diffused light polariscope	1,35,000.00
11	Industrial PLC system	75,000.00

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

- The Institute always provides support and makes special efforts to carry out interdisciplinary research projects.
- The Research Advisory Committee organizes discussion sessions with faculty of different departments and promotes them to join for collaborative research projects in the interdisciplinary areas on research projects.
- The institute always takes initiative for establishing the centre of excellence and related activities as well as encourages students to participate in project exhibition at state, national and international level.

- One of the excellent collaboration between Mechanical Engineering, E&TC Engineering and Electrical Engineering of SKNSCOE has led to the development of "Solar Car". Institute has manufactured such Six Solar Cars and participated in International level "Solar Vehicle Championship".
- These Solar Vehicles fetched various awards such as cash of Rs. 20,000/- with Best Auto Cross award and Green Vehicle award in academic year 2014-15 and Best Solar Performance award in academic year 2013-14.
- The institute is part of NMEICT started by MHRD along with IIT Bombay.
- IIT spoken tutorials and e-Yantra are the two programs run by the IIT Bombay.
- The faculty members from various branches of SKNSCOE have participated in "e-Yantra Robotics Competition" and received four robots as an appreciation.
- Institute students always participate in national and international competitions like ROBOCON for undergraduate Engineering students.
- Due to proper guidelines and encouragement of faculty members, students are getting UG fellowships for project-based learning at foreign universities.

Table 3.2.4: Inter-Disciplinary Research Projects

Sr. No.	Academic Year	Name of the Project	Participating Departments	Name of the Guides
1.	2013-14	Automatic Electric Traction Operates on Renewable Energy	Elect. and E&TC	Mr. S.H. Gidde
2.	2013-14	Prepaid Energy Meter using Smart Card	Elect. and E&TC	Mr. A.S Waychal
3.	2013-14	Digital Control for Servo stabilizer	E&TC and Electrical	Mr. A. B. Jagadale
4.	2014-15	Aerodynamic Wind Mill for Power Generation	Elect. and Mechanical	Mrs. A.A. Chandane
5.	2014-15	Automatic Power Factor Correction using Microcontroller	Elect. and E&TC	Mr. P.P. Kalubarme
6.	2014-15	Automation of Hybrid Vehicle	E&TC and Mechanical	Mr. A. B. Jagadale
7.	2015-16	Design of waste water treatment plant	Civil and Computer	Mr. D. D. Mohite, Mr. N.M. Sawant
8.	2015-16	Electricity Generation from Solid Wastage	Elect. and Mechanical	Mr. Chandulal Guguloth
9.	2015-16	Solar Smart Vehicle	Elect. and Mechanical	Mr. A.O. Mulani, Ms. M.V. Daithankar
10.	2015-16	Color detection and Separation using PLC	E&TC and Mechanical	Mr. H. S. Deshpande

11.	2015-16	Density Measurement Using Load Cell	E&TC and Mechanical	Mr. V. B. Jundale
12.	2016-17	Automatic Meter Reading	CSE and E&TC	Mr.V.G. Chavan
13.	2016-17	Software Design of Wastewater Treatment Plant	CSE and Civil	Mr. N.M. Sawant
14.	2016-17	Solar operated hydroponic grass automation	Electrical, Mechanical & E&TC	Mr. S. H. Gidde
15.	2016-17	Automatic Soda Welding Machine	E&TC and Mechanical	Mr. S. S. Patil
16.	2016-17	Robot With facial expression	E&TC and Mechanical	Ms. P.V. Bankar

Challenges faced in organizing interdisciplinary research:
- Assigning the project guides for projects containing different departmental research work.
- Encouraging students to carry out interdisciplinary research work.
- Making synchronization between research facilities required for interdisciplinary research work like laboratories, equipments, etc.
- Adjusting the UG/PG workload of research guide from different departments so as to work together simultaneously and to utilize time as a source excellence.

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 optimum utilization of research facilities such as library, laboratories and equipments is done by UG, PG students and Ph.D. pursuing faculty members. There are various initiatives started at the institute level in order to optimize the use of various equipment and research facilities.

- All classrooms are equipped with LCD projector and internet connectivity to conduct the expert lectures and sessions for students and faculty members respectively.
- Logbook and entry registers are maintained to keep record of usage for optimal use of resources.
- Computer center is open for all students and faculty members to carry out research related activities and inter disciplinary research projects. The computational facility is fitted with appropriate LAN speed and also installed with required latest system and application software packages. All computational facilities are utilized for technical add-on courses, online aptitude test, GDPI sessions and T&P tests.
- Institute central library provides journals, periodicals and e-Journal such as science direct and DELNET. With this library provides **13041** volumes and **1911** titles. The stack area of central library is open for the students and faculty members till 6:00 pm daily. The reading hall is made available for all students up to 11:00 pm and it is open for 24 hours during period of preparatory leave.

Institute has many major types of equipment, which are used by students for their research project work. The utilization of numerous equipments and software's by UG & PG students in various departments are shown in following graphs.
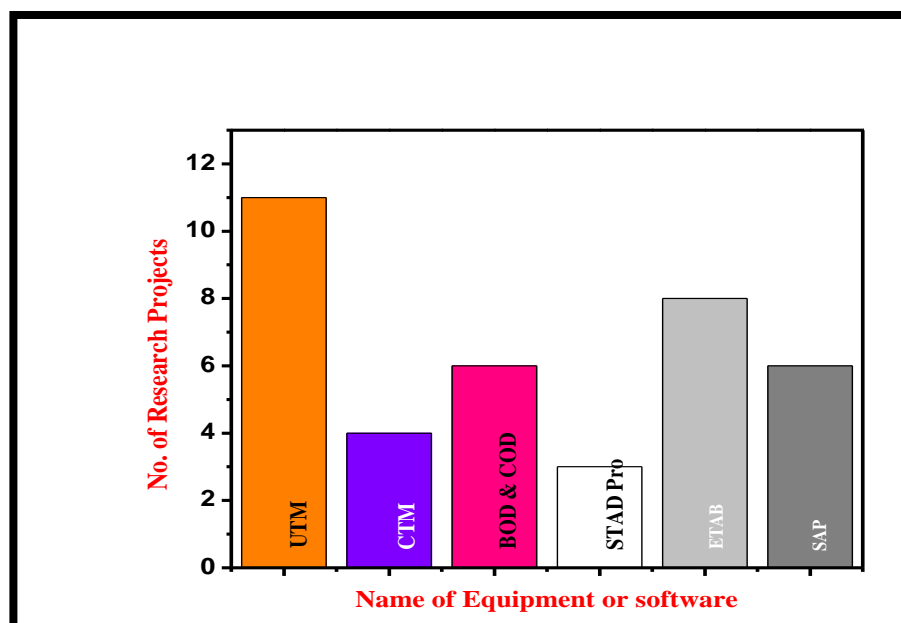
Department of Civil Engineering
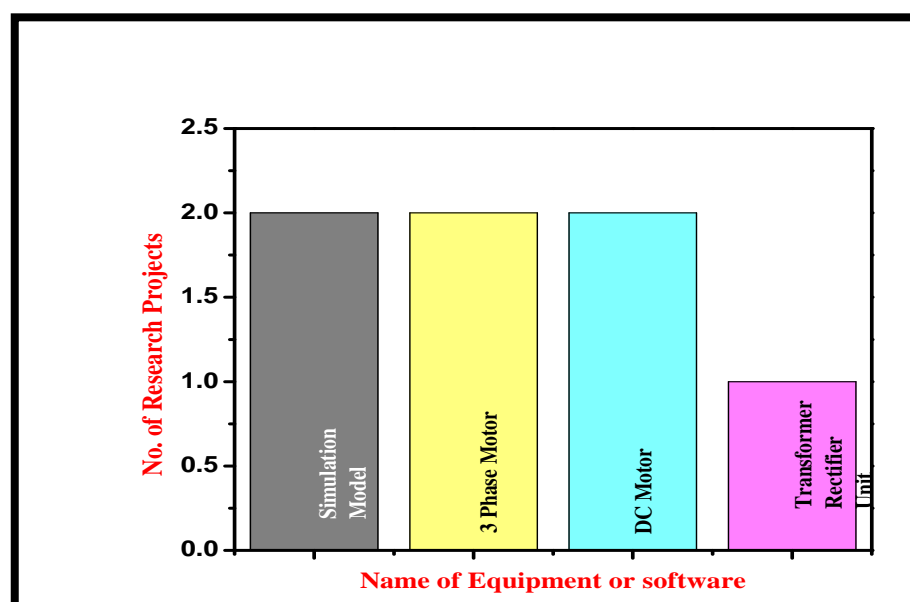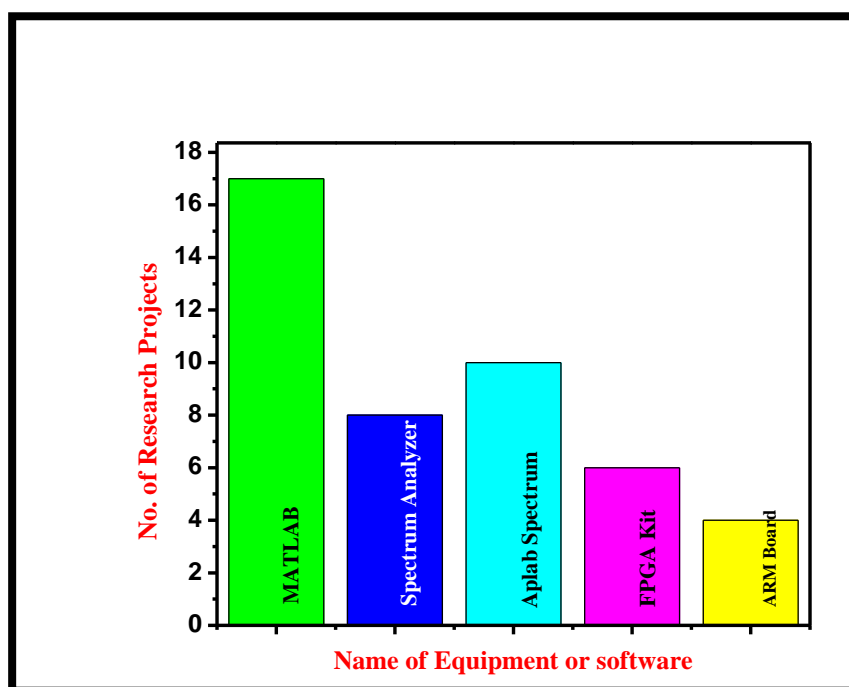
Department of Electrical Engineering

Department of Electronics and Telecommunication Engineering
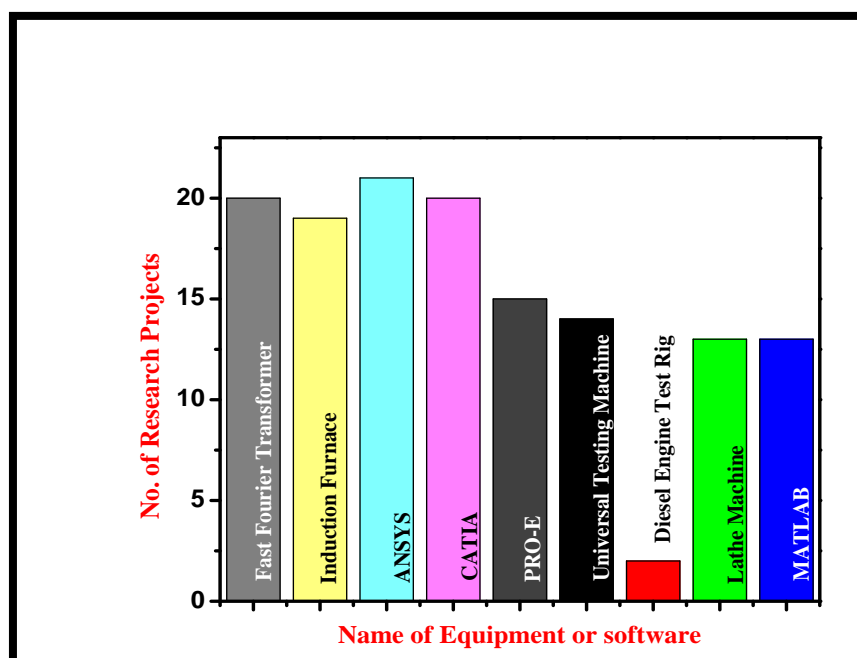
Department of Mechanical Engineering

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.

- Institute is developing research facilities by numerous ways. Institute is always conducting training programs with reputed educational institute like IITs. Students and faculty members works on various projects sanctioned by research organizations like DST and corporate houses like Persistent. Institute has received several research grants from academic funding agencies, from SUS and IITs. The details of grants received from academic agencies are given in Table 3.2.6.

Table 3.2.6: Grant from Academic Agency

Sr. No.	Academic/Agency	Grants Received(Rs.)	Funds Utilized
1.	MHRD and IIT, Bombay	8,56,545 /-	14 workshops under NMEICT
2.	MHRD and IIT, Kharagpur	3,73,280/-	2 workshops under NMEICT
3.	MHRD and IIT, Bombay	2,80,000/-	Infrastructure development
4.	Solapur University, Solapur	2,000/-	EDP workshop
5.	Solapur University, Solapur	2,000/-	Stress relief program
6	IIT, Bombay Aakash team	1,00,000/-	Aakash lab server and Infrastructure development
7	Institute of Engineers, India	10,000/-	Conference organizing fund
8	Reliance Jio	--	Infrastructure set up
9	Academic institutes	9000/-	Consultancy of FFT Analyser
10	Academic institutes	6000/-	Consultancy of Stir Casting
11	Unique Builder	29100/-	Concrete Beam Testing, Aggregate, Bricks, Concrete Cube Testing
12	Das Offshore Engineering	15900/-	Murum, Water, Bricks Material testing
13	Sulabh International Social Service AC & JDP Joint Venture	173800/-	Mix Design, Aggregate, Cube Material testing
14	Creation Engineering Pvt Ltd	47450/-	Concrete Cube, Bricks testing
15	BVG India Pvt Ltd	58600/-	Tile, Bricks, Concrete Mix Design, Cube, Steel Testing
16	Kedar Barasawade	11000/-	RCC Consultancy
17	Sangola Urban Bank	10000/-	Concrete Mix Design
18	Nagane Vikram	2500/-	Steel rebar Testing
19	Real relators and others	130975/-	Concrete Cube Testing
20	MTDC Deputy Engineer Regional Office and Other	47850/-	Murum material, Tiles

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.

Expert lectures are arranged for UG/PG students and Ph. D. pursuing faculty members to expound the way to write good research proposals and to file the patents. Institute's Research Advisory Committee is always make the sources/information available to secure research funds through Major/ Minor Research projects from various National and International funding agencies.

Table 3.2.7(a): Sessions by eminent speakers

Sr. No.	Academic Year	Eminent speaker visited	Purpose of workshop/seminar
1.	2013-14	Dr. R.S. Hegadi HOD-CSE Dept. Solapur University Solapur	Seminar on "Digital Image Processing"
2.		Dr. B.R.Badave, Ex.Scientist, Retd. Principal, RIT, Sangli.	Engineers day seminar
3.	2014-15	Dr.Arjun N. Gaikwad Principal, Zeal COE Pune.	Biometrics IP & Its Future
4.		Dr.S.S Inamdar Managing Trustee/Secretary, Vishwaniketan, Mumbai.	International Collaborations
5.	2015-16	Dr.Kiran Khosala Project Manager – Aakash School, IIT Bombay.	"AAKASH for Education"
6.		Dr.P.J. Kulkarni Professor, Walchand COE, Sangali	Artificial Neural Network
7.		Dr.S.M. Sawant Dean-Student Development RIT Sangali.	Intellectual Property Rights
8.		Mr.S.A. Jeurkar Secerety-IEI. Solapur Chapter.	Chief guest & Seminar on "Advances in Manufacturing"
9.		Dr. Sandeep Kale Trinity College of Engg. &Research, Pune	Patent Filing
10.		Dr. Shivaji H. Pawar Ex.Vice Chancellor, D.Y.Patil Deemed University	Sources of Funding Agencies
11.		Dr. Mukesh Singh Thapar University, Patiala.	Research proposal writing techniques
12.	2016-17	Dr. Shivaji H. Pawar Ex.Vice Chancellor, D.Y. Patil Deemed University, Kolhapur	Talk on, 'Innovative Technologies For Rural Development And Their Commercialization'
13.	2016-17	Dr. Mukesh Singh, Professor-Thapar University, Patiala.	Talk on, 'Research Methodology'

14.	2017-18	Neelima Iyer , Senior Scientist, NCL Pune	Session on "Embedded Systems"

The details of completed projects and grants received during the last four years are given in Table below:

<p style="color:magenta; text-align:center;">**Table 3.2.7(b): Research Grants**</p>

S. N.	Title of project	Dur- ation year	Funds received	Funding agency	Purpose
1	National mission on education through information and communication technology by MHRD and IIT, Bombay	2012 to till date	8,56,545 /-	MHRD and IIT, Bombay	Fourteen ISTE STTP workshops
2	National mission on education through information and communication technology by MHRD and IIT, Kharagpur	2012 to till date	3,73,280/-	MHRD and IIT, Kharagpur	Three ISTE STTP workshops
3	Utilization of sugar factory industry waste in enhancing wear resistance material properties for automotive application.	2017-2019	1,00,000/-	Solapur University	Technical Support For Research Project
4	Student chapter initiation and Seminar organization	2016-2017	10,000/-	Institute of Engineers	IEI Student Chapter
5	Project on "Aakash for Education"	2015-2016	1,00,000/-	MHRD and IIT, Bombay	Student Projects
6	Additional infrastructure set up for "A-view class room"	2015-2016	2,80,000/-	MHRD and IIT, Bombay	Institute support for Online program
7	Seminar organization for students	2015-2016	10,000/-	Institute of Engineers	Technical Support for Student
8	Project on "e-Yantra Robotics Lab initiative"	2014-2015	94186.50	AICTE	Student Projects
9	Sustainable Solution for Turbidity Removal of Potable Water using Blended Coagulants	2012-2015	5,70,000/-	Dept. of Science &Techno-logy	Technical Support For Research Project

3.3 RESEARCH FACILITIES

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

The institute provides following research facilities:

- Research Advisory Committee identifies the requirement of equipment, computational facilities, internet connection, etc. required for research work. The committee also put forward the provisions to create infrastructural facilities to meet the needs of innovative and emerging areas of research.
- Institute provides central library facilities with voluminous reference books, online access to journal database and periodicals.
- Institute has state of the art facilities with various information resources, digital libraries, advanced equipments, high-end data systems, mathematical and analytical software.
- Institute provides seed money for in house project development.
- IIT Bombay has recognized institute as super remote center and numerous resources are made available through various workshops organized by IIT, Bombay and IIT Kharagpur.
- Institute facilitates Wi-Fi with 32 Mbps Leased line internet connection.
- All these facilities are made available even after college hours.
- Institute consists of computing facilities with 540 personal computers, 13 scanners, 53 printers, 2 MODEMs, 3 Fax Machines and 3 Xerox machines.

Table 3.3.1: Major Research Facilities in Various Departments

Sr. No.	Name of the Department	Research Facilities
1.	Civil Engineering	UTM, Compression, Hardness Impact Torsion,Direct shear testing machine, Flexural tile testing machine, Proctor Compaction test apparatus, Unconfined compression test, Swell test apparatus, Standard penetration test assembly, and Tri-axial test apparatus.
2.	Computer Science and Engineering	ServerIBM X3650M4900 GB HDDCPU Xeon E5-2620, VIP Intel Motherboard i7 477 MP 8GB RAM 1TB HDD 22" LG LED IPS with HDMI Port, Firewall Cyber room (CR-300ING) Subscription 300ING
3.	Electrical Engineering	Three phase power factor meter, 3MHz signal generator, Transformer rectifier unit, Dc shunt motor with 4 point starter & loading set(1hp), 3-phase induction motor(2hp) with loading set, Analog Tachometer, Hub Motor 750W, Digital Storage Oscilloscope, 3-phase half controlled bridge DC

Sr. No.		
		drive, Solid state Cherbius Drive with slip power Recovery, Phase angle and % Ratio error measurement in CT, Phase angle and % Ratio error measurement in PT, Simulation Model for Distance Protection, Simulation Model for Merz Price Protection of Alternator/Generator Floor Mounted Panel,
4.	Electronic and Telecommunication Engineering	PCB Film Exposure, PCB Etching (Easy Etcher), PCB Power Drill- Easy Drilling Machine, APLAB 20 MHz Dual Trace Oscilloscope, APLAB 1 GHz Spectrum Analyzer, Digital Multimeter (3 ¾ Digit), Multimeter 4½ Digit True RMS, Autocompute LCR-Q Meter, APLAB 40 MHz 500 MSA/S Color Digital Storage Oscilloscope, APLAB 2 MHz Multi-Waveform Signal Generator, DSP Lab Version 2.0, Industrial PLC System Delta Make DVP Sx Type PLC-20
5.	Mechanical Engineering	Channel FFT analyzer with software & necessary accessories, Profile Projector, Universal Vibration Apparatus, Computerized VCR engine setup, Morse Test rig with 3 Cylinder, 4 stroke, Exhaust Gas Analyzer, Surface tester, RP (Rapid Prototype) Machine, E-Yantra lab, MATLAB, NASTRAN, CATIA and ANSYS software.

The Central Library of institute has subscribed E-Journals packages are detailed in table 3.3.1(b)

<p align="center">**Table 3.3.1(b): e-Journals in institute**</p>

Sr. No.	e-Resources	e-Journals (Qty)	e-Books (Qty)
1.	Science Direct Elsevier	2442	3500
2.	IEEE Explorer Digital Library ASPP	169	2299
3.	DELNET	2233	1613

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?

Strategies for Planning for creating research infrastructural facilities:
- Institute has taken decision to start PG programmes and Ph. D. centers in various departments. Currently, four PG programmes and one Ph. D. center are supported by PG research laboratories with required software and equipments.

- Institute allocates space and monitory budget to accelerate the research projects in the areas of renewable energy.
- Institute has recognized research centre for Electronics Engineering affiliated to SUS.
- Institute has centre of excellence in areas like robotics, vibration, material testing, etc.
- In addition to this, the institute also purchases equipments per year to carry out dedicated research at various departments.
- Under the guidance of R & D cell, each department of the institute is upgrading their existing research infrastructural facilities.
- Computers and software are upgraded with latest versions.

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.

Institute always takes due care for utilization of received grants for creating facilities for research allied activities. During last four years institute has received research grant from DST, MHRD-IITB, AICTE-IITB and Reliance Jio. The received funds are utilized to create various research facilities and the staff members and students are using these facilities for continuous research work.
The details of facilities created are as follows:

Table 3.3.3: Equipment details in each infrastructure

Sr. No.	Industry/ Beneficiary Agency	Research Grant Received (Rs.)	Research Facility Created
1.	IIT, Bombay	1,00,000/-	1. Intel DB85FL Desktop 4th Generation server. 2. 8GB DDR3 1600MHz for Desktop 3. 246 Aakash Tab.
2.	IIT, Bombay	2,80,000/-	A-view Lab- Necessary hardware and software such as 1.Sony Handycam with tripod 2. Ahuja Smx-902 Speaker with amplifier 3. HD Projector with screen
3.	DST, New Delhi	5,70,000/-	Experiential Set up for Sustainable solution for turbidity removal of portable water using blended coagulants.
4	IIT, Bombay	94186.50	E-Yantra Lab setup with robots
5.	Reliance Jio Info communica-tion LTD	NA	Reliance Jio Wi-Fi network.

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

Institute has close liaison with various academic/ research institutions and industries for sharing of resources and expertise required for research activities. Many staff members and students are availing facilities and expertise from these institutes, details are as follows:

Table 3.3.4: Research facilities made available to students and research scholars outside Campus

Sr. No.	Name of the research facility	Location and Details	Purpose
Common for all Branches			
1	UG fellowship for projects based learning	• TUS, Bulgaria, • Tor Vergata Italy, • Ural Federal University, Russia	Research & Internship
Department of Civil Engineering			
1	Structural Engg. Lab	Mumbai	Research work
2	Material Testing Lab	College of Engineering, Karad	Research, -Testing
3	Effluent Treatment Plant Lab	Lokamangal Agro Industries, Solapur	Research-Experimental work
4	Patent filling attorney expertise and support	Innerex System Pvt. Ltd., Pune	Research work
Department of Computer Engineering			
1	Virtual LAN creation	Xmetric solution Pvt. Ltd. Pune	Research work
Electronics and Telecommunication Engineering			
1	RF Testing Lab, Antenna Manufacturing and Testing	SGM College of Engineering, Shegaon	Research work
2	Biomedical Image Processing, Collection of Bio medical Image Database	Government Hospital	Research and Projects
3	Antenna design	Vidya Pratishthan COE, Baramati	Research work
Department of Mechanical Engineering			
1	Tensile Testing, Microstructure, Compression Testing	ELCA Lab, Pune	Research- a Testing
2	Density, Tensile test, Microstructure, Compression Testing	ALICON Industries, Pune	Research- Testing
3	X-ray Diffraction, Scanning	SVNIT, Surat	Research- Testing

	Electron microscopy, Corrosion testing		
4	Bearing Roughness Measurement	Delux Bearing, Pune	Research- Measurement
5	Measurement of Profile on Profile Projector	TMC Measuring Instruments, Pune	Research Measurement
6	Measurement of Surface Roughness on Machined surface	SVERI's College of Engineering, Pandharpur	Research Measurement
7	Manufacturing of Profile on work piece	Ruturaj wire cut, Kolhapur	Research- Testing
8	Gas Chromatography	Nikhil Analytical and Research Lab., Sangli	Research- Testing
9	Fatigue testing	Trinity College of Engineering, Pune	Research- Testing
10	Ergonomic Evaluation of work station	Ashta Liners, Ashta, Sangli & Ankita industries, MIDC, Aurangabad.	Research- Case Study
11	Composite Material Manufacturing	Ghausia College of Engineering, Ramnagar, Bangalore	Research- Specimen Preparation
12	Bearing Sample Survey	FabTech Sugar Industry	Research- Data Collection
13	Pin on Disk Wear Test	College of Engineering, Pune	Research- Experiment
14	Sugar Mill Section	Utopian Sugar Industry, Kacharewadi	Research- Case research Project
15	SPSS software, VentagePoint software, computing facility	NITIE Mumbai	Research- Literature Review, Data Mining, Data Analysis.
Department of First Year engineering			
1	X-ray Diffraction	Instrumentation center, Solapur University, Solapur	Research & Structure Characterization, Identification.
2	SEM analysis	SPPU	Research- Surface Morphology
3	Thickness Measurement and UV analysis	Jalgaon University, Jalgaon	Research- Characterization

4	Synthetic Organic Chemistry Lab.	KBP Pandharpur	Research-Experimentation.
5	FESEM	Tata Institute of Fundamental Research, Mumbai	Research and Surface Morphology

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

- The central library is equipped with 13041 number of volume and 1911 number of titles which is available 24 hours in institute.
- To access various e-resources, Digital library has been established with 10multimedia Desktop PC systems having internet facility.
- Institute has online journal subscription to science direct and IEEE which can be accessed anywhere in the campus.
- Institute also has subscription of research related magazines in all the disciplines.
- Reference books and proceedings are available for different topics in engineering, science and management.

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

Institute has taken initiative to establish research laboratories. Robotics laboratory is set along with kits under the project "e-Yantra" by MHRD, IIT Bombay to develop research projects related to microprocessor and microcontroller. Institute has been recognised as a remote centre for NMEICT programmes conducted by IIT Bombay and IIT Kharagpur. The details of facilities developed/ created by the institute is given in Table 3.3.6

Table 3.3.6: Details of Research facilities

Name of Lab	Collaboration with	Location	Facility Developed
Akash Lab	IIT, Bombay	CSE Department	246 Tablets
A-view Lab	IIT, Bombay	Mechanical Seminar Hall	Audio and Video Instruments
E-Yantra	IIT, Bombay	Mech. Department	3- Robots
e-Journals	Sinhgad Institutes, Vadgaon	Central Library	Research Papers, etc.
Reliance Jio	Reliance Jio Infocomm. Ltd.	Campus	Wi-Fi Infrastructures

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)**

- **Original research contributing to product improvement**
- **Research studies or surveys benefiting the community or improving the services**
- **Research inputs contributing to new initiatives and social development**

Table 3.4.1: Details of Research Achievements

Sr. No.	Name	Patent	Project / Product
Patents obtained and filed (process and product)			
1	Dr. C. P. Pise	Application number: (3376/MUM/2013)	Process and Device for Water purification Using novel coagulant
2	Mr. M. B. Kulkarni	Application number: (2834/MUM/2015)	A system and Method of Biogas Generation from Floral Waste
Original research contributing to product improvement/ Development			
1	Dr. S. R. Nalage	Development of polypyrrole-nickel oxide nano composite based gas sensor	Gas sensor
2	Prof A. B. Jagadale	Home security system useful for protection of offices and houses	Home security system
3	Mr. M. B. Kulkarni	A system and Method of Biogas Generation from Floral Waste	Biogas Generation
Research studies or surveys are benefiting the community or improving the services			
1	Dr. R.T. Vyavahare	Conducted survey of Maharashtra Agriculture worker, which will be used for ergonomic design of farm equipment.	Farm Equipment Design
2	Dr. C. P. Pise	Development of low cost solar water heater	Low cost water heater for domestic purpose
3	Dr. C. P. Pise	Process and Device for Water purification using novel coagulant	Low cost water treatment Technique
4	Mr. A. B. Jagdale	Chicken egg incubator- benefits to farmers for hatching eggs	Useful for Farmer

5	Mr. A. B. Jagdale	Bird repellent – also useful for farmers (sensing birds and ringing making nosie)	Useful for Farmer
6	Mr. A. S. Aradhye	Vitthal Rukmini Mandir Queue length optimum using Just in Time (JIT) technique.	Service to Pilgrim Management.
Research inputs contributing to new initiatives and social development			
1	Mr. A. S. Aradhye	Solar vehicle rally is organized to encourage society to use solar energy.	Social awareness
2	Dr. C.P. Pise	Process and Device for Water purification using novel coagulant	Useful for society
3	Mr. S. H. Gidde	Solar operated Hydroponic Grass Automation	Useful for farmer

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?

Institute has started research journals in various sectors as follows:

➢ **International Journal of Research in Computer Science and Information Technology (IJRCSIT) ISSN: 2319-5010**.

Journal Description:

International Journal of Research in Computer Science and Information Technology is an international peer reviewed, print journal for the enhancement of research in various disciplines of Computer Science and Information Technologies. The aim and scope of the journal is to provide an academic medium and an important reference for the advancement and dissemination of research results that support high-level learning, teaching and research in the fields of Computer Science and Information Technology.

We publish original and high quality papers. IJRET has many benefits all geared toward strengthening research skills and advancing academic careers. Journal publications are a vital part of academic career advancement. We aim to cover the latest outstanding development in the fields of Computer Science and Information Technologies. All the published papers are submitted to the major indexing services for indexing.

Main title [English]	International Journal of Research in Computer Science and Information Technology
Abbreviated title	IJRCSIT
ISSN	2319-5010
URL	http://www.ijrcsit.org
Country	India
Affiliation	SKN Sinhgad College of Engineering (SKNSCOE) Pandharpur (MS), India
Editor-in-chief	Mr.(Dr.) K.J. Karande
Editorial office	SKN Sinhgad College of Engineering (SKNSCOE) Pandharpur
	Karad Road, At Post - Korti, Pandharpur, Tal.- Pandharpur, Dist.- Solapur PIN-413 304 Pandharpur, Maharashtra, India

➢ **Indian Journal of Research in Management, Business and Social Sciences (IJRMBSS) ISSN: 2319-6998.**

Journal Description:
Indian Journal of Research in Management, Business and Social Sciences (IJRMBSS) is a national peer reviewed referred journal which aims at publishing high quality research findings and case studies in all sub-areas of Management, Business and Social Sciences. The journal aims at publishing research papers that are theoretical, empirical and/or application oriented.To this end, IJRMBSS invites manuscripts that provide novel managerial insights in any of the core management, business and social sciences vicinity. The manuscript should be rigorous, that is, the findings should be supported by either data or a well-justified theoretical model and well written. It should make original contribution of the author to the field and should have the scope of journal coverage. While these requirements are necessary for acceptance, they do not guarantee acceptance.

Main title [English]	Indian Journal of Research in Management, Business and Social Sciences
Abbreviated title	IJRMBSS
ISSN	e2321-9874 2319-6998
URL	https://www.ijrmbss.com
Country	India
Affiliation	SKN Sinhgad College of Engineering (SKNSCOE), Pandharpur
Editor-in-chief	Mr.(Dr.) K.J. Karande
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(SKNSCOE) Pandharpur

Karad Road, At Post - Korti,

Pandharpur, Tal.- Pandharpur, Dist.- Solapur

PIN-413 304 Pandharpur, Maharashtra, India

➢ **SKN International Journal of Scientific and Multidisciplinary Engineering Research (SKNIJSMER)**

The above-mentioned journal title has been approved by Government of India and under process of getting ISSN number.

3.4.3 Give details of publications by the faculty and students:

- **Publication per faculty**
- **Number of papers published by faculty and students in peer reviewed journals (national / international)**
- **Number of publications listed in International Database (for e.g: Web of Science, Scopus, And Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)**
- **Monographs**
- **Chapter in Books**
- **Books Edited**
- **Books with ISBN/ISSN numbers with details of publishers**
- **Citation Index**
- **SNIP**
- **SJR**
- **Impact factor**
- **h-index**

For publication per faculty member, refer point no 19 in respective departmental evaluative report. Count of department wise publication details are given in Table 3.4.3 (a).

Table No. 3.4.3 (a) Faculty Publication

Sr. No.	Department Name	No. of Paper published in Journal byfaculty	No of Publication listed in International/ National Conference	Monographs	Chapters in books	Books Published	International Book With ISBN NO.	Citation Index	SNIP	SJR	h -Index
1	Civil Engineering	148	50	--	--	12	12	55	--	--	09
2	Computer Science & Engg.	67	61	--	--	16	14	90	--	--	10

3	Electrical Engg.	29	34	--	--	02	02	26	--	--	06
4	Electronics & Telecom. Engg.	57	113	01	--	14	12	244	--	--	18
5	Mechanical Engg.	80	76	01	01	11	11	137	--	--	25
6	First Year Engg.	26	19	--	--	10	10	302	--	--	09
	Total	**407**	**353**	**2**	**1**	**65**	**61**	**854**	**0**	**0**	**77**

Count of department wise student publication is given in following Table 3.4.3 (b).

Table No. 3.4.3 (b) Student Publications

Sr. No.	Name of Department	No. of Publications			
		International Journal	**National Journal**	**International Conference**	**National Conference**
1	Civil Engineering	31	--	18	34
2	Computer Engineering	49	--	30	--
3	Electrical Engineering	16	--	02	14
4	Electronics and Telecommunicat-ion Engineering	33	--	57	14
5	Mechanical Engineering	57	--	24	35
	Total	**186**	**--**	**131**	**91**

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

Details of research awards received by the faculty and recognition received by the faculty from reputed professional bodies and agencies are shown in table below.

Table 3.4.4: Awards Received by faculty members

Sr. No.	Faculty Name	Award / recognition	Awarding Organization	Year
1.	Dr. K. J. Karande	Editorial Board Member	International Journal of Advancements in Electronics Engineering	2013-2014
2.	Dr. K. J. Karande	Editorial Board Member	International Journal of Advancements in Wireless Communication Technology	2013-2014

3.	Dr. K. J. Karande	Editorial Board Member	International Journal of Advances in Image Processing Techniques	2013-2014
4.	Dr. K. J. Karande	Editorial Board Member	International Journal of Advancements in Electronics and Electrical Engineering	2013-2014
5.	Dr. K. J. Karande	Session Chair IEEE Symposium	IEEE SSCI 2013 at Singapore	2013-2014
6.	Dr. K. J. Karande	Technical Member	Springer 3rd International Conference (ICAC3-13) at Fr. C. R. College of Engineering, Bandra Mumbai	2013-2014
7.	Dr. K. J. Karande	Technical Member	National Conference on Recent trends in VLSI, Embedded Systems, Signals Processing and Comm. at VVP IET, Solapur	2013-2014
8.	Dr. K. J. Karande	Programme and Technical Committee member	International Information Tech. Conference & Exhibition (CUBE 2013)	2013-2014
9.	Dr. K. J. Karande	Technical Committee member (Reviewer)	National Conference on Computing, Communication and Network Technologies organized by SGGS IET Nanded, India	2013-2014
10.	Dr. C. P. Pise	Young scientist project scheme .	DST, Govt. of India New Delhi.	2013-2014
11.	Dr. C. P. Pise	Patent	Patent Published "Process and device for water purification using novel coagulants"	2013-2014
12.	Mr. A.O. Mulani	Advisory Committee Member	International Conference on Science and Technology, SBP COE, Indapur	2013-2014
13.	Dr. K. J. Karande	Technical Programme Committee member	IEEE Symposium Series on Computational Intelligence 2014	2014-2015

14.	Mr. A.S. Aradhye	Best Session Paper	International Conference of Renewable Energy at Trinity Engineering College, Pune	2014-2015
15.	Dr. S. R. Nalage	First Prize for Best Paper presentation/ Poster	Awishkar 2014 Solapur University	2014-2015
16.	Dr. C. P. Pise	Ph. D. awarded	Solapur University, Solapur	2014-2015
17.	Mr. S.H. Gidde	Reviewer	International Journal of Innovations in Engineering Research and Technology (IJIERT)	2014-2015
18.	Dr. S. R. Nalage	First Prize for Best Paper/ Poster presentation	Avishkar 2015 Solapur University	2015-2016
19.	Prof .S.G. Deshmukh	Best Paper	ICEM Chennai	2014-2015
20.	Mr. S. G. Deshmukh	Consolation Award	ICC Rajasthan	2015-2016
21.	Dr. R. T. Vyavahare	Reviewer	Elsevier and Inderscience Journals	2015-2016
22.	Mr. S. S. Kulkarni	Reviewer	Hindawi Publication Corporation	2015-2016
23.	Mr. A. S. Aradhye	Faculty Advisor	ISIE, Bhopal, Madhya Pradesh	2015-2016
24.	Mr. S. D. Katekar	Faculty Advisor	ISIE , Bhopal, Madhya Pradesh	2015-2016
25.	Mr. M.B. Kulkarni	Patent	Patent published "A system and method of Biogas generation"	2015-2016
26.	Mr. S. P. Ganjewar	Reviewer	ICESA	2015-2016
27.	Mr. S.H. Gidde	Editorial Board Member	International Journal of Research Publications in Engineering Research and Technology (IJRPET)	2016-2017
28.	Dr. K. J. Karande	Editor-in-chief	International Journal of Research in Computer Science and Information Technology (IJRCSIT)	2016-2017

29.	Dr. K. J. Karande	Editor-in-chief	Indian Journal of Research in Management, Business and Social Sciences (IJRMBSS)	2016-2017
30.	Mr. S.H. Karande	Managing Editor	International Journal of Research in Computer Science and Information Technology (IJRCSIT)	2016-2017
31.	Dr. R.T. Vyavahare	Co-editor	Indian Journal of Research in Management, Business and Social Sciences (IJRMBSS)	2016-2017
32.	Dr. R. N. Badage	Co-editor	Indian Journal of Research in Management, Business and Social Sciences (IJRMBSS)	2016-2017
33.	Mr. S. V. Pingale	Reviewer	3rd RIT, PG Conference, 2017	2016-17
34.	Mr. S. V. Pingale	Co-Editor	International Journal of Research in Computer Science & Information Technology	2016-17
35.	Dr. C.P. Pise	Editorial Board member & Reviewer	International Journal of Scientific and multi disciplinary research (IJSMER)	2016-17
36.	Dr. S.G. Kulkarni	Managing Editor	International Journal of Scientific and multi disciplinary research (IJSMER)	2016-17
37.	Mr. S. G. Deshmukh	Editorial Board Member	Electronics Science Technology and Applications	2017-18
38.	Mr. S. G. Deshmukh	Committee Member	International conference on Condensed matter and applied physics (ICC 2017)	2017-18

3.5 CONSULTANCY
3.5.1 Give details of the systems and strategies for establishing Institute-industry interface.

The institute has a separate Training and Placement Cell as well as Entrepreneurship Development Cell (EDC) that encourage for building a relationship between the industry and the institution.

Systems:
Following systems function to enhance Institute-Industry interface:
- Training and Placement Cell

- Entrepreneurship Development Cell
- Professional Clubs and Student Chapters

Strategies:
Following strategies are implemented by the institute to establish Institute-Industry interface:
- Encourages for industrial training to the student and staff
- Industrial visits for student and staff
- Institute has MoUs with various industries
- Initiates project based learning and value addition programs
- Encourages student and staff for consultancy and sponsored projects
- Arranging expert lectures by industrial persons for students
- Industrial training/internship of 1 to 3 weeks in summer and winter vacations for students
- Institute arranges Workshops, FDPs and STTPs
- Hands on training programmes are arranged by each departments

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

Institution promotes consultancy work to be carried out with outside Agencies and industries to provide solution to industrial and research problems by sharing the expertise and laboratory.
Expertise are advocated and publicized in the following manner:
- Institute has Entrepreneurship Development Cell and Training and Placement Cell, which spread the information of faculty expertise and laboratory resources available with the institute.
- Concerned faculty members are provided duty leave for consultation work.
- Major areas of expertise and publications of staff and students are advertised through the college website.
- Institute organizes conferences, technical festival, and project exhibition. Institute also publishes journal for various branches.

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?
Institute always encourages the staff to utilize their expertise and available facilities for consultancy services in the following ways:

- SKNSCOE encourages the staff by sharing consultancy amount with them as per the institute policy.
- Institute provides technical and administrative infrastructure and support for consultancy work/project.
- Flexibility is provided to the faculty members involved in consultancy work to reduce their academic load during the period of consultancy work.
- Institute provides Facilities like free Wi-Fi, high computing labs, generator back up for research work.
- Labs are always available for consultancy work by extending the working hours of laboratories.

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

A detailed list of consultancy services provided by the institution and the revenue generated during the last four years is shown in table 3.5.4.

Table 3.5.4: Consultancy services offered

Academic Year	Name of Faculty Involved	Area of consultancy	Amount Received in Rs.
2013-2014	Dr. C.P.Pise, Mr. D.S.Jagtap, Mr. S.S.Kadam, Mr. G.D.Lakade	Concrete Cube Testing, Concrete Beam Testing, Testing of Aggregate, Bricks, Murum,Tile,Steel,Water etc., Mix Design,RCC Consultancy	2,67,525.00
2014-2015	Dr. C.P.Pise, Mr. D.S.Jagtap, Mr. S.S.Kadam, Mr. Y.P.Pawar	Concrete Cube Testing, Concrete Beam Testing, Testing of Aggregate, Bricks, Murum,Tile,Steel,Water etc., Mix Design,RCC Consultancy	41,900.00
	Mr S.S.Kulkarni, Mr. Y.D.Shinde	Vibration Analysis by FFT Analyzer	3,000.00
	Mr. A B Jagadale Mr. G. V. Linge	Development of Home security system to Pioneer electro system	20,000.00
2015-2016	Dr. C.P.Pise, Mr. D.S.Jagtap, Mr. S.S.Kadam, Mr. G.D.Lakade, Mr. M.B.Shinde	Concrete Cube Testing, Concrete Beam Testing, Testing of Aggregate, Bricks, Murum,Tile,Steel,Water etc, Mix Design,RCC Consultancy	68,250.00
	Mr. S.S. Kulkarni, Mr. Y.D. Shinde, Dr. S.G. Kulkarni	Vibration Analysis by FFT Analyzer and Manufacturing of Composite Materials	8,500.00
	Mr. A B Jagadale Mr. G. V. Linge	Improvement of Home security system to Pioneer electro system	12,000.00
2016-2017	Dr. C.P. Pise, Mr. D.S. Jagtap, Mr. S.S. Kadam, Mr. G.D. Lakade, Mr. M.B. Shinde	Concrete Cube Testing, Concrete Beam Testing, Testing of Aggregate, Bricks, Murum,Tile,Steel,Water etc., Mix Design,RCC Consultancy	1,57,500.00
	Mr. S.S. Kulkarni, Mr. Y.D. Shinde,	Vibration Analysis by FFT Analyzer and Manufacturing of	7,750.00

	Dr. S.G. Kulkarni	Composite Materials	
	Mr. A.S. Aradhye	Solar car Design and manufacturing	41,000.00
	Mr. S.H. Gidde	Timer circuit & control circuit	5,000.00
	Mr. S. B. Thigale	Enterprise Resource Planning (Cloth Shop) Software	25,000.00
	Mr. A.D. Harale	Vehicle tracking system to MEEN Technology	27,500.00
2017-18	Dr. C.P. Pise, Mr. D.S. Jagtap	Concrete cube testing	1,500.00
	Mr. S.S. Dadhe, Mr. P.P. Kalubarme	Checking performance of protective devices	----
	Mrs. A.C. Pise	Development of milk temperature indication and control system for dairy	----

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 consultancy fees sharing (in %) in place. It is categorized into three types as shown below:

A) Testing (With use of infrastructure of institute):

Institute	Principal	Administrative /Office staff	HOD	Concerned Teaching Staff	Supporting Non-Teaching Group
50%	5%	5%	10%	25%	5%

B) Consultancy and Learning Resource Development (Without using infrastructure of institute):

Institute	Principal	Administrative /Office staff	HOD	Concerned Teaching Staff	Supporting Non Teaching Group
15%	5%	5%	10%	55%	10%

C) Testing &Consultancy :(With use of infrastructure of institute):

Institute	Principal	Administrative /Office staff	HOD	Concerned Teaching Staff	Supporting Non-Teaching Group
25%	5%	5%	10%	45%	10%

Income generated through consultancy is utilized for

- R & D Projects
- Student industrial visits
- Staff Welfare for attending workshop and conferences
- Financial aid to students for attending conferences/ events

3.6 Extension Activities and Institutional Social Responsibility (ISR)

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

Institute believes and promotes students for ethical and moral activities trying to add social values to the society, developing a student as a responsible citizen of India. Various committees involving students and faculty members are active in the college. Students are motivated to carry out various social activities, whichare listed in following Table 3.6.1.

Table 3.6.1 Activities Organized by Institute for Contributing to Society

Sr. No.	Name of Activity	Purpose	Date
1	Stress release Program of "Tanav Mukta Jeevan"	Institute organized a guest lecture of well-known personality Dr. Pravidatta Wangikar to adopt a stress less life in stressful environment.	07/08/2013
2	Inspirational Program for Challenges in front of Youth	Institute invited most eminent personality Dr. Vishwambhar Chaudhari to address the social and political facts and challenges in front of our country as well as expectations from youngers in India.	30/08/2014
4	Women Safety smart application program	Institute arranged a program for awareness about women's rights and empowerment. Institute invited an inspiring personality Mrs. Manisha Dubale, Police sub-Inspector, for this activity.	30/09/2016
5	"Art of Living" – Yoga Day Program	To maintain physical fitness and stress less life, institute has taken the "Yoga Day" camp. The Sudarshan Kriya mechanism under the guidance of Art of leaving expert was arranged under this programme.	21/06/2016

7	Women awareness Program "Jara Asudya Bhan"	In concern with women safety, ethics and morality a guest lecture of eminent personality Advocate Mrs. Aparanatai Ramtirthkar was arranged by the institute to create a positive impact on students.	22/09/2016
8	A lecture on "Aajcha Vidyarthi:Bhavishya aani aavhane"	Session conducted by Mr. Ganesh Shinde, eminent social activist for getting motivation for future challenges	07/03/2017
9	A lecture on "Aajchi Stree"	Session conducted by Dr. Nanda Patil, eminent social activist to realize the present situation and challenges in front of women	08/03/2017
10	International Yoga Day celebration	Mr. Ram Hari Kadam, Trainer Art of leaving to give physical education to students and citizens near Pandharpur area	21/06/2017

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

Every department maintains a record of students including student's personal details, academic progress, and performance in technical and cultural events due to which a proper assessment of student is done. Faculty members monitor and motivate the students to ensure their participation in different activities. The participation of students is monitored by teacher guardian. Periodic reviews before and after conducting the activity help in tracking student involvement.

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

The basic as well as important stakeholders such as students, parents, faculty members, alumni and the society are critical elements of the education system who decide the overall performance and quality of the institution. For smooth functioning of the Institute, effective linkages between these elements are necessary for the overall improvement in the existing system. To incorporate feedbacks from stakeholders suggestion boxes are made available at various places in the institute. The stakeholders' perception has been taken into consideration as follows:

Students: Students' feedback regarding teaching learning process and institutional facilities are collected through online feedback system. The teacher guardians ensure academic and overall development of students and also receive feedbacks for corrective measures if any.

Parents: Parent teacher meets are conducted frequently to make them aware about the progress of students and this platform helps to receive concrete suggestions and feedback for improvement in system. The parent community has close interaction with all teachers, HODs and Principal.

Alumni: Alumni always give substantial contribution in overall development of the institute through their regular interaction with staff and students. The suggestions and feedbacks received from alumni are always helpful for improvement in teaching learning process and to enhance the employability of students.

Employer: During pre-placement talks, expectations of the industries from students and institute are the contents of all value addition programs conducted at the institutes. Feedbacks from recruiters are taken into consideration for the overall development of 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.

Institute plans and organizes its extension and outreach activities through various platforms. In addition to this, departments also plan the similar activities as per demand raised by students. The impact of extension and outreach programs helps in developing the social awareness amongst the students. In addition, the effect of the same is reflected in academic performance of students and placements. Following are few activities conducted so far:

Table 3.6.4(a): Extension and outreach Programs

Sr. No.	Extension and outreach Programs	Purpose/Impact	Particip-ation No.	Place	Academic year
1	Visit to 'Palavi' regarding cultural Programs, cleanliness & social awareness	Students conduct various awareness activities such as save girl, corruption, removal of superstitions, etc.	Above 150 Students Every Year	Korti , Pandharpur	Every Year on the occasion of Shiv Jayanti
2	Tree Plantation at Gadegon, Palavi	Student/faculty addressed about Green house and greenery benefits to villagers. Also gave awareness about environmental balance & women empowerment.	85	Gadegaon & Palavi, Pandharpur	2012-2013 & 2015-2016
3	Health awareness Pamphlet Distribution during Kartiki Vari	Student gets aware about heritage and learned things related with teamwork,humanity and spirituality.	124	Pandharpur	2014-2015

4	Distribution of water for pilgrims in the queue of Vithal Mandir Darshan	This activity always helps the students to develop as a good human being under the well knowledgeable engineer which is the ultimate motto of our institute.	126	Pandharpur	2014-2015
5	Health Check up Camp and Shiv Jayanti Celebration at ' Matoshri Vrudhashram'	This program helped to know the problems of senior citizen. Also, student learned essential social and personal responsibilities.	150	Pandharpur	2013-2014 & 2016-2017
6	Solid Waste Management, Disposal at Palakhi Tal at Wakhari and Bhatumbare	Students learned management skill, team work skills under these programs, This programs helps in building their leadership skill sets	98	Bhatumba-re	2014-2015
7	Students support to 'Food and Drug Administration, Dept. Govt. of Maharashta' during Ashadhi Vari	Students aware about quality assessment and testing of food. Student well aware about distribution of foods and its monitoring	87	Pandharpur	2016-2017
8	Financial support for Jakhangaon village (Rs 101000.00)	Institute has supported to village Jakhangaon, Tal – Khatav, Dist. - Satara by giving helping hand and financial support for farmers in dearth situation.	50	Jakhanga-on village, Tal - Khatav, Dist-Satara	2014-2015
9	Blood donation camp	Institute always arranges blood donation and health check-up camps in institute premises as a social contribution	159	SKNSCOE	2014-15
10	Donation of Pavers Blocks	Pathway is constructed to help the senior citizens in Matoshri Vrudhashram	150	Gopalpur	2015-2016

11	Street Play	Street play on the occasion of electrical safety week	20	Pandharpur and Akluj	2016-2017
12	Fort Cleaning	Cleaning of Lohgad and Tikhona Fort	50	Near Lonawala	2016-2017
13	Tree Plantation	Student/faculty addressed about Green house and greenery benefits to villagers.	50	Khandali Tal: Mohol	2017-2018

Table 3.6.4(b): Institute budget and utilization for extension and outreach Programs under NSS activities:

Year	No. of Students	Budget (in Rs.)	Amount Spent (in Rs.)
2013-14	40	10,000.00	-----
2014-15	200	35,000.00	31,040.00
2015-16	200	40,000.00	34,125.00
2016-17	186	50,000.00	46,020.00

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

The institute has official NSS unit of SUS since inception of college. The students and staff members of institute are closely concerned with social issues. Institute recognizes the need of society related to community issues and tries to give better solution with the help of students and faculty members. The following are some activities carried out by students and faculty members. Institute organizes inspirational lectures by eminent persons and social workers to increase participation of students in such activities.

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.

Institute promotes the research work through project ideas, which mainly helps to solve industrial and social problems. Some of these research works are enlisted as below:

Table 3.6.6: Research Work

Sr. No.	Name of Researcher	Research Title	Description
1	Dr. C. P. Pise	Turbidity removal by blended coagulant alum and Moringa Oleifera	This research work is beneficial to rural area community for water purification.
2	Dr. R.T. Vyavahare	Ergonomic considerations in the	This research provided anthropometric data of

		design of agricultural equipments being used in Maharashtra.	Maharashtra farmers for farm equipment design.
3	Mr. M. B. Kulkarni	A system and Method of Biogas Generation from Floral Waste	This research forms an excellent alternative for fuels. Under this model the biogas plant was formed which takes input as floral wastes.
4	Mr. A. B. Jagdale	Home security system useful for protection of offices and houses	The project design is mainly based on providing security for homes. It involves the antitheft alarms and circuit breakers with use of PIR sensors. This design includes safety feature along with SMS indication.
5	Mr. A.S. Aradhye	Queuing model for pilgrims in Shri Vitthal temple	Project is related to converting physical queue in electronic queue, to reduce waiting time.

Institute generates social awareness via different programs. The main purpose of these programs is to make surrounding people, farmers aware about recent technologies to help the concept of "Digital India". Some of the activities, which are held under this program are as follows,

AAKASH Tabs:
To fulfil the norms of the smart cities it is must for everyone to be familiar with advances technologies and the utilization of smart equipments. The institute has always played a leading role to generate the awareness of these equipments among the societies.One of the examples of which is learning through Aakash Tabs. The institute is itself awarded as IIT remote center under which it has earned 246 Aakash Tablets. Institute has given the demonstration of smart technology and automation concepts with the help of tablets to the nearby students and adults in the society.

Development of Social Application:
The organization is located at the most holy place under the blessings of Lord Vitthal, i.e. Pandharpur. Every year number of Pilgrims in a count of Lakhs visits this holy place.Hence,in order to help the pilgrims, institute has developed a Google play store android application named as "*Rana Pandharicha*". This app helps the person to get the information of city; helping the pilgrims to know the historical background and literature of Pandharpur. It also provides overall information about residential area nearby hotels and Sant's Math (monastery).

Donation to farmers from Jakhangaon, Dist-Satara:
Indian economy is based on the agricultural backbone. Currently due to the continuous draughts, farmers are facing numerous problems due to which their

economy has weakened day by day. To help the farmers institute has taken the initiative by donating funds to nearby farmer groups in a village *Jakhangaon* ensuring the villagers to take care in the dearth situation.

Solar Vehicles Championship:
India is a country where the abundant amount of Sun energy is available in all seasons. By considering this, institute has taken the initiative in generating the solar-based designs. One of the design developed by the institute in the collaboration with students and faculty members is a design of Solar Car which participated and earned 1ˢᵗ prize in the "Solar vehicle Championship" held in Punjab in year 2014-15. To generate the awareness of solar energy over the pollution caused by excessive use of fuels among the society institute has conducted solar rallies in nearby areas.

Student Safety and Hostel Monitoring Committee:
Institute promotes the girls' safety programs of eminent speakers. Institute has its own grievance for resolving student issues. Institute has Hostel monitoring committee of faculty members for monitoring and solving issues of students.

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

We believe that learning outside the classroom is also important as learning within the classroom, which greatly enhances our students' academic performance. Engineers are the architect of a nation and work as better society representatives. The objectives of the extension activities organized by the institution are as below:

Objectives:
* We are committed to produce good engineers as well as good human beings.
* To motivate student in small groups for enhancing the teamwork, leadership qualities and cooperation.
* To inspire students to work on particular society related issues, surveys to understand need of extension activity.
* To provide multiple opportunities for growth and learning beyond the classroom.
* To make them self-discipline and value of hard work.
* To make them aware of the need of on-going research activities for benefit of end user.

Outcomes:
* The social commitment of the students is nurtured through NSS activities.
* Team work and leadership qualities are enhanced through extension activities like street play, *Swachchha Bharat* mission etc.
* Ample amount of extension activities help to groom students' personality and enable them to participate in the Nation building process.
* Students get opportunity to enlighten society on social issues like social injustice, corruption, gender bias, etc. Students undertake research on various social issues with the help of survey tools.

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.

Active participation in all the extension activities contributes to both community-institution networking. The institution organizes various activities like Blood donation camps, cleanliness drives, tree plantations, social awareness programs, Technical Product Rallis for community development.

- Under NSS activity students participated in tree plantation and cleanliness of nearby villages like Gadegaon, Vakhari along with active participation of villagers.
- As Pandharpur is a holy place and 10 to 15 lakh devotee visits every year including four major events called as "*Vari*". Students actively participate under NSS during these events in Pandharpur for solid waste management, health awareness, and health checkup programmes in association with various government department and local community.
- Institute students also works for water distribution to pilgrims present in the queue of Lord Vitthal darshan at Pandharpur.
- The students and teachers contributed for setting up paving blocks outside in the premises of "Matoshri Vrudhashram" at Pandharpur.
- NSS Students arranged the blood donation camp at SKNSCOE, Korti, Pandharpur in association with Bajaj blood bank, Pandharpur.
- The institute helps 'Palavi',a social organization working for HIV affected children through tree plantation activity, cleanliness maintenance and building financial support by organizing cultural events.

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.

The institute forges relation with the society through its campus social responsibility (CSR) activities for the underprivileged community in association with various organizations. The eminent organizations to which we are actively related are listed in the table below. Aakash awareness program is conducted for students at 51 junior colleges and other educational institutes as a part of NMEICT by SKNSCOE.

Table 3.6.9:Outreach/Extension Activities

Sr. No.	Name of institution	Outreach/Extension Activities
1	Grampanchayat, Jakhangaon Village	Provided funds during water crises disaster period for water reservoir to villagers for drinking and crop at Jakhangaon, Dist-Satara.
2	MHRD-IIT Bombay remote center	Orientation Workshop for Aakash Technical Staff and students.
3	Guruprasad Computers, Pandharpur	Conducted 1 Day workshop on "Aakash for Women Safety" with hands on session

4	New Satara Polytechnic College, Pandharpur	Hands on session for android project development
5	Shivaji Polytechnic college, Sangola	Workshop for Android Application Programming on Aakash Tablet
6	Matoshri Vrudhashram	Complete Health Check up program by doctors.
7	Food and Drug Administration Department Government of Maharashtra	For quality analysis and testing during the Aashadhi Vari at Pandharpur
8	NGO "Palvi"	Tree Plantation at Palvi, Korti. Cultural Program for children and cleanness
9	SPPP Karmayogi Engineering, SPPP Karmayogi Polytechnic, SVERI College of Engineering, New Satara Polytechnic	Working in cluster for project design and development of solar powered hot air blower dryer for peanuts, corn and jowar

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.

- IIT Bombay has awarded the institute as **Super RC** with appreciation letter for better conduction of spoken tutorials.
- Students won **First Prize** in Dynamic Round of Indo Asian Solar Challenge 2014-15 held from 3rd to 7th April 2015 Organized By Robotics and Intelligent System Community, Under the agis of Division of Student Affairs, Lovely Professional University (Punjab).
- Students won **Best Autocross Award** in Dynamic Round of Indo Asian Solar Challenge 2014-15 held from 3rd to 7th April 2015 Organized By Robotics and Intelligent System Community, Under the agis of Division of Student Affairs, Lovely Professional University (Punjab).
- Students won **First Prize** in AAVISHKAR, project exhibition, at Solapur University, Solapur.
- **Pedal operated Water Pump - Second Prize** at State Level Project Exhibition in Dipex 2014.
- Student got **Second prize** in State level project Exhibition **DIPEX -2015**
- Student and Institute got Appreciation letters from various **NSS activities**.

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.

The Training and Placement Cell maintains a symbiotic relationship with industries and is involved in signing of MoUs and accreditation by the industries. The various departments are also interacting with industries in their concerned areas for research activities. MoUs with research institutes and industries have resulted in collaborative research. The staff is actively involved in in-house and

innovative projects of the students and many of the final year students execute their projects in reputed industries and research organizations. Based on the merit of the projects the students are given job opportunities and the PG students are offered research programs in those research centers.

- IIT Bombay has set up the Aakash lab for utilization of Aakash tablet for Research and development work.
- AICTE and IIT Bombay have set e-Yantra lab in the institute for helping research activities in the department.
- Institute has collaboration with various research institutes.

Table 3.7.1: Collaboration with Research Institutes

Sr. No.	Name of lab/industry /institute	Nature of collaboration	Benefits added
1	MHRD-IIT, Bombay	1. IIT remote center ID 1260. 2. AAkash tablet lab 3. E-Yantra 4. Spoken tutorial	1. Nineteen FDPs conducted for advanced learning of staff and students 2. Staff and students are using Aakash tablets for enriching teaching learning process and developing android base application 3. Students are working on innovative projects for robot automation
2	TUS, Bulgaria Tor Vergata University, Italy Ural federal University, Russia	UG fellowships	Students received short term UG fellowships for project based learning.
3	Reliance Jio	**Part A: Institute Assets** 1. Smart Classrooms 2. Systems Labs **Part B: Reliance Assets** a. Fiber connectivity provided by Reliance for cloud computing	1. WI-FI facility implemented at institute with speed of 16 Mbps 2. Students are working to enhance their knowledge to enter in the corporate world.
4	DST, Govt. of India	Funding for the research project	Received research fund

3.7.2 Provide details on the MoUs /collaborative arrangements (if any) with institutions of national importance/other universities/ industries/ Corporate

(Corporate entities) etc. and how they have contributed to the development of the institution.

The Institute has signed MoUs with external organizations to conduct activities like training, placement, development of training facilities for students, guest lectures, participation in technical events and advanced learning. The details of MoU signed with industries are given in Table 3.7.2.

Table 3.7.2: MoUs / collaborative arrangements

Sr. No.	Organization / Institute with which MOU is Signed	Nature of Contribution	Benefit to Department or College	Date of MoU
1.	Object Technology	Hands on training kit and courseware	Training students & faculty related to C# and ASP.NET. Guidance with the help of hands-on training kits and courseware	02/01/2012
2.	CAD SHREE Technology Systems.	Training program	Training to students & faculty in the area of CATIA course.	09/01/2012
3.	ECTA, Kigali, Rwanda	Faculty Exchange	To provide academic support & consultancy for establishment and running of MBA & Engineering courses in Kigali, Rwanda	31/03/2012
4.	D.J. Infotech Solution Pvt. Ltd.	Soft and Hard copy of material to each student of department	Training students related to Communication Skills.	20/07/2012
5.	Ashwath Infotech solution Pvt. Ltd.	Soft and Hard Copy of Material to dept students	Training students & faculty related to C# programming	07/12/2012
6.	Xmetric solutions private limited	All resources related to course, hands on training kit &courseware to students	Training to students & faculty in the area of CCNA, hands-on training kits and courseware will be brought in by the Service Provider	09/01/2013
7.	Symmetry Solutions Solapur	STAAD-PRO Training	Training to students & faculty in the area of Structural analysis with software.	19/04/2013
8.	Ashwath Infotech Pvt. Ltd.	Courseware, 72 books of C++ Module	Training students & faculty related to "C^{++} and C$^{\#}$ programming.	05/06/2013

9.	Ashwath Infotech solution Pvt. Ltd.	Soft and Hard Copy of Material to dept students	Training students & faculty related to C#.NET, JAVA programming	25/09/2013
10.	IFS academy	Soft and Hard Copy of Material to dept students	Training to students &faculty in the area of ANSYS.	25/12/2013
11.	Deltasys technologies	Software training	Training to students &Faculty related to CAD courses.	25/12/2013
12.	Deltasys Technology Pvt. Ltd.	Training on software	Training to students & Faculty in the area of PRO-E.	20/06/2014
13.	M/s C. P. Bagal and company	Providing field training to students	Hands on training about construction practices to students	25/09/2014
14.	Indo German Tool Room	Imparting technical training to students of Mechanical dept.	Training to students & faculty in the area of CAM CAE,Tool design & Automation areas.	24/12/2014
15.	Seed InfoTech Ltd.	Hands on training kit and courseware	Basic English/ communication skill, Aptitude and CCNA.	05/01/2015
16.	SEED InfoTech Solution Pvt. Ltd.	Soft and Hard copy of material	Training to students related to Basic English & Aptitude	25/06/2015
17.	Power flow systems Pvt. Ltd.	Training Program & Seminar	To train the students on solar technology	30/06/2015
18.	Sagar Electricals Pvt. Ltd.	Sponsored Projects & Consultancy	To get exposure on industry projects	30/06/2015
19.	MITCON Consultancy & Engg. Services Solapur	Entrepreneurship Development	Motivation to students for being entrepreneur	27/11/2015
20.	Dynamic Balancing, Pune	Dynamic balancing and vibration	Knowledge and expertise sharing	10/02/2016
21.	Aspiringminds (AMCAT)	Student aptitude skill assessment	Placement of students	09/03/2016
22.	CADD Center Pandhapur`	AUTOCAD Training	To train the students in drafting	20/05/2016
23.	Skyway consulting Engineers, Solapur	Planning and Designing of structures	Hands on practice about planning and design of different structures for students	19/06/2016

24.	Reliance Jio Infocomm ltd.	Wi FI Set up, SERVER, Routers, and Facilities	To train the students for the course programs developed by Reliance at the location of institute. To provide course material relating to course program.	18/07/2016
25.	Indo German Tool Room	Valuable addition of softwares to department students	Training to students & Faculty related to CAD softwares like Pro-E, Hypermesh, Solidwork, CATIA etc. Guidance for projects.	28/9/2016
26.	RIO 3-D Printers &Prototyping	3-D printing and prototyping	Student projects and research collaboration.	01/11/2016
27.	APTRON TECH	Value Addition Program on PCB Design	Student projects and research collaboration.	01/09/2017
28.	Pariksha.com	Student aptitude, software development and coding tests	Student Placements	13/04/2017
29.	Vernier design solutions pvt. Ltd., Pune	Value addition program about various softwares	Student up gradation in the area of planning and designing of structures	08/07/2017
30.	Internshala	Internship for students from first to final year	Internship activities of institute students	14/07/2017

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.

Interactions with renowned personalities from various reputed industries are established for getting better academic facilities for staff and students. Each department has signed MoUs (Refer Table 3.7.2) with industries related to their area of interest. The final year students carry *"In-plant training"* in various industries. Many reputed industries visit the institution for placements. Also many academic institutes and industries have contributed in terms of faculty training & laboratory/infrastructure development (Refer Table 3.3.3).

As an effect of above training programmes many of our students have been placed in companies like Cognizant, Accenture, Nihilent, Capgemini, Polaris, Tajeduglobe, Geometric, Cryoviva, Becomfy`, Justdial, Emilam Industry L.L.C. Dubai, Prime Focus Pvt.ltd, Mahindra & Mahindra, Ofos Services Pvt Ltd, Pompeii Technology, Dani Consultancy, Kohinoor Group, Airtel, Neilsoft, D.S.S. Pvt Ltd., S. S. Construction Engg. and Contractors etc.

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.

In order to bring academicians, researchers and industries together, various departments have organized conferences on emerging areas. Many eminent scientists have visited and contributed to the various events (Guest Lectures, Seminars, Workshops, and Conferences etc.). Some of conferences/events organized by institute is given in Table 3.7.4 (a).

Table 3.7.4 (a):Details of International/National Conferences Organized and Eminent personalities visited

Sr. No.	Details of programs conducted	Eminent personalities visited	Month and Year
1.	National conference on "Recent Trends in Computer Engg."	Mr. Nilesh Kulkarni, Nihilent Technology, Pune	Sept. 2013
2.	Conference on "Modern Trends in Civil Engineering"	Dr. P. G. Kulkarni, Associate Professor, SCOE, Pune	June 2014
3.	Recent trends in Mechanical Engineering	Prof. J. K. Shaikh, Professor, Zeal Education Society's, COE Pune	Dec. 2014
4.	Conference on "Computer communication & Information Technology (CCIT)"	Prof. Sandeep Shinde, VIT, Pune Prof. Rahul Pol, VIIT, Pune	Dec. 2014
5.	Inauguration of technical festival "Spectrum 2015"	Dr. Mukta Atrey, Project Manager, Project Ekalavya under NME-ICT, IIT Bombay	Sept. 2015
6.	"AAKASH for Education"	Dr. Kiran Khosala Project Manager – Aakash School, IIT Bombay.	Sept. 2015
7.	Conference on Innovations in Engineering and Technology, (CIET-2015)	Dr. D. N. Shinde, PVPIT, Budhgaon, Sangli	Dec. 2015
8.	Conference on "Innovations in Computer & Electronics Engg."	Prof. R.A. Jamadar, AISSMS's IoIT, Pune Prof.V.S. Kadam, SIT, Lonavala	Dec. 2015
9.	Conference on "Recent Trends In Electrical And Electronics"	Mr. P. K. Magdum	Dec. 2015
10.	Recent Advances in Mechanical	Dr. A. M. Gadade, Army Institute of Technology, Pune	Dec. 2015

	Engineering Design		
11.	Artificial Neural Network	Dr. P. J. Kulkarni Professor, WalchandCOE, Sangali	Feb. 2016
12.	Recent trends in Mechanical Engineering	Mr.S.A. Jeurkar Secerety-IEI. Solapur Chapter.	March 2016
13.	Chief guest & Seminar on "Advances in Manufacturing"	Mr.S.A.Jeurkar Secerety-IEI. Solapur Chapter.	March 2016
14.	Mission "Namami Chandrbhaga"	Mr. Devendra Fadanvis, Chief Minister, Maharashtra State Rajendra Singh, "Jal-Tadnya"	July 2016
15.	Intellectual Property Rights	Dr. S.M.Sawant Dean-Student Development RIT Sangli	Feb. 2016
16.	Conference on Innovations in Engineering and Technology, (CIET-2016)	Dr. Vageesha S Mathada, Principal, Fabtech C. O. E. and research	Dec. 2016
17.	Workshop on Patent Filing	Dr. Sandeep Kale, Professor, Trinity COE, Pune	Aug. 2016
18.	Workshop on Vibration analysis & Consultancy opportunities	Dr. S. P. Chavan, Professor, WCE, Sangli	Sept. 2016
19.	Workshop on Composite Material	Dr. S. M. Shiyekar, Professor, SGI, Kolhapur	Oct. 2016
20.	International Conference on Innovations in Engineering and Technology.	Dr. S.H. Pawar, Eminent scientist, Ex Vice Chancellor, D. Y. Patil Deemed University, Kolhapur	December 2016
21.	International Conference on Innovations in Engineering and Technology.	Dr. V. V. Deotare, Head of Dept. E&TC, SIT, Lonavala	Dec. 2016
22.	International Conference on Innovations in Engineering and Technology.	Dr. S. D. Babar, Head of Dept. CSE, SIT, Lonavala Dr. T. J. Parvat, Professor, SIT, Lonavala	Dec. 2016
23.	International Conference on Innovations in Engineering and Technology.	Dr. Sanjay S. Lathi, Professor Raje Ramrao College, Jath	Dec. 2016

24.	National Conference on Recent Innovations in Civil Engineering (NCRICE 2017)	Dr. Vageesha Mathada, Professor,NBNSCOE, Solapur	March 2017
25.	National Conf. on Modern Trends in Electrical Engineering	Dr. D. R. Patil, Professor, WCE, Sangli	March 2017
26.	Recent trends in Mechanical Engineering	Mr. Anand Shete, Entrepreneur	March 2017

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.

a) Curriculum development/enrichment

b) Internship/ On-the-job training

c) Summer placement

d) Faculty exchange and professional development

e) Research

f) Consultancy

g) Extension

h) Publication

i) Student Placement

j) Twinning programmes

k) Introduction of new courses

l) Student exchange

m) Any other

All the departments are always engaged individually in developing linkages and association with industries. The purpose of signing MoUs and agreement always helps in extending guidance and discussion with students and faculty members. As shown in Table 3.7.5, the details of the linkages/collaborations are provided. The various activities conducted by collaborating parties always help in campus training, campus connect program, high end training programs of CAD Courses, organizing guest lectures, organizing entrepreneurship development programs, conducting live Projects, getting placement drives &training for faculty members and students.

Table 3.7.5: Linkages/collaborations developed with other organizations

Name of the activity	Linkages/collaborations developed with
a) **Curriculum development / enrichment**	IIT Bombay, IIT Kharagpur, AICTE and Solapur university
b) Internship/ On-the-job training	Indo German Tool Room SEED InfoTech Solution Pvt. Ltd. Deltasys technologies Ashwath Infotech Pvt. Ltd Object Technology D. J.Infotech Solution Pvt. Ltd.

	IFS academy Xmetric solutions private limited CAD SHREE Technology Systems.
c) Summer placement	Just dial, Pune
d) Faculty exchange and professional development	ECTA, Kigali, Rwanda IIT Bombay IIT Kharagpur
e) Research	Technical University of Sofia in Bulgaria RIO 3D Printers & Prototyping
f) Consultancy	RIO 3D Printers & Prototyping M/s Bright Future Construction Unique Builders Sangola Urban Bank C. P. Bagal & Co. S. S. Constructions Choriya Properties Lokmangal BVG India Pvt. Ltd. Samarth Residency M/s Bright Future Construction Real Relators Das Offshore Engineering Sulabh International Social Services Creation Engineering Pvt. Ltd.
g) Extension	Grampanchayat, Jakhangaon Village, MHRD-IIT Bombay remote center, New Satara Polytechnic College, Pandharpur, Matoshri Vrudhashram, Food and Drug Administration Department Government of Maharashtra, Palavi
h) Publication	A. International Journal of Research in Computer Science and Information Technology (IJRCSIT), ISSN: 2319-5010. B. Indian Journal of Research in Management, Business and Social Sciences (IJRMBSS), ISSN: 2319-6998. C. International Journal of Scientific and Multidisciplinary Engineering Research,(IJSMER), ISSN:(under process).
i) Student Placement	Cognizant, Accenture, Nihilent, Capgemini, Polaris, Tajeduglobe, Geometric, Cryoviva, Becomfy, Justdial, Emilam Industry L.L.C. Dubai, Prime Focus Pvt.Ltd., Mahindra & Mahindra, Ofos Services Pvt. Ltd., Pompeii Technology, Dani Consultancy, Kohinoor Group, Airtel, Neilsoft, D.S.S. Pvt. Ltd., S. S. Construction Engg. & Contractors
j) Twinning programmes	IIT Bombay
k) Introduction of new courses	AICTE and Solapur University

l) Student exchange	Technical University of Sofia in Bulgaria, Ural Federal University in Russia, Tor Vergata University in Rome-Italy and Kigali in Rwanda.
m) Any other	--

3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/ collaborations. Any other relevant information regarding Research, Consultancy and Extension which the college would like to include.

Planning:
1. Interaction sessions are planned for interdisciplinary research.
2. Research supportive labs are planned.
3. Motivate faculty members and students to organize seminars, conferences and workshops.
4. Support for all FDPs conducted under IIT remote centre of institute for enrichments of research activities.
5. Subscription for e-journals is planned to carry out research work.
6. Guiding sessions to the faculty members for writing funding proposals.
7. To develop University recognized research centre.
8. To establish collaboration with foreign universities.

Establishment and implementation:
- Industrial visits have been organized with the help of various collaborating agencies.
- Dr. S. H. Pawar, (Ex vice chancellor D. Y. Patil university and eminent scientist) conducted Research awareness session for faculty members.
- Dr. Sandip Kale conducted session on patent filling.
- A one day hands on workshop on "Vibration Consultancy" by Dr. S. P. Chavan has been organized.
- Institute has made available required e-journals for research work.
- Aakash and e-Yantra labs has been established at the institute to enhance project based learning.
- IIT-remote centre started at the institute for organizing various FDP and STTPs.
- Research lab has been established in collaboration with Reliance Jio
- MoUs signed with different industries/organizations for training and collaborative research.
- Established University recognized research centre for Electronics Engineering.
- Students received UG fellowships for Project Based learning in collaboration with foreign universities like technical University of Sofia Bulgaria, Ural Federal University of Russia and Tor Vergata University of Rome-Italy.

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 facilitates effective teaching and learning?

- The Institute aims at providing and developing good and modern infrastructure like classrooms, laboratories, library with reading room, internet facility, parking facility, canteen and hostel with seperate mess for boys and girls in the campus.
- The Institute strives to create and enhance the infrastructure in view of a healthy, comfortable and technology centred environment, which would ultimately yield effective teaching and learning.
- The procedure for establishment and enhancement of the infrastructural facilities has been standardized.
- The Institute follows the norms and guidelines provided by AICTE and Solapur University, time to time for creating and enhancing the infrastructure that facilitate effective teaching and learning process in proportion to the student strength in different streams.
- The institution has been following on-going process of expansion and up gradation of required infrastructural facilities, in view of the changes of the university syllabus.

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.

Institute has an infrastructure as per the norms and guidelines of AICTE and Solapur University. The Institute has planned and constructed the infrastructure which facilitates the curricular and co-curricular activities. All the departments are fully equipped with the necessary infrastructure to meet the requirements with adequate class rooms, seminar halls, tutorial rooms, laboratories and sufficient space for hosting all academic activities.

All the departments are equipped with state of the art computing facility with advanced set of hardware and software.

Common Instructional Area in Square Meters:
Information of Common Instructional Area in Square Meters is given in Table 4.1.2(a)

Table 4.1.2 (a): Common Instructional Area

Particulars	Level	Required Area in sq. mt.	Available Area in sq. mt.
Computer Centre	UG/PG	150	151
Library & Reading Room	UG/PG	400	730
Class Room- Tutorial Room	UG	1716	3825
Tutorial Rooms – PG	PG	264	370
Laboratories All	UG/PG	3828	5261

Drawing Hall/s	UG/PG	132	617
Common Workshop	UG/PG	200	1060
Seminar Halls	UG/PG	858	1152
Total		**7548**	**13166**

Administrative Area in Square Meters:

Details of Administrative Area in Square Meters are given in Table 4.1.2 (b).

Table 4.1.2 (b): Administrative Area

Particulars	Required area in sq. mt.	Available area in sq. mt.
Principal/Director Office	30	75
Central Store	30	63
Maintenance	10	19
Security	10	10
Housekeeping	10	19
Exam Control office	30	75
Placement office	30	75
Office All Inclusive	150	151

Detail information about HoD Cabin and Department office, Amenities Area in square meters are given in Table 4.1.2 (c), Table 4.1.2 (d) respectively.

Table 4.1.2 (c): Area for HOD Cabin and Department office

Branch/Course	Room No.	Required Area in sq. mt.	Available Area in sq. mt.
Engineering Sciences (First Year Head)	A216	20	75
E & TC Engineering	A316	20	75
Computer Engineering	A416	20	75
Mechanical Engineering + Departmental Library	D208, 209, 210	20	157
Civil Engineering	B103	20	75
Electrical Engineering	B104	20	75
Total		**120**	**532**

Table 4.1.2 (d): Amenities Area

Particulars	Required Area in sq. mt.	Available area in sq. mt.
Boys Common Room	75	75.50
Girls Common Room	75	75.50
Cafeteria	150	236.00
Stationary Store	10	76.00
First Aid cum Seek Room	10	20.00

Other Essential Facilities Available in the Campus of the Institute:

Essential facilities and desirable facilities available in the Campus are listed in Table 4.1.2 (e), Table 4.1.2 (f) respectively.

Table 4.1.2 (e): Essential Facilities Available in the Campus

Sr. No.	Particulars	Remark, if any
1	Recreational facilities	Cultural Center, Student Activity Center
2	Sports facilities if any	Cricket Ground, Football Court, Gymkhana, Basketball, Table Tennis, Carom Board, etc.
3	Disabled friendly infrastructure created	Yes
4	All Weather Approach Road	Yes
5	Potable Water Supply	Yes
6	Electrical Generator	500 KVA D.G. Set
7	Parking facilities	Yes
8	Medical facilities	Campus Clinic
9	General Insurance Policy for assets	Yes
10	Sewage Disposal	Yes
11	General Notice Board and Departmental Notice Boards	Yes
12	Medical and Counselling Facilities	Yes
13	Institution web site	**www.sknscoe.ac.in**
14	First Aid facility	Yes
15	Backup Power Supply	500 kVA D.G. Set
16	Telephone and FAX	Yes
17	Safety Provision – Fire	Yes
18	Any Other	--

Table 4.1.2 (f): Desirable Facilities Available on the Campus

Sr. No.	Particulars	Remark, if any
1	CCTV Security System	Yes
2	LCD Projectors in classrooms	Yes
3	Post / Banking Facility ATM	Yes
4	Audio-Video Room	Yes
5	Virtual Classrooms	Yes

Availability of Transportation/Conveyance Facilities:

Details of Transportation/Conveyance Facilities available are listed in Table 4.1.2 (g).

<p align="center">**Table 4.1.2 (g): Transportation Facilities**</p>

Sr. No.	Particulars	Remark, if any
1	Bus facility for Students	Available
2	Bus facility for Staff	Available
3	Principal car	Available
4	Staff Vehicle / Car	Available
5	Ambulance	College car in case of emergency.

A review of the requirements of infrastructure is done before the commencement of each academic term. Details of the budget allocated for infrastructure and others are shown below for the last four years in Table 4.1.2 (h).

<p align="center">**Table 4.1.2 (h): Budget for Infrastructure and other facilities (in lakhs)**</p>

	2017-18		2016-17		2015-16		2014-15		2013-14	
	Budget	Utilization	Budget	Utilization	Budget	Utilization	Budget	Utilization	Budget	Utilization
Library Books	20.0	0.0	20.00	19.69	20.00	19.37	20.00	19.82	22.50	22.29
Laboratory equipments and computers	12.21	1.61	17.60	13.25	57.42	43.06	35.43	32.49	84.06	83.80
Software	4.0	0.60	4.00	3.85	8.58	8.40	8.36	8.11	5.70	5.72
Games/ Sports/ Student Activity	0.75	0.0	0.75	0.61	0.25	0.61	0.50	0.80	0.50	0.29
Furniture	5.0	0.0	5.50	6.15	2.00	1.97	10.00	10.39	10.00	32.13
Administrative and others	40.0	13.73	35.10	32.94	35.00	33.87	28.00	22.81	38.10	37.40

Classrooms and Tutorial rooms:
The Institute has 34 well-equipped classrooms and 11 tutorial rooms.

Seminar Hall:
The Institute has one auditorium cum Seminar Hall with Wi-Fi facility having capacity of 1000 students for conducting various activities. Institute also has one fully air conditioned seminar hall having seating capacity of 450 students, well equipped with LCD projectors, white boards and a public addressing system. These halls are regularly used for conducting seminars and conferences, pre-placement talks, student induction programs, etc. In addition to this, each department in the Institute has an additional seminar hall for conducting co-curricular and extra-curricular activities.

Co-curricular activities:
Institute has student activity centre, recreation room and separate space to conduct activities of student clubs.

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

Apart from academic excellence and co-curricular activities, the Institute encourages and provides facilities for students to participate in various extra-curricular activities in order to build team spirit and leadership qualities. In such events, all the students exhibit their event management skills and faculty members remain in the role of mentor.

Sports:
The institute values the importance of sound physical and mental health while undergoing the process of overall development.

Outdoor games facilities:
In view of this, playground having an area of 6349 sq. mtrs has been made available for various outdoor games. Required sports equipments and tools are made available and updated regularly. These outdoor sports include football, cricket, volleyball, basketball, etc.

Indoor games facilities:
Institute has all indoor game facilities including table tennis, carrom, chess, etc. with all modern sports instruments.

Gymnasium:
Multi-gym facility is provided in the college campus with separate time slots for boys and girls. This gym is equipped with all modern gymnasium equipments.

Cultural Activities:
In addition to institute/ departmental seminar halls, the separate space is provided for all regular cultural activities conducted in the campus. The beautiful lawn is also being used many a times to conduct few cultural events in the evening. Annual cultural festival CARNIVAL is being hosted every year and separate arrangement for conducting all events is done by the institute.

Yoga:
Considering the importance of physical and mental fitness and also ever increasing worldwide acceptance of Yoga, the facility center is made available. In line with this art of living happiness course has been organized during winter and summer breaks.

NSS:
As per the guidelines from SUS, the institute has formed the NSS unit of students and staff. Various social activities undertaken by NSS involve helping AIDS affected children at 'PALAVI', tree plantation, cleaning of 'Palakhi Tal', distribution of drinking water to pilgrims, etc.

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

The student intake of the institute has been increased in steps from 300 to 600 for undergraduate courses and postgraduate courses with total intake of 96. The infrastructural facilities are created in line with future academic growth of the campus and infrastructure is more than the requirements and guidelines of AICTE and SUS.

Area required as per the norms in sq. mt.	Area available in sq. mt.
8288.00	80311.907

Total investment: Rs. 78,72,21,979/-

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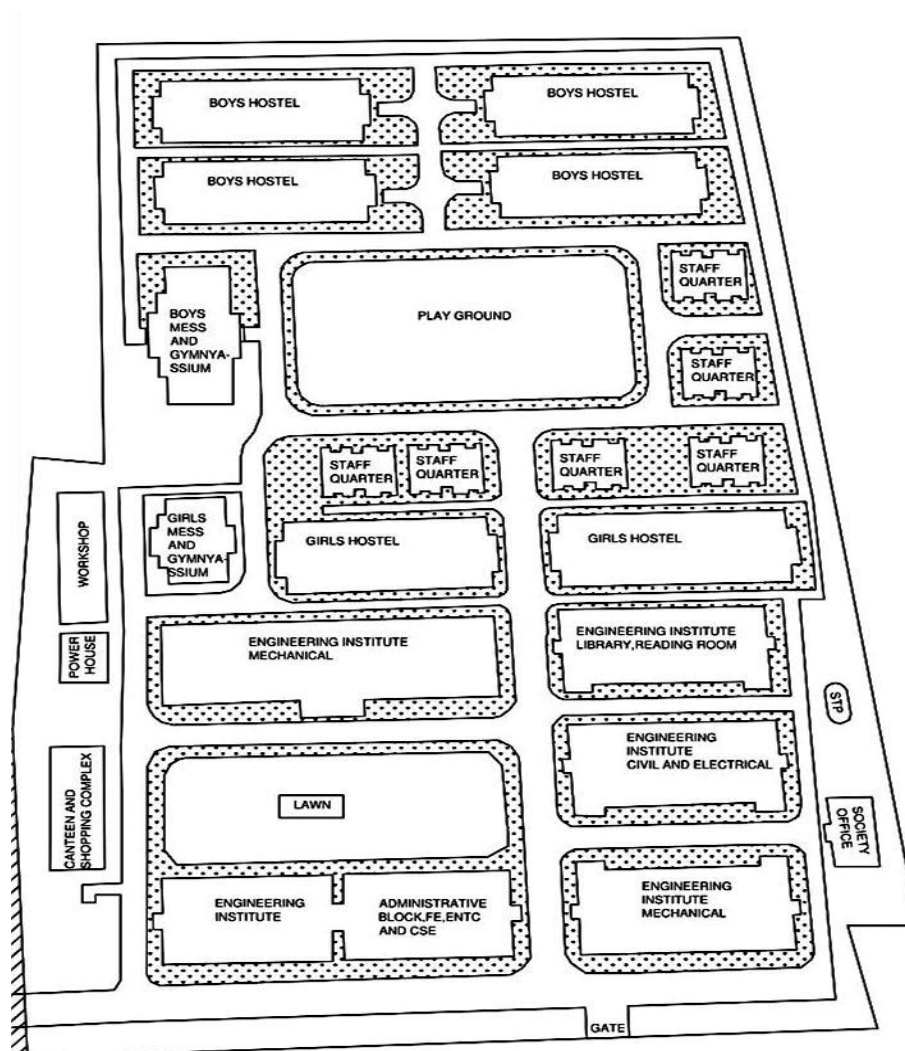
4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?

The institute ensures availability of infrastructural facilities for students to meet the requirement of physically disabled in following ways:

- All the building entrances are facilitated with ramps for easy movement of physically disabled persons.

- Wheel chairs are made available in the institute as per the requirement.
- Provision of classrooms and examination halls are made available on ground floor, in case of requirement.

4.1.5 Give details on the residential facility and various provisions available within them:
- Hostel facility – Accommodation available
- Recreational facilities, Gymnasium, Yoga center, etc.
- Computer facility including access to internet in hostel
- Facilities for medical emergencies
- Library facilities in the hostels
- Internet and Wi-Fi facility
- Recreational facility – Common room with audio-visual equipments
- Available residential facility for the staff and occupancy
- Constant Supply of safe drinking water
- Security

The details of residential facility and various provisions for staff and students are as follows:

Hostel facilities:
The hostel accommodation for 1600 boys and 800 girls is available in the campus. Spacious, fully furnished and well-ventilated rooms with attached toilet have been made available. Special attention has been paid towards housekeeping to maintain hygienic environment. Each room in the hostel is supplied with hot water from solar water heater. Uninterrupted power supply with back up of 500 KVA D.G. set is provided.
A Mess facility is available near hostel building. Food is cooked in the mess in most hygienic condition & cleanliness is given highest priority in the kitchens. Frequent visits to mess by faculty members ensure proper food quality and hygienic condition in kitchen.

Recreational facilities:
Indoor Gymnasium facility is available for boys and girls in separate time slots. Essentials for playing Carom, Badminton, Cricket, Football, Basketball, Chessboard and Table Tennis are available in the campus.

Computer facility including access to internet in hostel:
As hostel is located adjacent to academic block, computer center with internet is kept open till late night as per demand of students.

Medical Facility:
Dispensary is located near the hostels wherein 24 hours availability of Doctor takes care of students' health problem. In case of medical emergency, ambulance and estate office vehicles are made available. Medical store is also available in the campus.

Library facility in the hostels:
As hostels are in close vicinity of library building, there is no need to have separate library in the hostel.

Internet and Wi-Fi facility:
Wi-Fi facility is available through 32 Mbps lease line. In addition to this, Wi-Fi network by Reliance Jio is also available.

Recreational facility – Common room with audio-visual equipments:
Common room facility is available for boys and girls along with audio visual equipments.

Available residential facility for the staff and occupancy:

Staff Quarters:
A notable feature of Institute is the specially architectured residential quarters, providing accommodation to Head of Institute, faculty members and other supporting staff members. This has been a strategic decision, planned to save the commuting time of the faculty members and also to ensure availability and accessibility for timely guidance and expertise. There are 3 blocks of 2 BHK flats for faculty members and separate block of 3 BHK for the head of the institute. For supporting staff, there are 2 blocks of 1BHK flats and 4 blocks of 1RK flats.

Guest House:
Institute has 4 presidential suits and 8 luxurious AC rooms in the guest house at the estate office.

Drinking water:
Pure drinking water is provided to entire campus using RO water purifiers cum coolers.

Security:
Round the clock security in the campus is assured by the team of guards headed by Retd. Colonel and assisted by CCTV surveillance. Adequate number of guards have been deputed at the entrance, at the hostels and various locations. Outsiders are allowed to enter in the campus only after proper verification and entry in the register.

Special attention has been paid to Girls' hostel security by round the clock presence of ladies wardens. Movement register is maintained to keep record of girl's movements in and outside the hostel. Daily attendance record is maintained. While issuing night out permission, consent from parents is ensured. If a girl fails to report hostel, in stipulated time frame, parents are informed telephonically.

Cleanliness/ Housekeeping:
To maintain clean and hygienic environment in all the buildings, dedicated team of sweepers works continuously. Lady sweepers are assigned for cleaning of roads and other areas of landscaping. Daily monitoring of cleanliness in campus is ensured by the supervisors and in the form of written reports. Separate contractual assignment is made for pleasant gardening and landscaping.

Entertainment & Sports:
To release mental stress owing to daily routine, entertainment and sports facilities have been made available in the campus. Televisions are provided in the mess and canteen. Daily newspapers are also available in hostels and library. Availability of Wi-Fi network in the campus serves as the source of entertainment as well as information. Institute cultural center gives wide scope for student's extra-curricular activities.

Other Facilities:

In the campus, various facilities are available to the students such as Laundry, Gents & Ladies Parlor, Sinhgad Shopping Centre, Fruit stall, Ice cream parlor, Fruit juice Centre etc.

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

In campus, dispensary with medical store for free medical check-up is available for students and staff members. First-aid kits are available in all departments and hostels for minor injuries. As per seriousness of illness, students are taken to nearby private hospitals through ambulance and college vehicles. Medical Insurance facility for every student is mandatory from SUS and SPSPM society.

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

Sr. No.	Name of Unit	Location or Room No.
1	AMC (IQAC)	104
2	Grievance Redressal unit	105
3	Women's Cell	211
4	Counseling and Career Guidance	106
5	Placement Unit	104
6	Health Centre	Campus clinic
7	Canteen	Cafeteria in shopping complex
8	Recreational spaces for staff and students	Second and third floor of mess building
9	Safe drinking water facility	RO plants at all places
10	Auditorium	AC Seminar hall and library first floor.

4.2 Library as a Learning Resource

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

Yes, Institute has a library advisory committee and the details are shown in Table 4.2.1

Table 4.2.1: Library Advisory Committee

Sr. No.	Name	Designation
1	Dr. K. J. Karande	Chairman
2	Dr. C. P. Pise	Teaching Staff Representative
3	Dr. R.T. Vyavahare	Teaching Staff Representative
4	Prof A. I. Nikam	Teaching Staff Representative
5	Prof. A.O.Mulani	Teaching Staff Representative

6	Mrs. N. K. Karande	Member Secretary
7	Mr. D. B. Waghmare	Member
8	Mr. V. P. Dombe	Non-Teaching Staff Representative
9	Mr. More Akash B.	Student Representative

Following significant practices have been implemented by the Library Advisory committee:

- To ensure availability of recommended books in the library
- To ensure availability of NPTEL video lectures to faculty members and students.
- To make available online journals like IEEE, Science Direct etc. in the Digital library.
- To prepare schedule of library working hours during working days, examinations, non-instructional days, holidays and vacations.
- To ensure up gradation of the library with latest technical developments.
- To frame rules and regulations for the library
- To plan for active functioning of the library

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)**

Details of the facilities mentioned above are as follows-
- Total area of the library (in Sq.Mts.): 3780
- Total seating capacity: 500

Working Hours:

Library timings (on working days, on holidays, before examination days, during Examination days, during vacation) are listed in Table 4.2.2

Table 4.2.2: Library Timings

Sr. No.	Details	Library Timing
1	On working days	8.00 a.m. to 08.00 p.m.
2	On holidays	8.00 a.m. to 06.00 p.m.
3	Before examination days	8.00 a.m. to 08.00 p.m.
4	During examination days	8.00 a.m. to 12.00 midnight
5	During vacation	8.00 a.m. to 06.00 p.m.
6	Reading Hall	24 x 7

- **Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources) is as shown below:**
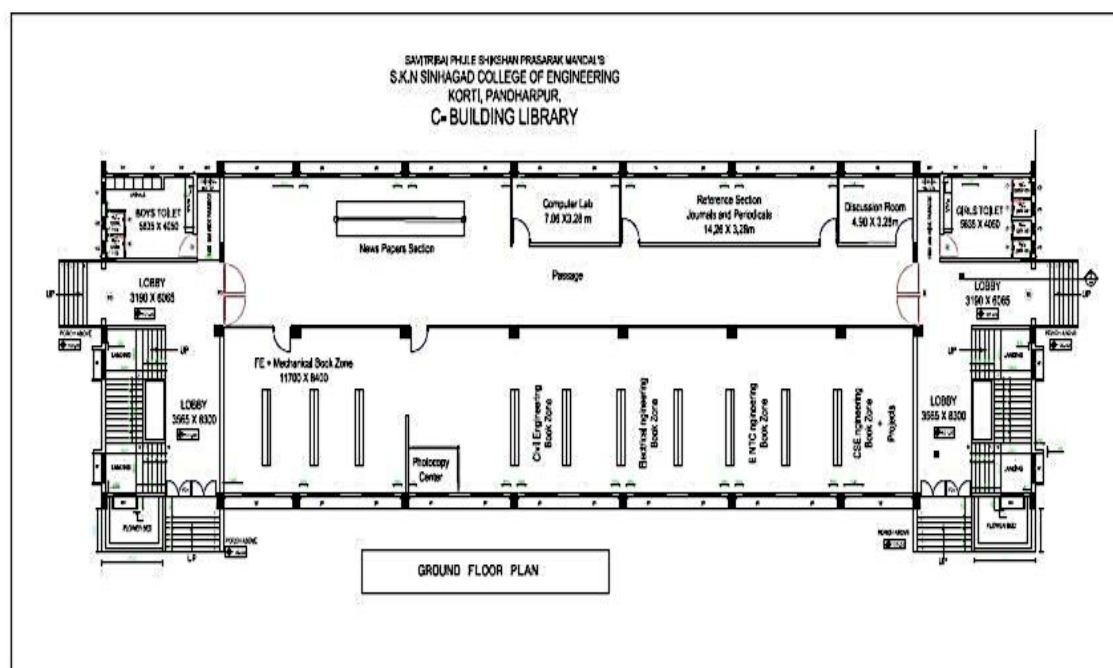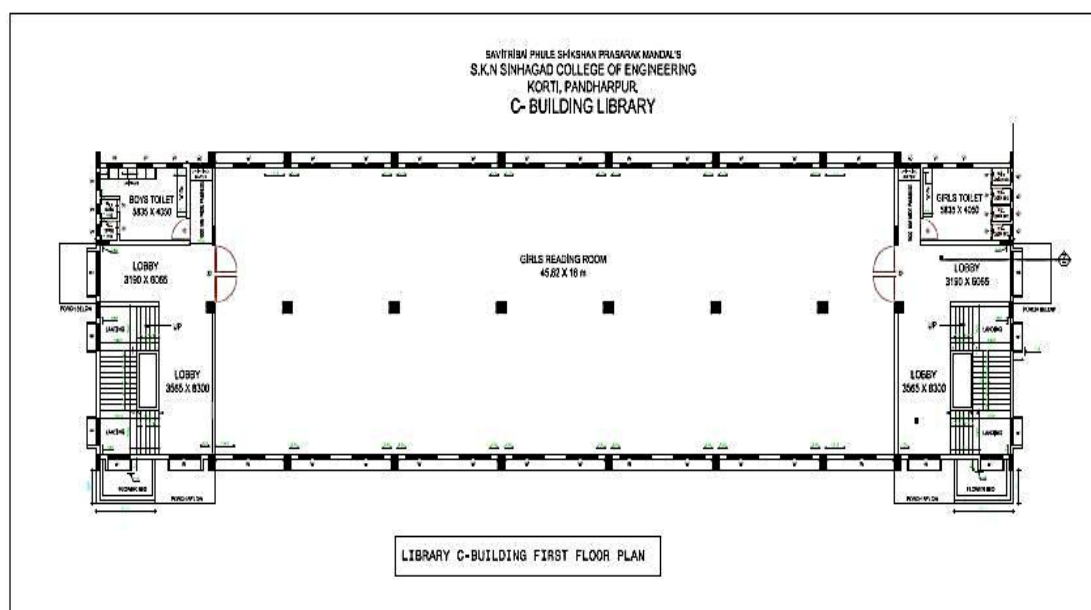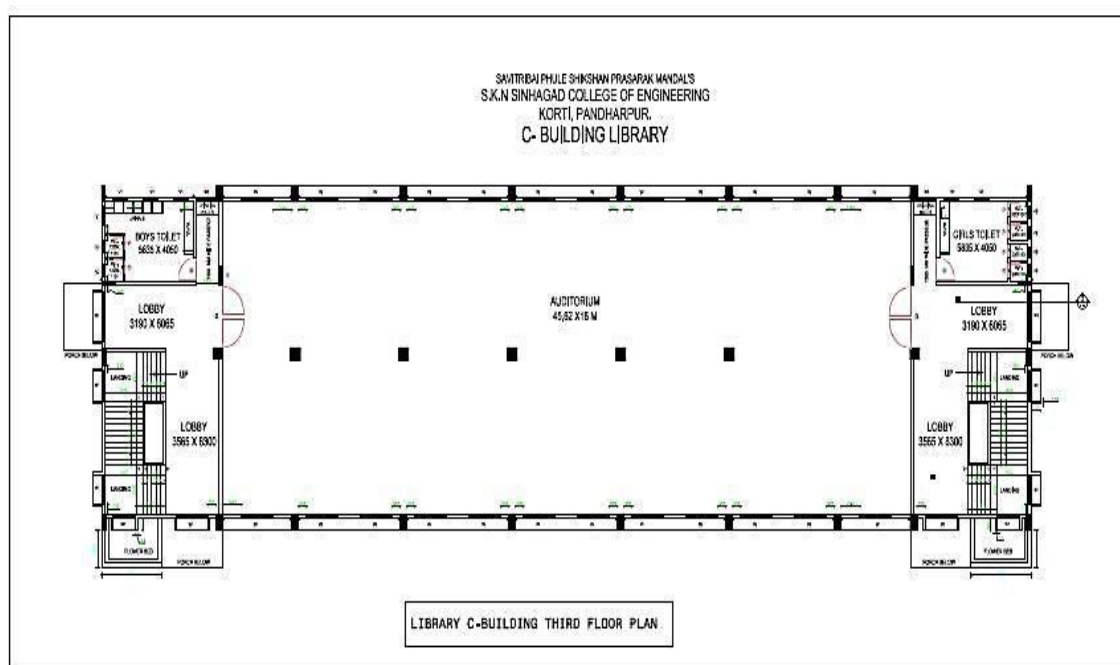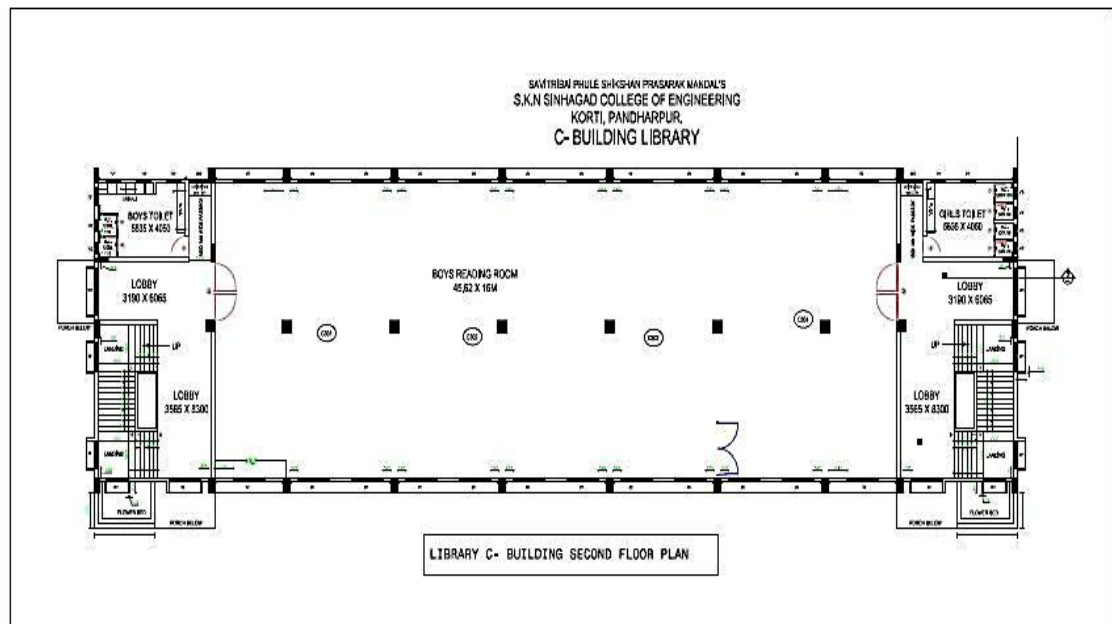
Figure 4.2.2: Library Layout Plan

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

As per the norms and guidelines of AICTE and SUS, requirements are collected from the faculty members before the start of semester and recommended by library committee for purchase. The college library follows the Open Access system. Reference books, Newspapers, Aptitude and Skill Development Books are also available in the library.

For the details of books and journals in the library refer following Table 4.2.3

Table 4.2.3: No. of Books, Journals, etc. and amount spent (in Lakh)

Library holding	2013-14		2014-15		2015-16		2016-17		2017-18	
	Number	Total Cost	Number	Total Cost	Number	Number	Number	Total Cost	Number	Total Cost
Text Books	2408	7.52	1574	3.85	986	2.64	621	1.89	25	0.1
Reference Books	642	1.74	476	1.71	264	0.98	232	0.93	0	0.0
Journals/ Periodical	80	1.45	80	1.48	80	1.52	80	1.65	80	1.56
e-resources	11584	11.50	11814	12.70	12165	14.61	12261	15.15	12360	8.81
Any other (Daily News paper)	6	0.08	7	0.08	8	0.13	8	0.07	8	0.04

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 publications**
- **Library automation**
- **Total number of computers for public access**
- **Total numbers of printers for public access**
- **Internet band width/ speed**
- **Institutional Repository**
- **Content management system for e-learning**
- **Participation in Resource sharing networks/consortia (like inflibnet NLIST)**

Details of ICT and other tools are shown in table 4.2.4.

Table 4.2.4: Details of ICT and other tools

Particulars	Availability
OPAC	Yes
Electronic Resource Management package for e-journals	Yes
Federated searching tools to search articles in multiple databases	Yes

Library website	Yes, sharing in institutional website
In-house/remote access to publications	Yes
Library automation	Yes
Total number of computers for public access	08
Total numbers of printers for public access	01
Internet band width/ speed	32 Mbps
Institutional Repository	Yes
Content management system for e-learning	Yes
Participation in Resource sharing networks/consortia (like inflibnet NLIST)	Yes

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**
- **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**

The details are as follows:

Particulars	Availability
Average number of walk-ins	300 per day
Average number of books issued/returned	250
Ratio of library books to students enrolled-	7:1
Average number of books added during last three years	2116
Average number of login to OPAC	55
Average number of login to e-resources	120
Average number of e-resources downloaded/printed	50
Number of information literacy trainings organized	1 per year
Details of "weeding out" of books and other materials	No material weeded out

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, Download, Printing, Reading list / Bibliography compilation, In-house/remote access to e-resources, User Orientation and awareness, Assistance in searching Databases, INFLIBNET/IUC Facilities.

Details are as follows:
- **Manuscripts : No**
    Library does not have old documents or Manuscripts.

- **Reference: Yes**
  Library has well developed reference section of 2435 books belonging to all branches
- **Reprography: Yes**
  Library has photocopy facility for Reference Books.
- **ILL (Inter Library Loan Service) :** Yes
  Amongst all technical institutes of STES IIL facility is extended. Once in a semester the books are exchanged as per the demand of students. Journal papers are made available and material is shared to other Sinhgad Institutes as per demand of students as well as faculty member.
- **Information deployment and notification:-**Yes
  New arrivals are notified and displayed.
- **Download:** Yes
  This facility is available in Digital Library and staff assists the students to download the required material.
- **Printing: -** Yes
  Facility is provided to students as per demand.
- **Reading list / Bibliography compilation** is done on demand from faculty members.
- **In-house/remote access to e-resources: -** Yes
  IP enabled access is made available in the campus.
- **User Orientation and awareness: -** Yes
  Orientation is given during induction programme at the time of admission. Also information is displayed on notice board.
- **Assistance in searching Databases: -** Yes
  The help of specialized staff is extended to users for searching right information.
- **INFLIBNET/IUC Facilities:** Yes
  NLIST database is shared with other institutes with user name and password.

4.2.7 Enumerate on the support provided by the Library staff to the students and teachers of the college.
- User orientation programs.
- At a time two books are issued for students and ten books for staff members.
- Open access to students and faculty member.
- Hands-on experience to access e-resources
- Information alert services on new arrivals
- Assistance to figure out books on stacks
- Syllabus and previous question papers of SUS are available for reference
- e-library service guidance
- Newspaper clipping service

4.2.8. What are the special facilities offered by the library to the visually/ physically challenged persons? Give details.
- Multimedia resources (audio/video peripherals) are available in the library
- Separate counter for circulation of book.
- Washrooms are available near library for physically challenged students.

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

Yes. Feedback system has been implemented to fetch the constructive suggestion from all the stake holders about difficulties faced and suggestions to improve the functioning as well as library services. A suggestion box is kept in the library for the same. Suggestions are collected and scrutinized by the library committee. During committee meetings, feedbacks from students and faculty members are scrutinized and considered for improvement in the library services.

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**

All the departments are equipped with state of the art computing facility. Adequate number of PCs with latest configuration and peripherals are present in the department. In addition to this, facility of digital library and computer centre is provided. Details of computers with specification and department wise computing facilities are shown in table 4.3.1 (a) and 4.3.1 (b) respectively.

Table 4.3.1(a): Details of computers with specifications

Sr. No.	Company	Specifications	Quantity
1	DELL Optiplex 390	Processor: i3-2130 CPU @3.30 GHz, HDD: 500 GB, RAM: 2GB	100
2	DELL Optiplex 380	Processor: Dual core 2.66 GHz, HDD: 300 GB, RAM: 1GB	200
3	DELL 3020	Processor: Intel Core TM i-5 4570 3.20 GHz, HDD: 500 GB, RAM: 4GB	25
4	ACER MINITOWER	Processor: Pentium Dual 2 Core E5400 2.70 GHz, HDD: 250 GB, RAM: 1GB	73
5	ACER Veriton	Processor: Intel core 2 quad CPU Q8300 @2.50 GHz. HDD: 300 GB, RAM: 2GB	175
6	IBM	Processor: X3650M4 HDD: 900 GB CPU Xeon E5-2620	01
7	VIP	Processor: Intel i-7 477MP HDD: 1TB, RAM: 8GB	01

Table 4.3.1(b): Computing Facility

Sr. No.	Description	E&TC	CSE	Electrical	MECH	F.E.	Civil	Total Qty.
1	Server	-	02	-	01	03	-	06
2	Desktop	98	127	26	170	105	49	575
3	Printers	10	10	05	12	14	05	56
4	LCD Projectors	07	06	04	12	08	04	41
5	Plotter	-	-	-	01	-	-	01
6	Colour laser printer	-	-	-	-	01	-	01
7	Scanners	01	02	01	01	02	01	08
8	Laptop	-	-	-	-	01	-	01
9	3D Printer	-	-	-	01	-	-	01

- Computer student ratio = 1 : 3.38
- All the computers are connected by LAN to the internet through 32 Mbps lease line with WIFi facility. In addition, Wi-Fi network by Reliance Jio is also available.
- The list of licensed softwares available is shown in table 4.3.1(c)

Table 4.3.1(c): List of software available at various departments

Windows server 2003/08/12	Office Professional Plus 2010/13/16	Windows enterprise OS 7/8/8.1
Visual Studio Professional 2007/10/13	Windows HPC server 2008/R2 suite with SP2	Windows multipoint server premium 2011
AutoCAD 2012	CATIA	MATLAB 2012
ANSYS 14.5	Automation Studio	Pro-E
Vibration Exciter Model	Dew Soft (FFT Analyzer)	MSC Nastran
GATE Tutor	STAAD PRO	E-TAB
SAP	Multi sim version 12.0	TRITAN IDE kit

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

Internet facility of speed 32 Mbps is provided by the institute.
The Institute provides LAN and Wi-Fi Facility to the faculty and students to meet connectivity requirements.
The details of Internet facilities are shown in Table 4.3.2

Table 4.3.2: Details of Internet Facility

Particulars	Details
Number of servers	06
Number of PCs	575
Name of the Internet Provider	BSNL
Available Bandwidth	32 Mbps
Access Speed	Around 10 Mbps

Availability of Internet in exclusive Labs	Yes
Availability in all computing Labs	Yes
Availability in Department and other units	Yes
Institute own email facility to Faculty/students	Yes (abc.xyz@sknscoe.ac.in)
Security/Privacy to Email/Internet Users	Cyberoam firewall is installed

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

The college upgrades the computer systems of the different laboratories as per the requirements of the University syllabus. All the classrooms of the college are equipped with LCD projectors. The Wi-Fi and internet facility is available to staff and students.

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

The details regarding annual budget is given in Table 4.3.4.

<p style="text-align:center">Table 4.3.4: Annual Budget for Last Three Years (In Lakhs)</p>

Items	Financial Year 2017-18		Financial Year 2016-17		Financial Year 2015-16		Financial Year 2014-15		Financial Year 2013-14	
	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses
Component & Lab material	4.00	1.61	3.95	3.27	9.37	9.30	7.76	7.48	5.08	4.94
Computers	3.20	00	0.00	0.00	33.70	33.54	9.50	9.43	34.50	34.69
Software	5.00	0.60	4.00	6.17	8.58	8.40	8.36	8.11	5.70	5.72
Repairs, maintenance on computers and others	0.50	0.12	0.50	0.52	0.50	0.36	0.50	0.48	0.20	0.19

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

- The Institute has access to online NPTEL video material.
- Recorded lectures of the experts are available in digital library and on FTP server.
- Faculty members make use of power point presentations for effective content delivery.

- All the classrooms are well equipped with LCD projectors. All Staff rooms have computing facility with internet connection.
- The institute maintains a database of objective questions for all courses on dedicated MOODLE server. This helps to verify the knowledge grasped by students by conducting online tests.
- Students can avail the facilities of photocopying, printing and CD writing in the college premises.

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

- As the institute has access to online NPTEL video material, students are motivated to learn new topics and technologies.
- Few of subject teachers have recorded their lectures and uploaded on You-tube for students' independent learning.
- As learning resources are made available on FTP/MOODLE server. These all resources are being utilized by students to enrich learning process
- The computer center of the institute is made available to students for accessing all online information as per the need of learning ability.
- The IIT spoken tutorials are being conducted in support to curriculum as co-curricular activities during the semester.
- Conducted course on "Use of ICT in Education by online and blended MOOC"

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

The institute avails national knowledge connectivity facility provided by spoken tutorials and NPTEL. Also, the institute is a part of NMEICT to conduct various online courses suitable for faculty members and students with Remote centre ID 1260.

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)?

Details of optimal allocation and utilization of the available financial resources for maintenance are summarized in following Table 4.4.1 (a).

Table 4.4.1(a): Maintenance structure

Type of Maintenance	Responsible department/ person	Remark
Building Maintenance	A separate project officer is appointed at estate office for routine maintenance work.	As per requirement

Electrical Maintenance	A separate electrical engineer is appointed at estate office for routine maintenance work along with supporting staff. Number of electrical staff: 04	As per requirement
Maintenance of computing facilities	In house staff. Number of staff: 03 Outsourcing for hardware maintenance	As per requirement
Maintenance of water supply facilities	In house plumbing staff. Number of plumbers: 02	Maintenance carried out every Months & after receiving the Complaints
Housekeeping	Number of housekeeping staff: 30	Daily
Generator	In house staff. For major maintenance: Annual Maintenance Contract	As per requirement
Garden Maintenance	Annual Maintenance Contract	Daily maintenance
Carpentry maintenance	In house through Workshop Carpenters	As per requirement
Aqua guard, Water Coolers, etc.	In house and out-sourcing No. of persons: 04	As per requirement

The details of maintenance budget are shown in table 4.4.1(b)

Table 4.4.1 (b) : Details of the Budget for Maintenance (in Lakhs)

Items	2017-18		2016-17		2015-16		2014-15		2013-14	
	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses	Allocated Budget	Expenses
Building	10.00	0.32	15.00	9.55	5.00	4.19	20.00	18.96	5.00	4.26
Furniture	1.00	0.0	1.0	0.67	0.50	0.55	0.20	0.15	0.20	0.1
Equipments	0.75	0.18	0.5	0.33	0.5	0.42	0.5	0.33	0.5	0.21
Computers	0.50	0.12	0.5	0.52	0.5	0.36	0.5	0.48	0.2	0.19
Vehicles	0.50	0.0	1.00	1.46	1.00	1.18	1.00	0.74	1.00	0.81
Any other	3.00	0.57	4.00	2.34	4.00	3.06	4.00	2.31	4.00	3.19

4.4.2 What are the institutional mechanisms for maintenance and upkeep of the Infrastructure, facilities and equipments of the college?

The Institute has separate teams for maintenances as follows:

1. **Building maintenance team:**
   This team is headed by Project Engineer. The committee facilitates maintenance in terms of upkeep and maintenance of the buildings, surrounding, landscaping, plumbing, roads, sanitary, electrical appliances, roads, water tanks and other services in the campus.

2. **Furniture Maintenance Team**:
   This team is headed by workshop superintendent and supported by workshop technicians. The committee looks after the routine maintenance of benches, cupboards, doors, windows and other related furniture.

3. **Equipment and Computer Maintenance Team:**
   The Institute has a team which looks after the maintenance and upkeep of the equipment and computer facilities of the institution. The maintenance includes computers, network systems, electrical and electronic equipments.

4. **Housekeeping supervisor of the Institute:**
   The Institute has a housekeeping supervisor for looking after the maintenance of cleanliness and minor repairs (sanitation, carpentry) required on a day to day basis.

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

All the devices, equipment and instruments that require calibration undergo periodic calibration process by the authorized agencies as per requirement.

4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?Any other relevant information regarding Infrastructure and Learning Resources which the college would like to include.

The steps taken for location, upkeep and maintenance of sensitive equipment are listed below:
- All the computer labs are supported by either UPS or voltage stabilizer.
- Fire extinguishers are provided at multiple locations as per requirement.
- Multiple exits in case of emergency are provided.
- Fire fighting equipment training is provided.
- Exit signs and floor indication boards are given at strategic locations.
- Electricity: - Electricity is supplied from Maharashtra State Electricity Distribution Co. Ltd via 3-Phase line with LT 11 KVA express feeder line.
- Power Backup: - Power back up from Kirloskar Genset of 500KVA capacity.

Telecom: - BSNLs one line (Telephone No/FAX No. 250000) is available with EPBX system (144 intercom lines) with PRI.
Water supply: - Municipal Corporation water supply is available in the campus round the clock and it is utilized for drinking purpose after softening and purification through RO and UV treatment. Beside this, well water is also available in campus, which is used after softening for all other purposes.

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1 Student Mentoring and Support

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

Yes. The institute publishes its updated prospectus/handbook annually in the form of hard copy.

Information provided in the prospectus:
- Vision, Mission, Short-term goals, Long-term goals.
- Courses offered (UG, PG) by institute with intake.
- Activity plan.
- Strategy plan for teaching learning process.
- Facilities in the departments such as laboratories, equipments, etc.
- Facilities in the college such as central library, RO water system, CCTV camera, etc.
- Facilities in the Hostel, Residential Quarters, Canteen & Mess, Shops, ATM, etc.
- Training & Placement information.
- Recruiters' information.
- Events conducted by the institute.
- Rules of discipline, prohibiting ragging, etc.
- Information of Governing body, Local managing committee, etc.
- The educational institutes under the aegis of Sinhgad Institutes.

Commitment and Accountability:
Institute ensures its commitment and accountability through regular interaction with students, faculty, student council meetings, feedback of students, review of results, placement, academic calendar and rules provided in the prospectus. Institute follows all the rules and regulation framed by AICTE, DTE and Solapur University Solapur.

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

- Institute takes efforts to display all necessary information about the private NGO, Trust scholarships schemes on Notice boards and guides the students to fill scholarships form online.
- The institute provides fee waiver to the students who are not in a position to pay the fees and request for concession.

Table 5.1.2 (a): Details of fee waived students (in Rs.)

Academic Year	Name of Student	Fee waived	Total Fee Waived
2013-14	Navale Sharad Vithoba	74,900	2,16,102
	Navale Vishal Vitthal	31,728	
	Shinde Ganesh Tukaram	36,273	

Academic Year	Name	Amount	Total
	Nene Vaidehi Sanjay	39,900	
	Jadhav Priyanka Dattatraya	33,301	
2014-15	Navale Sharad Vithoba	84,700	84,700
2015-16	Navale Sushant Bhimrao	20,859	92,859
	Navale Rohan Sanjay	72,000	
2016-17	Navale Sushant Bhimrao	17,982	1,65,582
	Navale Sonia Dadasaheb	72,000	
	Navale Rohan Sanjay	75,600	

- The institute supports private scholarships like Yedkar's Ramchandra Janaki Memorial Trust, scholarship for deserving students.

Table 5.1.2 (b): Details of private financial assistance

Academic Year	Name of Student	Amount Received from Yedkar's Ramchandra Janaki Memorial Trust, in Rs.
2013-14	Mr. Rahul S. Sangale, SE	35,000
2014-15	Mr. Prokshit S. Kshirsagar, TE	40,000
2015-16	Mr. Prokshit S. Kshirsagar, BE	40,000
2016-17	Mr. Prokshit S. Kshirsagar, BE	40,000

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

Scholarships/freeships are given by Government of Maharashtra on the basis of parents' annual income. Apart from the above, GATE scholarships are provided by AICTE to PG students. Table 5.1.3. shows the financial assistance in the form of scholarship given to UG & PG students by the Govt. of Maharashtra.

Table 5.1.3: Details of financial assistance from government

Academic Year	2013-14	2014-15	2015-16	2016-17	2017-18
Financial assistance from state government, and other national agencies	SC/ST,Minority, Other (NT,OBC, SBC & EBC) PH, GATE				
Total no. of students	1549	1765	1814	1943	1805*
No. of students	1013	1120	1285	1528	1449*
Percentage of students	65.39	63.45	70.83	78.64	80.27*

*In progress
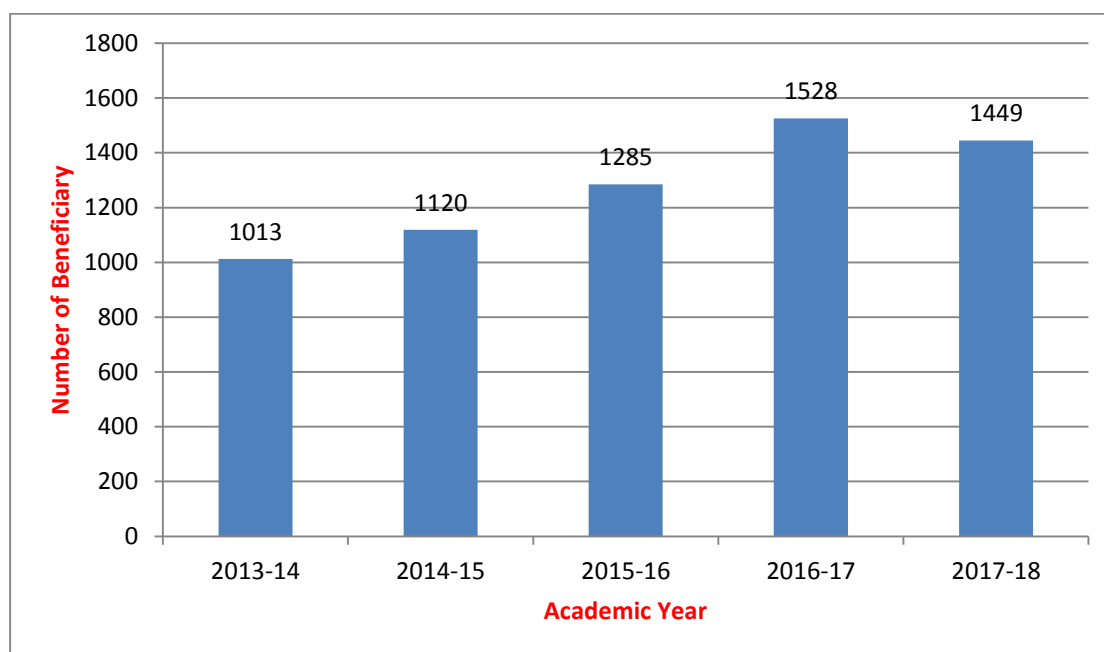
Fig. 5.1.3: No. of students received scholarships from government

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**

i) Students from SC/ST, OBC and economically weaker sections:
- Institute always updates information related to facility, support services and scholarship schemes regularly through college website and notice boards.
- The institute guides students to apply online for scholarship form. The facilities required to fill-up scholarship forms are made available as per demand of students.
- Book bank facility is available to the students.
- The institute takes special efforts to give awareness about EBC scholarship and other financial assistance provided by the government of Maharashtra.
- The institute provides instalment facility for paying college fees.
- Earn and learn scheme is available for economically weaker students.

ii) Students with physical disabilities:
- Facilities such as ramp, handrail, wheel chair etc. are provided for ease of mobility.
- Extra exam time is provided in the university exam.
- In admission, separate quota is reserved for physically handicapped students.

- Comfortable chairs are made available in laboratories and class room for physically handicapped students as per requirement.

iii) Overseas students:

Institute does not have admission quota for overseas students.

iv) Students' participation in various competitions (National and International):

- The institute motivates the students to participate in technical and non-technical events organized in the institute (WEENGS, SPECTRUM, etc.) and out of the institute.
- Additional five marks in term work are given to students as motivation to participate in national and international events.
- The institute also gives financial support to students to participate in national and international events.
- Faculty members support students to publish research work in reputed national or international journals/conferences.

v) Medical assistance to students: health centre, health insurance etc.:

- Medical officer is available in campus for students and employees.
- The emergency vehicle (24x7) available in the campus.
- The first aid box available in each and every department.
- The health insurance policy is compulsory as per university guidelines.
- The regular health check-up camps and counselling sessions are organized.

vi) Organizing coaching classes for competitive exams:

- Institute has study centre for Competitive Exam preparation with sufficient study material. Guest lectures on competitive exams preparation by various experts are conducted.
- Institute provides different facilities like video lectures, Gate Tutor software etc. for preparation of GATE, GRE, CAT exams.
- The institute provides in-house Value Addition Programs for overall development.

vii) Skill development (spoken English, Personality development programme, technical certifications etc.):

- Institute has a language lab for improvement of verbal communication.
- Students training programs are part of regular timetable from FE to TE for overall soft skill development.
- Spoken tutorials powered by IIT Bombay are regularly conducted for different technical skills up gradation.
- Technical, personality development and quantitative aptitude courses are arranged by faculty members and external agencies.

viii) Support for "slow learners":

- Extra input sessions are conducted for identified slow learners.
- Regular test series on "MOODLE Server" are conducted for students below average.
- Remedial classes are conducted for weaker students in every department.
- Faculties and students are encouraged to use NPTEL learning resources.

- Regular TG meetings are conducted in the department to solve the problems of students.

ix) Exposure of students to other Institution of higher learning/corporate/business house etc.:
- Students are encouraged to participate in national and international conferences, seminars and workshops.
- Students are encouraged to publish their research paper in reputed journal/ conference.
- Expert lectures are conducted that help students to keep in touch with latest technology.
- GATE exam preparations with special coaching classes are organized.

x) Publication of student magazines:
Students are encouraged to write articles for college magazine.
1. '*Advik*' college magazine
2. Departmental News Letters.
3. Students contribute in "Wall Magazine Activity" which improves creative thinking and imagination.

5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.
- In collaboration with Maharashtra Centre for Entrepreneurship Development (MCED) the institute organizes regular workshops and expert lectures for employability awareness and entrepreneurship skill development.
- Regular industrial visits are arranged for exposure to industrial environment.
- Few alumni students have started their own firms.

Table 5.1.5: Entrepreneurship skill development activity details

Sr. No.	Depar-tment	Duration	Name of the skill Development Programme/ Lecture	Agency/ Expert	Objectives	Numb-er of partici-pants
1	All	27/09/2016 to 29/09/2016	Entrepreneurship Awareness Camp (EAC)	MCED, Solapur & NSTEDB, Delhi	To promote Make in India, Start Up India & the growing needs at global level	81
2	All	25/03/2017 to 26/03/2017	Workshop on Recent Trends in Solar Energy	Mr.A.A. Sagade	To know advancements in solar energy sector	30
3	All	25/04/2017 to 26/04/2017	Entrepreneurship Awareness Camp (EAC)	MITCON, Solapur	To promote Make in India, Start Up India & the growing needs at global level	45

4	Civil	08/02/2014	Entrepreneurship	Mr. Nandkumar Dupade (Expert MCED)	With vision to make aware about entrepreneurship	102
5	Civil	24/01/2016	Entrepreneurs-hip Development	MITCON Solapur	To enhance entrepreneurship skill amongst the students	31
6	Civil	14/07/2016	Motivational lecture on Entrepreneurs-hip	Dr. Ashok Khade (MD Das Offshore Ltd., Mumbai)	To encourage students for entrepreneurship	279
7	Civil	25/08/2016	Success Stories of an Entrepreneur	Mr. Chidambaram (MD Kotibhaskar Group)	To create interest in the students to start the business.	132
8	Civil	15/09/2016	Entrepreneurs-hip	Mr. Pravin Bhalerao (MD Eureka India Pune)	To know the opportunities in the market.	136
9	Civil	03/01/2017	Career opportunities in civil engg.	Mr. Vijay Nalgirkar (Ex.Director, Engineers India Ltd, Delhi)	Awareness about career opportunities in civil engg.	181
10	Civil	25/01/2017	Opportunities in structural consultancy	Mr. C.R. Kulkarni (Structural Consultant, Pune)	Motivation to students to be a structural consultant	183
11	Civil	23/03/2017	Be Employable & Basics of project management and evaluation	Mr. Sameer Alone (CEO, Infiny solutions, Pune)	Motivation for employability	210
12	CSE	15/07/2013	Qualities of good entrepreneur	Mr.Nagesh Kokare (MCED)	To make student good entrepreneur	27
13	CSE	04/04/2014	'Be Ready to become Entrepreneur!'	Dr. Diwan V.V. (TPO, New Polytech-nic, Kolhapur)	To develop entrepreneurship skills	23

14	CSE	19/01/2015	Recent trends in IT industries	Mr. Yashwant Bhigare	To give awareness about recent technologies in IT industry	25
15	CSE	11/08/2015	Project Report Format For Bank Loan	Mr.Vinay Bhosale (MCED EDP Solapur)	To develop bank loan procedural requirement for small scale industry.	28
16	CSE	09/07/2016	Importance of Communication Skill for Better success in Business	Mr. S.E. Thobade	To improve Communication Skill	25
17	CSE	01/02/2017	Carrier opportunities in IT industry	Shri. D.D. Badgujar (Entrepren-eur)	To give awareness about recent technologies in IT industry.	130
18	E&TC	01/09/2013	Entrepreneurs-hip Development	Mr. Tatyaso Waghmare (Hexaware)	To make aware about Entrepreneurship opportunities in IT field	28
19	E&TC	18/02/2015	Small Scale Business	Mr. Avinash Sawant (Pioneer Technology)	To give awareness about small scale business	25
20	E&TC	18/07/2015	Self Employment	Mrss. Pallavi Bhiware (Self Employed)	To encourage students for start up	26
21	E&TC	12/08/2016	Rural Business Opportunities	Mr. Dheeraj Muttin (Meen Technology)	To make students acquainted about rural business opportunities	55
22	Electr-ical	02/07/2015 to 07/07/2015	Workshop on transformer design	Mr. Kulkarni Nachiket Director, N. Kenin Transfor-mers	To give knowledge of design, manufacturing and maintenance of transformer	52
23	Electr-ical	24/2/2016	Workshop on PCB design	Prof. A.D Harale	To give hands on training on PCB design	63
24	Electr-ical	23/08/2016	Seminar on "Entrepreneurs hip &	Mr. Gururaj Kulkarni Director,	To make aware students about opportunities in	77

			Opportunities in Solar Power Sector"	PowerFlow Systems Pvt Ltd.	solar power start ups	
25	Electr-ical	7/09/2016	Seminar on "Opportunities for Young Generation in entrepreneursh-ip "	Mr S. K. Navale (Vice president of Om international Ltd)	To enlighten students about opportunities in entrepreneurship	152
26	Electr-ical	10/01/2017	Seminar on "Hydroponics Grass fodder Production"	Prof. Seema Gaikwad	To make aware about opportunities in Hydroponics Sector.	150
27	Mech-anical	15/08/2015 to 17/08/2015	Entrepreneurs-hip Development Programme (EDP)	MCED, Solapur	To give information on various licenses required for start ups	80
28	Mech-anical	22/08/2015 to 23/08/2015	Workshop on Non-Destructive Testing	Mr. Indrajeet Yadav (SV Tech Engg. Consultant Pvt. Ltd., Pune)	To give hands on various non-destructive testing techniques	80
29	Mech-anical	26/02/2016 To 28/02/2016	Entrepreneurs-hip Development Programme (EDP)	MCED, Solapur	To give information on funding agencies for start ups	80

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co- curricular activities such as sports, games, quiz competitions, debate and discussions, cultural activities etc.
* Additional academic support, flexibility in examinations
* Special dietary requirements, sports uniform and materials
* Any other

The institute has following strategies for extra-curricular and co- curricular activities:
- The institute has well defined plan for all extra-curricular and co- curricular activities reflected through college website and institute/departmental activity calendar.
- Inculcation of project and experiential learning through participation in all events.
- State level technical festival SPECTRUM and Annual project exhibition WEENGS are organized every year.
- The sports and cultural events are organized regularly at department/institute level.
- Quiz competitions, debate, group discussions and similar activities are special feature of the institute to ensure overall development.

Additional academic support, flexibility in examinations:
- Regular TG meetings ensure additional academic support required.

- The remedial classes and extra inputs are conducted for weak students.
- Self-learning sessions support independent learning.
- Separate efforts are taken for late admitted students due to delay in admission process.
- The re-unit tests are conducted for slow learners.
- The institute has given special recognition to the students showing remarkable performance in these activities.
- The institute awards best outgoing student from every department. Selection of best outgoing student not only depends on the academics but also on the participation in the other activities and overall performance.

Special dietary requirements, sport uniform and material:
- The institute provides sports uniform and sports kit to the students participated in university level sport activities.
- Dietary food is made available in cafeteria for the sports participant.
- The College provides bus facility to the students at the time of their university and Zonal level sport activities.
- T.A. and D.A. are provided to the students for participation.

Any Other:
- Institute organizes inter college annual sports and cultural programme to explore hidden talents of students.
- Certificate and trophies honor winners and runner-ups.
- The College has strong NSS unit for social activities.
- The institute has fully equipped Gym, indoor games and play ground.

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 institute motivates the students for higher studies and competitive exams
- Notification and schedule of exams are displayed on notice boards and also circulated in the class for awareness.
- Institute facilitates support and guidance to the students who are preparing for the various exams through competitive study centre.
- Competitive study centre organizes various seminars, expert lectures and training by internal and external experts.
- For preparation of Competitive Exams,library reading hall are available for 24 hrs.

Table 5.1.7: Details of the students appeared and qualified with their score

Year	GATE		GRE/TOEFL	CAT	State Services
	Appeared	Qualified			
2013-2014	138	4	-	-	-
2014-2015	304	5	-	-	-
2015-2016	289	8	3	-	5
2016-2017	465	15	2	-	1

5.1.8 What type of counselling services are made available to the students (academic, personal, career, psychosocial etc.)?

The institute provides regular counselling to the students to address various issues viz. academics, personal, career and psycho-social by various means.

1. **Academic:**
   The institute has students progress monitoring system (TG) where in a batch of around 20 students is assigned to a faculty member to look after their academic progress.
2. **Personal:**
   The TG teacher regularly interacts with every student of TG batch personally, to develop friendly and faithful relationship. Students are encouraged to share their personal problems without hesitation.
3. **Career:** Institute organizes different invited talks on career guidance.
4. **Psycho-Social:**
   There is need to provide counselling for students facing psychological disorders because of peer pressure, fear, anxieties, sadness, depression, family problems, financial problems social disparity etc. Institute takes efforts to organize special sessions for counselling by experts. The institute has appointed separate professional consellor.

The institute has following different committees to address different issues:
- Student Grievance Redressal Cell
- Anti-Sexual Harassment Committee
- Anti-Ragging Committee

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, the Institute has a standard structure for student's employment.
- The training and placement activities are headed by a Dean and in support with an institute level training and placement officer and departmental faculty coordinators.
- All students register online on a portal with their personal and academic details. The details of placement drives are made available to students through this portal.
- Employability tests (ET) are conducted by the cell to assess the preparation of the students for placement drives.

Based on the company's criterion and ET score, students are short-listed for placements drives.
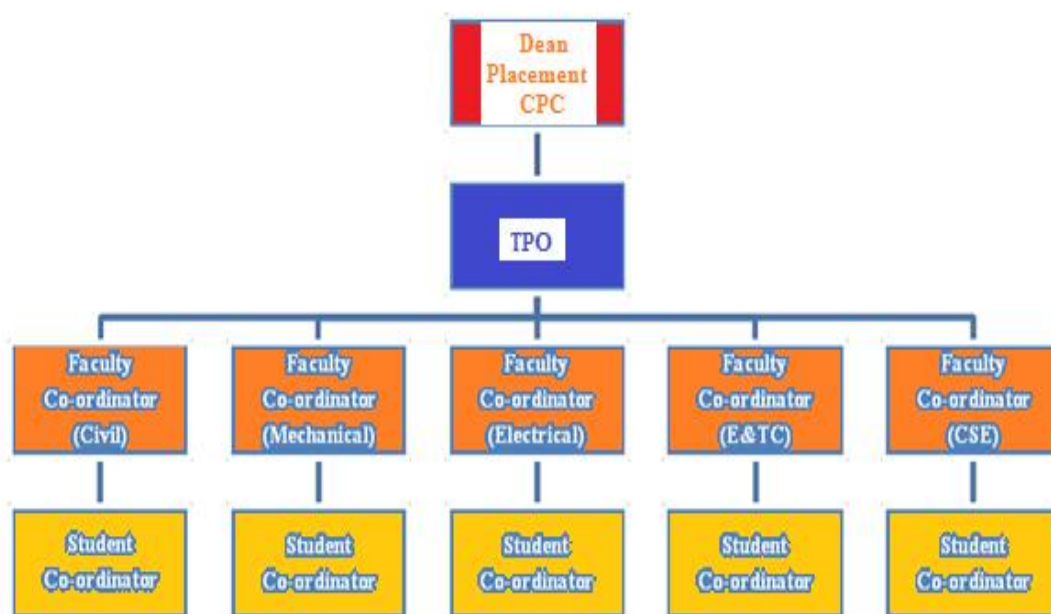
Fig 5.1.9: Structure of Placement cell

Following different training programs/activities organized by T & P cell for grooming the students:

- LCD Presentations
- Group Discussion
- Aptitude session
- Personality development sessions
- Interview sessions
- Invited talks by Industry Experts/Corporates
- Technical quizzes / Technical festivals
- Industry sponsored Projects / Project exhibitions
  - ➢ **Semester wise course mapping for placement**

CLASS	SEM 1	SEM 2	SEM 3	SEM 4	SEM 5	SEM 6	SEM 7	SEM 8
BE							CRTP	PLACEMENT
TE					APTITUDE	APTITUDE TEST SERIES		
SE			ELCS	PDSS				
FE	BASIC ENGLISH	PRACTICAL ENGLISH						

- ➢ Value Addition Program
  The institute conducts the various value addition programs to improve technical skills of the students.

Sr. No.	Name of VAP	Conducting Organization
1	CATIA	INDOGERMAN Tool Room, Aurangabad
2	PROE	INDOGERMAN Tool Room, Aurangabad
3	ANSYS	INDOGERMAN Tool Room, Aurangabad
4	CCNA	SEED Info Tech, Pune
5	Basic English (ALL FE)	SEED Info Tech, Pune
6	Communication Skills (ALL SE)	SEED Info Tech, Pune
7	Aptitude (ALL TE)	SEED Info Tech, Pune
8	Basic English (ALL FE)	SEED Info Tech, Pune
9	Aptitude (ALL TE)	SEED Info Tech, Pune
10	Communication Skills	In-House
11	Basic English	In-House
12	ELCS	In-House
13	Verbal Aptitude	In-House
14	CRTP	In-House

➤ The students selected by different employers in campus & off campus interviews are as follows :

Academic Year	Number of companies visited	Number of students placed	Percentage of placement students
2013-14	17	107	44.58%
2014-15	18	195	57.52%
2015-16	29	271	59.04%
2016-17	22*	221*	43.42%*
2017-18	4*	17*	3.66%*

*till date

➤ Following are the companies visited at SKNSCOE:

2013-14		2014-15		2015-16		2016-17	
Sr. No.	Company	Sr. No.	Company	Sr. No.	Company	Sr. No.	Company
1	Cognizant	1	Accenture	1	Accenture	1	Cognizant
2	Persistent	2	Cognizant	2	Taj Eduglobe Ltd.	2	Accenture
3	Zensar	3	Neilsoft	3	Everest Industries	3	ABMS Tech. Pvt. Ltd
4	Cybage	4	ITC InfoTech	4	Neilsoft	4	MEP Mumbai
5	Epta Technology	5	Kohinoor Precision Comp. Ltd.	5	DSS Constuction	5	Samarth Softech
6	Nihilent	6	General Motors	6	Shahus Total Station	6	Sonai Infrastructure

7	Tiveni Turbines	7	Vishwaniketan	7	Everest	7	Eureka India Pvt. Ltd.
8	Fresenius Kabi	8	Alchemic Demand Generation	8	Unichem	8	Alcob India Pvt. Ltd
9	Sintercom	9	Siemenes	9	CG Projects Pvt	9	Zenwear Systems Pvt. Ltd.
10	FabTech Projects &Eng.Ltd	10	Sintercom	10	Pandhe Infracons Pvt Ltd	10	Greentin Solutions Pvt. Ltd.
11	Alicon Cast Alloy Ltd	11	Everest	11	J Kumar Infra Project Ltd	11	Dhoot Transmission
12	BVG	12	Nihilent	12	S.S. Constuction	12	K-Flex India Pvt Ltd
13	Infosys	13	CMS IT Services	13	Cognizant	13	Foretech Precision Pvt Ltd
14	Capgemini	14	L&T Infotech	14	Accenture	14	ADVIK Hi-Tech
15	Neilsoft	15	Capgemini	15	Capgemini	15	EVER Electronics
16	Laxmi Civil Engineering Service Pvt Ltd	16	Mindtree	16	Becomfy	16	Speed Techserve Pvt. Ltd.
17	Rohan Builders (India Pvt Ltd)	17	Air-Tel	17	Just Dial	17	DSS Construction
		18	I B Automati-on	18	1Point1	18	Dhruv (Civil)Consultancy, Mumbai
				19	Kohinoor Precision Component Ltd	19	AshuarlyaPvt. Ltd., Pune
				20	Dani Consultancy	20	Saicon Technolo-gy
				21	Tata Motors Ltd.	21	Kalyani Forge Ltd
				22	Nihilent	22	Expert Global Solutions
				23	TaJ Eduglobe		
				24	Pompeii		
				25	Polaris		

	26	Taj Eduglobe	
	27	Geometric	
	28	Air-Tel	
	29	Digitronics	

Companies visited in academic year 2017-18 (upto 20/09/2017):

- Oracle
- Xoriant
- Accenture
- Just Dial

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

Yes, the institute has a student grievance redressal cell.

Constitution:
1. Principal (Chairman)
2. Head of the Department (Members).
3. Senior lady faculty (Member)
4. Senior faculty (Member)

Table 5.1.10: Students' grievance redressal cell

Sr. No.	Name	Designation
1.	Dr. Karande K. J.	Chairman
2.	Dr. Pise C. P.	Member
3.	Dr. Vyavahare R.T.	Member
4.	Prof. Mulani A.O.	Member
5.	Prof. Ganjewar S.P.	Member
6.	Prof. Pingale S. V.	Member
7.	Prof. Nikam A. I.	Member
8.	Prof. Kulkarni S. S.	Member
9.	Prof. Katekar S. D.	Member
10.	Dr. Badage R. N.	Member
11.	Dr. Nalage S. R.	Member
12.	Student representative 1	Member
13.	Student representative 2	Member

- Students give their suggestions through TG/ HOD /Principal either orally or in written.

Guardian teacher, Class Teacher & the higher authorities if needed are taken care of Students' personal & academic grievances.

- Some of the Grievances reported and redressed immediately such as
  ✓ Bus facility

- ✓ Better catering service from the canteen and Hostel Mess
- ✓ RO water facility
- ✓ Hot water problem
- ✓ Complaint from girls about misbehavior of boys student.

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

A committee, headed by Principal with senior lady faculty, is formed to solve the issues relating to sexual harassment, called "ANTI-SEXUAL HARASSMENT COMMITTEE (NIRBHAYA COMMITTEE)". Until date, no such case of sexual harassment has been reported in the institute.

Table 5.1.11(a): Anti-Sexual Harassment Committee

Sr. No.	Name	Designation
1.	Dr. Karande K. J.	Chairman
2.	Prof. Surwase S. V.	Member
3.	Prof. Chandane A. A.	Member
4.	Mrs. Mangaltai Shaha	Member

Duties of Committee:
- To build self-esteem and dignity amongst girl students and women employees.
- To offer services such as counselling, legal aid in case of atrocities against women.
- To create awareness regarding women rights
- To arrange awareness programmes regarding health, personality development etc
- To prevent and prohibit sexual harassment at workplace.

Table 5.1.11 (b): Activities related to awareness regarding sexual harrasement:

Sr. No.	Name of Eminent Speaker	Purpose	Date
1	Mrs.Mangal Tai Shah, Social Activist	Social Awareness	05/02/2014
2	Mr. Dayanand Gawade, (PI Pandharpur)	A Guest lecture on Motivation and Interactive Session	13/2/2016
3	Adv.Mrs.Aparna Ramtirthkar, Social Activist	"जरा असू द्या भान"	22/09/2016
4	Mrs. Manisha Dubule, (Additional SP)	Women Safety smart application program	30/09/2016
5	Mr. Pingale Nikhil, (IPS)	A session on woman safety	01/10/2016
6	Adv. Mrs.Vandana Koshti	One day workshop on Sexual harassment of women at work place	27/02/2017
7	Mrs.Nanda Patil	Women's day celebration	08/03/2017

- Women's day is celebrated every year in which various programmes are arranged.

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?

Anti-Ragging committee has been established at the start of institute as per norms. In the last four years there is no serious incidence in the institute.

Anti-ragging committee objectives:
- Display of Anti-ragging Act in college premises.
- Session to the First year students for awareness of Anti-ragging Act.
- Undertaking from students.

Table 5.1.12: Anti-ragging committee

Sr. No.	Name	Designation
1.	Dr. Karande K. J.	Chairman
2.	Col. Dhapola N. S.	Member
3.	Dr. Pise C. P.	Member
4.	Dr. Vyavahare R. T.	Member
5.	Prof. Mulani A. O.	Member
6.	Prof. Ganjewar S. P.	Member
7.	Prof. Pingale S.V.	Member
8.	Prof. Nikam A. I.	Member
9.	Dr. Badage R. N.	Member
10.	Mr. Gore J. S.	Member

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

The following welfare initiatives are made available for students by institution to ensure social awareness:

Book Bank scheme:
There is a provision by social welfare department to provide book bank to the needy student in SC/ST category.

Bank Services:
In collaboration with the Canara bank, the institute assists all the students in opening an account. The institute also assists students to get Education Loan from banks. Canara Bank ATM is available in the campus.

Competitive Exam Study centre:
Institute runs study centre for Competitive Exam, where required study material is made available.

Health services:
Dispensary with free of cost medicines is available in campus. Gymnastic, arrangement of Indoor game, Canteen and refreshment facilities are available.

Student associations:

Student associations conduct few programs to support students' welfare activities by contribution in terms of social activities and financial help to needy sections of society.

Yedkar Trust: This trust support the financially weaker students.

Earn and learn scheme: Economically weaker students have the Earn and learn scheme.

5.1.14 Does the institution have registered Alumni Association? If 'yes', what are its activities and major contributions for institutional, academic and infrastructure development?

Yes. The Institute has a registered Alumni association (Registration Number: MH-764/2015 Date: 27/10/2015).

- The Alumni association contributes actively for development and expansion of the institution. The alumni meeting is organized once in a year. Prominent alumni are invited for guest lectures, sessions for motivating the students for higher education, career counselling.
- The institute has a social networking page and a separate link to the website where the alumni can register and connect to share their ideas.
- The feedbacks received from alumni are taken into consideration for improvement in academic and infrastructure development.

Table 5.1.14 (a): Number of Students Attended Alumni Meet

Sr. No.	Duration	No. of Student Participated
1	2014-15	68
2	2015-16	122
3	2016-17	125

Table 5.1.14 (b): List of Committee Members for alumni association

Sr. No.	Name	Designation
1.	Prof. Katekar S. D.	Chairman
2.	Dr. Badage R. N.	Member
3.	Prof. Gidde S. H.	Member
4.	Prof. Kulkarni M. B.	Member
5.	Prof. Maharnavar S. B.	Member
6.	Prof. Linge G. V.	Member
7.	Prof. Sule R.H.	Member

Table 5.1.14 (c): List of Activities conducted by Alumni

Sr. No.	Date	Name of Alumni	Topic
Electronics and Telecommunication			
1.	19/07/2014	Sunayana Kakade	Introduction to VHDL
2.	20/09/2015	Pallavi Bhiware	Proteus Software
3.	09/01/2016	Pallavi Bhiware	AVR Microcontroller

4.	12/02/2016	Mr. Avinash Sawant	Workshop on PCB Design
5.	16 /09/2016	Ravikiran Lokhande	Image Manipulation Software
6.	22/09/2016	Mr.Muttin Dhiraj	Aurdino Workshop
7.	20/03/2017	Neha Kambale	Preparation for campus placements
Computer Science and Engineering			
1.	19/08/2015	Shital Patil	Opportunity for Freshers
2.	30/09/2015	Prajkta Kale	How to prepare for Campus Drives
3.	13/07/2016	Rutuja Jare	Recent Market Scenarios
4.	04/08/2016	Komal Navale	Opportunity in IT Industries
5.	20/01/2017	Sonali Patil	Future of Android
Mechanical Engineering			
1.	25/08/2015	Harshal Kasabe	Entrepreneurship Development
2.	21/09/2015	Dinesh Koshti	Competitive Exam Preparation
3.	05/03/2016	Samadhan Patil	Advancement in Mechanical Engineering
4.	11/09/2016	Yogesh Doifode	Advancement in Product Design
5.	03/03/2017	Viraj Domkundwar	Self-Employment
Electrical Engineering			
1.	25/07/2014 to 27/07/2014	Maruti Patil	Three days workshop on "PLC Automation"
2.	20/10/2016	Sarika Jawale	Preparation for civil services
Civil Engineering			
1	14/09/2014	Vishal Gore	How to Prepare for Gate
2	14/03/2015	Rohit Korpe	Entrepreneurship
3	12/07/2016	Harshraj More	Contracts and e-tenders
4	17/09/2016	Akshay More	Concrete Mix Design
5	06/03/2017	Saddam Sayyad	Advanced software in Civil Engg.

5.2 Student Progression

5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlights the trends observed.

Table 5.2.1: Percentage of students' progression for higher education or employment (branch-wise)

Computer Science and Engineering				
Student Progression	**2016-17**	**2015-16**	**2014-15**	**2013-14**
UG to PG	6.75	Nil	5.35	17.19
PG to Ph.D.	NA	Nil	Nil	Nil
Self Employed	NA	1.56	3.57	1.56
Employed- • Campus Selection • Other than campus recruitment	36.49*	65.63	50.00	42.19

Electronics and Telecommunication				
Student Progression	**2016-17**	**2015-16**	**2014-15**	**2013-14**
UG to PG	08.7	09.72	14.93	18.18
PG to Ph.D.	NA	Nil	Nil	Nil
Self Employed	NA	01.38	02.99	07.27
Employed- • Campus Selection • Other than campus recruitment	73.91	54.16	47.76	38.18
Civil Engineering				
Student Progression	**2016-17**	**2015-16**	**2014-15**	**2013-14**
UG to PG	08.22	25.42	37.78	45.16
PG to Ph.D.	NA	Nil	Nil	Nil
Self Employed	02.74	08.47	08.88	09.67
Employed- • Campus Selection • Other than campus recruitment	35.62	44.06	37.78	35.48
Mechanical Engineering				
Student Progression	**2016-17**	**2015-16**	**2014-15**	**2013-14**
UG to PG	02.19	06.25	11.38	32.20
PG to Ph.D.	NA	Nil	Nil	Nil
Self Employed	0.44	02.08	03.25	06.78
Employed- • Campus Selection • Other than campus recruitment	45.61	67.19	74.79	54.23
Electrical Engineering				
Student Progression	**2016-17**	**2015-16**	**2014-15**	**2013-14**
UG to PG	--	02.78	12.5	16.13
PG to Ph.D.	NA	Nil	Nil	Nil
Self Employed	--	02.78	04.16	06.45
Employed- • Campus Selection • Other than campus recruitment	20.00*	48.61	54.16	51.61

* Till date

Percentage of Students Progression to Higher Education or Employment
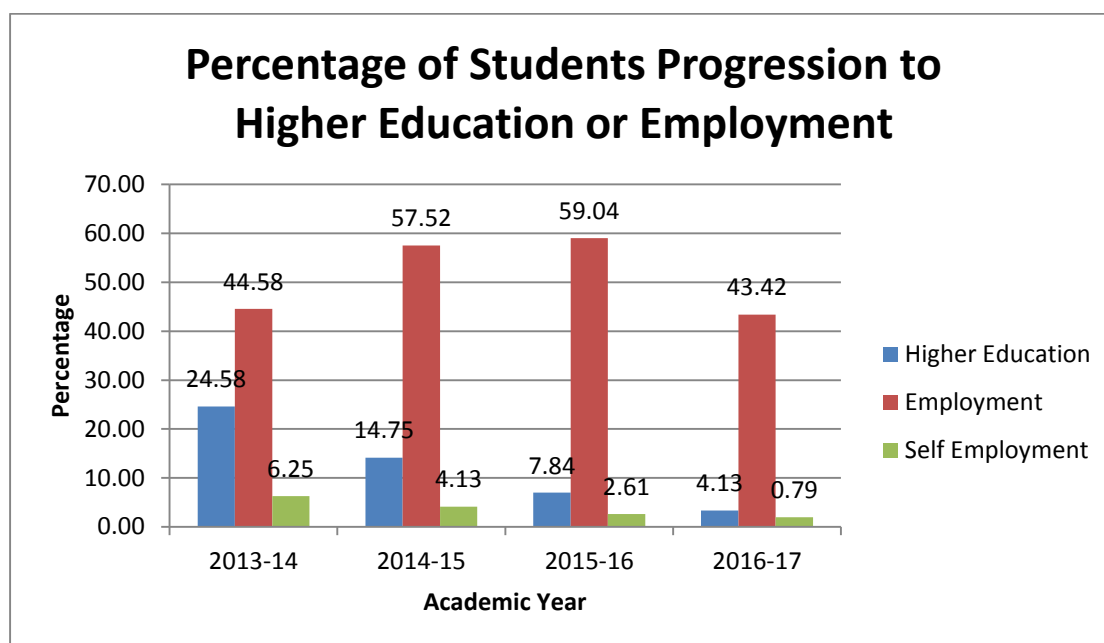
5.2.2 Provide details of the programme-wise pass percentage and completion rate for the last four years (cohort wise / batch wise as stipulated by the university). Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.

Details of the programme-wise pass percentage and completion rate for the last four years are shown in Table 5.2.2 (a) and 5.2.2 (b)

Table 5.2.2 (a): Details of the programme-wise pass percentage and completion rate (UG)

Dept.	Passing year	No. of Admitted students in corresponding First year and DSE (P)	No. of student passed at final year from admitted (Q)	Completion rate (passed final year from admitted / admitted)(Q/P) %	No. of Students reached at final year(X)	No. of Student passed at final year(Y)	Pass(Y/X) (%)	Pass (%) KEC Shelve
Civil	2013-14	52(FE)+12(DSE)=64	31	48.43	31	31	100	90.00
	2014-15	50+18=68	36	52.94	45	45	100	92.59
	2015-16	53+27=80	55	68.75	59	59	100	81.25
	2016-17	31+33=64	55	85.93	73	70	95.89	94.59
Mecha-nical	2013-14	60+19=79	56	70.88	59	56	94.91	98.18
	2014-15	114+47=161	72	44.72	123	114	92.68	100
	2015-16	124+47+55 31=257	116	45.13	192	189	98.43	82.14
	2016-17	157+136=293	128	43.68	227	197	86.78	80.41

	2013-14	53+30=83	54	65.06	55	54	98.11	95.47
E&TC	2014-15	53+22=75	53	70.66	67	66	98.50	94.44
	2015-16	86+49=135	60	44.44	72	66	91.67	86.95
	2016-17	35+31=66	29	43.93	69	59	85.50	88.88
	2013-14	55+35=90	61	67.77	64	61	95.31	93.22
CSE	2014-15	41+34=75	47	62.66	56	55	98.21	94.73
	2015-16	43+42=85	42	49.41	64	62	96.87	91.42
	2016-17	24+46=70	46	65.71	74	71	95.94	85.71
	2013-14	43+30=73	31	42.46	31	31	100	NA
Electri-cal	2014-15	31+14=45	31	68.88	48	42	88.57	NA
	2015-16	35+48=83	54	65.06	71	67	94.36	NA
	2016-17	17+57=74	55	74.32	65	63	96.92	NA
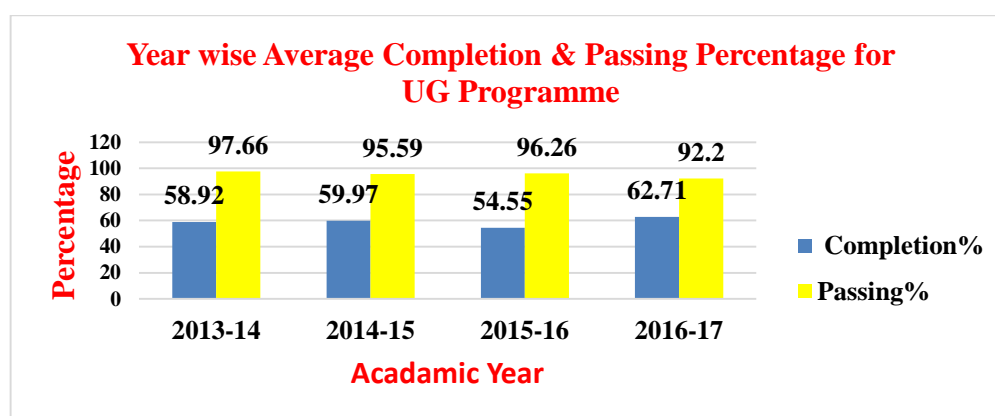
Table 5.2.2 (b) Details of the programme-wise pass percentage (PG)

Department(P.G.)	Admission year	No. of Admitted students	No. of Student passed	Pass percentage (%)
	2012-13	24	20	83.33
Electronics	2013-14	24	06	25.00
	2014-15	20	08	40.00
	2015-16	13	NA	NA
	2012-13	24	16	66.67
Design Engg.	2013-14	24	10	41.67
	2014-15	18	03	12.50
	2015-16	18	00	00
	2012-13	NA	NA	NA
CSE	2013-14	24	16	41.66
	2014-15	17	11	66.66
	2015-16	04	00	00
Structural Engg.	2012-13	NA	NA	NA
	2013-14	23	07	30.43

	2014-15	17	08	47.05
	2015-16	23	02	8.69

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

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

Student progression to higher level of education:
The Institution is constantly engaged in encouraging the students towards higher level of education through guidance forum for GATE/GRE/TOEFL/CAT and foreign language programs.

Student progression towards employment:
The Sinhgad Institutes has central placement cell (CPC), which sets various policies for training and placement of all its constituent colleges. It has a structured mechanism for career guidance of students. Under the guidance of the Dean CPC, TPO of the Institute in coordination with Departmental T&P coordinators carry out different activities related to both training and placement. These activities include:

- Collection of data and CV's of each student (student history card)
- Registration of students for placement through website "www.myecampus.info"
- Training activities to enhance Aptitude and soft skills,
- Group discussions and mock interviews,
- Expert / guest lecturers of Industry personnel,
- Assistance for in plant training,
- Campus placement drives of various companies.

Entrepreneurship Development Cell:
The institute has an EDP cell to develop entrepreneurship awareness and skills amongst the students which leads to self-employment.

Students Training Programme (STP):
To enhance the employability of students, the institute has started step by step STP right from the first year to final year.

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

- Parents are informed about poor attendance and performance of their ward, and in some cases invited for discussion.
- TG meet ensures counselling and progress of students who are at risk of failure.
- The special attention by subject teacher and HoDs in such cases is given to avoid failure and dropout.
- The students who are academically weak are identified and special support is provided to these students such as extra or remedial classes, assignments, retests.

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.

Sports:
Chess, Volleyball, Badminton, Kabaddi, Tennis, Basketball, Cricket, Football, Athletics,

Cultural Activities:
Drama, Dance, Singing, Fashion show

Extra-curricular Activities:
Teachers Day, Engineers Day, NSS, Non-Technical Competitions.
Students have participated in activities at various levels such as intercollege, intracollege, University, national and international level.

Program calendar: Activity calendar for every department is prepared well before commencement of every semester and display on notice board.

Table 5.3.1 Number of student participation in sports, cultural and other extra-curricular activities

Sr. No.	Name of Department	Name of Activity	Academic Year			
			2013-14	2014-15	2015-16	2016-17
1	Mechanical Engineering	Sports	118	151	166	237
		Cultural	46	33	31	38
		Extra - curricular	98	73	75	83
2	Civil Engineering	Sports	93	109	108	96
		Cultural	49	63	52	42
		Extra - curricular	62	79	99	303
3	Electrical Engineering	Sports	71	76	91	85
		Cultural	17	35	38	43
		Extra - curricular	12	45	34	150
4	E&TC Engineering	Sports	23	23	29	29
		Cultural	44	64	66	22
		Extra - curricular	21	97	65	78
5	Computer Science & Engineering	Sports	21	24	25	18
		Cultural	58	51	47	76
		Extra - curricular	63	14	93	72
6	First Year Engineering	Sports	36	45	34	45
		Cultural	Nil	46	44	11
		Extra - curricular	Nil	Nil	Nil	Nil

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.

The major student achievements in co-curricular, extracurricular and cultural activities at different levels is listed below:

A) Mechanical Engineering:

Sr. No.	Name of The Event	Level	Achievement	College/ Organisation	No. of Students
YEAR 2013-14				
01	GO-KART Championship	National	Selected for final round	Indian Society of New Era Engineer	16
YEAR 2014-15				
01	ESVC-ISIE	International	Green award	Imperial Society of Inno. Engineers Punjab	01
02	Paper presentation-Spectrum 2K14	National	Runner	SKNSCOE, Pandharpur	01
03	Assembly Race-Acceleration 2014	National	Winner	WIT Solapur	01
04	Aero modelling-Olympus 2K14	National	Winner	SVERIs COE, Pandharpur	01
05	LAN Planet NFS-Olympus 2K14	National	Winner	SVERIs COE, Pandharpur	01
06	Street play-Technocrat	University	3rd prize	Technocrat Cell, Youth festival, Solapur	04
07	Poem_SRUJANRANG 2014-15	University	3rd prize	Solapur University	01
YEAR 2015-16				
01	Solar vehicle design & development	International	Certificate of appreciation	Imperial Society of Inno. Engineers Punjab	03
02	Tech planet-Waves 2K15-ETELSA	State	Runner	SKNSCOE, Pandharpur	01
03	Project exhibition-Karmatech 2K16	National	Winner	KEC Shelve	01
04	Project exhibition-WEENGS 2K16	State	Winner	SKNSCOE, Pandharpur	01
05	Conference-MESA	University	Runner	SKNSCOE, Pandharpur	01
06	Project exhibition-Karmatech 2K16	National	Winner	KEC Shelve	01
07	CATIA Race-Techno FAB-2K15	State	Winner	Fabtech campus, Sangola	01
08	Fellowship at foreign university	International	Certificate of participation	Technical University of Sofia	02
09	War Zone-Techno FAB 2K15-MESA	State	Winner	Fabtech campus, Sangola	01

10	War Zone NFS-Techno FAB 2K15	State	Winner	Fabtech Tech campus, Sangola	01
11	Lan planet CS-Olympus 2K15	National	Winner	SVERIs COE, Pandharpur	01
12	Counter strike-Spirit 2K16	State	Winner	SVERIs COE, Pandharpur	01
13	Lan-A-War_ Tech fest2K16	National	Winner	A.G.Patil, Solapur	01
14	NFS-Spirit 2K16	State	Winner	SVERIs COE, Pandharpur	01
15	Street play-Technocrat	University	3rd prize	Technocrat Cell, Youth festival, Solapur	01
16	Kabaddi-Karmatech 2K16	National	Runner	KEC Shelve	05
17	Tug of war-Technocrat	University	1st prize	Technocrat Cell, Youth festival, Solapur	03
18	Street play-Technocrat	University	3rd prize	Technocrat Cell, Youth festival, Solapur	04
19	Athletics-Technocrat	University	Runner	Technocrat Cell, Youth festival, Solapur	01
20	Treasure Hunt-ACSES	State	Runner	SKNSCOE, Pandharpur	01
YEAR 2016-17					
01	Quiz-Spectrum2K16	National	Runner	SKNSCOE, Pandharpur	01
02	Quiz-Spectrum2K16	National	Winner	SKNSCOE, Pandharpur	02
03	CATIA Race-Olypus2K16	National	Winner	SVERIs COE, Pandharpur	02
04	Best Resume writing	State	Winner	SVERIs COE, Pandharpur	01
05	Paper Presentation-Spectrum 2K16	National	Runner	SKNSCOE, Pandharpur	04
06	Fellowship for project on decision of design & research tasks in mechanical engineering	International	Certificate of participat-ion	Ural Federal University, Russia	01
07	Fellowship for project on Automation & Interfacing of DC motor	International	Certificate of participat-ion	Technical University of Sofia	01

08	Android Gaming-Spectrum2K16	National	Winner	SKNSCOE, Pandharpur	01
09	Aero Builder-Spectrum 2K16	National	Runner	SKNSCOE, Pandharpur	02
10	NFS-Olympus 2K16	National	Runner	SVERI's COE, Pandharpur	01
11	LAN Gaming-TECH UTSAV	State	Winner	Shivaji Poly Sangola	01
12	Technozeal	National	Winner	SKNSCOE, Pandharpur	01
13	Paper Presentation	State Level	Runner	FABTECH, Sangola	01
14	WITCHAR 2017	State Level	Winner	WIT, Solapur	01
15	Project Exhibition	State Level	Winner	ADCET, Ashta.	01
YEAR 2017-18					
1	Paper Presentation-Spectrum 2K17	National	Runner	SKNSCOE, Pandharpur	01
2	Robo race-Spectrum 2K17	National	Runner	SKNSCOE, Pandharpur	03
3	CAD War-Spectrum 2K17	National	Winner	SKNSCOE, Pandharpur	01
4	Lathe War-Spectrum 2K17	National	Winner	SKNSCOE, Pandharpur	02
5	Lathe War-Spectrum 2K17	National	Runner	SKNSCOE, Pandharpur	02

B) Civil Department:

Sr. No.	Name of The Event	Level	Achievement	College/ Organisation	No. of Students
YEAR 2013-14					
01	Olympus 2K13 FABRICA	National	Winner	SVERI's COE, Pandharpur	01
02	Olympus 2K13 FABRICA	National	Runner	SVERI's COE, Pandharpur	01
03	Paper Presentation	National	Runner	FABTECH, Sangola	01
YEAR 2014-15					
01	Olympus 2K14 FABRICA	National	Winner	SVERI's COE, Pandharpur	02
02	Olympus 2K14 FABRICA	National	Runner	SVERI's COE, Pandharpur	02
YEAR 2015-16					
01	SIVILIZE 2K16	State	Runner	SKNSCOE, Pandharpur	01
02	inSIGHT 16	National	Attended	MIT College Of Management	01

03	Weengs 2K16 (Project Exhibition)	State	Consolation	SKNSCOE, Pandharpur	04
04	EYF 2K16 (Cricket)	National	Winner	Mangalvedhekar Institute of Management.	01
05	SPIRIT 2K16 (C.Strike)	State	Winner	SVERI's COE, Pandharpur.	01
06	Weengs 2K16 (Project Exhibition)	State	Winner	SKNSCOE, Pandharpur	02
07	VAASTU'15	National	Runner	RIT, Rajaramnagar	02
08	Spectrum 2K15	National	Winner	SKNSCOE, Pandharpur	01
09	SIVILIZE 2K16	State	Winner	SKNSCOE, Pandharpur	01
YEAR 2016-17					
01	Spectrum 2K16 (Treasure Hunt)	National	Runner	SKNSCOE, Pandharpur	04
02	Spectrum 2K16 (Paper Presentation)	National	Runner	SKNSCOE, Pandharpur	01
03	Spectrum 2K16 (Trusso)	National	Runner	SKNSCOE, Pandharpur	02
04	TALENT HUNT	National	Winner	SVERI, Pandharpur	01
05	Technical Quiz	State	Runner	FABTECH, Sangola	02
06	Treasure Hunt	State	Runner	FABTECH, Sangola	04
07	TALENT HUNT	National	Runner	SVERI, Pandharpur	01
08	Project Paper Presentation	State	Runner	FABTECH, Sangola	01
09	Paper Presentation	National	Winner	WIT, Solapur	01
10	Project Exhibition	National	Winner	ADCET, Ashta	04
11	Paper Presentation	National	Runner	AGPIT, Solapur	02
12	Weengs 2K17 (Project Exhibition)	State	Winner	SKNSCOE, Pandharpur	06
13	Weengs 2K17 (Project Exhibition)	State	Runner	SKNSCOE, Pandharpur	07
YEAR 2017-18					
1	Paper Presentation Spectrum 2K17	National	Winner	SKNSCOE, Pandharpur	02

2	Paper Presentation Spectrum 2K17	National	Runner	SKNSCOE, Pandharpur	01
3	Treasure Hunt Spectrum 2K17	National	Winner	SKNSCOE, Pandharpur	03
4	Treasure Hunt Spectrum 2K17	National	Runner	SKNSCOE, Pandharpur	04

C) Electrical Engineering

Sr. No.	Name of The Event	Level	Achievement	College/ Organisation	No. of Students
YEAR 2013-14					
01	Project Competition	State	First prize	Wings 2K14 SKNSCOE	01
02	Project Competition	National	Second Prize	VVPIET, Solapur	01
03	Aptitude Contest	State	Second Prize	Spectrum 2K13 SKN, SCOE	01
04	Paper Presentation	State	First Prize	Spectrum 2K13 SKNSCOE	02
05	Circuit Design	State	First Prize	Spectrum 2K13 SKNSCOE	02
06	Paper Presentation	National	Winner	AGPatil, Solapur	02
YEAR 2014-15					
01	Spectrum 2K14 Quiz Competition	State	Runner	SKNSCOE, Pandharpur	01
02	Spectrum 2K14 Treasure Hunt	State	Winner	SKNSCOE, Pandharpur	01
03	Spectrum 2K14 Android Gaming	State	Winner	SKNSCOE, Pandharpur	01
04	Spectrum 2K14 Short Film Making	State	Winner	SKNSCOE, Pandharpur	01
05	Indo Asian Solar Challange	National	Winner	Lovely Professional University, Punjab	02
06	Indo Asian Solar Challange	National	Best Auto cross Award	Lovely Professional University, Punjab	01
07	Spectrum 2K14 Paper Presentation	State	Winner	SKNSCOE, Pandharpur	02

08	Spectrum 2K14 Paper Presentation	State	Runner	SKNSCOE, Pandharpur	02
09	Spectrum 2K14 Circuit Design	State	Winner	SKNSCOE, Pandharpur	02
YEAR 2015-16					
01	Seminar Contest	National	Winner	SVERI, Pandharpur	01
02	Poster Presentation	State	Runner	FABTECH, Sangola	01
03	Poster Presentation	State	Runner	FABTECH, Sangola	01
04	EYF2K16 Chess	University	Winner	Mangalwedhekar Institute of management	01
05	EYF2K16 Basket Ball	University	Winner	Mangalwedhekar Institute of management University Level	02
06	Spectrum 2K15 Teasure Hunt	National	Winner	SKNSCOE, Pandharpur	04
07	Weengs 2K16 Project Exbition	State	Winner	SKNSCOE, Pandharpur	04
08	Spectrum 2K15 Android Gaming	National	Runner	SKNSCOE, Pandharpur	01
09	Spectrum 2K15 Paper Presentation	National	Runner	SKNSCOE, Pandharpur	02
10	Spectrum 2K15 Paper Presentation	National	Winner	SKNSCOE, Pandharpur	02
11	Project Exhibition	National	Winner	KPC, Shelve	05
12	Paper Presentation	National	Runner	KPC, Shelve	02
13	Poster Presentation	State	Winner	Fabtech, Sangola	02
14	Paper Presentation	State	Winner	Fabtech, Sangola	02
15	Circuit Designing	State	Winner	Fabtech, Sangola	02
16	Circuit Designing	State	Runner	Fabtech, Sangola	02
17	Circuit Designing	National	Winner	BIT, Barshi	01
YEAR 2016-17					
01	Spectrum 2K16 Short Film Making	National	Winner	SKNSCOE, Pandharpur	01
02	Spectrum 2K16 Lan Gaming	National	Runner	SKNSCOE, Pandharpur	01
03	Spectrum 2K16 Android Gaming	National	Runner	SKNSCOE, Pandharpur	01
04	Spectrum 2K16 Paper Presentation	National	Runner	SKNSCOE, Pandharpur	01

05	Paper Presentation	State	Winner	Shivaji Polytechnic , Atpadi	02
06	Fellowship for project Automation & Interfacing og DC motor	International	Completion of Internship	Technical University, Sofia, Bulgaria	01
07	Paper Presentation	National	Winner	A. G. Patil, Solapur, National Level	02
08	Talent Hunt	National	Winner	SVERI, Pandharpur	03
09	Circuit Designing TechnoFab 2K17	State	Runner	Fabtech, Sangola	03
10	Paper Presentation	National	Runner	A. G. Patil, Solapur	01
11	Paper Presentation	National	Winner	BIT, Barshi	02
12	Quiz & Debate Competition	State	Runner	SKNSCOE, Pandharpur	01
13	Aurduino Competation	National	Winner	SKNSCOE, Pandharpur	04
14	Circuit Designing	National	Runner	SVERI, Pandharpur	02
15	Circuit Designing	National	Winner	A. G. Patil, Solapur	02
16	Circuit Designing	State	Winnner	Shivaji Polytechnic, Atpadi	02
17	Poster Presntation	National	Winner	BIT, Barshi	01
18	Poster Presntation	National	Runner	BIT, Barshi	01
19	Poster Presntation	National	Winner	SVERI, Pandharpur	02
20	Project Exhibition	National	Winner	BIT, Barshi	01
21	Project Exhibition	National	Winner	SVERI, Pandharpur	02
YEAR 2017-18					
01	Spectrum 2K17 Paper Presentation	National	Winner	SKNSCOE, Pandharpur	01
02	Spectrum 2K17 Paper Presentation	National	Runner	SKNSCOE, Pandharpur	02
03	UG fellowship	International	Completed	Technical University Sofia	01

D) Electronics & Telecommunication Engineering

Sr. No.	Name of The Event	Level	Achievement	College/ Organisation	No of Students
YEAR 2013-14				
01	WEENGS 2K14	State	Winner	SKNSCOE, Pandharpur	04
02	WEENGS 2K14	State	Runner	SKNSCOE, Pandharpur	04
03	Spectrum 2K13- Paper Presentation	State	Winner	SKNSCOE, Pandharpur	01
04	Spectrum 2K13- Poster Presentation	State	Runner	SKNSCOE, Pandharpur	02
05	Olympus 2K13 -14 Paper Presentation	National	Runner	SVERI COE, Pandharpur	01
06	SPC-ECH2K13 Paper Presentation	State	Runner	Shivaji Polytechnic, Sangola	01
07	MINDSPARK13 Paper Presentation	National	Runner	COE, Pune	02
08	VISION 2K14- Spider Instinct (Expert)	National	Runner	WCE, Sangli	01
09	VISION 2K14- Micro-Tron	National	Runner	WCE, Sangli	01
	YEAR 2014-15				
01	INTERACT 2K15 Treasure Hunt	National	Winner	NIIT	01
02	ISIE- Electric Solar Vehicle Championship 2014-15 Green Event For Green Future	National	Participated	Imperial Society of Innovative Engineers (ISIE)	03
03	Srujanrang 2014-15 LalitLekh (Marathi)	University	Runner	Solapur University	02
04	Srujanrang 2014-15 Samiksha (Marathi)	University	Runner	Solapur University	04
05	Srujanrang 2014-15	University	Winner	Solapur University	02

	Aatmakathalekh (Kannad)				
06	WEENGS 2K15	State	Winner	SKNSCOE, Pandharpur	04
07	WEENGS 2K15	State	Runner	SKNSCOE, Pandharpur	04
08	Spectrum 2K14- Paper Presentation	State	Winner	SKNSCOE, Pandharpur	01
09	Spectrum 2K14- Paper Presentation	State	Runner	SKNSCOE, Pandharpur	01
10	Spectrum 2K14- Poster Presentation	State	Runner	SKNSCOE, Pandharpur	02
11	WAVES 2k15- Paper Presentation	State	Runner	SKNSCOE, Pandharpur	01
12	IURL Technophilia	State	Winner	SKNSCOE, Pandharpur	01
13	Olympus 2K14-15 Paper Presentation	National	Runner	SVERI COE, Pandharpur	01
14	National Go-Kart Championship 2014	National	Runner	ISNEE at Aeropolis Technical Campus, Indore.	01
YEAR 2015-16					
01	SPIRIT 2K16 Lead India	National	Runner	SVERI COE, Pandharpur	01
02	OLYMPUS 2K15 Circuit Sudoku	National	Runner	SVERI COE, Pandharpur.	01
03	Spectrum 2K15 Pratyakshik	National	Runner	SKNSCOE, Korti.	01
04	Technical Quiz and Telephonic Interview	National	Winner	SKNSCOE, Pandharpur	02
05	WEENGS 2K16	National	Winner	SKNSCOE, Pandharpur	03
06	WEENGS 2K16	National	Runner	SKNSCOE, Pandharpur	03
07	Spectrum 2K15- Paper Presentation	National	Runner	SKNSCOE, Pandharpur	01
08	Spectrum 2K15- Paper Presentation	National	Winner	SKNSCOE, Pandharpur	01
09	Spectrum 2K15- Poster Presentation	National	Runner	SKNSCOE, Pandharpur	02

YEAR 2016-17
01	Spectrum 2K16-Paper Presentation	National	Winner	SKNSCOE, Pandharpur	01
02	Spectrum 2K16-Microprocessor Programming	National	Runner Up	SKNSCOE, Pandharpur	01
03	Tech banner organized by IETE	National	Runner	SKNSCOE, Pandharpur	01
04	TECHNOFAB 2K17 Programming	National	Winner	Fabtech, Sangola.	01
05	Volleyball	National	Runner	Solapur University, Solapur	03
06	TECHNOFAB 2K17 Circuit Sudoku	National	Winner	Fabtech, Sangola	02
07	TECHNOFAB 2K17 Circuit Sudoku	National	Runner	Fabtech, Sangola	02
08	SSVC 2K17	International	Winner	SKNSCOE, Pandharpur	07
09	Foreign University UG fellowship	International	Completed	Technical University of Sofia, Bulgaria	01
YEAR 2017-18
01	Paper Presentation Spectrum 2K17	National	Runner	SKNSCOE, Pandharpur	02
02	Poster Presentation Spectrum 2K17	National	Runner	SKNSCOE, Pandharpur	02
03	Microprocessor & Microcontroller Programming Spectrum 2K17	National	Runner	SKNSCOE, Pandharpur	01
04	Microprocessor & Microcontroller Programming Spectrum 2K17	National	Winner	SKNSCOE, Pandharpur	01

D) Computer Science & Engineering

Sr. No.	Name of The Event	Level	Achievement	College/ Organisation	No of Students
YEAR 2013-14
01	Programming Contest (Technorise)	State	Winner	SVERI COE(Poly)	01

02	Project Exhibitiion (Weengs 2K14)	State	Runner	SKNSCOE, Pandharpur	01
YEAR 2014-15					
01	LAN Gaming (Spectrum 2K14)	State	Winner	SKNSCOE, Pandharpur	01
02	Paper Presentation (Spectrum 2K14)	State	Runner	SKNSCOE, Pandharpur	01
YEAR 2015-16					
01	Project Exhibitiion (Weengs 2K16)	National	Winner	SKNSCOE, Pandharpur	03
02	Project Exhibitiion (Weengs 2K16)	National	Second	SKNSCOE, Pandharpur	02
03	Web Designing (Olympus 2K15)	National	Runner Up	SKNSCOE, Pandharpur	01
04	Internship June-July 2015	International	Successful Completion	Technical University Sofiya Bulgeria	01
05	Documentary (EYF 2K16)	National	Second	MIM MBA Dept	01
06	Short Film Making (Spectrum 2K15)	National	Winner	SKNSCOE, Pandharpur	01
YEAR 2016-17					
01	Internship June-July 2016	International	Successful Completion	Technical University Sofiya Bulgeria	01
02	Coding (Spectrum 2K16)	National	Second	SKNSCOE, Pandharpur	01
03	Paper Presentation (Spectrum 2K16)	National	Runner Up	SKNSCOE, Pandharpur	01
04	Paper Presentation (Spectrum 2K16)	National	First	SKNSCOE, Pandharpur	01
05	Paper Fest (Olympus 2K16)	National	Winner-3rd	SVERI COE	01
06	Project Exhibitiion (Weengs 2K17)	National	Runner Up	SKNSCOE, Pandharpur	01
YEAR 2017-18					
01	Internship June-July 2017	International	Successful Completion	Technical University Sofiya Bulgeria	02

02	Lan Gaming (Spectrum 2K17)	National	Winner	SKNSCOE, Pandharpur	01
03	Technofrenzy	State	Runner	SKNSCOE, Korti	01

5.3.3 How does the institute seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

- The feedback from alumni are taken frequently for improvement in performance and quality of academics and all supporting services of institute
- At the time of campus placement drive the suggestions from the experts and HR of various industries are taken into consideration for refinement of STP and VAP conducted at institute.

5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine and other material? List the publications/ materials brought out by the students during the previous four academic sessions.

- Bi-Annual college magazine ADVIK is published to encourage students to publish drawings, photographs, poems and technical articles etc.
- Every department publishes its newsletter every semester.
- Students actively participate in Wall Magazine Activity.

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

Yes, the institute has a student Council as per the UGC and SUS norms.
Student representatives from each class, NSS coordinator, sport coordinator, cultural coordinator etc. are members of committee. Committee conducts regular meetings.

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

Academic bodies	**Administrative bodies**
ADVIK Magazine committee	Anti-ragging committee
Placement Committee	Cultural and social committee
News letter committee	Alumni committee
Library committee	Media committee
Student Council	NSS committee
	Transport committee
	Canteen committee
	Grievance redressal committee
	Hostel committee
	Students association committee

5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the institution? Any other relevant information regarding Student Support and progression which the college would like to include.

The institute collaborates with the alumni of the institution through:

Alumni Meet:

Every year institute organizes an alumni meet so as to share their views and ideas for improvement of the institute.

Seminar/Conference/Workshop:

Every semester at least one STTP is organized by every department where institute calls senior alumni and a person from industry. It helps to create strong network and rapport with the industry.

Placement assistance:

Successful alumni who are good entrepreneur visit to the institute to provide placement to their juniors.

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.

Institute Vision:
"We are committed to transform SKN SCOE, as a leading technological institute in India which offers a dynamic learning environment with value based education through self-learning and innovative thinking in students".

Institute Mission:
"SKN Sinhgad College of Engineering offers a unique culture to enhance Self Esteem, Team Spirit, and Life Skills of students to match the need of fast changing world. The institute focuses on self-learning abilities, Project based Learning through well-defined curricular and co-curricular activities".

Institution's distinctive characteristics:
- The SPSPM has been started with the motto to empower rural talent and train young minds to meet the technological challenges and changing conditions at global level.
- The institute aims to percolate the technological advances to grass root level in rural areas to bridge the gap between rural and urban environment.
- The institute has a tradition to impart sound technical knowledge and value based education to create not only good engineers but also responsible human beings.
- The institute is committed to improve the quality of knowledge imparted and up-gradation of required facilities to meet the ever-changing industrial requirements and social issues.

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

Role of Top Management:
The top management is very keen and committed to serve the society by providing source of quality technical education, overall development of students in rural areas. The management has vision to provide the country with skilled technocrats also good human beings. The policies have been framed to achieve these objectives while execution of institutional activities. Management believes in the importance of skilled human resources, hence unbiased and transparent policies, based on participative management are executed to recruit and retain the manpower.
The role of top management in design and implementation of its quality policy and plans is as follows:
- To provide superior infrastructure facilities and healthy, conducive teaching and learning environment among the faculty members and students.
- To support financially for facilitating the academic activities and up gradation of the laboratories.
- To monitor continuously the development of policies and strategies for improvement of the institute.

- To encourage the Principal and faculty members for industry institute interaction by arranging visits to the industries for research.
- To motivate faculty members and students for higher education and foreign assignment for sharing of the knowledge.

Role of Principal:

The Principal is administrative link between management, stakeholders and the society. The principal has a vision to implement student centric activities to lay the foundation for building bright career of the students. In consultation with the management policies and constructive suggestions from parents, faculty members and students, various activities are carried out.

Role of the principal in design and implementation of its quality policy and plans is:

- To understand the needs of various stakeholders like industries, students and parents from rural area and employees of the institute
- To ensure optimum allocation and utilization of various organizational resources
- To ensure recruitment of personnel capable of fulfilling organizational goals
- To allocate various responsibilities based on performance abilities
- To take strategic decisions by taking HoDs in confidence
- To ensure availability of state of the art infrastructure and learning resources in the institute
- To set up mechanism for implementation of strategic decisions
- To monitor and take corrective actions in regard with all the institutional activities
- To have continuous interaction with students, parents, staff, industries and various elements of the society
- Performance appraisal of faculty and staff members and to issue guidelines based on the same

Role of Faculty members:

The actual implementation of organizational policies at root level is carried out by the faculty members. Faculty members spend maximum time with the students' community and hence play a major role in shaping the future of the students.

The role of faculty members in design and implementation of its quality policy and plans is:

- To implement the strategies decided by Principal and HoDs for carrying out highly effective teaching learning process.
- Continuous interaction with students and parents to have an insight of their expectations from the institute
- To share the feedback from the parents and students obtained during parent meet and TG sessions in departmental and HoD meetings
- To ensure industry-institute interaction and understand expectations of the industries from the institute

6.1.3 What is the involvement of leadership in ensuring:
- **The policy statements and action plans for fulfillment of the stated mission**
- **Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**
- **Interaction with stakeholders**
- **Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders**

- **Reinforcing the culture of excellence**
- **Champion organizational change**

Involvement of the leadership in ensuring policy statements and action plans for fulfillment of the stated mission:

Quality policy of the institute aims to provide foremost infrastructure, equipment and competent faculty to shape overall development of the students in terms of their technical excellence and personality traits meeting ever-changing expectations of the stakeholders.

In order to meet the stated mission, Institute has framed following short term and long term goals.

Table 6.1.3 shows short term and long-term goals of the institution.

Table 6.1.3: Short Term and Long Term Goals

Sr. No.	Short Term Goals	Long Term Goals
1	Post graduate program in all existing disciplines of Engineering	Centre of Excellence in key areas of Engineering Education
2	Need based in-house value addition programs in diversified areas.	NAAC and NBA accreditation of the Institute within stipulated time frame
3	Strong Industry interactions through campus connect programs	To propagate Project Based Learning culture
4	Decentralization of student, academic, research activities	All faculty members achieve Ph.D. degree
5	European fellowship for 25 students in each academic year	Ph. D. from European university by at least two faculty members from each department
6	To achieve more than 100 placements of students through Central Placement Cell, Pune	Starting of in-house incubation centre for development of Entrepreneurship
7	To establish in house study circle for MPSC/UPSC and other competitive examinations	Elite campus in all respect

Involvement of the leadership in ensuring formulation of action plans for all operations and incorporation of the same into the institutional strategic plan:

The leadership believes in participative management and considerations for constructive suggestions from all the stakeholders. Formulation of action plans is ensured through mechanisms mentioned below:

- Formulation of action plan for teaching learning process is framed by HoDs in consultation with Principal.
- Based on strategies decided in the HoD-Principal meeting, each department prepares academic calendar for each semester.
- Each department is allocated with sufficient monetary funds to execute plans decided by LMC and Governing body. Management ensures proper utilization of allocated funds.
- Departments prepare their plans for workshops, guest lectures and various events, in the form of activity calendar and followed strictly for different technical activities like ISTE, IEI, IETE etc.

- Effective design of STP and its implementation cultivates leadership quality among the students.
- AMC provides proper guidelines to achieve excellence to ensure formulation of action plan.

Involvement of the leadership in ensuring interaction with stakeholders:
The institute implements PDCA cycle (Plan, Do, Check and Act) to meet the expectations from the stake holders. Various curricular and co-curricular activities have been framed by the leadership to ensure overall development of the students and to excel in current competitive scenario. Details regarding the same have been elaborated in following text:

- Comprehensive Teacher Guardian (TG) scheme has been introduced to achieve on-going interaction with the student community. Teacher Guardian scheme aims to track involvement of a student on various fronts like academic excellence, attendance, and participation in various activities in the institute.
- Every TG teacher is assigned to a group of around 20 students. Regular meetings for interaction with students are conducted by the teacher-guardian. Guardian teacher monitors progress of each student and suggests remedial actions for improvement.
- In addition to this, the meeting also invites suggestions to tackle various problems faced by students in the curriculum as well as facilities provided to them. The personal problems are also discussed with proper counselling to students.
- Monthly attendance is compiled and the same is shared with the students. Performance of the student in various unit tests and prelim examinations is analysed meticulously and students are guided based on the same.
- Parents are informed about attendance, test performance, university results, behaviour, extra-curricular activities of their ward through SMS, telephonic discussion and letters.
- Online feedback system has been implemented to fetch constructive suggestion from students to ensure better teaching–learning process to the students, along with oral feedbacks from respective HoD.
- Alumni meets are arranged in each academic year for interactions with alumni. Feedbacks and suggestions from alumni are incorporated for improvement in teaching learning process in the institute.
- Guest lectures/ Industrial visits and 30 various MOU's are signed to interact with industry people and to bridge the gap between academic curriculum and technical advancements happening in the industries.
- Various meetings such as Governing Body meetings, Local Management Committee and Principal meeting with management authorities are conducted.
- Different meetings such as Principal HOD meeting, departmental meeting, placement coordinators meeting, Hostel committee, mess committee etc. are conducted to ensure better quality services provided to students.

Involvement of the leadership in ensuring proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders:

Need analysis, research inputs and consultations with the stakeholders is achieved through following strategies:

- Need for improvement in communication skills and personality development of the students is given priority and measures have been taken for the same. In house training has been arranged during regular class time table for improvement in communication skills, presentation skills, interview techniques, group discussion activities, mock placement drives etc. In addition to this, training programs by professional agencies to enhance soft skills and value addition programs are imparted to give hands on experience of latest tools and techniques used by the industries.
- The technical knowledge of the students can be greatly enriched by hands on experience in the form of project based learning. University curriculum expects projects to be undertaken by students in final year of engineering. It is felt by the administration that implementation of theoretical concepts in class room can be visualised more effectively in the form of projects. Students are motivated to execute mini projects in each semester in second and third year of engineering.
- Based on unit test performance, extra input is given to slow learners at the end of semester to enhance their performance in university examination.
- University results are analysed keenly and remedial classes are conducted for poor performing students with the objective of achieving better yearly results.
- Students and faculty members are encouraged to take research in the areas of their interest through UG fellowship programs and Ph. D. studies.
- Transparent and unbiased term work policy has been adopted by the institute. The policy for allocating term work marks is displayed on the notice board at the beginning of the semester and explained to students in class rooms. The term work marks evaluation is based on various parameters such as attendance, unit test performance, mock practical/oral performance, participation in curricular and extracurricular activities and behavioural aspects.
- Arrange expert lectures for giving extra inputs beyond curriculum and to understand state of the art technology used in the industries.
- Conduct STTP/ Induction Programmes for up-gradation of faculty members.
- Students are encouraged to undertake projects for providing solutions to industrial problems by virtue of industry sponsored projects.
- Parent-teacher interaction is arranged for defaulter students to improve their performance.
- Feedbacks from employers to increase the employability are implemented for enrichment of training programs.

Involvement of the leadership in ensuring reinforcing the culture of excellence:

- Standards of excellence have been set and revised periodically. The outcome of this is IIT remote centre, Aakash tablet laboratory and e-Yantra laboratory.
- Proper execution of methods to achieve these standards is monitored strictly.
- Information regarding standards of excellence by AMC is framed in Principal and HoD meetings and conveyed to faculty members.
- Organization of FDPs, seminars and workshops to upgrade domain knowledge.
- Financial and moral support to faculty and students to carry out the research activity. Yearly financial provision of budget is made for issuing required materials to carry out various project activities.

- Continuous assessment and analysis of results and activities ensures reinforcing culture of excellence.
- Authorities such as Principal and HoD are available round the clock to understand difficulties and suggestions by student community.

Involvement of the leadership in ensuring champion organizational change:

- *Project based and outcome based learning* practices ensure sound technical knowledge of students. As an outcome of this activity, distinguished projects like solar car, hybrid vehicle, badminton playing robots, amphibious tricycle running on ground and water, fertilizer dispenser, solar operated drip irrigation and pedal operated foot pump have been appreciated by technical society and media.
- Also transforming from teaching dominated approach to learning based approach promotes self-advancement of students to survive in current competitive scenario. This is practised through *self-learning sessions* (SLS) allocated in regular time table. During these sessions, no teaching is done by faculty member and students are asked to revise their weekly understanding of the subject in terms of solving the assignments.
- In house GATE coaching classes by department faculty members motivates and helps the students to go for higher education.
- Study centre for MPSC/UPSC and other competitive examinations encourages the students to distinguish themselves from the mass.
- Centre of excellence has been established and laboratories like Aakash laboratory, e-Yantra and Robotics laboratory is noteworthy features.
- Students from the institute have been honoured with fellowships from prestigious Bulgarian University and Russian University.
- MOUs with reputed industries like Reliance Jio are signed to exchange technological advances with students and teaching community.
- Effective implementation of teaching learning process is facilitated through use of various tools such as virtual class room, IIT remote centre activities, NPTEL video lectures, spoken tutorials, blog spots by faculty members and recorded lectures etc.
- Institute has started different VAPs and soft skill training programs for upgrading and enhancing knowledge of students.

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 institute believes in philosophy of continuous quality improvement phenomenon. The Heads of various departments conduct frequent meetings with the staff to review the activities of the previous weeks and plan for the next weeks. During the HoD-Principal meetings, processes and plans of each department are reviewed and revised by the Principal. The Local Management Committee, which comprises of representatives from both teaching and non-teaching staff, holds meeting in a year. In order to have effective implementation of the policies and to monitor and evaluate the same, various institute and department level committees have been structured.

Academic Monitoring Committee (AMC):

- The committee monitors the teaching learning process on regular basis and record the progress during theory classes as well as practical sessions.

- Students' attendance is tracked and remedial measures are taken if required by informing the parents.
- Online feedback is taken from the students to review the effectiveness and satisfaction level of students about teaching learning process. This feedback is conveyed to faculty members for necessary rectifications, so as to improve the teaching learning process.

Examination Coordination Committee:
- Unit tests/Prelim examination/University examination/mock and final practical-oral examinations are conducted by the committee, as per SUS guidelines, so as to judge the perception of concepts by students.
- Corrective action is taken by conducting remedial classes for poor performing students after declaration of university results.

Projects monitoring committee:
- Students are encouraged to participate in various project competitions and exhibitions and also to present technical papers in National and International conferences. The committee motivates the students to get industry sponsored projects. Evaluation of projects is done in annual project exhibition "Weengs".

R &D, Grants, and revenue generation committee:
- Dean R&D periodically monitors and motivates the faculty to apply and receive grants from various funding organizations like BCUD, DST, and AICTE etc.
- The committee motivates the faculty members and students for revenue generation from existing infrastructure and research facilities available in the institute.
- The committee promotes expert training programs by internal and external resources for the staff and students of the institute.
- It also monitors and motivates staff and students for organizing conferences by the departments.
- Committee ensures the outcome of all research activities in terms of patents filed and research publications by faculty members and students.

Training and Placement/Alumni/Entrepreneurship skills development committee:
- Training and placement cell facilitates placement activities for students through Central Placement Cell, Pune and also through local placement drives arranged in the institute. All the necessary grooming of the students is achieved through conduction of various training programs conducted by professional agencies. Students training program consists of basic communication development in first year engineering, presentation and behavioural skills in second year, aptitude preparation, group discussion forums in third year and interview techniques and professional etiquettes training in final year engineering. T&P cell supports the students to get better employment. This committee arranges hands-on-training and in-plant training.
- Placement opportunities are also provided to alumni and the communication is made through GEMS (ERP software) and use of social media.
- Entrepreneurship Development Programs (EDP) cell arranges various skill development programs in collaboration with government bodies like MCED and

private organizations. Sessions by experts in the field are arranged on regular basis to motivate the students for exploring the path of self-dependency.

Cultural and sports committee:
- Cultural committee aims to explore the hidden talents of upcoming technocrats and also provides means for recreational activities. The committee encourages to celebrate Teacher's day, Engineers Day, etc. and organizes the annual social gathering "Carnival".
- The sports committee looks after facilities essential for indoor and outdoor games. The committee organizes various sports competitions for the students and the achievers are motivated through distribution of prizes.

Monitoring of extra-curricular activities:
- Inspiring lectures by eminent personalities are arranged on the various occasions like Teachers Day, Engineers day, Independence Day, Republic day etc.

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

The institute believes in participative management and hence academic Leadership is provided to the Faculty as under:
- Principal lays down the policies and gives directions on academic and administrative matters.
- Principal of the college assigns some faculty members for foreign assignment (Rwanda-Africa) to share teaching learning process at international level.
- HoDs observe the effective implementation of the policies and plans laid down by the principal.
- Institute provides support and encourages faculty members for doctoral studies and research work in India and foreign countries.
- Faculty members are encouraged to grow up as a resource person in their respective area of expertise.
- Managerial and administrative skills are nurtured by providing opportunities to lead and work in various Institute level activities like NBA, NAAC & IETE.
- Platform for leadership is also provided by giving responsibilities in the areas of different intra departmental activities like examination, Industry-Interaction, Training& Placement, Student Associations, final year Projects, Class In-charges, Laboratory In-charges etc.

6.1.6 How does the college groom leadership at various levels?

Grooming of Leadership at various levels:
- Based on performance and leadership quality exhibition, Principal assigns the responsibilities to work as the Head of Department.
- Various institute level activities are assigned to deserving faculty members
- Responsibility to tackle all the activities of a particular class is assigned to class coordinator.
- Different departmental level responsibilities like examination, Industrial visits, Training & Placement etc. are assigned to develop leadership traits of faculty members.

- Event management skills are enhanced by assigning the responsibility of curricular and extracurricular activities.
- The Institution encourages the faculty for the active participation of seminars, workshops, conferences (national and international), guest lecturers to other colleges and funds and duty leaves are sanctioned for the same.
- All the faculty members are involved in at least one of the activities thereby training them to accept various responsibilities.

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 delegation of authority avoids bottle necking in terms of decision making and thus brings about smooth and uninterrupted functioning of the organization. In view of this, the management of the institute has two main committees Governing body and LMC.

- The role of GB is to decide vision and objectives of the institute based on which directions to LMC and head of the institute are given. The GB approves the budget recommended by LMC. In an academic year, one GB meeting is conducted.
- The systematic approach is followed in the management of academics and administrative functions in the college.
- In the case of academics, the organization depicts the flow of authority and the functions of various heads.
- The individual department has its own freedom to prepare the time-table to conduct various activities such as seminars, workshops, STTPs etc. within the activity calendar of the institute.
- The different activity coordinators for the activities, like students association, Industry interaction at the department level, guide, plan and conduct activities suiting their department.
- The departments are given their budget to carry out the events like expert lecture by outside guests or event like technical competitions between students like projects/ poster competitions etc.
- The departments are given freedom to update the laboratory equipments every year. Departmental libraries are available for the students as well as for the staff members.
- The issues which require deliberations and consultations at the college levels are taken up to the Local Management Committee. Table 6.1.7 shows member name of local managing committee along with their designation.

Table 6.1.7: Local Managing Committee

Sr. No.	Name	Designation
1	**Prof. Maruti Nivrutti Navale** Chairman, SPSPM	**Chairman**
2	**Prof. Sukhdeo Nivrutti Navale** Management Nominee	**Member**
3	**Dr.(Mrs.) Sunanda Maruti Navale** Management Nominee	**Member**
4	**Mr. Rohit Maruti Navale** Management Nominee	**Member**
5	**Shri. Sanjay S. Navale** Management Nominee	**Member**
6	**Dr. R.T. Vyavahare** Representative Teaching Staff	**Member**
7	**Prof. A.B. Jagdale** Representative Teaching Staff	**Member**
8	**Dr. C.P. Pise** Representative Teaching Staff	**Member**
9	**Mr. S. J. Bankar** Representative Non-Teaching Staff	**Member**
10	**Dr. K. J. Karande** Principal, SKN Sinhgad College of Engineering	**Member Secretary**

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

Authorities for participative management are provided to Governing body of the institute. The Governing body takes policy decisions regarding the functioning of the institute. The following members are involved in the Governing body. Table 6.1.8 shows governing body

Table 6.1.8: Governing Body

Sr. No.	Name	Designation
1	**Prof. Maruti Nivrutti Navale** Chairman, SPSPM	**Chairman**
2	**Prof. Sukhdeo Nivrutti Nawale** Management Nominee	**Member**
3	**Dr.(Mrs.) Sunanda Maruti Navale** Management Nominee	**Member**
4	**Mr. Rohit Maruti Navale** Management Nominee	**Member**
5	**Shri. Sanjay S. Navale** Management Nominee	**Member**
6	**Regional Officer (Ex Officio)** W.R.C. AICTE, Mumbai	**Member**
7	**Nominee (Regional Committee of AICTE)**	**Member**
8	**Nominee (Solapur University, Solapur)**	**Member**
9	**Nominee Govt. of Maharashtra**	**Member**

10	**Director of technical Education** (Ex Officio), Nominee of State Govt. /DTE.	**Member**
11	**Dr. K. J. Karande** Principal, SKN Sinhgad College of Engineering	**Member** **Secretary**

- Principal is authorized to implement the decisions at institute level. All the HoDs in consultation with Principal take decision to execute academic and administrative work.
- Each department conducts frequent meetings to convey the decisions made in Principal- HoD meeting.
- Involvement of faculty members in various committees makes academic and administrative system transparent.
- The student's feedback is taken into consideration to modify and improve system.

6.2 Strategy Development and Deployment

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

Yes, the Institute has a formally stated quality policy. Quality policy of the institute aims to provide foremost infrastructure, equipment and competent faculty to shape overall development of the students in terms of their technical excellence and personality traits meeting ever-changing expectations of the stakeholders.
 It has been framed after taking consent from the top management, Principal, HoDs and staff members in order to achieve the vision and mission of the Institute. Various activities conducted in the institute serves the purpose of meeting the quality policies.

Development of quality policy:
As per the quality policy the institute is committed to:
- Provide excellent infrastructure facilities
- Employ highly qualified and experienced faculty
- Encourage the faculty for improvement in qualifications.
- Promote Industry- Institute interaction.
- Create an environment for R & D activities, Consultation work and getting industries sponsored projects for students.

Academic Monitoring Committee (AMC) has been established with the objective to develop and execute the quality policies. These policies have been framed in line with the vision and mission of the institute. These are refined and implemented after discussions with the Principal, Deans, and Heads of the departments under the guidance of top management. The quality policy is published and disseminated to various stakeholders.

Review of quality policy:
AMC visits periodically to the institute to review and monitor quality issues. This committee checks the course file, teaching plan, made by the faculty members and suggests the corrections if any. It also takes the online feedback of the students and suggests the improvements to the teacher for the quality improvement. Principal and

HoD take the review of the suggestions given by committee for the effective implementation.

6.2.2: Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

Yes, the Institute has a perspective plan for development. The institute aims to have all the faculty members with highest academic qualification. The institution also foresees to grow in the field of research and consultancy by virtue of highly qualified technical resources. Efforts are made in this direction to encourage the faculty members for higher studies. Presently 23 faculty members are pursuing their Ph.D. research from various prestigious universities all around the country. The institute is striving to fetch funds for carrying out research in various areas related to implementation of technology for socio-economic development.

Following aspects have been considered for development plan by institute, which includes:
- Centre of excellence in technology to serve for corporate social responsibility.
- Approval for Research Centre in all disciplines by the affiliating University.
- Overall development of faculty and staff by taking initiatives like deputation to higher studies and skill up gradations.
- Promoting research and consultancy activities in all departments.

6.2.3 Describe the internal organizational structure and decision making processes.

The organisational structure with various hierarchy levels has been demonstrated below:

```
┌─────────────────────────┐
│      Society/ Trust      │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│    Managing Committee    │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│  Founder President/ Chief │
│   Managing Trustee or    │
│        Secretary         │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│      Governing Body      │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│  Local Managing Committee │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│        Principal         │
└─────────────────────────┘
```

Deans & HODs	Admin Office	Library	Placement Cell	Other Cells
Faculty & Supporting Staffs	Faculty & Supporting Staffs	Faculty & Supporting Staffs	Faculty & Supporting Staffs	Faculty & Supporting Staffs
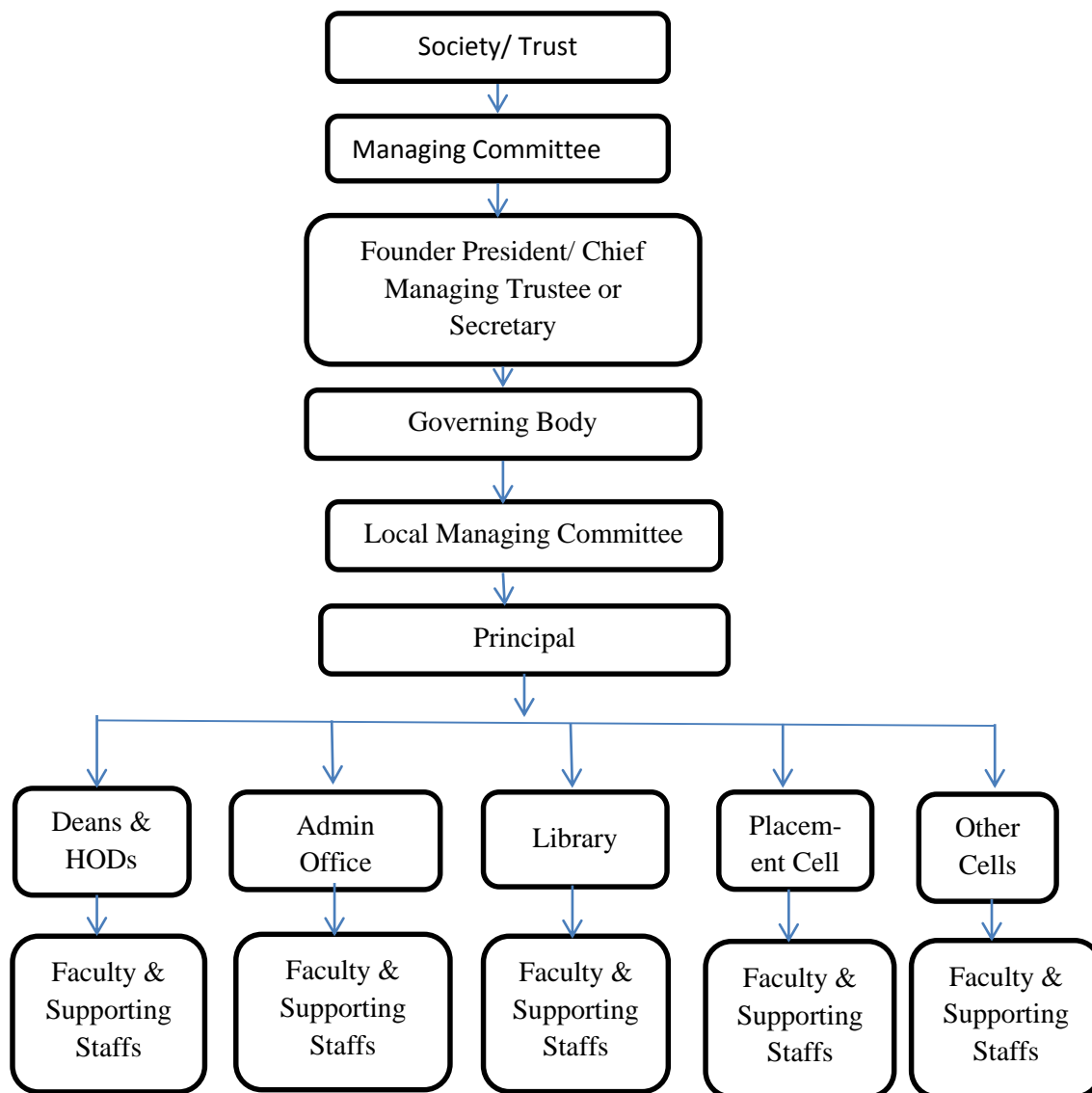
Figure 6.2.3: Internal Organizational Structure

6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following:
- **Teaching & Learning**
- **Research & Development**
- **Community engagement**
- **Human resource management**
- **Industry interaction**

A. Teaching & Learning:
The effectiveness of the teaching-learning process is ensured through following strategies:
- Implementation of project based and outcome oriented teaching and students' centric learning based methodology.
- Promotion of out of the box thinking by use of self-learning sessions

- Use of online video lectures, Blogspots developed by our faculty members, and arrangement of IIT workshops through Video Conferencing for up gradation of faculty knowledge.
- Digital library and access to online research journals to satisfy the thirst for knowledge of latest research outcomes in the domain.
- Recruitment of well-qualified and experienced staff as per AICTE and SUS norms.
- Allocation of the subjects is done well in advance to ensure thorough preparation of the course file and related study material.
- Coverage of contents beyond the syllabus to give an insight of applications of the subject knowledge.
- Enrichment of practical skills through laboratory experiments and various skill development programmes.
- Review of the academic results of the previous years to frame rectifications in teaching learning process.
- Online feedbacks from students are taken to assess the effectiveness of the teaching learning process. Sporadically if the feedback of any teacher is not up to the mark, then constructive suggestions are given to the respective faculty.
- Continuous assessment of student's performance through tests, assignments, seminars, and projects.

B. Research & Development:

For effective contribution of the faculty in R and D, enhancement of faculty member's profile in academic area is essential. In this view, the faculty members are encouraged to

- Register for their Ph.D. as a part of qualification improvement program.
- Engaging Faculty Development Programs (FDP) in association with IIT remote centre.
- Attend various conferences/workshops at national and international level.
- Active participation in different professional bodies such as Indian Society for Technical Education (ISTE), IEI, CSI, etc.
- For direct contribution of faculty members to research, institute provides facilities like- digital library facility, modern equipments and labs.
- Seminars are organized by the Departments to attract researchers of eminence to visit the campus and interact with teachers and students. While organizing workshops, the focus is on imparting advanced technology, tools and techniques and research areas in the subject domain of the programme. Such programs are funded by the Institute.
- Publications by faculty members in different International and National referred journals, books, articles in edited volumes, seminar proceedings etc. is encouraged.
- File the patent based on their research area.
- Internet, LAN, online and printed journal subscription is made available to the all the investigators by the institution to facilitate smooth progress and implementation of research schemes/projects.
- Consistent efforts to fetch research funding from different organisations.

C. Community Engagement:

- Promoting solar energy awareness, through solar vehicle rallies.
- Implementation of "Swachha Bharat Abhiyan" at Palakhi Tal, Vakhari, Pandharpur.

- Awareness program about AAKASH tablets for education in nearby higher secondary students.
- Providing AC seminar hall for the conduction of various community programmes such as primary teachers training programme, "Namami Chandrabhage" inauguration etc.
- Monetary donations to Jakhangaon (for draught affected farmers) and "Palavi" Foundation (for AIDS affected children) by students and Staff.
- Allowing higher secondary students in Spectrum (technical festival) and WEENGS (project exhibition event) for technological awareness.
- Institute conducts the community programs, fort cleaning etc. through NSS.
- On the occasion of national Independence Day, blood donation and health check-up Camps are arranged.
- The college promotes mass tree plantations in and around the college.
- Effective use of sewage water to maintain lush green campus.

D. Human resource management:
- Induction of deserving faculty and staff through quality conscious recruitment procedure.
- Well defined and unbiased performance appraisal system and promotion policies.
- The institute frequently arranges training programmes and also appoints the staff to other organizations for attending such programmes.
- Effective administration participative management
- Support for higher studies and skill upgradation

E. Industry interaction:
- MoUs with Industries e.g. Reliance Jio for WiFi campus, R & D activities and recruitment of students
- Collaboration with TATA Technologies for the Distance Ready Engineers (DRE) executed to train the students, through which TATA Technologies can get technically sound engineers
- Arrangement of industrial visits
- Industry feedback taken during campus placement activities
- Expert lectures by eminent personalities from industries
- In plant training in various industries

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?

All such feedbacks received are communicated to top management through written and verbal communication. Information made available to top management by Head of the institute in following ways:

- Online feedbacks of faculty members regarding their performance
- Performance appraisal forms of faculty and staff members with remarks from concerned heads
- The comments from the parents received during parents meet are communicated to the Principal through HoDs
- Alumni feedbacks regarding adequacy of system implemented

- Impact of the institute in society received through personal contacts and other college authorities and faculty members
- Feedbacks received from employers regarding performance of alumni
- Reactions from various elements in the society on social media
- Inputs regarding institutional facilities through suggestion box

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

The faculty members are encouraged to involve in planning and implementation of all institutional processes. Some elements of the processes need to be worked upon time to time, to ensure continuous improvement in the effectiveness and efficiency of the processes. To encourage the staff for this:

- Management supports staff for participation in STTPs, conferences, workshop and orientation programs by providing duty leaves.
- Faculty members are encouraged to go for higher studies with necessary cooperation at institute level.
- Monetary and promotional benefits are offered based on performance and appraisal reports.
- Faculty members are encouraged to develop as a resource person.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

Agenda and minutes of Governing Body meeting:-
The Governing Body council meets every year and contains external members. The meeting discussed agenda and confirmed for the meeting held on 20th Jan, 2016.

- Recommendation Finance committee: The budget was prepared taking into account existing intake and increase in intake and existing fee structure. The same was discussed and approved.
- Tuition fee and development fee: Tuition fee and development fee for the year 2015-16 and proposed tuition fee and development fee for the year 2016-17 were confirmed.
- Salary: Salary expenses of teaching and non-teaching staff were confirmed. Salary is paid as per 6th pay norms.
- Students Welfare: Expenses towards students participating in sports and various events for the period of 2015-16 were sanctioned and budget for 2016-17 was sanctioned.
- Expenses towards purchase of non-recurr ring, recurring, consumables repair and maintenance was finalized.
- Recommendation of Staff committee for approval of teachers appointed, by SUS was discussed and recommended.
- Decisions regarding staff recruitment, workload, leave records, training and placements were finalized.

6.2.8 Does the affiliating University make a provision for according the status of autonomy to an affiliated institution? If 'yes', what are the efforts made by the institution in obtaining autonomy?

Yes, Solapur University, Solapur provides a provision to grant autonomy to an affiliated institute. The institute has no immediate plan for obtaining autonomy as the institute is started in 2010-11.

6.2.9 How does the Institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?

The grievances from various stakeholders are addressed with top priority. The institute has following committees for resolving grievances/complaints from students, teaching, and non-teaching staff:

- Local Management Committee
- Anti-ragging Committee
- Women's Grievance Cell
- Student Grievance Redressal Cell
- Suggestions through suggestion box
- Grievances obtained through Teacher-Guardian sessions

Every element in the institute is aware of this platform to submit their grievances. As per the complaints received, concerned committee meeting is held to address and enquire the related matter. Counselling and necessary corrective actions are decided and implemented to avoid such grievances in future.

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, there is no such court case filed by or against the institution.

6.2.11 Does the Institution have a mechanism for analysing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?

Yes, institution has mechanism for analysing student feedback on institutional performance. Students' feedback related to teaching-learning process, institutional facilities and services are collected through online feedback system, suggestion box, oral discussion and TG sessions, etc.

The outcome and response of the institution is:

- Guidelines to faculty members for improvement
- Rectification and maintenance of facilities provided by the institute.
- Open discussion in classrooms between students and the Principal to frame strategy for implementation of new activities in the institute. Arrangement of International Solar Vehicle championship in the institute, providing bus facility, uniform for the students is sample examples of the same.
- Allocation of budget for carrying out Project based learning activities.
- Students are given more freedom to lead the institutional activities with faculty members in the role of mentor.
- The team of estate manager, security officers, project engineer, electric maintenance section in-charge, rector and warden take care responding to students grievances regarding institutional facilities.

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?

- Faculty members and staffs are motivated for higher studies with necessary supports by the institute.
- Developing state of the art laboratories to facilitate research and consultancy work.
- Support for attending workshops, seminars and national and international conferences.
- Providing well equipped library and e-learning resources for effective instruction delivery.
- Deputation of faculty members for foreign assignment, till date 12 faculty members visited Rwanda, Africa.
- Providing access to Internet, audio-visual aids, software packages for upgrading knowledge and skills.
- Motivating faculty to take membership of known technical and professional bodies like ISTE, IEEE, IETE, IEI etc.
- Non- teaching staffs are provided with necessary technical knowledge for operation and maintenance of various laboratory equipments.
- Non-teaching staff are also provided necessary inputs for use of various basic softwares and hardware maintenance.

6.3.2 What are the strategies adopted by the Institution for faculty Empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

Institute strives to motivate and empower the faculty members to create sense of responsibility and awareness in the teaching-learning processes by:
- Organizing various faculty development Programs e.g. STTP, MOODLE training, FDP in collaboration with IIT Bombay.
- Sponsoring faculty to attend various programmes like National/International conferences, workshops, STTPs and FDPs carried out at different levels in other institutes.
- Organizing various motivational and health-related programmes.
- Creating a sense of belongingness amongst faculty members by involving them in various committees.
- Organizing English proficiency and communication skill training for selected staff as per need.

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 has designed self-appraisal form for faculty members. This form consists of following parameters:
- Teaching-learning process evaluation
- FDP/SDP/Industrial training etc. attended for self-development
- Seminars/Conferences/workshops/courses conducted as coordinator
- Consultancy work/externally funded research projects

- Contribution towards extra-curricular and co-curricular activities
- Specific duties / tasks assigned by HoDs
- Execution of exam duties assigned by the university
- Contribution for the benefits of students and institute
- Community service and extension activities
- Research contribution in terms of projects, publications and guidance to students
- Awards/rewards obtained by the faculty and staff
- Patents obtained
- Industrial liaisoning and projects
- Results of subjects taught
- Books Published
- Weakness in Teaching through students feedback
- Guest Lectures given to outsiders as an expert

6.3.4 What is outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

- Appraisal reports are reviewed by the management at the end of every academic year.
- All the parameters discussed above are reviewed, and specific suggestions are communicated to individuals.
- Based on the reviews, decisions regarding continuation of the services, regular increments and promotions are taken and communicated accordingly.
- Strengths and weaknesses are identified through various information sources. Accordingly suggestions are given to concern staff for the further improvement.

6.3.5 What are the welfare schemes available for teaching and non-teaching staff? What Percentage of staff have availed the benefit of such schemes in the last four years?

Schemes and facilities availed by teaching and non-teaching staff are listed below:
- Staff quarters allocation as per their willingness (Presently 42 faculty members and 48 non- teaching staff members avail the quarter facility)
- Fully furnished guest house with elevator
- EPF and Gratuity are provided to staff
- Uniforms are provided to all security staff
- Medical and maternity leave is provided to staff
- In campus clinic and transport facility in case of emergency
- Transport facility for staff
- In-door games, gymnasium
- 24hrs. uninterrupted power supply
- ATM, Laundry, Grocery shop, Bakery, Ice- cream shoppe, Fruit and Food stall, tea stall within the campus

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

The college has been taking efforts to attract and retain, learned people in the college in following ways:

- Incentives for faculty members carrying out VAPs and consultancy work
- Providing proper pay scales as per the norms and vertical upgradation of pay scale after acquiring desired qualification
- Rewards and appreciation for exceptional performance
- Providing staff quarters with adequate campus facilities and free medical benefits
- Transparent academic and administrative culture

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

Effective and efficient utilization of available resources for infrastructure, development and teaching learning process is achieved by the institute considering following parameters:

- Departmental requirements in terms of laboratory requirements, stationary requirements and contingency funds for event organization are listed by the HoD and forwarded to Principal for approval in prescribed format. The departmental budget is then discussed and approved by Principal and put into institutional budget and then forwarded for approval to GB.
- Quotations are called from different vendors fulfilling the requirements. After making comparative statement and approval from the Principal, purchase orders are placed to the vendors.
- After receiving the required commodity, dead stock registers are maintained and updated regularly. Servicing, maintenance and repair of instruments and equipment is carried out regularly in similar manner.
- Expenditure: Records for purchase, maintenance and event organisation are maintained regularly and reported to administrative office. Record for expenditure towards advance required for miscellaneous items inclusive of details of purchase is maintained.

Billing Procedure:
- Utilization of funds for purchase and maintenance along with bills is submitted to the Principal for approval and further submitted to the Accounts section.
- Billing for vendors and visiting faculty remuneration are processed in the similar manner.

Audit (Internal & External):
- Internal and external audit is carried out on regular basis to track the utilization of the financial resources.
- Regular verification of dead stock registers is carried out to ensure existence of purchased commodities.

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

Institute conducts two fold audit mechanisms as follows:

1) Internal audit

2) Statutory (External) audit

The last internal audit was done from 29/06/2016 to 05/07/2016 and last external audit was done on 14/03/2016.

There are no major audit objections in the audit report. Some minor objections from 2014 to 2017 audits and their compliance are shown in table 6.4.2.

<p align="center">**Table 6.4.2 Audit and their compliance**</p>

Sr. No.	Period of Audit Report	Particular of objection in brief	Compliance by the institute
1	2014-15	Expenditure on VAP without sanction from honourable chairman	Letter of approval from honourable chairman is taken.
2	2015-16	Payment made without invoice	As per the certificate issued by the seller (HA-KO Enterprise, Mumbai), material is not for sale or resale in the market, as the product is used for students college project (Solar car Champion ship Program). Said product had been included in the dead stock. Through, original invoice of Rs. 16,000/- will be made available in due course.
3	2015-16	Excess payment of salary to Mr. R. V. Raskar (Rs.12,179/-)	Excess payment of salary (Month- August 2016) is recovered.
4	2015-16	Vacation to the faculty members who have not completed one-year service.	Letter of approval from honourable chairman is taken.
5	2015-16	Irregular sanction of vacation	Letter of approval from honourable chairman is taken.
6	2016-17	Incomplete service books	a. As per directions given by respective auditor, all the entries in the service books of teaching and non-teaching staff regarding annual increment, leaves, etc. are corrected and completed. b. Sixty service books related to estate office are corrected and completed. c. Xerox copy of updated sample service book is attached herewith.
7	2016-17	Outstanding fees i. Fees outstanding from students-Rs. 35,85,790 ii. Fees outstanding from SWD- Rs. 2,84,03,967 (Total - Rs. 3,19,89,757)	Outstanding fees up to till date- a. Fees outstanding from students- Rs. 35,34,295 b. Fees outstanding from SWD- Rs. 1,61,57,486 (Total – Rs. 1,96,91,781) Outstanding fee will be recovered in due course.

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 institute being a private Un-Aided college and not getting any financial aid/grant from the state or central government, fee collection is the only major source of revenue/income generation for the institute.
- Institute closely monitors the expenditure, so that the excess cash will be kept as short term deposits to increase the fund flow, other than cash for urgent requirements.
  Audited income and expenditure statement are available and summary of is given in the following table 6.4.3.

Table 6.4.3 Audited income and expenditure statement

Details	2012-13	2013-14	2014-15	2015-16	2016-17
Income	7,71,30,050	11,53,21,630	13,04,04,316	13,29,11,200	13,53,63,847
Academic Expenses	5,22,88,164	8,68,39,923	8,88,64,300	9,00,28,098	10,50,80,078
Administrative Expenses	2,25,40,279	2,57,61,506	2,38,03,090	2,24,87,562	2,28,52,323

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

Table 6.4.4: Income from consultancy funding

Academic Year 2016-17				
Sr. No.	Faculty Involved	Client/Organization Name	Type of Consultancy	Amount Received in Rs.
Department of Mechanical Engineering				
1	Prof. S. S. Kulkarni	Mr.Harshal Kasabe (Dynamic Balancing, Pune)	Vibration analysis and Balancing of CNC Machine	In Progress
2	Prof. S. S. Kulkarni	Mr. Raviraj Karale and Mr. Prashant Pawar (Rio 3D Printers & Prototyping)	Vibration Analysis and Object Modelling	In Progress
Academic Year 2015-16				
Department of Civil Engineering				
1	Dr. C. P. Pise Prof. D. S. Jagtap	Samarth Residency	Concrete Cube Testing	2500/-
2	Dr. C. P. Pise Prof.G.D. Lakade	M/s Bright Future Construction	Concrete Cube Testing	2500/-

3	Prof. G.D.Lakade Dr. C. P. pise	Unique Builders	Concrete Cube Testing	17500/-
4	Dr. C. P. Pise Prof. S. S. Kadam	Sangola Urban Bank	Concrete Mix Design	10000/-
5	Dr. C. P. Pise Prof. D. S. Jagtap	C. P. Bagal & Co.	Murum Material, Tiles Testing	5900/-
6	Dr. C.P. Pise Prof. G. D.Lakade Prof. D. S. Jagtap	Ashok Godase	Concrete Cube Testing	14100/-
7	Dr. C.P. Pise Prof. G.D. Lakade Prof. D. S. Jagtap	S. S. Constructions	Murum Material, Tiles, Cobncrete Cube Testing	7950/-
8	Dr. C.P. Pise Prof. G.D. Lakade Prof. D. S. Jagtap	Choriya Properties	Concrete Cube Testing	1000/-
9	Dr. C. P. Pise Prof. D. S. Jagtap	Lokmangal Group, Solapur	Concrete Cube Testing	3800/-
10	Dr. C. P. Pise Prof. D. S. Jagtap	D. G. More	Concrete Cube Testing	500/-
11	Dr. C. P. Pise Prof. D. S. Jagtap	H. C. Kataria	Concrete Cube Testing	6400/-
Department of Mechanical Engineering				
12	Prof. S. S. Kulkarni	Mr. Pawar Sangram (Fabtech Technical Campus, College of Engineering and Research, Sangola)	Vibration Analysis [FFT Analyser]	3000/-
13	Prof. S. S. Kulkarni	Mrs. Shruthi Mahendrakar(Walchand institute of technology, Solapur)	Vibration Analysis [FFT Analyser]	2500/-
14	Dr. S. G. Kulkarni	Mr. pravin vijay Dhandore (SVERI's College of Engineering, Pandharpur)	Composite Material	3000/-
15	Dr. S.G. Kulkarni	Mr. Sagar B. Porlekar (Kolhapur Institute of Technology, COE, Kolhapur)	Composite Material	3000/-
Academic Year 2014-15				
Department of Civil Engineering				
1	Prof.D. S. Jagtap	BVG India Pvt. Ltd.	Tile, Bricks, Concrete Mix Design, Cube, Steel Testing	2500/-

2	Prof. V. S. Bhumkar	Samarth Residency	Concrete Cube Testing	1000/-
3	Dr. C. P. Pise Prof. D.S. Jagtap	Modern Education Scoiety	Concrete Cube Testing	5500/-
4	Dr. C. P. Pise Prof. Y. P. Pawar	M/s Bright Future Construction	Concrete Cube Testing	1000/-
5	Dr. C. P. Pise Prof. D. S. Jagtap Prof. S. S. Kadam	Real Relators	Concrete Cube Testing	24000/-
6	Dr. C. P. Pise Prof. D. S. Jagtap	D. G. More	Concrete Cube Testing	500/-
7	Dr. C. P. Pise Prof. D. S. Jagtap	H. C. Kataria	Concrete Cube Testing	6400/-
Department of Mechanical Engineering				
8	Prof.S.S.Kulkarni	Mr. Deshmukh P.V. (N. B. Nawale, COE, Solapur)	Vibration Analysis (FFT Analyser)	3000/-
Academic Year 2013-14				
Department of Civil Engineering				
1	Dr. C. P. Pise Prof. G.D. Lakade Prof. Y. P. Pawar	Unique Builders	Concrete Beam Testing, Aggregate, Bricks, Concrete Cube testing	29100/-
2	Dr. C. P. Pise Prof. S. S. Kadam Prof. G.D. Lakade	Das Offshore Engineering	Murum, Water, Bricks Material Testing	15900/-
3	Dr. C. P. Pise Prof. D.S. Jagtap Prof. V. S. Bhumkar	Sulabh International Social Services	Mix Design, Aggregate, Cube Material Testing	75800/-
4	Prof. D.S. Jagtap Prof.V. S. Bhumkar	Creation Engineering Pvt. Ltd.	Concrete Cube, Bricks Testing	47450/-
5	Dr. C. P. Pise Prof. D. S. Jagtap Prof. A. R. Shinde	BVG India Pvt. Ltd.	Tile, Bricks, Concrete Mix Design, Cube, Steel Testing	56100/-
6	Prof. D.S. Jagtap Prof. A. R. Shinde	H. C. Kataria	Concrete Cube Testing	32175/-
7	Prof. K. C. Barsawade	K. Kshirsagar	RCC Consultancy	11000/-
Department of Mechanical Engineering				
8	Prof. S. S. Kulkarni	Mr. Uttam Anuse (Walchand institute of technology, Solapur)	Vibration Analysis [FFT Analyser]	3000/-

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)
a. Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?

The IQAC has been established from academic year 2017-2018 and first meeting has been conducted. Institute has Academic Monitoring Committee (AMC) since its establishment. AMC has similar role and responsibilities as expected by IQAC. The AMC monitors, analyses and takes corrective actions in regard of following activities:

- Interaction with administrative staff, faculty members and students
- Ensuring adequate infrastructure to fulfil academic requirements
- Conduction of internal assessment.
- Evaluation of activity plan and academic calendar.
- Collection of feedback from students and alumni.
- Execution and monitoring of academic plan and activities.

Table 6.5.1: Academic Monitoring Committee (AMC)

Sr. No.	Name of Staff member	Designation at institute level	Designation
1	Dr. K. J. Karande	Principal	Chairman
2	Prof. M. G. Bhat	Advisor, SPSPM	Advisor
3	Prof. S. B. Pharkute	Advisor, SPSPM	Advisor
4	Dr.C.P.Pise	HoD, Civil and Dean Administration	Member
5	Dr. R.T.Vyavahare	HoD, Mechanical and Dean Academics	Member
6	Prof.S.V.Pingale	HoD, CSE	Member
7	Prof.A.O.Mulani	HoD,E&TC	Member
8	Prof.S.P.Ganjewar	HoD, Electrical	Member
9	Prof.A.I.Nikam	Student's Dean & HoD, FE	Member
10	Prof.S.S.Kulkarni	Dean, PG Programmes	Member
11	Dr.S.G.Kulkarni	Dean, R&D	Member
12	Dr.R.N.Badge	Training and Placement Officer	Member
13	Prof.S.D.Katekar	Dean, Alumni	Member
14	Prof .S.G.Deshmukh	Senior Faculty Member	AMC Coordinator

b. How many decisions of the IQAC have been approved by the management/ authorities for implementation and how many of them were actually implemented?

The Academic Monitoring Committee (AMC) is devoted for observing effective implementation of teaching learning practices since inception. The functions of AMC are just similar to that of IQAC. Almost all the decisions taken by AMC are generally accepted by the institutional management. Following are the some of the important decisions are taken by AMC during recent years.

- The introduction of Teacher Guardian scheme

- Introduction of online feedback system
- Addition of self-learning session and extra inputs scheme for weak students
- The introduction of ERP, GEMS, MOODLE etc.
  IQAC has been established since Academic Year 2017-18. Structure of IQAC can be referred from Table No. 2.3.2 (b).

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.
Yes. Mr. Ashok Pawar (Director, Ashraly, Ranjhangaon Pune), Mr.Vishal Bhange (HR, D.Y.Power India, Pvt. Ltd. Pune), Dr.Hariram Chavan (Associate Professor & HOD of IT Dept. Father Angel COE Vashi), Dr.S.N.Talbar (Professor, Electronics Dept. SGGS , Nanded) are external members of IQAC.

d. How do students and alumni contribute to the effective functioning of the IQAC?

The suggestions for implementation of new policies and the feedback regarding existing policies provide a prominent information source for framing AMC decisions. The students contribute to the effective functioning of the AMC as follows:
- Online and classroom feedback
- Library feedback
- Hostel feedback
- Teacher Guardian sessions
- Suggestion box feedback

The alumni contribute to the effective functioning of the AMC as follows:
- Alumni feedback
- Use of social media
- Informal interactions with faculty members

Following are the examples of decision taken by the institute to fulfil the needs of students as per suggestions:
- Start-up of Bus facility initially for the girls and followed for the boys
- In house GATE coaching classes and GATE tutor software
- Introduction of dress code for the student community

e. How does the IQAC communicate and engage staff from different constituents of the institution?

AMC involves all head of the departments as committee members. The decisions are communicated to staff from different constituents of the institution through their respective HoD.

6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalization.

Yes, the institution has framed AMC for the quality assurance of the academic and administrative activities. Meetings are regularly conducted for review of the same.
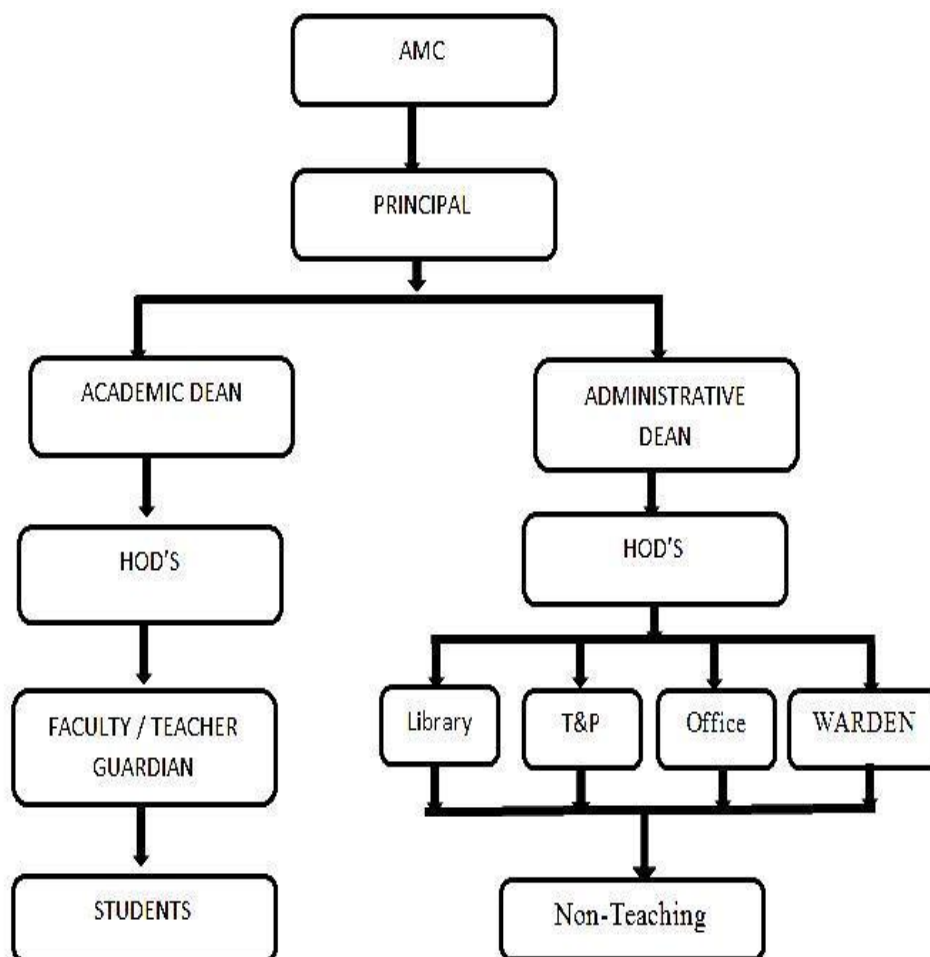
Figure 6.5.2: Framework for Quality Assurance of the Academic and Administrative activities

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 institute provides motivation and necessary support to faculty members for attending training programmes/workshops based on Quality assurance procedures. Sufficient awareness at institute and department level is offered for effective implementation of the procedures.
The programs aim for:
- Quality assurance awareness for faculty members during departmental meetings
- Awareness of quality assurance procedures and documentations.

6.5.4 Does the institute undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?

The institution undertakes regular academic audit to ensure quality of education imparted.
- Regular meetings are conducted by HoD with all faculty and staff for taking reviews and feedbacks regarding academic activities.

- Monthly review of attendance and test performance is analysed keenly to decide corrective actions for particular students.
- Subject allocation with due care is done and teaching plan at the beginning of the semester are reviewed by HoD.
- At the end of every semester, academic review of the department is carried out, defaulters are identified and instructed for corrective action.
- Institute takes the review of academic audit through periodic reports from the department heads and result analysis etc. and remedial measures are taken for improvement.
- Practices like presentation by faculty members regarding their contribution to institute and department, self-appraisal reports and its review by HoD are effectively implemented.
- After every semester, activity report prepared by departments is evaluated by AMC. For each academic year the complete activity report of institute is submitted to AMC and management for evaluation and concrete suggestions.

6.5.5 How is the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

The institution follows guidelines given by AICTE, UGC, DTE and SUS. The required infrastructure and other resources are provided as per guidelines from AMC. Confirmation of the requirements is monitored by LIC committee of the university. All the academic activities and processes are as per the instructions given by these bodies from time to time.

- Curriculum and its implementation, evaluation is as per the University.
- The infrastructure & staff is as per the norms laid down by AICTE.
- The admission to the program is governed by the directives given by DTE, Maharashtra state.
- The institute is monitored by SUS & AICTE committees for compliance.
- AMC is always keen in observing performance of the institute by attainment towards mission and vision of the institute.
- External audit is conducted for college progress, infrastructure and faculty status in institute is reviewed by Local Inspection Committee (LIC) of the university, and suggestions of LIC are followed by AMC.

6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome.

Institutional mechanisms for Teaching-learning process:
The mechanism for review of the teaching learning process consists of:
- Preparation of academic calendar and activity plan for each department at the beginning of the semester.
- Preparation of teaching plan by each subject teacher to ensure completion of curriculum in allocated period.
- Preparation of lab manuals, objective question bank, SLS question bank and assignment books for respective subjects.
- Maintenance of attendance record of theory and practical sessions.

- Continuous assessment of practical work and certification.
- Conduction of unit test and prelim examinations, paper assessment and result analysis to monitor students' performance.
- Result analysis of previous semester taught by the respective staff.
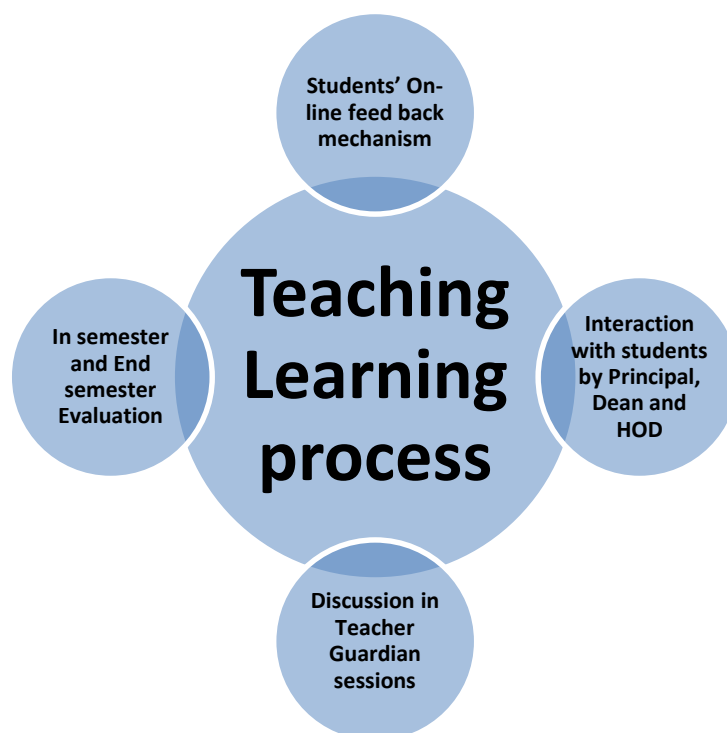
Fig. 6.5.6: Institutional Structure to review Teaching-learning process

Table 6.5.6: Institutional mechanisms and its outcome

Sr. No.	Methodolgy applied	Outcome
01	Self learning session (SLS)	Better understanding of subject concepts
02	Project based learning	Enhancement in creativity, Students becomes technically sound
03	Value addition programs	Upgradation of technical knowledge as per industrial demands
04	Group discussions	Improvement in expression abilities, English communication and current affairs knowledge
05	LCD presentations	Improvement in leadership and presentation skill of the students

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?
Any other relevant information regarding Governance, Leadership and Management which the college would like to include.

The quality assurance policies and their implementation are communicated to the stakeholders through

- Information updated on institute website
- Display on notice boards time to time
- Oral interactions from HoD / senior staff members, Parent-Teacher meet, alumni meet
- Time to time conversation with parents through induction programs
- Use of print and social media to publicize institute achievements
- Presentations to industries at the time of industrial visits and placement drives
- Interaction of TG, HoDs and Principal with students

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?

Yes, the institute conducts a green audit and energy audit time to time. Separate Electrical engineer is appointed at campus level to monitor day-to-day activities related to electrical maintenance and consumption. The institute adopts many tasks and activities like effective waste management, rainwater harvesting, wastewater management, energy management etc.

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?
- **Energy conservation**
- **Use of renewable energy**
- **Water harvesting**
- **Check dam construction**
- **Efforts for carbon neutrality**
- **Plantation**
- **Hazardous waste management**
- **e-waste management.**

A. Energy conservation and use of renewable energy:
For energy conservation following measures have been taken:
- Streetlights are converted from sodium vapor lamp into 48/60 watt LED lamps at many places.
- Bathroom/toilet/basin/night lamps in hostel are converted into 0.5/3 watt bulbs.
- Automatic power factor controller (APFC) unit is installed which maintains power factor up to 0.99 since the establishment of campus i.e. 2010.
- Solar water heaters have been installed in all boys and girls hostels with capacity of 48000 LPD through 96 panels
- Inductive heavy loads are used only within TOD tariff.
- Balanced load is maintained for all buildings.
- Use of air conditioner is made available only when essential.
- Institute has received electric supply through express feeder to ensure uninterrupted power supply.
- Buildings are planned in such a way that very few rooms requires air conditioning and also maximum light is received by classrooms and laboratories.
- Use of LCD monitors in all laboratories.
- Conversion of 36 W tubes into 18W LED is in progress.
- Energy conservation slogans are displayed at appropriate location for awareness among the students. Solar car rallies are organized in Pandharpur and nearby areas.
- Biogas plant working on food waste from mess has been constructed in the campus.

B. Water harvesting:
- For improvement of ground water level, all buildings are provided with roof water harvesting. Also it helps to recharge the wells and bore wells.
- Rain water is used for gardening.

➢ **Water management:**
- Major volume of water for gardening comes from sewage treatment plant installed in campus with capacity of 700 cu. meters per day.
- After treatment, remaining water is discharged into the percolation tank.
- Sewage treatment plant includes screening, filtering, sludge settling tank, treated water tank, carbon and sand filter, storage tank.

➢ **Water treatment:**
- Provision of water treatment facility in college campus with incoming water, which normally comes from various sources, ensures the good quality potable water.
- Separate RO water purifiers are installed with capacity of 500 litres per hour at hostels, mess and academic blocks.
- Water quality is regularly analyzed for ensuring the quality of supplied water at consumer end.

C. Check dam construction: NA

D. Efforts for carbon neutrality:
- Various trees and greenery over the entire campus is the strong evidence of carbon neutrality.
- As institute is located in rural area, carbon emission is less.
- Highly use of renewable energy helps to maintain campus eco-friendly.
- Green waste is not burned.
- Institute has provided with bus facility which results in huge saving of fuel and emission
- Bus parking is close to entrance.
- Green vehicles are available for transportation inside the campus. This will also help to physically handicapped students.
- In-house service station for buses is available.

E. Plantation:
- Fascinating garden and lawn are maintained with various flower plants and trees.
- Approximately 06 acres land of total campus covered with plants and lawn.
- More than 3000 trees are planted in the campus since the establishment of institute. These include ficus, mohgani, silver oak, ashoka etc.
- Regular maintenance of plant has been carried out by outside agency.
- Green waste is decomposed and then used as a fertilizer.

F. Hazardous waste management:
- No hazardous waste is produced except laboratories like chemistry and environmental science
- Chemical waste is always disposed under strict supervision.

G. e-waste management:
- Since the institute is new, there is no much E-waste produced in the campus.
- Most of electronics components are usually reused for doing projects.
- Students are encouraged for modification and up-gradation of existing projects

H. Solid waste management:
- Biogas generation plant with capacity 15 m^3 is in operation in order to dispose solid waste like canteen food, mess food, green waste etc.

- Approximately 10 kg methane is generated by the plant and used in mess.
- Dry waste is collected regularly and managed by municipal corporation
- Dust bins are provided at many places for solid waste collection

I. Any other:
- Fire extinguishers are regularly charged
- Paperless administration initiative saves large amount of paper which results in green environment
- Papers are reused for printing

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.

1) Faculty Training Program:
Training and up gradation of faculty members is very important for the overall development of teaching learning process. In this regards the institute is trying to keep them abreast with the latest technological developments in their field of interest. The institute has IIT remote center for the training of faculty members. Institute conducted seminars and workshops for faculty members of each department such as:

- Two-week workshop on Control System by IIT Kharagpur.
- Workshop on AAKASH tab by IIT Bombay.
- Two-week workshop on Analogue Electronics by IIT Kharagpur.
- Workshop on Engineering Thermodynamics by IIT Bombay.
- Workshop on Research Methods in Educational Technology by IIT Bombay.
- Workshop on Aakash Android Application Programming by IIT Bombay.
- Workshop on Database Management Systems by IIT Bombay.
- Workshop on Green Building Awareness by IIT Bombay.
- Workshop on Engineering Mechanics by IIT Bombay.
- Workshop on Computer Programming by IIT Bombay.
- Workshop on Environmental Studies by IIT Bombay.
- Workshop on Engineering Physics by IIT Bombay.
- Workshop on technical communication by IIT Bombay.

2) Faculty/ Students Exposure with Foreign Institutes:

- As institute has tie-up with few foreign Institutes and Universities, faculty members and students get exposure with latest trends in education sector across globe.
- Institute deputed few faculty members of every department to Kigali Rwanda (Africa) for short time assignments. During this period, deputed staff is involved in teaching learning process for students abroad. This helped faculty to get better experience and exposure with foreign institute.
- During last two academic years, few students got UG fellowships at Technical University Sofia, Bulgaria and Ural Federal University, Russia.

3) Value Added Training Programs:
- Institute is affiliated to Solapur University, Solapur and follows University curriculum.

- To fulfil the gap between curriculum and current Industry requirements, Value added training programs are designed with help of Industry and corporate experts. This helps to evaluate and prepare the students for up-gradation of technical and soft skills required as per current industrial scenario.
- The different value added training programs like Auto CAD, CATIA, STAAD Pro, C, C++, PLC, Embedded System, Electrical Equipment Design, General and technical aptitude, Communication skills are conducted in each semester in all departments.
- Impact of this activity is reflected in increased number of placements. This also helps students to sharpen their abilities and get benefited to place themselves in various industries after completion of graduation.

4) Online Students Feedback:
- In every academic semester, department takes students' online feedback about teaching learning process. The online feedbacks taken by client server model and helps for generation of precise reports and accessible to all AMC members and authorities.
- All authorities and AMC members analyze these feedbacks and accordingly corrective actions are taken for improvement in teaching learning process.
- Feedback helps faculty members to understand the scope for improvements and also helps in result improvement.

5) Project Based Learning:
To bridge the gap between curriculum and current Industry requirement, it is necessary to prepare students technically and practically strong enough. Project based learning helps to assure this objective. It can be done by only mind cultivation of students from the beginning of technical education, so institute primly focus and starts working from first year of engineering to inculcate practical attitude in their minds. It also sharpen their technical imagination and allow them to think on various aspects required for doing projects. For effective and successful implementation of project based learning institute supports in various aspects like,

- Motivate students for doing mini or major project from second year to final year. Students are encouraged for industry-sponsored projects.
- Institute supports mini and major projects by extending financial support in terms of equipments and consumables as per the requirements of projects.
- Department of Electronics and telecommunication students run a component bank for easy availability of electronics components for doing project work. The institute supports with 50% financial assistance for this component bank. Other departments are also supporting for projects by extending support in various ways.
- UG fellowships for students in Technical University Sofia, Bulgaria and Ural Federal University, Russia are being offered. In last couple of years, students went to foreign universities for doing project based learning during summer vacations.
- Conduct national level project competition (WEENGS) in every second semester of academic year.
- Provides incentives for participating in national and international project events.
- Appreciation and reward regularly for achievements of students.

Students have developed many projects such as Central announcement android App, vehicle parking guidance system, food waste based Biogas plant, GPS based bus tracking system, etc.

6) Self-Learning Sessions (SLS):

- Self-Learning Sessions (SLS) are conducted effectively for FE and SE students. The main objective of this activity is to improve self-learning ability of students.
- For every subject, SLS is kept in time table. Respective subject teacher ask students to solve questions by themselves and supervise the class.
- Towards end of the session, teacher issues necessary guidelines for attempting the questions.
- This activity helps to build staff-student interaction and improve result of particular subjects.

7) MOODLE Server:

- As Solapur University has different question paper pattern for end semester evaluation where 20 % weightage has been given to multiple-choice questions (MCQs).
- All the subject teachers are using MOODLE server for practicing and examining students by creating sufficient question bank on MOODLE server.
- The performance of students monitored by subject teacher at a glance and accordingly corrective measures are taken.

8) Societal Contribution:

- The staff and students of Institute are closely associated with Palavi, an NGO working for HIV affected orphanage children. Staff and students extend financial support to this organization.
- Students have collected more than one lakh rupees and donated to Grampanchayat, Jakhangaon for draught affected farmers.
- The activity aims to inculcate social awareness in students and to provide service to society as a community service. The NSS unit approved by Solapur University helps to promote the unity and integrity of the nation by bringing together young people from diverse geographical and socio-cultural backgrounds. The NSS camps provide platform for students to resolve social issues and problems by using managerial skills and organized efforts. Students of this college also contribute to "Swachh Bharat Mission" of Government of India through NSS camps.
- Students and staff members are also extending their contribution to "Matoshri Vrudhashram", Pandharpur.
- Students have developed android application named "Lasikaran App" useful for the society.

9) e-Yantra Center of Excellence:

- e-Yantra is a project by IIT Bombay to spread education in Embedded Systems and Robotics. This project has been sponsored by Ministry of Human Resource Development (MHRD) through the National Mission on Education through ICT (NMEICT).
- The main objective of e- Yantra program is to teach embedded systems and robotics in an effective manner and engaging students in competitions like e-YIC, e-YRC etc. to make them learn and implement innovative concepts.

- e-Yantra Lab has been sponsored by IIT Bombay and students started involving themselves into various activities and competitions.

7.3. BEST PRACTICES:

7.3.1 Elaborate on any two best practices in the given format, which have contributed to the achievement of institutional objectives and/or contributed to the quality improvement of the core activities of the college.

A. Best Practice No: 1

1) Title of the practice: Student Enrichment Programme (SEP)
2) Goal:
- To enhance the employability skills among the students pertaining to the industries.
- To nurture entrepreneurship skills.
- To develop their technical as well as soft skills.

The institute conducts activities like practicing Aptitude, Group Discussion, General Knowledge, Current Affairs and Mock Interview. In addition to this, college also conducts department wise technical programmes such as CATIA, PLC programming, CCNA, MATLAB programming etc. to enrich their technical skills.

3) The context
Number of events conducted under expert supervision and advice involves a lot of specialists from each of the respective fields. It is always challenging to arrange resource persons and adjust their schedule with academic activities. It is also important to track progress of the students in individual activities and give them feedback. If students are unable to understand, counselling in critical cases is also necessary.

4) The practice
- Aptitude Development: Aptitude preparation is the most important stage for prospective job seekers in today's competitive job market. Employers use aptitude tests to distinguish between candidates and a poor score on numerical or verbal reasoning could be the difference between getting an interview or not.

- Group Discussion: Any kind of discussions are supposed to help us develop a better perspective on issues by bringing out different viewpoints. Understanding of any point makes us better equipped to deal with the problem.

- General Knowledge: General knowledge contributes to personal enrichment and proper understanding of the world as a whole.

- Current Affairs: Current affairs refer to the important incidents that occurred and holds social importance in country or world. Nowadays various organizations are hiring candidates who are having good knowledge of their surroundings.

- Personal interview: Interviews help the candidate and employer make an informed, mutually beneficial employment choice. Candidates who understand both sides of the interviewing process stand to have a more successful job search.

- Developing Technical skills: Technical skill is the basis of an employment that the students will be acquiring in the organization. Better foundation of technical knowledge is a step to further learning.

All the activities of the student enrichment programme are conducted by faculty who have their expertise in respective areas. These activities are planned semester wise and reporting is done to ensure continuous progress.

5) Evidence of success

It is observed that with regular practice the students get better understanding of various activities which are being carried out in the college. With the help of SEP, we can see steadily rise in scores amongst all the students. Also, it has reflected in reviews from the company panels coming for interview. Subsequently the students get abundance opportunities in the field of engineering having done the SEP in college. Students get better placements in terms of profile and package.

6) Problems encountered and resources required

Creating interest amongst student's community for all these activities is a big challenge as there is no formal examinations as such for these activities, however due to the experiential way of learning in the activities we are able to inculcate the habit of active participation among the students. Since a large number of activities are planned any student missing any activity leads to hampering the subsequent activities.

7) Contact Details:

Name of principal-	Dr. K.J. Karande
Name of institution-	SPSPM's SKN Sinhgad college of engineering, Korti, Pandharpur.
Accredited status-	Not Applied
Work phone-	02186-250146
Fax-	02186-250142
Website-	www.sknscoe.ac.in
E-mail-	principal.sknscoe@spspm.org
Mobile-	7350508899

B. Best Practice No: 2

1) Title of the Practice: Internship Training Programme (ITP).

2) Goal:

- To give hands on experience of the respective engineering fields.
- To make them aware with the latest technologies in the field of engineering.
- To motivate them to develop various skills required for being an Entrepreneur.
- To enhance employability skills ahead of the campus placement.

3) The Context: In accordance with change in the market in various sectors, it is always a challenge to make the students compatible for the same. As exponentially growing situations in the market, the students need to be updated on the latest technologies. The students are always projected to be ahead in any circumstances in the future.

4) The Process:

- In respect of the ITP we encourage the students to undergo short term or long term training at various locations such as Pune, Mumbai, Solapur and nearby places once in an academic year.
- Under the same process the students are also getting opportunities to work and learn in foreign universities such as Technical University of Sofia, Torr Vergetta university of Rome, Ural Federal University of Russia. It is a project based learning cum training program.
- In addition to this, the college invites the company personnel every year and the students are taken through all the processes required for the internship programs in big shot industries.
- We are also interacting with the other companies time to time for the Internship Training Program.
- The institute in touch with the company representatives and the students regularly to ensure the involvement of the students during the tenure of the Internship. Time to time feedback is also taken from the company.
- In post training the students are supposed to write a report on the profile offered by the company during the ITP as well as their learning curve in the same.

5) Evidence of Success:
- Around 1721 students have completed their Internship Training Programs in different organization over the period of four years.
- The placement ratio is exceptionally and rapidly increasing for the last three years regardless of rural location.
- Due to frequent interaction between the institute and the companies, the college has been successfully getting considerable MoU, Sponsorships from the reputed firms and industrial visits.
- Because of our consistent efforts, the college undergraduates are turning out to be entrepreneurs day by day.

6) Problem Encountered and Resources Required:
As so many activities are scheduled in every academic year, it is invariably difficult to manage the time slot for the Internship Training Programs during academics, however the ITP is planned in the vacations. As an important part of engineering career, the faculty members are regularly following up with the students in spite of being on vacation.

7) Contact Details:

Name of principal-	Dr. K.J. Karande
Name of institution-	SPSPM's SKN Sinhgad college of engineering, Korti, Pandharpur.
Accredited status-	Not Applied
Work phone-	02186-250146
Fax-	02186-250142
Website-	www.sknscoe.ac.in
E-mail-	principal.sknscoe@spspm.org
Mobile-	7350508899

Department of Civil Engineering
Evaluative Report of the Department

1. **Name of the Department:** Department of Civil Engineering

2. **Year of Establishment:** 2010-11

3. **Names of Programmes / Courses offered (UG/ PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):**

Name of Program UG / PG	Specialization	Name of Course	Intake	Year of Establishment
UG	Bachelor of Civil Engineering	B.E.	60	2010-11
PG	Master of Structural Engineering	M.E.	24	2013-14

4. Names of Interdisciplinary Courses and the Departments/Units involved:

Sr. No.	Class	Name of Interdisciplinary course/Subject	Department
1	S.E.	Engineering Mathematics- III	First Year Engineering
2	S.E	CPNM (Computer programming and Numerical Methods)	Department of Computer Science Engineering

5. Annual/ Semester/Choice based credit system (Program Wise):
1. UG: Semester- CBCS (SE), CGPA (TE, BE)
2. PG: Semester- CBCS

6. Participation of the Department in the Courses offered by other Departments:

Sr. No.	Class	Courses	Offered to Department
1	F.E. (Semester -I)	Applied Mechanics	First Year Engineering
2	F.E. (Semester-II)	Basic Civil Engineering	First Year Engineering
3	S.E. (Semester-II)	Environmental Studies	Second Year All Branches

7. Courses in Collaboration with other Universities, Industries, Foreign Institutions, etc.

Sr. No.	Course Name	Class	No.of Students	Duration	Collaborating Organization
1	Five Day Work shop on STAAD- Pro	TE	29	29/12/2014 to 02/01/2015	Vernier Design Solutions Pvt. Ltd. (Symmetry Solution, Solapur)

2	Communication Skills	SE, TE	71	07/01/2015 to 27/03/2015	SEED InfoTech Ltd. Pune
3	Quantitative Aptitude	SE, TE	68	09/01/2015 to 06/04/2015	SEED InfoTech Ltd. Pune
4	Five Day Work shop on STAAD- Pro	TE	32	28/12/2015 to 01/01/2016	Vernier Design Solutions Pvt. Ltd., Pune
5	Entrepreneurship Development	SE, TE, BE	31	24/01/2016 to 25/01/2016	MITCON, Solapur
6	Logical Aptitude	BE	27	30/06/2016 to 03/07/2016	SEED InfoTech Ltd. Pune
7	Workshop on AUTO-CAD	SE, TE, BE	22	26/01/2017 to 29/01/2017	CAAD Center, Pandharpur

8. Details of Courses/programmes discontinued (if any) with reason: Nil

9. Number of Teaching Posts:

For Under Graduate and Post Graduate:

Teaching Posts	Sanctioned	Filled
Professors	02	01
Associate Professors	04	02
Asst. Professors	14	17
Total	**20**	**20**

10. Faculty Profile with Name, Qualification, Designation, Specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,):

Sr. No.	Name of Staff	Qualification	Designation	Specialization	Experience in years	No. of PG Students guided
1	Dr. C.P.Pise	Ph. D.	Prof. & HOD	Civil Engg.	17	15
2	Mr. D.D. Mohite	M.E. Ph.D. Pursuing	Asst. Prof.	Environmental Engg.	8.5	08
3	Mr. Y.P. Pawar	M.Tech. Struct. Pursuing Ph.D.	Asst. Prof.	Structures	20.5	11
4	Mr.S.S. Kadam	M.Tech. Struct. Pursuing Ph.D.	Asst. Prof.	Structures	17.5	14
5	Ms. S.V. Lale	M.E. Struct.	Asst. Prof.	Structures	7.5	-
6	Mr. S.N. Chougule	M.Sc. Geology	Asst. Prof.	Geology	6.5	-

7	Mr. C.M. Deshmukh	M.E. Env. Pursuing Ph.D.	Asst. Prof.	Enviornmental Engg.	25.5	10
8	Mr. D.S. Jagatap	M.Tech. Construction Management Pursuing Ph.D.	Asst. Prof.	Construction Management	7.5	-
9	Mr. G.D. Lakade	M.E. Structures	Asst. Prof.	Structures	8.5	-
10	Mr. S.V. Uppin	M.E. Construction Management	Asst. Prof.	Construction Management	8	-
11	Mr. M.B. Shinde	M.E. Structures	Asst. Prof.	Structures	5.5	-
12	Mr. R.H. Sule	M.E. Structures	Asst. Prof.	Structures	08	-
13	Mr. M.R. Navale	M.E. Civil	Asst. Prof.	Structures	20.5	-
14	Mr. D.H. Chavan	M.E. Structures	Asst. Prof.	Structures	3.5	-
15	Mr. V.S. Sherekar	M.E. Construction Management	Asst. Prof.	Construction Management	1.5	-
16	Mr. M.V. Kulkarni	M.E. Structures (Pursuing)	Asst. Prof.	Structures	3.5	-
17	Mr. A.P. Kshirsagar	M.E. Structures	Asst. Prof.	Structures	11.5	-
18	Mr. A.V. Karande	M.E. Structures (Pursuing)	Asst. Prof.	Civil Engg.	1.5	-

11. List of Senior Visiting/Adjunct Faculty:

Sr. No.	Name of Faculty	Qualification	Experience	Name of Industry /Organization
1	Dr. S.K. Kulkarni	Ph.D. Structure	12	FIT, Pune
2	Mr. K.C. Barsawade	M.Tech. Structure	08	RCC Consultant, Pandharpur

12. Percentage of Lectures delivered, and practical classes handled [Program wise] by temporary Faculty: 2%

13. Student Teacher ratios:

Year	Students Strength	Teachers	STR
2013-14	171	12	14.25
2014-15	225	15	15.00
2015-16	246	16	15.37

2016-17	272	18	15.11
2017-18	259	18	14.38

14. Number of Academic Support Staff (technical) and Administrative Staff; Sanctioned and Filled:

Support Staff	Sanctioned	Filled
Technical Staff	03	03
Administrative Staff	01	01

15. Qualification of Teaching Faculty:

Sr. No.	Qualification	No. of Teaching faculty
1	Ph.D.	02
2	Ph.D. (Pursuing)	05
3	P.G.	11
4	P.G. (Pursuing)	02

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Number of faculty with National ongoing projects	Amount received	Number of faculty with International ongoing projects	Amount received
05	Rs. 1.25 Lakh	Nil	Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

a) DST Funded

Projects funded by DST					
A.Y.	Faculty	Particulars	Sponsoring Agency	Sponsorship amount	Status of Proposal
2013-2015	Dr. C.P. Pise	Sustainable Solution for Turbidity removal of Potable Water using blended Coagulants.	DST, New Delhi	Rs.5.7 Lakhs	Completed

b) IIT Funded

A.Y.	Faculty	Particulars	Sponsoring Agency	Sponsorship amount	Status of Proposal
2013-2014	Mr. Y.P. Pawar	Engineering Mechanics workshop	IIT Bombay	0.7 Lakhs	Completed
2015-2016	Mr. S.S.kadam	Environmental Studies workshop	IIT Bombay	1.227 Lakhs	Completed

c) **SPSPM/Institute Funded**

A.Y.	Faculty	Particulars	Sponsoring Agency	Sponsorship amount	Status of Proposal
2013-2014	Mr. S.S.kadam	A study for effect of steel fiber and silica fume on high strength pavement quality	SKNSCOE	7000/-	Completed
2014-2015	Mr. C.P.Pise	Turbidity removal by blended coagulant alum and moringa oleifera	SKNSCOE	4000/-	Completed
2015-2016	Mr. M.B. Shinde	SPSPM Project Fund	SPSPM	60000/-	Completed
2015-2016	Mr. D.S.Jagtap	Photo catalytic distraction of water contaminants	SKNSCOE	4000/-	Completed
2016-2017	Mr. Y.P. Pawar	Self-Compacting Concrete	SKNSCOE	2800/-	Completed

18. Research Centre /facility recognized by the University:

As on date there is no such recognition from university

19. a) Publications:

Sr. No.	Faculty Name	Papers in peer reviewed Journals	Papers in International/ National Conference	Monographs	Chapters in books	Books Published	International Book With ISBN No.	Citation Index	SNP	SJR	h -Index
1	Dr.C.P. Pise	32	10	--	--	05	05	32	--	--	03
2	Mr. D.D. Mohite	22	05	--	--	--	--	04	--	--	01
3	Mr. Y.P. Pawar	27	09	--	--	03	03	04	--	--	01
4	Mr. S.S. Kadam	25	07	--	--	02	02	05	--	--	01
5	Mr. C.M. Deshmukh	24	06	--	--	01	01	04	--	--	01
6	Mr. D.S. Jagtap	03	--	--	--	--	--	0	--	--	0
7	Ms. S.V. Lale	06	03	--	--	--	--	--	--	--	--
8	Mr. G.D. Lakade	02	05	--	--	01	01	04	--	--	01
9	Mr. M.B. Shinde	-	02	--	--	--	--	--	--	--	--
10	Mr. V.S.Sherekar	01	--	--	--	--	--	02	--	--	01
11	Mr. D.H.Chavan	01	02	--	--	--	--	0	--	--	0

12	Mr. A.B. Phule	2	--	--	--	--	--	--	--	--	--
13	Mr. M. M. Awatade	2	--	--	--	--	--	--	--	--	--
14	Mr. S.V. Uppin	01	01	--	--	--	--	0	--	--	0

b) Books and Monographs Publication:

Sr. No	Author	Name of Book	ISBN Number/ Publisher
1	Mr. G.D. Lakade Dr. C. P. Pise, Mr. Y. P. Pawar	Performance of RC Building Under Dynamic Forces And Suitability of Strengthening By FRP Jacketing	978-1-365- 61278-7
2	Mr. Y. P. Pawar, Dr. C. P. Pise	Retrofitting of RCC Water Tank	978-1-365- 85187-2
3	Mr. S. S. Kadam, Dr. C. P. Pise	Mixed Fibre Reinforced Concrete Deep Beam in Shear	978-1-365- 85196-4
4	Mr. Y. P. Pawar, Dr. C. P. Pise	Seismic Analysis of RCC Building With Soft Story	978-1-365- 85195-7
5	Mr. S.S. Kadam	Steel Fiber Reinforced Concrete	978-1-365- 85710-2
6	Mr. C. M. Deshmukh, Dr. C. P. Pise	Analysis Composite Bridge Girders	978-1-365- 85716-4

20. Areas of Consultancy and Income Generated:

Sr. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount received (in Rs.)	Total
Financial Year 2013-2014					
1	Dr. C. P. Pise , Mr. G.D. Lakade, Mr. Y. P. Pawar	Unique Builders	Concrete Beam Testing, Aggregate, Bricks, Concrete Cube testing	29100	267525
	Dr. C. P. Pise, Mr. S. S. Kadam, Mr. G. D. Lakade	Das Offshore Engineering	Murum, Water, Bricks Material Testing	15900	
	Dr. C. P. Pise, Mr. D.S. Jagatap, Mr.V.S. Bhumkar	Sulabh International Social Services	Mix Design, Aggregate, Cube Material Testing	75800	
	Mr. D. S. Jagatap Mr. V. S. Bhumkar	Creation Engineering Pvt. Ltd	Concrete Cube, Bricks Testing	47450	
	Dr. C. P. Pise Mr. D. S. Jagtap Mr. A. R. Shinde	BVG India Pvt. Ltd	Tile, Bricks, Concrete Mix Design, Cube, Steel Testing	56100	

	Mr. D. S. Jagatap Mr. A. R. Shinde	H. C. Kataria	Concrete Cube Testing	32175	
	Mr. K. C. Barsawade	--	RCC Consultancy	11000	
Financial Year 2014-2015					
2	Mr.D. S. Jagtap	BVG India Pvt. Ltd.	Tile, Bricks, Concrete Mix Design, Cube, Steel Testing	2500	41900
	Mr.V. S. Bhumkar	Samarth Residency	Concrete Cube Testing	1000	
	Dr. C. P. Pise Mr. D. S. Jagatap	Modern Education Society	Concrete Cube Testing	6500	
	Dr. C. P. Pise Mr. Y. P. Pawar	M/s Bright Future Construction	Concrete Cube Testing	1000	
	Dr. C. P. Pise, Mr. D. S. Jagtap, Mr. S. S. Kadam	Real Relators	Concrete Cube Testing	24000	
	Dr. C. P. Pise Mr. D. S. Jagtap	D. G. More	Concrete Cube Testing	500	
	Dr. C. P. Pise Mr. D. S. Jagtap	H. C. Kataria	Concrete Cube Testing	6400	
Financial Year 2015-2016					
3	Dr. C. P. Pise Mr. D. S. Jagtap	Samarth Residency	Concrete Cube Testing	2500	68250
	Dr. C. P. Pise Mr. G. D. Lakade	M/s Bright Future Construction	Concrete Cube Testing	2500	
	Mr. G. D. Lakade Dr. C. P. Pise	Unique Builders	Concrete Cube Testing	17500	
	Dr. C. P. Pise Mr. S. S. Kadam	Sangola Urban Bank	Concrete Mix Design	10000	
	Dr. C. P. Pise Mr. D. S. Jagtap	C. P. Bagal & Co.	Murum Material, Tiles Testing	5900	
	Dr. C.P. Pise, Mr. G. D. Lakade, Mr. D. S. Jagtap	Ashok Godase	Concrete Cube Testing	14100	
	Dr. C.P. Pise, Mr. G.D. Lakade, Mr. D. S. Jagtap	S. S. Constructions	Murum Material, Tiles, Concrete Cube Testing	7950	
	Dr. C.P. Pise, Mr. G.D.Lakade, Mr. D. S. Jagtap	Choriya Properties	Concrete Cube Testing	1000	
	Dr. C. P. Pise Mr. D. S. Jagtap	Lokmangal	Concrete Cube Testing	3800	
	Dr. C.P. Pise Mr. G.D. Lakade	Swastik Construction	Concrete Cube Testing	500	

	Mr. D. S. Jagtap	Nagane Vikram	Steel Rebar Testing	2500	
Financial Year 2016-2017					
4	Dr. C.P. Pise, Mr. G. D. Lakade, Mr. D. S. Jagtap	Ashok Godase	Concrete Cube Testing	5000.00	157500
	Dr. C. P. Pise Mr. D. S. Jagtap	C. P. Bagal & Co.	Concrete Cube Testing	1000.00	
	Dr. C.P. Pise, Mr. G. D. Lakade	Gurunath Nanaso Khatakale	Concrete Cube Testing	500.00	
	Dr. C. P. Pise Mr. D. S. Jagtap	D.V. Patil Developers	Concrete Cube Testing	9500.00	
	Dr. C.P. Pise, Mr. G. D. Lakade, Mr. D. S. Jagtap Mr. S.S. Kadam	M/S S.S. Construction Karad	Murum Material, Tiles, Concrete Cube Testing	20100.00	
	Dr. C. P. Pise Mr. D. S. Jagtap	Small Scale Irrigation	Concrete Cube Testing	2500.00	
	Dr. C. P. Pise, Mr. D. S. Jagtap, Mr. Shinde M. B.	AC & JDP Joint Venture	Mix Design, Aggregate, Cube Material Testing	98000.00	
	Dr. C. P. Pise Mr.Sule R. H.	Barsawade Kedar Chandrakant	Structural design checking	2000.00	
	Dr. C.P. Pise Mr. G. D. Lakade Mr. D. S. Jagtap	MTDC, Dy. Engineer Regional Office, Pune	Murum Material, Tiles, Concrete Cube Testing	13900.00	
	Dr. C. P. Pise Mr. D. S. Jagtap	Laghu Pat Bandhare	Concrete Cube Testing	1500.00	
	Dr.C. P. Pise Mr. D. S. Jagtap	Baban Maruti Deshmukh	Concrete Cube Testing	1000.00	
Financial Year 2017-18					
5	Dr. C.P. Pise, Mr. D. S. Jagtap	Ashok Godase	Concrete Cube Testing	1000.00	1500
	Dr. C.P. Pise, Mr. D. S. Jagtap	Paricharak Builders	Concrete Cube Testing	500.00	

21. Faculty as Members in

a) National committees b) International Committees c) Editorial Boards

National Committee Member	International Committee Member	Editorial Board Member/Reviewer	LIC /UGC Members
12	35	04	04

22. Student Projects:

Percentage of students who have done in-house projects including interdepartmental/programme and placed for projects in organizations outside the institution.

Sr. No.	Description	2013-14	2014-15	2015-16	2016-17
(a)	Percentage of students who have done in-house projects including interdepartmental/ programme	85.17	84.61	85.17	86.00
(b)	Percentage of students placed for projects in organizations outside the institution	14.28	15.38	14.28	14.00

23. Awards / Recognitions received by faculty and students

A) Awards / Recognitions received by faculty:

Sr. No.	Year	Name of staff	Credentials
1	2013-14	Dr. C. P. Pise	Patent is published in Indian official Journal of Patent office, Issue No. 27, November 2013, page no. 28931.
2	2013-14	Dr. C. P. Pise	DST funded project under Young Scientist scheme
3	2014-15	Dr. C. P. Pise	Ph.D. awarded
4	2014-15	Mr. G. D. Lakade	Staff Exchange Program-Rwanda, Kigali Campus
5	2014-15	Mr. D.D. Mohite	Sinhgad Technical Education Society-Rwanda, Kigali Campus
6	2015-16	Ms. S.V. Lale	Class-II Irrigation Department (2015)
7	2015-16	Ms. S.V. Lale	Class-I Irrigation Department (2016)

B) Awards / Recognitions received by students:
  i) **Awards / Recognitions received by students in Sports, Cultural Activities, Technical-Non technical fests:**

Academic Year	Co-Curricular Activities			Extra-Curricular Activities		
	International/ National Level	State Level	University / Institute Level	International/ National Level	State Level	University/ Institute Level
2013-14	03	00	00	00	00	42
2014-15	04	00	00	00	00	44
2015-16	04	08	01	01	00	50
2016-17	12	13	03	04	04	09
2017-18	03	00	00	07	00	00

ii) University Rankers:

Academic Year	Name of Student	Class	Percent Marks	University Rank
2014-2015	Miss. Dhon Bhagyashree Annaso	TE	75.06	IV
	Mr. Gaikwad Dinesh Ashok	TE	72.59	VI
	Mr. Shinde Navnath Vitthal	TE	71.41	VIII
	Mr. Madan M. Awatade	ME	74.22	I
2014-2015	Mr. Jagadale Samadhan Baban	BE	82.88	I (Gold Medal)
	Mr. Jagtap Rohit Shankar	BE	80.63	II
	Mr. Shelake Santosh Maruti	BE	79.75	IV
2015-2016	Mr.Shinde Navnath Vitthal	BE	81.88%	V
	Miss. Dhon Bhagyashree A.	BE	80.59%	VII
	Mr. Kshirsagar Lakhan G.	BE	80.47%	VIII
	Mr. Makandar Saifan Babu	BE	80.47%	VIII

C) Students Received Fellowship:

Sr. No.	Academic Year	Name of Student	University	Country
1	2014-15	Mr.Kadam Sankalp	Technical University, Sofiya	Bulgeria
2	2015-16	Miss. Jadhav Manali	Ural Federal University	Russia
3	2016-17	Mr. Shantanu More	University of Rome Tor Vergata	Italy
4	2016-17	Mr. Aditya Mali	University of Rome Tor Vergata	Italy

24. List of Eminent Academicians and Scientists/ Visitors to the Department:

Sr. No.	Name of Expert	Title of Event	Date
2013-2014			
1	Mr. Sameer Alone, INFINI, Pune	Basics of Project Management in Construction - A Expert Lecture	24/08/2013
2	Mr. Anand M. Shete	Engineers Day Celebration	15/09/2013
3	Mr. Kishor Chandak MD, Mantri-Chandak Constructions, Solapur	Chief Guest SPECTRUM 2K13	25/09/2013
4	Mrs.Mangal Tai Shah, Social Activist	Social Awareness	05/02/2014
5	Mr. Nandkumar Dupade (An Entrepreneur)	Expert Talk on : Entrepreneurship	08/02/2014
2014-2015			
1	Mr. Ibrahim Shaikh, SICA India Pvt. Ltd.	Expert Lecture on Advances in Concrete	10/08/2014
2	Dr.Vishambar Chaudhari Founder-Oasis, Pune	"Expectations from Today's Youth".	30/08/2014

3	Mr. Sanjay Jamdade MD-Vitthal Corporations, Solapur	"Project Management, Execution & Energy Management "	11/09/2014
4	Dr. Hegadi R.S. HOD-CSE Dept. Solapur University, Solapur	Chief Guest SPECTRUM 2K14	27/09/2014
5	Mr. Kaustubh Bhadbhade GM-HR Persistent Systems, Pune	"Placement Preparation"	07/11/ 2014
6	Dr.S.S.Inamdar Managing Trustee/ Secretary, Vishwaniketan, Mumbai	International Collaborations with Project Based learning WEENGS 2K15	28/03/2015
2015-2016			
1	Mr. Namdev Ghodake (Sr.Executive, SICA India Pvt. Ltd.Pune)	Expert Lecture on Self Compacting Concrete	18/08/2015
3	Mr. Shekhar Jeurkar (Secretary IEI, Solapur Chapter)	Engineers Day Celebration	15/09/2015
4	Dr.Mukta Atrey Sr. Project Manager at IIT Bombay,NMEICT,T10kT	SPECTRUM 2K15	24/09/2015
5	Mr. Abhaysinh Mohite (Dy. Collector)	Guest Lecture on "General Competitive Examinations - For All Students	16/01/2016
6	Dr. P.P. Vitkar Vice-President, unaided Engg. Colleges, Maharashtra	Green Building	10/03/2016
7	Mr.Devendra Fadanvis CM-Maharashtra State Mr. Rajendra Singh, "JAL-TADNYA"	Mission "Namami Chandrbhaga"	01/06/2016
2016-2017			
1	Dr. Ashok Khade, MD, Das Offshore Ltd. Mumbai	Motivational lecture	14/07/2016
2	Dr. Shivaji H.Pawar Ex.Vice Chancellor, D.Y.Patil Deemed University, Kolhapur	Center of Research & Technology Development	20/08/2016
3	Mr. Chidambaram Kotibhaskar, Kotibhaskar Group, Sangli	A lecture on "Success Story of an Entrepreneur" by Mr. Kotibhaskar (Kotibhaskar Builders, Sangli)	25/08/2016
4	Dr. Mukesh Singh Professor, Thapper University, Patiala	Research Methodology	27/08/2016
5	Mr. Praveen Bhalerao, MD Eureka India, Pune	Engineers Day Celebration	15/09/2016
6	Adv.Mrs.Aparna Ramtirthkar Social Activist, Solapur	"Jara Asu Dya Bhaan"	22/09/2016
7	Mr.Sham Yemul Director,Intellisoft Computer Consultants Pvt. Ltd Solapur	SPECTRUM 2K16	01/10/2016

8	Mr. Nikhil Pingale IPS, Dy. SP, Pandharpur	SPECTRUM 2K16	01/10/2016
9	Mr. C. R. Kulkarni Structural Consultant , Pune	Expert Talk on : Entrprenuership	25/01/2017
10	Mr. Ganesh Shinde Director,Rio Association Pvt. Ltd. Pune	"Yuva Shakti Rashtra Shakti"	07/03/2017
11	Dr. Nanda Patil Famous Preceptor, Sangli	"Aajchi Shtree"	08/03/2017
12	Mr.Vishwas Nangare-Patil IPS, Kolhapur	"To Dream the impossible Dream: Why did you come in to this world?"	26/06/2017
13	Mr.Hiralal Mendhegiri Ex-Adviser to Govt. and Former Secretary (WRM & CAD) Water resources Dept., Govt. of Maharashtra	"Engineers Day Celebration"	15/09/2017

25. Seminars/ Conferences/Workshops organized and the source of funding

A. Workshop/Seminar:

Academic Year	Title of Workshop/Seminar	Date	Source of Funding
2013-14	ISTE Workshop on Research Methods in Educational Technology	2/02/2013 to 9/02/2013	MHRD-IIT Bombay
	Half Day ISTE Work Shop On Green Building Awareness	24/08/2013	MHRD-IIT Bombay
	Seminar on Corrosion Prevention of Steel Structure.	30/09/2013	Self-Sponsored
	One day National Work shop on Disaster Management	25/12/2013	Self-Sponsored
	Two Week ISTE Work shop on Engineering Mechanics	26/11/2013 to 6/12/2013	MHRD-IIT Bombay
	One week STTP on Advanced Concrete Techniques	9/12/2013 to 13/12/2013	Self-Sponsored
	One Day Faculty Development Program "Advanced Building Materials and Construction Techniques in Civil Engineering"	15/05/2014	Self-Sponsored
2014-2015	One week STTP on Geotechnical Investigations for Civil Engineering Projects	8/12/2014 to 12/12/2014	Self-Sponsored
	One Day National Work Shop On "Research Methodology in engineering and Technology"	27/12/2014	Self-Sponsored

	One Day Faculty Development Program on Self-Compacting Concrete (SCC)	10/05/2015	Self-Sponsored
	Two week ISTE STTP on Environmental Studies	2/06/2015 to 12/06/2015	MHRD-IIT Bombay
2015-2016	Seminar on Geodetic Surveying	26/09/2015	Self-Sponsored
	Two week ISTE STTP on Technical Communication	8/10/2015 to 5/12/2015	MHRD-IIT Bombay
	One day Faculty Development Program on Green Building	17/05/2016	Self-Sponsored
2016-17	Workshop on Composite Material	18/10/2016	Self-Sponsored
	Two days workshop on "TOTAL STATION"	10/03/2017 to 11/03/2017	Self-Sponsored
	One week FDP on Optimization Techniques for Researchers	2/5/2017 To 6/5/2017	Self-Sponsored
	Two Days FDP on Latex	17/06/2017 to 18/06/2017	Self-Sponsored
2017-18	Concrete Mix Design	12/09/2017	Self-Sponsored
	Two Days FDP on Innovative Concrete Proportioning Techniques (IPCT-2017)	24/08/2017 to 25/08/2017	Self-Sponsored

B. National/International Conference:

Sr. No.	Name of Conference	Date	Source of Funding
1	Conference on Modern Trends in Civil Engineering (CMCTE-2014)	07/06/2014	Self-Sponsored
2	Conference on Innovations in Engineering and Technology (CIET-2015)	05/12/2015	Self-Sponsored
3	Conference on Innovations in Engineering and Technology (CIET-2016)	30/12/2016 to 31/12/2016	Self-Sponsored
4	National Conference on Recent Innovations in Civil Engineering (NCRICE-2017)	25/03/2017 to 26/03/2017	Self-Sponsored

26. **Student profile programme/course wise:**

A) UG Details

Course and Academic Year	Applications Received	Selected (Total Admissions)	Enrolled		Pass %
			M	F	
BE 2013-14	All Admissions process is done as per DTE, Maharashtra	31	28	03	100
BE 2014-15		45	37	08	100
BE 2015-16		59	51	08	100
BE 2016-17		73	59	14	95.58
BE 2017-18		68	51	17	NA

B) PG Details

Academic Year	Applications received	Selected (Total Admissions)	Enrolled		Pass %
			M	F	
2013-14	24	23	21	02	34.78
2014-15	18	16	14	02	12.5
2015-16	23	23	16	07	8.69
2016-17	18	18	15	03	NA
2017-18	24	24	19	05	NA

27. Diversity of Students –

Academic Year	% of students from the same state	% of students from other States	% of students from abroad
2013-2014	100	Nil	Nil
2014-2015	100	Nil	Nil
2015-2016	100	Nil	Nil
2016-2017	100	Nil	Nil
2017-2018	100	Nil	Nil

28. How many students have cleared national and state competitive examinations such as NET, SET, GATE, Civil services, Defense services, etc.?

Academic Year	GATE	GRE/TOFEL	State Services
2013-2014	03	-	-
2014-2015	-	-	-
2015-2016	01	01	01
2016-2017	04	-	-

29. Student progression:

Student progression of Civil Engineering Department	Against % enrolled			
	2016-17	2015-16	2014-15	2013-14
UG to PG	08.22	25.42	37.78	45.16

PG to M.Phil.	NA			
PG to Ph.D.	NA			
Ph.D. to Post-Doctoral	NA			
Employed • Campus selection • Other than campus recruitment	35.62	44.06	37.78	35.48
Entrepreneurship/ Self employment	2.73	8.47	8.88	9.67

30. Details of Infrastructural Facilities:
   a. Library
   b. Internet facilities for Staff & Students
   c. Classrooms facility
   d. Laboratories

a.   Library:

Sr. No.	Particulars	Number
1	Titles	254
2	Volumes	1572
3	National Journals	02
4	International Journals	04
5	CDs	02
6	e-Books	7412
7	e-Journals	4849
8	Project Reports-UG	55
9	Project Reports-PG	16
10	Seminar Reports	213
11	Field Training Reports	77
12	Department News Letters	08
13	Books	89

b. Internet facility for staff & students:
Internet facility of speed 32 Mbps is provided by the institute. The Institute provides LAN and Wi-Fi Facility to the faculty and students to meet connectivity requirements. They can download books, technical papers, important information which will be helpful for their study. With internet they can share their technical ideas with friends and faculty members outside and research persons.
All Computer labs are equipped with power back-up.
c. Classrooms facility:
No. of UG Classrooms - 03
No. of PG Classroom - 01
No. of Seminar Hall - 01
No. of Tutorial Rooms - 01
No. of Drawing Hall - 01
The Department has 04 well equipped class rooms for conduction of classes which ensures the continuous evaluation of students. Each Classroom is equipped with ICT facility, LCD projectors, Green Board, Benches, fans, tube lights, curtains for effective

teaching-learning process. The Department has one Seminar Hall having capacity of 450+ students for conducting various activities. Seminar Hall is well equipped with LCD projectors, Board and a public addressing system

d. Laboratories:

Labs: The Department has 13 well equipped labs for conduction of practical part which ensures the continuous evaluation of students. All the labs are equipped with Board, Benches, fans, tube lights, curtains for effective teaching-learning process. Special attention has been paid towards housekeeping to maintain hygienic and clean environment.

Sr. No.	Name of the lab	Area of Lab, m²	Investment in Rs.	Major Equipment
1	UG Computer Lab	75	1324500.00	No.of.Computers-24, AutoCAD Software
2	PG Computer	75	712589.62	No.of.Computers-24, STAAD, ETAB Software
3	Geotechnical Engg. Lab	75	1327022.00	Triaxial outfit, Unconfined Compression tester
4	Concrete Technology Lab	75	1055810.00	Compression Testing Machine, Vibration machine, Concrete Mixer, Los Angeles Abrasion Testing Machine,
5	Material Testing Lab	75	1319288.00	Universal testing machine,Shear Test Attachments 5-20 mm, Impact Testing Machine, Torsion Testing machine
6	Environmental Engg. Lab	75	828539.00	COD-BOD Incubator, High Volume Sampler, Hot Air Oven, Electronic Weighing Machine, Water Analyser
7	Transportation Engg. Lab	75	569550.00	CBR Test Apparatus, Ductility Testing Machine, Marshall Apparatus,
8	Fluid Mechanics Lab	75	708755.00	Mini hydraulic flume - Adjustable Channel, Apparatus for determination of major and minor losses in pipes, Bernoulli's Setup, Venturi and Orifice Setup, Reynolds Experiment setup, Notches and Weir Setup, Impact of Jet Setup
9	Engg. Geology Lab	75	132696.00	Mineral Specimen, Rock Specimen
10	Suryeying Lab	75	710342.65	Total Station STS 752R, Automatic Level BOSCH, Transit Theodolite 20", Dumpy Level

11	Basic Civil Lab	75	83722.00	Automatic Level BOSCH, Dumpy Level, Compass, Chains
12	Appiled Mechanics Lab	75	80635.00	Polygon forces apparatus, Parallelogram of forces apparatus, Jib Crane
13	DST Funded Research Lab	75	220000.00	Laptop, Printer, Experimental Setup, Jar test Apparatus, Turbidity Meter

31. Number of students receiving financial assistance from college, university, government or other agencies:

Economically weaker students of SC, ST, OBC and OC, whose parent income is less than 4.5 Lakh per annual get tuition fee reimbursement and scholarship from state Government. Apart from this students are also getting scholarships from Government agencies like social welfare/GATE stipend for qualified candidates/scholarships sponsored by AICTE. Some of the students getting financial assistance from the college for presentation of the papers and for attending conferences/workshops:

Academic Year	Category					
	EBC	VJ/NT	OBC	SBC	SC	ST
2013-14	35	30	48	03	24	0
2014-15	61	28	26	08	22	0
2015-16	56	14	21	02	12	0
2016-17	93	19	13	02	08	01

32. Details of Student Enrichment Programmes (Special Lectures / Workshops / Seminar):

Events organized by Civil Department				
Academic Year	Name of Expert	Title of Event	No. of Participants	Date
A. Invited Talks				
2013-14	Ms. Minal Londhe	Guest Lecture on Software Applications in Civil Engg.	98	26/07/13
	Mr. Sameer Alone, INFINI, Pune	Basics of Project Management in Construction - A Expert Lecture	76	24/08/13
	Mr. Anand M. Shete	Engineers Day Celebration	126	15/09/13
	Mr. V. M. Rotte	Expert Lecture on "GATE Preparation"- For All Final Year Students	85	15/01/14
	Mr. Nandkumar Dupade (Entrepreneur)	Expert Talk on : Entrepreneurship	136	08/02/14

	Mr. M. Y. Sathe	Expert Lecture on "Project Evaluation & Financing"- For T.E. & B. E. Students	102	22/03/14

B. Value Addition Program/Workshops

Year				
2013-14	Mr.Amit R. Shinde	One Week Workshop on Auto-CAD	55	23/06/14 to 28/06/14
	Mr. Kiran Patmase	Communication Skills	75	21/12/13 to 30/12/13
	Dr. Rajeshree Badge	Aptitude	54	21/12/13 to 30/12/13
	Mr. Ambekar V. B.	Communication Skills	31	21/12/13 to 30/12/13
	Dr. Rajeshree Badge	Aptitude	54	21/06/14 to 30/06/14
	Mr. Kiran Patmase	Communication Skills	75	21/06/14 to 30/06/14

C. Industrial Visits

Year	Visit To	No. of Participants	Date
2013- 14	Engineering Geological sites	73	01/10/13
	Water treatment plant	45	01/10/13
	Quality aspects in Civil engineering-on site	45	01/10/13
	Foundation construction sites	45	04/02/14
	Sewage treatment plant	45	04/02/14
	Project management	45	04/02/14
	Railway station site	45	04/02/14
	Irrigation and Water Power Engineering Projects	29	03/10/13

Year	Name of Expert	Title of Event	No. of Participants	Date
A. Invited Talks				
2014-15	Mr. Ibrahim Shaikh, SICA India Pvt. Ltd.	Expert Lecture on Advances in concrete	141	10/08/14
	Mr. Anand Kokane	Engineers Day Celebration	144	15/09/14
	Mr. Prasad Indi	Guest Lecture on "Tips for GATE Preparation"- For All Final Year Students	272	15/01/15

B. Value Addition Program/Workshops				
2014-15	Miss Priyanka P. Charade, Vernier Design Solutions Pvt. Ltd;PUNE	One Week Workshop on 'STAAD-Pro'	27	29/12/14 to 02/01/15
	Priya Jagtap SEED Infotech Ltd	Communication Skills	73	07/01/15 to 27/03/15
	Miss. Jasmine Khan SEED Infotech Ltd	Quantitative Aptitude	68	09/01/15 to 06/04/15
C. Industrial Visits				
Year	**Visit To**		**No. of Participants**	**Date**
2014-15	Engineering Geological sites		72	01/10/14
	Water treatment plant		66	01/10/14
	Quality aspects in Civil engineering-on sites		66	01/10/14
	Foundation construction sites		64	10/02/15
	Sewage treatment plant		64	10/02/15
	Project management		64	10/02/15
	Railway station site		64	10/02/15
	Irrigation and Water Power Engineering Projects-sites		43	03/10/14
Year	**Name of Expert**	**Title of Event**	**No. of Participants**	**Date**
A. Invited Talks				
2015-16	Mr. Namdev Ghodake (Sr. Executive, SICA India Pvt. Ltd. Pune)	Expert Lecture on Self Compacting concrete	152	18/08/15
	Mr. Shekhar Jeurkar	Engineers Day Celebration	162	15/09/15
	Mr. Abhaysinh Mohite	Guest Lecture on "General Competitive Examinations - For All Students	458	16/01/16
	Mr. R.C. Londhe	02 day Workshop on 'Entrepreneurship Development ' association with MITCON, Solapur	31	24/01/16 to 25/01/16
	Mr. Vikas Patil, INFINY, Pune	Guest Lecture - On Career Guidance by INFINY, Pune	168	20/03/16

B. Value Addition Program/Workshops

2015-16	Miss Priyanka P.Charade Vernier Design Solutions Pvt. Ltd, Pune	One Week Workshop on 'STAAD-Pro'	32	28/12/15 to 01/01/16
	Mr. Kiran Patmase	Communication Skill	76	01/01/16 to 28/03/16
	Mr. Kiran Patmase	English Communication Skills & Soft Skill	05	01/06/16 to 10/06/16
	Mr. Kiran Patmase	Verbal Aptitude	132	25/06/16 to 30/06/16
	Mr. Neeraj Athwale	Logical Aptitude	27	30/06/16 to 03/07/16

C. Industrial Visits

Year	Visit To	No. of Participants	Date
2015-16	Engineering Geological sites	73	07/10/15
	Water treatment plant	67	08/10/15
	Quality aspects in Civil engineering-on sites	67	08/10/15
	Foundation construction sites	66	08/02/16
	Sewage treatment plant	66	08/02/16
	Project management	66	08/02/16
	Railway station site	66	08/02/16
	Irrigation and Water Power Engineering Projects-sites	57	05/10/15

Year	Name of Expert	Title of Event	No. of Participants	Date
A.Invited Talks				
2016-17	Dr. Ashok Khade, MD, Das Offshore LTD; Mumbai	Motivational lecture	279	14/07/16
	Ms. Namrata Ghag, CAD Centre, Mumbai	Interaction Session on "Software Applications in Civil Engineering" by CADD Center, Pandharpur.	122	20/07/16
	Disha Institute, Pandharpur.	Interaction Session on "Applications of AutoCAD in Civil Engineering"	128	27/07/16

	Mr. Chidambaram Kotibhaskar, Kotibhaskar Group, Sangli	A lecture on "Success Story of an Entrepreneur"	145	25/08/16
	Mr. Praveen Bhalerao, MD Eureka India, Pune	Engineers Day Celebration	136	15/09/16
	Mr. Pravin Kolhe	Lecture on Competitive Examination and Career Opportunities in different field of Civil Engineering	174	03/01/17
	Mr. Dilip Nalgirkar	Expert Talk on : Stress Management	183	03/01/17
	Mr. Vijay Nalgirkar	Career Opportunities in Civil Engineering	181	03/01/17
	Mr. Vinay Patrawale Pune	Youth Day Celebration	166	12/01/17
	Mr. C. R. Kulkarni Structural Consultant , Pune	Expert Talk on : Entrepreneurship	183	25/01/17
2016-17	Mr. Sameer Alone, CEO, INFINI Institute of Programme Management	Expert Talk on: Basics of Project Management and Evaluation	160	23/03/2017
	Mr. Girish Dharap, INFINI Institute of Programme Management	Methodologies of Creative Learning in Civil Engineering	165	30/03/2017
B. Value Addition Program/Workshops				
2016-17	Mr. Kiran Patmase	Communication Skills	59	07/07/16 to 28/09/16
	Dr. S. M. Shiyekar Professor, SGI, Atigre, Kolhapur	Worshop on Composite Material	30	18/10/16
	Mr. M. B. Shinde Mr. D. S. Jagtap	Five Days Workshop on 'STAAD-Pro'	51	02/01/17 to 06/01/17
	Mr. Haridas Bhuse, CADD Centre, Pandharpur.	Workshop on 'AUTO-CAD'	23	26/01/17 to 29/01/17

	Mr. Kiran Patmase	Communication Skills	75	04/01/17 to 29/03/17
	Mr. Rahul Birajdar, Gallop Infra-Structure, Consultancy, Pune	Total Station	115	10/03/17 to 11/03/17

C. Industrial Visits				
Year	**Visit To**		**No. of Participants**	**Date**
2016-17	Engineering Geological point of view.		73	05/10/16
	Water treatment plant		76	30/09/16
	Quality aspects in Civil engineering		76	30/09/16
	Irrigation and Water Power Engineering Projects		70	03/10/16
	Geotechnical Engineering-II, Foundation construction sites		76	17/02/17
	Environmental Engineering-II, Sewage treatment plant		76	17/02/17
	Engineering Management-II, Project management		77	17/02/17
	Transportation Engineering-II, Railway station		75	17/02/17
	Water Resources Engineering, Ujani Dam		30	24/02/17

Year	**Name of Expert**	**Title of Event**	**No. of Participants**	**Date**
A. Invited Talks				
2017-18	Mr. Muzammil Shaikh, Business Support, CADD Centre Training Service Pvt. Ltd. Mumbai	Applications of Design Softwares in Civil Engg. Industries, upcoming software and job opportunities	114	18/07/17
	Mr. S. V. Sodal, Member and Ex-Secretary, Maharashtra Water Resources and Regulatory Authority	Impact of Climate change on Environment – Climate change and You!	175	06/09/17
	Mr.Hiralal Mendhegiri Ex-Adviser Govt. & Former secretary Water resources Dept., Govt. of Maharashtra	"Engineers Day Celebration"	171	15/09/17
B. Value Addition Program/Workshops				
2017-18	Mr. Sushant Inamdar, DuraCon Consultants, Solapur	One Day Interactive Workshop on Concrete Mix Design	120	02/09/17

C. Industrial Visits			
Year	**Visit To**	**No. of Participants**	**Date**
2017-18	Visit to Water treatment plant	75	09/08/17
	Quality aspects in Civil engineering	75	09/08/17
	Geological Site Visit	65	31/08/17

33. Teaching methods adopted to improve student learning

Department works on Project based learning in addition to traditional lecture-based learning.

To improve classroom learning, department has applied following practices:
- Teachers are allotted subject as per their choice and specialization.
- Teachers are asked to prepare semester-long teaching plan and course file before the start of the semester.
- Each teacher is asked to prepare soft copies of their notes and Power Point presentations for the course content. Same is shared with the students by using ftp and in the classrooms.
- Models, videos, and animations are used by faculty members to elaborate concepts as per the complexity of the topic.
- Lab experiments and homework in the form of assignments is given to students.
- Remedial classes has been conducted for weak students in specific subjects like mathematics etc.

For Active Learning:

- Students are motivated to work on ongoing research projects.
- Project exhibition and various technical festivals provide an opportunity for active learning.
- Expert talks and Industry expert Seminars are arranged to bridge the knowledge gap of the students.

Assessment Method:

- Direct assessment of the course was done by alumni, industry and experts from professional bodies.
- Various tests (Unit test and Prelim, Online, etc.) are used for assessment.
- Mock orals are conducted to evaluate the students' understanding.
- Feedback from alumni and all regular students are taken into account for betterment of department and students performance.
- Indirect assessment is done through campus interviews and performance of students in competitive exams like GATE, GRE, and CAT, etc.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Sr. No.	Date	Program	Participation
2013-2014			
1	10/04/2014	NSS Volunteers participated during **Chaitrya Wari** for water distribution pilgrims.	31
2	05/04/2014	**Health Check-up Camp** at Matoshri Vruddhashram Gopalpur, Tal.Pandharpur	31
2014-2015			
1	30/03/2015 to 31/03/2015	NSS Volunteers Activity at **Chaitrya Wari** - Water Distribution to Pilgrims	30
2	02/11/2014 to 04/11/2014	NSS Volunteers activity at **Kartiki Wari** at Pandharpur 03 Days for Pilgrims Health for making health awareness, Cleanness, Pamphlet Distribution	32
3	22/07/2014	NSS Volunteers activity for cleanness, solid waste management, disposal at **Palkhi Tal** at Wakhari, Tal.Pandharpur after Aashadi Wari	32
2015-2016			
1	30/03/2016 to 31/03/2016	NSS Volunteers Vittal Mandir Darshan Queue for Distribution of Water to Pilgrims at Pandharpur	32
2	24/08/2015	NSS Volunteers activity for cleanness, solid waste management, disposal at **Palkhi Tal** at Wakhari, Tal.Pandharpur after Aashadi Vari.	32
3	15/11/2015	NSS Students arranged the **Blood Donation** Camp at SKN SCOE, Korti, Pandharpur	20
2016-2017			
1	01/07/2016 to 16/07/2016	NSS Students participated during **Aashadi Wari** at Pandharpur for helping "Food and Drug Administration Dept.Govt.of Maharashtra.	30
2	23/07/2016	NSS Activity after **Aashadi Wari** Solid Waste management collection & disposal at Bhatumbare, Tal.Pandharpur.	31
3	06/08/2016	Tree Plantation activity at Palavi, Korti, Tal. Pandharpur	32
4	26/01/2017	**Street Play** "Swatch Bharat Abhiyan, Save Girl, Asa Ha Bharat Kasa Ha Bharat" at Gadegaon, Tal. Pandharpur, Dist. Solapur	34

5	19/02/2017	**Shivjayanti Utstav, Health Checkup Camp** at Matoshri Vruddhashram Gopalpur, Tal.Pandharpur	30
6	23/02/2017	Speech on **Shivaji Maharaj Residence in Solapur District** Speaker Shri.Gopalrao Deshmukh (Senior History Researcher)	31
7	04/03/2017 & 05/03/2017	Cleaning of Fort, **Loahgad & Thiokana Fort** Near Lonawala, Tal.Mawal, Dist.Pune	30
2017-2018			
1	1/07/2017 to 4/07/2017	Assistance to Food and Drugs quality Assurance department, Govt. of Maharashtra. During Ashadi Wari.	32
2	10/07/2017 to 17/07/2017	Residential Camp for Soil conservation, environment awareness and Tree Plantation at Khandali Village, under Swachh Bharat Mission	11
3	08/09/2017	Awareness Programme about Organ Donation in association with Rotary Club, Pandharpur under NSS.	45

35. SWOC analysis of the Department and future plans

Strengths
1. Qualified, Experienced and dedicated staff
2. Well-equipped laboratories and Infra-structure
3. Excellent university results during last three academic years

Weaknesses
1. Need to improve Research and Consultancy work
2. Less no. of students qualifying Competitive Exams

Opportunities
1. Scope for research and consultancy
2. To develop center of excellence in key areas

Challenges
1. To enhance communication skills of rural background students for their overall development
2. To excel in R & D and Innovation

Future Plans
1. To be recognized as Ph.D. research center
2. To establish center for excellence in testing and consultancy areas.
3. To strengthen research & industry-institute interaction.

Department of Computer Science & Engineering
Evaluative Report of the Department

1. **Name of the department:** Computer Science & Engineering

2. **Year of Establishment:** 2010

3. **Names of Programmes / Courses offered (UG, PG, M.Phil, Ph.D., Integrated Masters; Integrated Ph.D., etc.):**

Name of Programme	Name of course	Specialization	Intake	Year of Establishment
U.G.	B.E.	Computer Science & Engineering	60	2010-2011
P.G.	M.E.	Computer Science & Engineering	24	2013-2014

4. **Names of Interdisciplinary courses and the departments/units involved:**

Following Interdisciplinary courses are involved in curriculum of programs:

Sr. No.	Class	Name of Interdisciplinary course/subject	Department
1	S.E.	Digital Techniques	E&TC
2	S.E.	Appiled Mathematics I & II	F.E.

5. **Annual/ semester/choice based credit system (programme wise):**
   - UG: Semester-CBCS(SE), CGPA (TE,BE)
   - PG: Semester-CBCS

6. **Participation of the department in the courses offered by other departments:**

Sr. No.	Class	Courses offered	Department
1	SE	Computer Programming in C++	Mechanical Engineering
2	TE	Advanced Computer Programming	Mechanical Engineering
3	FE	Computer Programming	First Year Engineering
4	SE	Data Structure using C	E&TC
5	TE	Software Engineering	E&TC
6	TE	Electronic Software Lab	E&TC

7. **Courses in collaboration with other universities, industries, foreign Institutions, etc.**

Sr. No.	Course Name	Class	No. of students	Duration	Collaborative Organization
1	C#.NET	TE	34	25/06/2013 to 06/10/2013	Ashwath InfoTech, Solapur
2	JAVA PGM	TE	55	25/06/2013 to 06/10/2013	Ashwath InfoTech, Solapur
3	CCNA	BE	46	2/01/2013 to 11/01/2013	Xmetric Solution Pvt. Ltd., Pune

4	CCNA	TE	39	24/12/2014 to 4/01/2015	SEED InfoTech & APART, Pune
5	Communication Skills	SE	68	5/01/2015 to 10/04//2015	
6	Aptitude	TE	64	05/01/2015 to 10/04/2015 & 01/07/2015 to 10/09/2015	SEED InfoTech & APART, Pune
7	Internet of Things	TE	59	2/01/2017 to 9/01/2017	Aedifico Tech Pvt.Ltd., Pune

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of teaching posts:

For UG &PG Programme:

Designation	Sanctioned	Filled
Professors	2	01
Associate Professors	4	02
Asst. Professors	14	17
Total	20	20

10. Faculty profile with name, qualification, designation, specialization. (D.Sc./ D.Litt./Ph.D. / M. Phil. etc.,):

Sr. No.	Name	Designation	Qualification	Specialization	No. of Years of Experience	No. of ME Students
1	Mr. S.V. Pingale	Asst. Prof.	M. Tech.	CE	10	16
			B.E.	CE		
2	Mr. A. A. Rajguru	Asst. Prof.	Ph.D. pursuing	CSE	06	02
			M. Tech.	CSE		
3	Mr. P.R. Gadekar	Asst. Prof.	M. Tech.	CE	11	Nil
			B.E.	CE		
4	Mr. N.M.Sawant	Asst. Prof.	M. Tech.	CE	09	04
			B.E.			
5	Mr. S.S. Ingole	Asst. Prof.	M.E.	Comp. N/W	05	Nil
			B.E.	CSE		
6	Mr. S. B. Thigale	Asst. Prof.	M.E.	CSE	10	Nil
			B.E.	CSE		

7	Mr. D. V. Koshti	Asst. Prof.	M.E.	CE	06	Nil
			B.E.	CSE		
8	Mr. B.M. Kore	Asst. Prof.	M.E.	CN	04	Nil
			B.E.	CSE		
9	Mr. U. B. Bagal	Asst. Prof.	M.Tech.	CSE	7.3	Nil
			B.E.	CSE		
10	Mr.V.G.Chavan	Asst. Prof.	M.E.	CE	7	04
			B.E.	CSE		
11	Mr. R.A. Takalikar	Asst. Prof.	Ph.D. pursuing	CSE	05	Nil
			M.Tech.			
			B.E.	IT		
12	Mr. R.B. Parihar	Asst. Prof.	M.E.	CSE	07	Nil
			B.E.	CSE		
13	Mr. M.B. Kulkarni	Asst. Prof.	M.Tech.	CSE	6	Nil
			B.E.	CSE		
14	Mr. V.A. Dhotre	Asst. Prof.	Ph.D. pursuing	CSE	10	Nil
			B.E.	CSE		
15	Mr.S.H. Karande	Asst. Prof.	M.C.A.	Computer	16	Nil
16	Ms. M. L. Mali	Asst. Prof	M.C.A.	Computer	3	Nil
17	Mrs. S.V. Koratkar	Asst. Prof.	M.E.	Computer	3	Nil

11. List of Senior Visiting/Adjunct Faculty:

Sr. No.	Name of Faculty	Qualification	No. of Years of Experience	Name of Industry/Organization
1	Mr.Avadhut M. Sardeshmukh	M.Tech.	10	Tata Research development & Design Center, Pune
2	Mr.Mustaq Faqir	M.E.	19	Manthan Software Service Pvt. Ltd. Bangalore
3	Dr. H. K. Chavan	Ph.D.	22	Father Angle's College of Engineering, Mumbai

12. Percentage of Lectures delivered, and practical classes handled [Program wise] by temporary Faculty: 2 %

13. Student Teacher ratios:

Year	Students' Strength	Teacher(s)	STR
2013-2014	222	14	15.85
2014-2015	244	14	17.42
2015-2016	229	14	16.35
2016-2017	216	17	12.70
2017-2018	207	17	12.17

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Support Staff	Sanctioned	Filled
Technical staff	03	03
Administrative staff	01	01

15. Qualification of teaching faculty:

Sr. No.	Qualification	No. of Teaching faculty
1	Ph.D.	01
2	Ph.D. pursuing	03
3	P.G.	16

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:

A) Grants received:

Computer Science and Engineering department has received the various funds for student development and research. The various fund details are listed below:

Sr. No.	Year	Faculty	Particulars	Sposoring Agency	Amount Rs.	Status of praposal
1	2013-2014	Mr.N.M. Sawant	Two week ISTE Main Workshop on Database management system	MHRD Govt. of INDIA	1,42,700	Completed
2	2013-2014	Mr.S.B. Thigale	IIT Bombay Aakash Remote Center Fund and Main ISTE Workshop Fund	MHRD Govt. of INDIA	17,000	Completed

3	2014-2015	Mr. S.B. Thigale	Equipment under NMEICT MHRD Govt. of INDIA	MHRD Govt. of INDIA	1,02,463	Completed
4	2014-2015	Mr.U.B. Bagal	Two week ISTE Workshop on computer programming under NMICT	MHRD Govt. of INDIA	86,550	Complted
5	2016-2017	Mr.A.A. Rajguru	BCUD Grant for Latex Workshop	Solapur university	5,000	completed
6	2016-2017	Mr.R.A. Taklikar	IEI Student Chapter Grant for One Day Seminar	IEI Kolkata	10,000	completed
7	2016-2017	Mr.M.B. Kulkarni	Automatic question paper generation system	SPSPM Project Fund	10,000	completed
8	2016-2017	Mr.B.M. Kore	Online attendance management system	SPSPM Project Fund	10,000	completed
				Total	**3,83,713**	

B) Sponsored Projects from Industries:

Faculty members of all departments are actively guiding to research scholars in all respects. Faculty members are also actively involved in research projects sponsored by agencies like Persistence Pvt. Ltd., Maharashtra Police, Maharashtra State road Transport Corporation, Department of Science and Technology, etc. The various collaborative research projects are shown below:

Sr. No.	Title of Project	Sponsoring Agency/ Company	Name of Researcher	Status
1	Criminal Record Management System	Maharashtra police	Mr. M. B. Kulkarni	Completed
2	Web Portal For Agricultural Produce Market Committee	Persistent system ltd.	Mr.P. R. Gadekar	Completed
3	Prescription Viewer App	Persistent system ltd.	Mr.D. V. Koshti	Completed
4	Content Based Image Retrieval for Real Life	Persistent system ltd.	Mr.N. M. Sawant	Completed

5	An Error Minimizing Framework For Localizing Jammer In Wireless	Persistent system ltd.	Mr.S.V. Pingale	Completed
6	Training and Placement e-Portal	Persistent system ltd.	Mr.N. M. Sawant	Completed
7	Solution for Dropout of Children of migrant families from school	NCPCR(Hackton 2017)	Mr.B.M. Kore	Completed
8	Automatic Bus System	MSRT Pandharpur Depo	Mr. V. A. Dhotre	Completed
9	Enterprise Resource Planning (Cloth Shop)	M/s. H. P. Doshi Pvt. Ltd., Pandharpur	Mr. S. B. Thigale	Completed

18. Research Centre /facility recognized by the University: Nil

19. a) Publications per faculty:

Sr. No.	Faculty Name	No. of Paper published in Journal faculty/Student	No. of Publication listed in International/ National Conference	Monographs	Chapters in books	Books Published	International Book With ISBN No.	Citation Index	SNIP	SJR	h -Index
1	Mr. S.V. Pingale	17	13	--	--	--	--	04	--	--	01
2	Mr. A. A. Rajguru	04	03	--	01	--	--	44	--	--	01
3	Mr. P. R. Gadekar	03	03	--	--	--	--	01	--	--	01
4	Mr. N. M. Sawant	03	07	--	--	--	--	06	--	--	01
5	Mr. S. B. Thigale	05	03	--	--	--	--	03	--	--	--
6	Mr. S. S. Ingole	02	01	--	--	--	--	00	--	--	00
7	Mr. D. V. Koshti	02	02	--	--	01	--	04	--	--	01
8	Mr. V. G. Chavan	01	05	--	--	--	--	00	--	--	00
9	Mr. R. A. Takalikar	02	02	--	--	--	--	00	--	--	00
10	Mr. R. B. Parihar	04	01	--	--	--	--	14	--	--	02
11	Mr. U. B. Bagal	02	02	--	--	01	--	00	--	--	00
12	Mr. B. M. Kore	03	02	--	01	--	--	00	--	--	00
13	Mr. M. B. Kulkarni	01	02	--	--	--	--	00	--	--	00

14	Mr. V.A. Dhotre	11	03	--	--	--	--	13	--	--	02
15	Mr. S.H. Karande	05	11	--	--	--	--	01	--	--	01
16	Ms. M. L. Mali	01	01	--	--	--	--	--	--	--	--
17	Mrs. S.V. Koratkar	03	01	--	--	01	--	00	--	--	00

b) Books and Monographs Published:

- **Monographs:** Nil
- **Books with ISBN/ISSN numbers with details of publishers:**

Sr. No.	Author	Name of Book	ISBN Number/ Publisher
1	Mr. B. M. Kore Mr. A. A. Rajguru	Energy aware technique for wireless sensor network	ISBN:978-3-659-3596-0
2	Mr. A. A. Rajguru Mr. A. O. Mulani	Basic Electronics & Computer Programming	Crescent Publication,Pune
3	Mr. V. A. Dhotre	Active Learning From Stream Data Using Minimum Variance Principle	ISBN:978-1-365-82749-5
4	Mr.M.B.Kulkarni	Information Retrieval	ISBN-978-1-365-83257-4
5	Mr. S.S.Ingole	Embedded Approach To Material Handling Of Producation System	ISBN-978-1-365-82705-1
6	Mr. S.V.Pingale	DOS Attack Detection In Network Traffic	ISBN-978-1-365-82740-2
7	Mr. R.B.Parihar	1.Local Balanced Data Aggaergation Methods for Virtual Backbone In Wireless Sensors Network 2. Study of Stock Market Analysis Using Combined Intr-Inter Transaction Alg	ISBN-978-1-365-83261-1 ISBN-978-1-365-83260-4
8	Mr. P.R.Gadekar	Local Balanced Data Aggaergation Methods for Virtual Backbone In Wireless Sensors Network	ISBN-978-1-365-83261-1
9.	Mr. B. M. Kore	Study of Stock Market Analysis Using Combined Intr-Inter Transaction Alg	ISBN-978-1-365-83260-4
10	Mr. D.V.Koshti	Segmentation And Recognition Of Handwritten Devnagari Script	ISBN-978-1-365-83267-3
11	Mr. S.B. Thigale	Relaxing Trust Requirements in 3GPP Mobile System for Improved Subscriber Identity Privacy	ISBN-978-1-365-62149-9
12	Mr. S.B. Thigale	Basics of Networking	ISBN-978-1-365-61492-7
13	Mr. V.G.Chavan	Steganography using reversible texture Synthesis process	ISBN-978-1-365-83266-6
14	Mr. R.A. Takalikar	Data Leakage detection	ISBN-978-1-365-83284-0

20. Areas of consultancy and income generated:

Sr. No.	Name of Client	Area of Consultancy	Amount (Rs.)
1	SAARA Technologies	Development of Computer Lab & Designing of Syllabus	10000.00
2	Sheetal Collection	Designing of Website	7000.00
3	Aedifico Tech Pvt. Ltd. Delhi	Renumeration of Infrasture Uses	3957.00
4	H. P. Doshi Pvt. Ltd., Pandharpur	Enterprise Resource Planning (Cloth Shop) Software	25000.00
Total		**45,957.00**	

21. Faculty as members in:
 a) **National committees b) International Committees c) Editorial Board-**

National committee members	International Committee members	Editorial Board/reviewer	Other CommitteeMembers
08	17	05	02

22. Students' projects:

Sr.No.	Description	2016-2017	2015-2016	2014-2015	2013-2014
(a)	Percentage of students who have done in-house projects including interdepartmental/ programme	88%	88%	90%	82%
(b)	Percentage of students placed for projects in organizations outside the institution	12%	12%	10%	18%

23. a) Awards/ Recognitions received by faculty and students:
 A) **Faculty:**

Sr. No.	Name of Staff	Credentials
1	Mr. S. V. Pingale	1. EMC Proven Professional EMCPA Associate ISM Certification
2	Mr. A. A. Rajguru	1. Appreciation by IIT Bombay for best conduction of Spoken tutorials 2. GATE Score
3	Mr. P. R. Gadekar	1. Appreciation by IIT Bombay for best conduction of Spoken tutorials 2. Selected in staff exchange Program for Rawanda
4	Mr. N. M. Sawant	1. IBM DB2 Certification 2. Appreciation by IIT Bombay for best conduction of Spoken tutorials 3. Selected in staff exchange Program for Rawanda

5	Mr. S. B. Thigale	1. Appreciation as a Resource Person from GNDEC, Bidar
6	Mr. R. A. Takalikar	1.GATE Score 2. Selected in staff exchange Program for Rwanda

Awards / Recognitions received by students:

i) Students' Achievements

Academic Year	Co-curricular activities			Extra Curricular activities		
Year	International level/ National Level	State Level	University Level Institute Level	State Level	University Level	Institute Level
2013-2014	01	13	01		--	04
2014-2015	02	02+03=05	--		--	04
2015-2016	03	05	01		--	06
2016-2017	05+02=07	05+01=06	--	01	03	10
2017-2018	03	01	05	--	--	--

ii)   University Rankers:

Academic Year	Name of Student	University Rank
2016-2017	Ms. Jadhav Sachita	3rd Rank
	Ms. Lengare Pooja	10th Rank

iii)   Students selected for fellowship in foreign Universities :

Sr. No.	Name of Student	Name of University
1	Ms. Rasika Kothari	Technical University Sofiya, Bulgeria
2	Mr. Swami Ranjeet Rajendra	Technical University Sofiya, Bulgeria
3	Ms.Kalpana Sabale	Technical University Sofiya, Bulgeria
4	Ms. Joshi Shivani R.	Technical University Sofiya, Bulgeria

24. List of eminent academicians and scientists/ visitors to the department:

The following eminent persons have visited the institute:

Eminent Speaker (Academic Year 2013-2014):

Sr. No.	Name of Eminent Speaker	Purpose	Date
1	Mr. Deepak Ramakrishna Cognizant- HR Campus Recruitment Lead for Western India. Pune.	Cognizant Placement Process	15/09/2013
2	Mr. Kishor Chandak MD Mantri-Chandak Constructions, Solapur.	Chief Guest SPECTRUM 2K13	25/09/2013
3	Mrs. Mangal Tai Shah Social Activist	Social Awareness	05/02/2014
4	Mr. Rajiv Khosala Vice President, Huawei Tele-communication Pvt Ltd.	Wearable and Presence of Mind in the Workplace.	16/02/2014

Eminent Speaker (Academic Year 2014-2015):

Sr. No.	Name of Eminent Speaker	Purpose	Date
1	Dr. Vishambar Chaudhari Founder-Oasis, Pune.	"Expectations from Today's youth".	30/08/2014
2	Kaustubh Bhadbhade GM-HR Persistent Systems, Pune	"Placement Preparation"	11/09/2014
3	Dr. Hegadi R.S. HOD-CSE Dept. Solapur University Solapur	Chief Guest SPECTRUM 2k14	18/10/2014
4	Dr. S.S.Inamdar Managing Trustee/Secretary, Vishwaniketan, Mumbai	International Collaborations with Project Based learning	09/03/2015

Eminent Speaker (Academic Year 2015-2016):

Sr. No.	Name of Eminent Speaker	Purpose	Date
1	Dr.Kiran Khosala ProjectManager – Aakash School, IIT Bombay.	"AAKASH for Education"	10/09/2015
2	Dr.Mukta Atrey Sr. Project Manager at IIT Bombay, NMEICT,T10kT	Spectrum 2K15	24/09/2015
3	Dr.P.J. Kulkarni Professor,WCE, Sangli.	Artificial Neural Network	02/02/2016
4	Dr.S.G.Bhirud Ex. AICTE Advisor,Mumbai	Modelling& Simulation in Engineering & Technology	14/03/2016
5	Mr.Devendra Fadanvis CM-Maharashtra State Mr. Rajendra Singh "Jal-Tadnya"	Mission Namami Chandrbhaga	01/06/2016

Eminent Speaker (Academic Year 2016-2017):

Sr. No.	Name of Eminent Speaker	Purpose	Date
1	Dr. Ashok Khade, MD-DAS offshore India Pvt. Ltd.	"Success Stories of an Industrialist"	14/07/2016
2	Dr.Munir Sayad, Head Reliance 4G Lab, Mumbai	"Developemnt of Communication in Rular Area"	20/07/2016
3	Mr.R.V. Balasubramaniam Iyer, Vice President, Reliance Jio Infocomm Limited	MOU signing ceremony With Reliance Jio Infocomm Ltd	27/07/2016
4	Dr.Shivaji H.Pawar Ex.Vice Chancellor, D.Y.Patil Deemed University	Center of Research & Technology Development	20/08/2016
5	Adv. Mrs. Aparna Ramtirthkar Social Activist	"JaraAsuDyaBhaan"	22/09/2016
6	Mr. Sham Yemul Director-Intellisoft Computer Consultants Pvt. Ltd. Solapur.	Spectrum 2K16	01/10/2016

Eminent Speaker (Academic Year 2017-2018):

Sr. No.	Name of Eminent Speaker	Purpose	Date
1	Mr.Vishwas Nangare-Patil IPS, Additional IG, Kolhapur, Maharashtra State-Police	AshadhaiYatra–Wari 2017	26-06-2017
2	Dr.Neelmia Iyer Sr.Principal Scientist CSIR-NCL,Pune	Embedded Systems & Digital word evolution by ARM	29/07/2017

25. Seminars/ Conferences/Workshops organized and the source of funding:
   a.National:

Academic Year	Category	Title	Funding Agency
2013-14	Workshop	Three Days Workshop on Future of Android App developemnt program	Self Sponsored
	Conference	Recent trends in Computer Engineering	Self Sponsored
2014-15	Workshop	Cyber Security and Ethical Hacking	Self Sponsored
	Conference	Computer, Communication and Information Technology	Self Sponsored
	Seminar	Cloud Computing	Self Sponsored
2015-16	Conference	National Conference on Innovations in Computer and Electronics Engineering	Self Sponsored
	Workshop	Hadoop and Big data analysis	Self Sponsored

2016-17	Workshop	Two Day Workshop on Essential of Latex, Typesetting Tool	BCUD, SUS
	Seminar	1. One Day seminar on Networking Tool 2. Internet of Things	Self Sponsored

b) International:

Name of Conference	Date	Source of Funding
International Conference on Innnovations in Engineering and Technology (CIET 2K16)	30-31/12/2016	Self sponsored

26. Student profile programme/course wise:

A) UG Details:

Academic Year	Applications received	Total Admissions	Enrolled		Pass %
			M	F	
2013-2014	Online Admission Process is implemented by DTE, Mumbai	64	24	40	95.31
2014-2015		56	18	38	98.21
2015-2016		64	23	41	98.41
2016-2017		74	23	51	95.94

B) PG Details:

Academic Year	Applications received	CAP Admissions	Selected (Total Admissions)	Enrolled		Pass %
				M	F	
2013-2014	Online Admission Process is implemented by DTE, Mumbai	24	24	02	22	80
2014-2015		24	24	03	21	64.70
2015-2016		17	17	06	11	NA
2016-2017		4	4	2	2	NA
2017-2018		10	10	03	07	NA

27. Diversity of Students:

Name of the Course	Academic Year	% of students from the same state	% of students from other States	% of students from abroad
Computer Science & Engineering.	2013-2014	100	0	Nil
	2014-2015	100	0	Nil
	2015-2016	100	0	Nil
	2016-2017	100	0	Nil
	2017-2018	98.38	1.62	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc?

A.Y.	GATE(Appeared)	GATE (Qualified)
2013-2014	15	--
2014-2015	42	--
2015-2016	20	--
2016-2017	63	03

29. Student progression:

Student progression	Against % enrolled			
	2016-17	**2015-16**	**2014-15**	**2013-14**
UG to PG	6.75	Nil	5.35	17.19
PG to M. Phil.	NA			
PG to Ph.D.	NA			
Ph.D. to Post-Doctoral	NA			
Employed • Campus selection • Other than campus recruitment	36.49*	65.63	50	42.19
Entrepreneurship / Self employment	Nil	1.56	3.57	1.56

*till date

30. Details of Infrastructural facilities:
  a) Library
  b) Internet facilities for Staff & Students
  c) Classrooms with ICT facility
  d) Laboratories

a. Library:

Sr. No.	Title	Details
1	No. of Titles	686
2	No. of Volumes	4595
3	No. of Journals (National)	110
4	No. of International (e-Journals)	101
5	Final Project Reports (UG + PG)	76
6	Project Design reports (UG)	67
7	MinimProject Reports	23
8	Seminar Reports (UG + PG)	33
9	Industrial Training Reports	21
10	Magazines	51
11	News Letters	08

b. Internet Facilities for Staff & Students:
LAN & Wi- Fi Facility with 32 Mbps leaseline internet connectivity for students and staff.

c. **Classrooms with ICT facilities:**

Number of classrooms = 03
Number of classrooms PG = 01
Number of Seminar Rooms = 01
Number of tutorial rooms = 01
All the classrooms are equipped with Green Board, LCD projector, Fans, tubes, Benches, window curtains & ICT facility. Seminar Hall with capacity of 200 students with ICT facility is available.

d. **Details of Laboratories:**
Department has 10well-equipped laboratories as follows:

Sr. No.	Name of the lab	Lab Investment in Rs.	Area in sq. m.
1	Object Oriented Programming Lab	721534.00	75
2	Computer Network	796783.00	75
3	Database Lab	676909.00	75
4	PG Research Lab	762450.00	75
5	Hardware and Networking lab	293000.00	45
6	Project Lab	220400.00	75
7	Microprocessor Lab	43376.00	75
8	Server Lab	439166.00	30
9	Aakash Lab	60000.00	75
10	Digital Techniques Lab	145000.00	75

31. **Number of students receiving financial assistance from College, university, government or other agencies:**

Year	Category					
	EBC	VJ/NT	OBC	SBC	SC	ST
2013-2014	121	31	39	10	22	0
2014-2015	117	35	40	10	18	0
2015-2016	119	32	39	12	19	0
2016-2017	138	14	45	08	14	0

32. **Details of student enrichment programmes (special lectures / workshops / seminars) with external experts:**

Invited Talks (Academic Year 2013-2014)

Sr. No.	Name of Expert	Topic of Lecture	Date	No. of Students/ Participants
1	Mr. Amit Borkar Whitehedge Technologies Pvt. Ltd.	Future of Android	19/08/2013	160

2	Ms.Sneha Thigale Assistant Systems Engineer, TCS	'TCS- Recruitment Preparation & Procedure".	09/03/2013	150
3	Mr. Vikrant Chavan System Engineer, TCS Mumbai.	Software Project & its Scope	20/09/2013	130
4	Mr.Pradip Tapkire TPO NBN SOCE, Solapur	Sinhgad Central Placement Cell Process	23/09/2013	75
5	Mr. Vishal Sarada Innotek solutions, Mumbai	GRE / TOEFFL awareness session	16/02/2014	125
6	Mr. Tulip Das Application Developer at iNautix A BNY Mellon Company Pune,	Skill Required for Software Engineers	14/09/2013	130

Invited Talks (Academic Year 2014-2015):

Sr. No.	Name of Expert	Topic of Lecture	Date	No. of Students/ Participants
1	Mr.Punit TC IBM, Pune	"Career In IBM "	08/07/2014	120
2	Mr.Imtiyaj Sheikh Training Consultant APART Education India Pvt. Ltd. Pune	Personality Development Soft Skill	11/07/2014	110
3	Mr. Parag Tiwari TPO, SIT, Narhe-pune	Employment Grooming	02/08/2014	122
4	Mr.Sagar Pujari Team manager, Coginzant,Pune	Software Project Management &SDLC.	09/08/2014	100
5	Mr. Yashwant Bhigare Enterpruner	Personality Development	19/01/2015	160
6	Mr.Mukund Gadhave	Software Testing Life Cycle	14/03/2015	105
7	Mr.Amol Hake	Open Source Technology-Linux	16/02/2015	103
8	Mr.Ragnish Majeta Indian Army, Ahemadnagar, MS	Career in Indian Army	11/01/2014	140

Invited Talks (Academic Year 2015-2016):

Sr. No.	Name of Expert	Topic of Lecture	Date	No. of Students/ Participants
1	Mr. Prakash Janawade. CEO-venkasys, Pune	Cyber Security & Ethical Hacking	22/02/2015	153

2	Mr. Trupti Satpute. Lecturer, Sangola College	Augmented Reality & Virtual Reality	24/03/2016	74
3	Mr. V. S. Kadam Associate Professor, SIT Lonawala	Information Storage & Management	17/02/2016	186
4	Mr.Abhiseikh Pande NBN TPO,Pune	T &P Awareness Camp	06/08/2015	162
5	Mr. Sachin Mogale Certified Financial Advisor, Solapur	Financial literacy	20/09/2015	160
6	Dr.Ms. Kiran Khosala Project Manager – Aakash school, IIT Bombay	AAKASH FOR EDUCATION	23/09/2015	50
7	Mr.Dyanand Gawade PSI Pandharpur Police Office, Pandharpur.	Cyber Security Awareness Camp	05/01/2016	150

Invited Talks (Academic Year 2016-2017):

Sr. No.	Name of Expert	Topic of Lecture	Date	No. of Students/ Participants
1	Mr. Sachin Mogale	Financial Literacy: Mutual Fund	14/07/2016	120
2	Mr.T.A. Chavan	"Auditing for Data Storage Security"	05/08/2016	110
3	Mr.Tushar Shiva	Software Project Management	08/09/2016	122
4	Mr.Amol S. Kulkarni	IBM Watson IoT	24/01/2017	50
5	Mr. Deepak Badgujar	Career in IT with Required skill set	01/02/2017	160
6	Dr.V.B.Nikam	Scalability in Big data Analytics	03/03/2017	60
7	Dr.S.K.Shinde	Recent trends in data mining	23/03/2017	120

Invited Talks (Academic Year 2017-2018):

Sr. No.	Name of Expert	Topic of Lecture	Date	No. of Students/ Participants
1	Mr. Vinayak Chatke Network Lead Engineer, Reliance JIO Infocom Ltd, Solapur.	GSM & Networking Scenario of 4G	26/07/2017	115
2	Mr.Sanjay Shinde Team-Manager,HSBC Global, Pune	Career opportunities in IT after B.E.CSE	04/08/2017	115

33. Teaching method adopted to improve student learning:

Department practice blend of Activity based and Project based learning in addition to traditional lecture-based learning.

To improve classroom learning, department has applied following practices:
- Teachers are allotted subject as per their choice and specialization
- Teachers are asked to prepare semester-long teaching plan and course file before the start of the semester.
- Each teacher is asked to prepare soft copies of their notes and PowerPoint presentations for the course content. Same is shared with the students by using moodle Server and in the classrooms.
- To simplify Teaching Learning process teaching aids are provided for conducting lectures.
- Models, videos, and animations are used by faculty members to elaborate concepts as per the complexity of the topic.
- Lab experiments and homework in the form of assignments is given to students
- Lectures with self-learning session and mid-lecture activities are added to the timetable.

Learning Management System (LMS) as a Technology:
- As a open source LMS - moodle system is used. As a teacher, based on curriculum prepares unit notes, presentations, possible question bank uploads on moodle server maintained in the department. Students are logging to their moodle account for notes, online assessment (moodle Test).
- CSE department is enriched with 245 Aakash tablets with facility of separate high end configured aakash server and used for 20 Hrs separate session for TE students for learning android application development.
- We are appreciated from IIT Bombay for successful implementation of various programs like Java, PHP, mysql, C, C++ etc. under IIT Bombay, Spoken Tutorial project is the initiative of the 'Talk to a Teacher' activity of the National Mission on Education through Information and Communication Technology (ICT), launched by the Ministry of Human Resources and Development, Government of India.
- Students are motivated to work on ongoing research projects. Capstone projects are compulsory projects for the final year students.
- Project exhibition and various technical festivals provide an opportunity for active learning.
- Expert talks and Industry expert Seminars are arranged to bridge the knowledge gap of the students.

Assessment Method:
- Direct assessment of the course was done by alumni, industry and experts from professional bodies.
- Various tests (Unit test and Prelim, Online, etc.) are used for assessment.
- Mock tests are conducted to evaluate the students' understanding.
- Industry experts are included during the revision of the course at university level.

- Feedback from alumni and final year student are taken into account during the revision of the PEO's at the institute.
- Indirect assessment is done through campus interviews and performance of students in competitive exams like GATE, GRE, and CAT, etc.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

A.Y.2013-2014:

Sr. No.	Date/Duration	Program	Details	Participant
1	26/01/2014	Tree Plantation on Republic Day	Tree Plantation on the occasion of Republic Day	06 Volunteers
2	02/02/2014	Blood Donation Camp	Organizes and Participate in Blood Donation Camp	07 volunteers
3	06/01/2014	Street Play – "Stri Shakti Naka Samaju Kami"	Organize street play on the occasion of college Gathering	03 Volunteers
4	28/01/2014 to 3/02/2014	Special Camp	Village Chiklase Tal MavalDist Pune	02 volunteers

A.Y. 2014-2015:

Sr. No.	Date/Duration	Program	Details	Participant
1	11/01/2015 to 25/01/2015	Road Safety Program	Organized Lecture on Road Safety,Street Play and Rally	02 Volunteers
2	14/02/2015	Blood Donation Camp	Organized and Participated Blood Donation Camp at Palvi	13 Students
3	26/01/2015	Street Play on Helping Victim Of accident	Organizes Street plays	02 Volunteer
4	24/02/2015 – 2/03/2015	Winter Camp	Pawana Nagar (Kamshet Tal MavalDist: Pune	02 Volunteers

A.Y. 2015-2016:

Sr. No.	Date/Duration	Program	Detail	Participant
1	24/08/2015	Cleanliness of Palkhi Tal at Wakhari	NSS Volunteer activity for cleanliness , solid waste anagement, disposal at Palkhi Tal at Wakhari,Tal-Pandharpur after aashadiVari	07 Volunteers

2	25/11/2015	Blood Donation	NSS Students arranged the blood donation camp at SKN SCOE, Korti, Pandharpur	20 Volunteers
3	1/07/2016	AashadiVari	NSS Students participated during AashadiVari at Pandharpur for helping "Food and drug" Administration Dept. Govt. of Maharashtra	05 Volunteers
4	23/07/2016	Cleanliness of Palkhi Tal at Pandharpur	NSS Activity after AashadiVari Solid waste management collection & disposal at BhatumbareTal.Pandharpur	02 Volunteers
5	06/08/2016	Tree Plantation	Tree Plantation activity at Palvi, Korti, Pandharpur	02 Volunteers

A. Y. 2016-17:

Sr. No.	Date	Program	Details	Participant
1	01/07/2016 to 16/07/2016	Aashadhivari at Pandharpur	Helping for "Food and Drug Administration Dept.Govt.of MS	05
2	23/07/2016	AashadhiVari Solid Waste management	Solid Waste management collection & disposal at Bhatumbare, Tal.Pandharpur.	10
3	06/08/2016	Activity at Palvi, Korti,	Tree Plantation	08
4	26/01/2017	Street Play at Gadegaon	Street Play "Swatch Bharat Abhiyan, Save Girl, Asa Ha Bharat Kasa Ha Bharat" at Gadegaon, Tal.Pandharpur, Dist.Solapur	04
5	19/02/2017	Shivjayanti Utstav, held at Matoshri Vruddhashram Gopalpur, Tal.Pandharpur	Checkup Camp	15
6	22/02/2017	Speech on "Shivaji Maharaj Residence in Solapur District"	Shri.Gopalrao Deshmukh (Senior History Researcher)	28
7	04/03/2017 to 05/03/2017	Fort Cleaning	Cleaning of Lohgad and Tikona fort at Pune	03

A. Y. 2017-18:

Sr. No.	Date/Duration	Program	Details	Participant
1	01/07/2017 to 04/07/2017	Aashadhivari at Pandharpur.	Helping for "Food and Drug Administration Dept.Govt.of Maharashtra	05
2	10/07/2017 to 17/07/2017	NSS camp A/P: Khandali, Tal: Mohol, Dist: Solapur.	"Swachh Bharat Abhiyan", "Zade Lava Zade Jagava", "Water Conservation", "Save the Environment"	10

35. SWOC analysis of the Computer Science & Engineering Department and future plans SWOC Analysis:

Strength Weakness Opportunity Challenges (SWOC) analysis used to identify the acquired and inherent strengths along with weaknesses of the department. Furthermore, it is also carried out to identify the opportunities to excel and improve, to negotiate the challenges faced by the department from the internal and external environment.

Strengths:
- Learning environment is a blend of traditional teaching and Project Based Learning and Activity Based Learning.
- The Computer Science and Engineering department has pool of well qualified and experienced faculty
- Well maintained labs to support curriculum
- Classrooms equipped with good quality LCD projectors, screen, and ambiance.
- MoU with the industries for research and development

Weaknesses:
- Difficult to get Ph.D. completed faculty members.
- Inadequate research &consultancy activities

Opportunities:
- To achieve university ranks
- Good opportunity for community projects
- To develop centre of excellence in key areas

Challenges:
- To train the students to become software developer

Future Plans:
- To establish adata research centre
- To develop centre for Project Based Learning research
- To establish a Ph.D. research center

Department of Electrical Engineering
Evaluative Report of the Department

1. Name of the department: Electrical Engineering

2. Year of Establishment: 2010

3. Names of Programmes / Courses offered(UG, PG, M.Phil, Ph.D, Integrated Masters, Integrated Ph.D, etc):

Name of Program UG/PG	Name of the course	Specialization	Intake	Year of Establishment
U.G.	B.E.	Electrical Engineering	60	2010-11

4. Names of Interdisciplinary courses and the departments/units involved:

Following Interdisciplinary courses are involved in curriculum of programs:

Sr. No.	Class	Name of Interdisciplinary course/ Subject	Department
1	SE, TE	Electronics Devices and Circuit, Analog and Digital Integrated Circuits, Microprocessor and Microcontroller, Electromagnetic Engineering, Signals and systems	Electronics and Telecommunication Engineering
2	SE	Engineering Mathematics- III	General Science and Engineering
3	SE	Environmental Science	Civil Engineering
4	SE	Object Oriented Programing with C++	Computer Science and Engineering

5. Annual/ semester/choice based credit system (programme wise):

- UG: Semester – CBCS (SE), CGPA (TE,BE)

6. Participation of the department in the courses offered by other departments:

Sr. No.	Class	Courses offered	Department
1	FE	Basic Electrical Engineering	General Science and Engineering
2	SE	Control System	Electronics and Telecommunication Engineering
3	ME	Advanced Control System	
4	SE	Electrical and Electronics Technology	Mechanical Engineering

7. Courses in collaboration with other universities, industries, foreign Institutions, etc.

Sr. No.	Course Name	Class	No. of Students	Duration	Institution /industry
1	PLC Automation	BE	48	25/07/2014 to 27/07/2014	Shriram Electricals Kolhapur
2	Basic English/ Communication Skill, Aptitude	SE, TE	110	07/01/2015 to 25/03/2015	SEED Infotech Solutions Pvt. Ltd.
3	Transformer Modelling and Design	TE	48	02/07/2015 to 07/07/2015	N Kenin Transformers
4	Solar Electric System Design, Operation and Installation	TE	68	21/12/2015 to 24/12/2015	Power Flow systems Pvt. Ltd. Pune
5	PLC Programming	TE BE	58	20/02/2016 to 21/02/2016	Vibro Automation Centre Pune
6	Automation and Interfacing of DC Motor	TE	01	02/06/2016 to 18/07/2016	Technical University Sofia
7	Two days Certificate Course on PCB Design and Manufacturing	SE	66	09/09/2017 to 10/09/2017	Aptron Tech Satara
8	Two days workshop on PLC SCADA	TE	72	09/09/2017 to 10/09/2017	ROBOKART, Mumbai

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of teaching posts For Undergraduate Programme:

	Sanctioned	Filled
Professors	1	1
Associate Professors	4	0
Asst. Professors	11	15
Total	16	16

10. Faculty profile with name, qualification, designation, specialization. (D.Sc./ D.Litt./Ph.D. / M. Phil. etc.,)

Sr. No.	Name	Designation	Qualification	Specialization	Experience (Years)
1	Mr. S. P. Ganjewar	Asst. Prof.	M.E.	EMD	11
			B.E.	EEP	
2	Mrs. A. A. Chandane	Asst. Prof.	M. Tech.	Control Systems	08
			B.E.	Electrical Engg	
3	Mr. S. H. Gidde	Asst. Prof.	M. Tech.	EPS	08
			B.E.	Electrical Engg	
4	Mr. Chandulal Guguloth	Asst. Prof.	M. Tech	PES	07
			B.Tech.	Electrical and Electronics Engg	

5	Mr. S. S. Rashinkar	Asst. Prof.	M.E.	Control Systems	06
			B.E.	Electrical Engg	
6	Mr. P. P. Kalubarme	Asst. Prof.	M.E.	EPS	06
			B.E.	Electrical Engg	
7	Mr. S. S. Dadhe	Asst. Prof.	M.E.	EPS	06
			B.E.	Electrical Engg	
8	Mr. S. G. Kashid	Asst. Prof.	M. Tech.	Digital Systems	04
			B.E.	E&TC	
9	Mr. A. N. Wadekar	Asst. Prof.	M.E.	Electrical Engg	04
			B.E.	Electrical Engg	
10	Mr. L. B. Swami	Asst. Prof.	M.E.	PED	07
			B.E.	Electrical Engg	
11	Mr. U.A. Chatte	Asst. Prof.	M.E.	EPS	06
			B.E.	Electrical Engg	
12	Mrs. Smitha Sunilkumar	Asst. Prof.	M.Sc.	Physics	13
			B.Sc.	Physics	
13	Dr. B. P. Raulkar	Asst. Prof.	Ph.D.	Education	21
			M.Sc.	Mathematics	
14	Mrs. M. P. Savale	Asst. Prof.	M.Sc.	Chemistry	16
			B.Sc.	Chemistry	

11. List of Senior Visiting/ Adjunct Faculty:

Sr. No.	Name of the visiting Faculty	Qualification	Experience in Years	Name of Industry/ Organization
1	Dr. D. S. Bankar	Ph.D.	16	Bharati Vidyapeeth, Pune
2	Mr. V.D. Bavdhane	M. Tech.	12	TATA AIA Life

12. Percentage of Lectures delivered, and practical classes handled [Program wise] by temporary Faculty: 2%

13. Student Teacher ratios (Programme Wise):

Year	Students' Strength	Teacher(s)	STR
2013-14	153	12	12.75
2014-15	203	14	14.50
2015-16	209	14	14.92
2016-17	216	14	15.42
2017-18	212	14	15.14

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Support Staff	Sanctioned	Filled
Technical Staff	03	03
Administrative Staff	01	01

15. Qualification of teaching faculty:

Sr. No.	Qualification	No. of Teaching faculty
1	Ph.D.	02
2	Ph.D. (pursuing)	00
3	P.G.	14

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:

A) Sponsored Projects from Industries:

A.Y.	Faculty	Title	Sponsoring Agency	Status of Proposal
2015-16	Mr.S.P. Ganjewar	Remote Controlled Solar powered Grass Cutter	Power Flow Systems Pvt. Ltd.	Complete
2016-17	Mr. S. H. Gidde	Solar operated hydroponic grass automation	Er. Sagar Electricals	Complete
2017-18	Mr. S. S. Dadhe	Industrial crisis control by using Arduino	Shree Samarth Paper Products	In Process

B) SPSPM's Funding:

A.Y.	Name of Faculty	Title	Amount in Rs.	Status of Proposal
2013-14	Mr. S. P Ganjewar	Parallel operation of alternator	4,275/-	Complete
2013-14	Mr. S. P. Ganjewar	Rotor resistance control unit for three phase induction motor	7,819/-	Complete
2015-16	Mr. A. O. Mulani	Solar Vehicle	30,500/-	Complete

C) Grant Received from MHRD:

A.Y.	Name of Funding Agency	Title	Amount in Rs.	Status of Proposal
2013-14	MHRD, India (Through IIT Kharagpur)	Control Systems	1,29,420/-	Complete
2017-18	MHRD, India (Through IIT Kharagpur)	Electrical Power System	74,500/-	Complete

18. Research Centre /facility recognized by the University: Nil

19. Publications:
a) Publication per faculty:

Sr. No.	Faculty Name	No of papers published in peer reviewed journals (National/ International) by faculty and students	No of publications listed in International/national conference	Monographs	Chapters in books	Books Edited	Books with ISBN/ISSN Numbers with details of publisher	citations	SNIP	SJR	h-Index
1	Mr. S. P. Ganjewar	3	2	--	--	--	1	8	--	--	1
2	Mrs. A. A. Chandane	5	5	--	--	--	--	--	--	--	--
3	Mr. S. H. Gidde	3	3	--	--	--	--	--	--	--	--
4	Mr. Chandulal Guguloth	1	1	--	--	--	1	8	--	--	1
5	Mr. A. S. Waychal	--	1	--	--	--	--	--	--	--	--
6	Mr. S. S. Rashinkar	4	2	--	--	--	1	1	--	--	1
7	Mr. P. P. Kalubarme	2	4	--	--	--	--	1	--	--	1
8	Mr. S. S. Dadhe	2	3	--	--	--	1	--	--	--	--
9	Mr. S. G. Kashid	2	8	--	--	--	1	8	--	--	2
10	Mr. A. N. Wadekar	2	2	--	--	--	--	--	--	--	--
11	Mr. L. B. Swami	2	1	--	--	--	--	--	--	--	--
12	Mr. U.A. Chatte	3	2	--	--	--	--	--	--	--	--

b) Books and Monographs Published:
- **Monographs -Nil**
- **Books with ISBN/ISSN numbers with details of publishers-**

Sr. No.	A.Y.	Name of Author	Title of Book	ISBN No.	Details of publisher
1	2016-17	Mr.Chandulal Guguloth, Mr.Shrinivas Ganjewar, Mr.Sumit Rashinkar	Position control of IPMSM by using back stepping algorithm	978-3-659-77972-5	Lambert

| 2 | 2016-17 | Mr.Sagar Dadhe, Mr.Santosh Kashid | Performane analysis of SAPF for current harmonic mitigation | 978-3-330-00141-1 | Lambert |

20. Areas of consultancy and income generated:

Sr. No.	A.Y.	Area	Name of client	Amount (Rs.)
1	2016-17	Timer circuit,control circuit for Solar operated hydroponic grass automation	Er. Sagar Electricals	5000/-
2	2017-18	Checking performance of protective devices	Shree Samarth Paper Products, Tembhurni	---

21. Faculty as members in
a)National committees b) International Committees c) Editorial Board-

National committee Members	International Committee Members	Editorial Board/Reviewer
03	19	04

22. Student's projects:

Sr.No.	Description	2013-14	2014-15	2015-16	2016-17	2017-18
(a)	Percentage of students who have done in-house projects including interdepartmental/ programme	100	100	94.45	93.85	93.75
(b)	Percentage of students placed for projects in organizations outside the institution	--	--	5.55	6.15	6.25

23. Awards/ Recognitions received by faculty and students:

A) Awards / Recognitions received by Faculty:

Sr.No.	Faculty Name	Particulars of Award / recognition
1	Mr. S P Ganjewar	Reviewer ICESA 2015
2	Mr. S.H.Gidde	Supporting reviewer-IJIERT Member, Editorial Board –IJRPET Selected in Staff Exchange Program for Rwanda
3	Prof S. G. Kashid	Reviewer ICACCI
4	Mr. A S Waychal	Selected in Staff Exchange Program for Rwanda

GATE Qualified Faculty Members:

Sr.No.	Faculty Name	Year
1	Mr. Chandulal Guguloth	2009
2	Mr. S. G. Kashid	2011, 2016, 2017

B) Awards / Recognitions received by students:

A.Y.	Co-Curricular Activities			Extra Curricular Activities		
	International /National level	State / University level	Institute level	International /National level	State level University level	Institute level
2013-14	03	06	--	--	--	--
2014-15	03	07	--	--	03	01
2015-16	05	22	--	05	03	02
2016-17	24	08	01	03	--	12
2017-18	03	--	03	--	--	--

University Rankers:

Sr. No.	Academic Year	Class	Name of Student	% Marks/CGPA	University Rank
1	2014-15	SE	Devmare Pallavi	81.93	4th
		SE	Ingawale Pravin	80.33	6th
		BE	Sarika Jawale	81.81	1st
			Pawar Poonam	76.75	4th
			Bhore Bhagyashri	76.63	5th
			Dafale Dhanraj	76.00	8th
			Yelpale Priyanka	75.94	9th
2	2015-16	SE	Pradnya Pawar	9.53	5th
			Kumbhar Dipali	9.50	6th
			Mulani Shahrukh	9.45	7th
		TE	Devmare Pallavi	76.38	4th
			Ingawale Pravin	76.38	4th
			Gangathade Arati	73.63	6th
3	2016-17	SE	Pawar Rahul	86.67	1st
			Patil Geetanjali	85.33	3rd
			Chougule Jyoti	84.93	4th
			Babar Yogesh	82.87	7th
		TE	Pawar Pradnya	79.94	6th
			Sarvade Prajakta	78.75	9th
		BE	Devmare Pallavi	83.08	2nd

Students selected for fellowship in Foreign Universities:

Sr.No.	Student Name	Name of University
1	Akshay Kshirsagar	Technical University Sofiya, Bulgeria
2	Amey Jedhe	Technical University Sofiya, Bulgeria

24. List of eminent academicians and scientists/ visitors to the department:
The following eminent persons have visited to the Institute/ Department:

Name	Designation	Organization	Purpose of Visit	Date
Academic Year:2013-14				
Mr. S.V. Thokale	Executive Engineer	MSEDCL	To deliver a Seminar	06/08/2013
Dr.B.R.Badave	Retd. Principal	RIT Sangali	Engineers Day	15/09/2013
Mr. Deepak Ramakrishna	HR Manager	Cognizant- HR Campus Recruitment Lead for Western India. Pune	Cognizant Placement Process	07/09/2013
Mr. Kishor Chandak	M.D.	Mantri-Chandak Constructions, Solapur	Chief Guest SPECTRUM 2k13	25/09/2013
Mrs.Mangaltai Shah, Social Activist	Social Activist	Palavi	Social Awareness	05/02/2014
Mr. Rajiv Khosala	Vice President	Huawei Telecommunic-ation Pvt. Ltd.	Wearable and Presence of Mind in the Workplace	16/02/2014
Academic Year:2014-15				
Sanjay Jamdade	CEO	Vitthal Corporation Ltd.	To deliver a Seminar	11/09/2014
Dr.Vishambar Chaudhari	Founder	Oasis, Pune.	"Expectations from Today's Youth".	30/09/2014
Kaustubh Bhadbhade	GM-HR	Persistent Systems, Pune.	"Placement Preparation"	07/11/2014
Dr.Arjun N. Gaikwad	Principal	Zeal COE Pune.	Biometrics IP & Its Future	09/03/2014
Dr.Hegadi R.S.	HODCSE Dept.	Solapur University Solapur	Chief Guest SPECTRUM 2k14	27/09/2014
Dr.S.S.Inamdar	Managing Trustee/Secretary	Vishwaniketan, Mumbai.	International Collaborations with Project Based learning	28/03/2015

Academic Year:2015-16				
Mr. Dayanand Gawade	PI	Police Department	To deliver a guest Lecture	13/2/2016
Dr.Mukta Atrey	Sr. Project Manager	IITBombay,N MEICT,T10kT	Spectrum 2k15	24/09/2015
Mr.Devendra Fadanvis	CM	Maharashtra State	Mission Namami Chandrbhaga	01/07/2016
Dr.P.P.Vitkar	Vice-President	Non aided Engg. Colleges Maharashtra	Green Building	10/03/2016
Academic Year:2016-17				
Mr. Gururaj Kulkarni	Director	Power flow Systems Pvt. Ltd.	To deliver a Seminar	23/08/2016
Adv. S. K. Navale	Vice President,	Om International Ltd.	To deliver a guest Lecture	07/9/2016
Dr. Ashok Khade	MD	DAS offshore India PVT Ltd.	"Success Stories of an Industrialist"	14/07/2016
Mr. Sham Yemul	Director	Intellisoft Computer Consultants Pvt. Ltd. Solapur.	Spectrum 2k16	01/10/2016
Mr. Pravin Bhalerao	MD	Euraka India Pvt Ltd.	Engineers Day Celebration	15/09/2016
Adv.Mrs. Aparna Ramtirthkar	Social Activist		"Jara Asudya Bhaan"	22/09/2016
Dr.Shivaji H. Pawar	Ex.Vice Chancellor	D.Y. Patil Deemed University	" Innovative Technologies for Rural development and their Commercialization"	20/08/2016
Dr.Munir Sayad	Head, Reliance 4G Lab, Mumbai.	Reliance 4G Lab., Mumbai.	"Development of Communication in Rural Area"	20/07/2016
Academic Year:2017-18				
Mr. Vishwas Nangare-Patil	IPS, Additional IG, Kolhapur,	Maharashtra State Police	Motivational Speech on "To Dream the Impossible dream"	26/06/2017

Dr. Neelima Iyer	Sr. Principal, Scientist	CSIR-NCL Pune	Lecture on Embedded Systems	29/07/2017

25. Seminars/ Conferences/Workshops organized and the source of funding
a. National:

A. Y.	Category	Title	Funding Agency
2013-14	Workshop	Two Week ISTE Workshop on Analog Electronics	MHRD, Govt. of India, IIT Kharagpur
	Seminar	A Seminar on " Future Scope and Industrial Trends in Electrical Engineering"	Self Sponsored
	Conference	State Level Technical Festival- SPECTRUM 2K13	Self Sponsored
2014-15	Workshop	STTP on "PLC Automation"	Self Sponsored
		Two Week ISTE Main Workshop on Control Systems	MHRD, Govt. of India, IIT Kharagpur
	Seminar	A Seminar on "Project Management, Execution and Energy Management"	Self Sponsored
	Conference	State Level Technical Festival- SPECTRUM 2K14	Self Sponsored
	FDP	One Day FDP on " Basic Electrical Engineering"	Self Sponsored
2015-16	Workshop	STTP on Transformer Design	Self Sponsored
		Workshop on PLC Programming	Self Sponsored
		Workshop on PCB Design	Self Sponsored
		Two Week ISTE STTP on Technical Communication.	Self Sponsored
	Seminar	A Seminar on "Intellectual Property Rights"	Self Sponsored
		A Seminar on "Signals and System"	Self Sponsored
		A Seminar on "Embedded System"	Self Sponsored
		A Seminar on "Materials for Energy Conservation and Storage"	Self Sponsored
	Conference	National Level Technical Festival- SPECTRUM 2K15	Self Sponsored
		Conference on "Recent Trends in Electrical and Electronics"	Self Sponsored
2016-17	Conference	National Level Technical Festival- SPECTRUM 2K16	Self Sponsored
		A National Level Conference on Modern Trends in Electrical Engineering	Self Sponsored

2016-17	Seminar	Seminar on Entrepreneurship and Opportunities in Solar Power Sector	Self Sponsored
		A Seminar on hydroponics, green fodder Production	Self Sponsored
		A Seminar on Analog Electronics	Self Sponsored
	WorkShop	A Work Shop C, C++	Self Sponsored
		A Workshop on Finalisation of syllabus of SE (Part-I &II)	Self Sponsored
2017-18	Seminar	A Seminar on " Embeded Systems"	Self Sponsored
		A Seminar on " Transformer practical approach and latest Protection"	Self Sponsored
		A Seminar on "Arduino"	Self Sponsored
	Workshop	Two days workshop on PLC SCADA	Self Sponsored
		Two days Certificate Course on PCB Design and Manufacturing	Self Sponsored
	FDP	Two week ISTE STTP on "Electric Power System"	MHRD, Govt. of India, IIT Kharagpur

b. International:

Name of Conference	Date	Source of Funding
International Conference on Innovations in Engineering and Technology	30-31/12/2016	SPSPM's SKNSCOE

26. Student Profile Programme/course wise:
UG Details:

Course and Academic Year	Applications received	Selected (Total Admissions)	Enrolled		Pass %
			M	F	
BE 2013-14	All Admission process done by DTE	31	24	7	100
BE 2014-15		48	32	16	87.5
BE 2015-16		72	60	12	94.36
BE 2016-17		65	45	20	96.92
BE 2017-18		64	43	21	NA

*M=Male F=Female

27. Diversity of Students:

Name of the Course	% of students from the same State	% of students from other states	% of students from abroad
2013-14	100	Nil	Nil
2014-15	100	Nil	Nil
2015-16	100	Nil	Nil
2016-17	100	Nil	Nil
2017-18	100	Nil	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc?

Academic Year	GATE	State Services
2015-16	00	04
2016-17	01	01

29. Student progression:

Student progression	Against % enrolled			
	2013-14	**2014-15**	**2015-16**	**2016-17**
UG to PG	16.13	12.50	2.78	--
PG to M. Phil.	NA			
PG to Ph.D.	NA			
Ph.D. to Post Doctorate	NA			
Employed • Campus selection • Other than campus recruitment	51.61	54.16	48.61	20.00*
Entrepreneurship/ Self-employment	6.45	4.16	2.78	--

* Till date placements

30. Details of Infrastructural facilities:
- **Library**
- **Internet facilities for Staff & Students**
- **Classrooms with ICT facility**
- **Laboratories**

a) **Library: Central**

Sr. No.	Title	Details
1	No. of Titles	121
2	No. of Volumes	1166
3	No. of Magazines	41
4	No. of Newsletters	8
5	No. of Project Reports	61
6	No. of Question Papers	232
7	No. of Conference Proceeding	3
8	No. of In-plant Training Reports	21

b) **Internet Facilities for Staff & Students:**
Wi-Fi facility with speed of 32 Mbps given for students and staff in the campus.

c) **Classrooms with ICT facilities:**
Number of classrooms = 03

Number of Seminar Hall = 01

Number of tutorial rooms = 01

All the Classrooms are equipped with Green Board, LCD Screen with Projector, Fans, tubes, Benches, curtains and ICT Facility. SeminarHall with capacity of 250 students withICT Facility is available.

d) Details of Laboratories:

Department has 10 well equipped laboratories as follows:

Sr. No.	Name of the lab	Lab Investment	Major Equipments
1	Basic Electrical Engineering Lab	537636.00	Auto Transformer, KVL & KCL Kit, Single phase and Three phase Transformer
2	Electrical Measurement and Instrumentation Lab	570777.50	Kelvins Double bridge, Maxwell bridge, Schering bridge, Wheatstone bridge
3	Electrical Machine-I Lab	673867.50	DC Motors and Generators, Single phase and Three phase Transformer
4	Electrical Machine-II Lab	673867.50	Induction Motors, Synchronous Motors, Alternators
5	Electrical Software Lab	960727.4	LCD projector, Computers, Printers
6	Switchgear and Protection Lab	715241.25	Simulation Model for Differential Protection of transformer, Fault Simulation Model for Induction Motor
7	Power Electronics Lab	256854.00	full & half bridge inverter 1 phase, 3 phase controlled bridge rectifier, DSO
8	Industrial Drives and Control Lab	207873.00	3-phase full controlled bridge DC drive, Solid state Cherbius Drive with slip power Recovery
9	Control System Lab	189105.00	A.C. position control system, Synchro as Transducer, Synchro as error detector.
10	Network Analysis Lab	20250.00	Norton theorem kit, thevenins theorem kit, maximum power transfer theorem kit.

31. Number of students receiving financial assistance from College, university, government or other agencies

Year	Category wise number of Students					
	EBC	NT/VJ	SC	OBC	SBC	ST
2013-14	107	18	4	18	6	--
2014-15	125	31	11	28	8	--
2015-16	112	38	16	35	6	--
2016-17	104	43	21	38	10	--

32. Details on student enrichment programmes (special lectures / workshops / seminars) with external experts:

Sr. No.	Program Details	Duration/date	No. of participants
A.Y. 2013-14			
1	A seminar on **Future Scope and Industrial Trends in Electrical Engineering** by Mr. S.V. Thokale (Executive Engineer MSEDCL)	06/08/2013	48
2	Industrial Visit to **Solar Power Plant**Antroli	17/08/2013	73
3	Industrial Visit to **Power Engineers**Shirol	15/03/2014	39
4	A State Level Project Exhibition **WEENGS 2K14**	29/03/2014	140
A.Y. 2014-15			
1	A three days Training Program on **PLC Automation** by Shriram Electricals Kolhapur	25 to 27/7/2014	48
2	Aptitude Competition	06/09/2014	148
3	A seminar on **Project Management, Execution and Energy Management** by Mr. Sanjay Jamdade (CEO, Vitthal Corporation Ltd.)	11/09/2014	140
4	A Visit to Thermal Power Plant Parli	20/09/2014	50
5	A State Level Technical Festival (Paper Presentation **SPECTRUM 2K14**)	27/09/2014	31
6	VAP on **Basic English and Aptitude** by SEED Infotech Solutions Pvt. Ltd.	05/01/2015 To 25/3/2015	130
7	VAP on **Basic English/Communication Skill, Aptitude** by SEED Infotech Solutions Pvt. Ltd.	07/01/2015 To 23/03/2015	130
8	A State Level Project Exhibition **WEENGS 2K15**	28/03/2015	58
A.Y. 2015-16			
1	A one week STTP on **Transformer Design** by N Kenin Transformers	02/07/2015-07/07/2015	48
2	Mastermind Quiz Competition	22/08/2015	338
3	A Guest lecture on **Opportunities in Indian Engineering Services** by Amol Ghodake	22/09/2015	170
4	A National Level Technical Festival (Paper Presentation **SPECTRUM 2K15**)	24/09/2015	26
5	VAP on **Solar Electric System Design, Operation and Installation** by Power Flow systems Pvt. Ltd. Pune	21-24/12/2015	63

6	Industrial visit to **Abhishek Electricals** Kolhapur	23/01/2016	31
7	**"Motivation and Interactive Session"** by Mr. DayanandGawade (PI Pandharpur)	13/02/2016	139
8	Two Days Workshop on **PLC Programming** by MrAnupPalvencha (Vibro Automation Centre Pune)	20,21/02/2016	58
9	A one Day Workshop on **PCB Design** by AvinashHarale	24/02/2016	63
10	Technical Poster Presentation Competition	27/02/2016	106
11	A seminar on **Intellectual Property Rights** by Mr. S. N. Upadhye (Asst. Mr. VVPIET Solapur)	29/02/2016	72
12	A Expert Lecture on **Signals and Systems** by Mr. ArunUkarande	5,6,7/03/2016	62
13	A seminar on **Embedded System** by Mr. VithhalJagtap.	07/03/2016	72
14	Industrial Visit to **RYB electricals** Sangola	05/03/2016	72
15	Industrial Visit to **Shetkari Mahila Sahakari Sut Girni**, Sangola	05/03/2016	72
16	A State Level Project Exhibition **WEENGS 2K16**	26/03/2016	126
A.Y. 2016-17			
1	A seminar on **Entrepreneurship and opportunities in solar power sector** by Mr. Gururaj Kulkarni (Director Power flow Systems Pvt. Ltd.)	23/08/2016	66
2	Industrial Visit to **Gas Thermal Power Station,** Uran	03/9/2016	74
3	A guest lecture on **Opportunities for Young Generation** by Adv. S. K. Navale (Vice President, Om International Ltd.)	07/9/2016	152
4	A National Level Technical Festival (Paper Presentation **SPECTRUM 2K16**)	1/10/2016	39
5	An Expert lecture on **How to prepare for Civil Services by** Sarika Jawale	20/10/2016	65
6	A Seminar on **Hydroponics green fodder production** by Mr. Seema Gaikwad	10/01/2017	150
7	**Blood Donation Camp** on The Occasion of Republic Day	26/01/2017	129
8	A Guest Lecture on **Youth Empowerment** by Mr. Udhav Hadke	30/01/2017	191
9	A State Level **OFF THE CUFF- Quiz and Debate competition**	04/02/2017	147
10	A one day **Workshop on C, C++** By Mr. S S Ingole	10/02/2017	20
11	A Seminar on **Analog Electronics** by Mr. V H Bonge	28/02/2017	67

A.Y. 2017-18			
1	A Seminar on " **Embedded Systems**"	29/07/2017	70
2	Industrial Visit to **"Hydropower Station"** Ujani	29/07/2017	37
3	National Level Technical Event **"Spectrum 2K17"**	05/08/2017	208
4	A Seminar on " **Transformer practical approach and latest Protection"**	11/08/2017	130
5	A State Level Technical Event **"Technofrenzy"**	02/09/2017	108
6	Two days workshop on **"PLC SCADA"**	09-10/09/2017	72
7	Two days Certificate Course on "**PCB Design and Manufacturing"**	09-10/09/2017	66
8	A Seminar on **"Arduino"**	14/09/2017	64

33. Teaching methods adopted to improve student learning

To improve class room learning, department adopts fallowing practices:
- Allocation of subjects as per the choice of teachers and their specialization.
- Preparation of course files well before the start of semester along with teaching plan.
- Use of different ICT tools for effective delivery of curriculum.
- Simulations, animations and videos are used to elaborate the concepts as per the complexity of topic.
- Effective implementation of project based learning.
- Experts talk, seminars and industrial visits are arranged to fulfill the requirements of current industrial scenario.

Assesment Method:
- Tests like Unit Test, prelim, AMCAT, etc. are conducted for assessment.
- Mock tests are conducted to evaluate students understanding.
- Feed back of students is taken into consideration to improve the teaching – learning process.
- Conduction of national level project competition to evaluate the technical ability and understanding.
- Use of GATE Tutor, Moodel software for assessing competative knowledge.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

A.Y. 2014-15

Sr. No.	Date /Duration	Program	Details	Participation
1	5/4/2014	Health Program	As Volunteer to MatoshriVrudhashram with a team of doctor regarding desease detective program	7

2	14/4/2014	Special Camp	Participation during ChaitraVari for water distribution to pilgrims.	14
3	14/7/2014	Special camp	Clinliness, solid waste management collection and disposal of palakhital at wakhari. Pandharpur after Ashadivari	12
4	2 days	Special Camp	As a volunteer for water distribution to vitthalmandirdarshan queue pilgrims.	10

A.Y. 2015-16

Sr. No.	Date /Duration	Program	Details	Participation
1	24/8/2015	Special camp	Clinliness, solid waste management collection and disposal ofpalakhital at wakhari. PandharpurafterAshadivari.	20
2	1/11/2015	Blood donation camp	Arranged a blood donation camp at SKNSCOE Pandharpur	14

A.Y. 2016-17

Sr. No.	Date /Duration	Program	Details	Participation
1	23/7/2016	Special camp	Ashadiwari solid waste management, collection and disposal at Bhatumbare, Pandharpur	10
2	6/8/2016	Tree Plantation	Tree Plantation activity at Palvi	20
3	15 days	Health Program	For helping food and drug administration dept. Govt. of India	15
4	15/8/2016	Special camp	Health checkup camp	13
5	12/01/2017	Street Play	Street play on the occasion of electrical safety week at Pandharpur	20
6	16/01/2017	Street Play	Street play on the occasion of electrical safety week at Akluj	20

7	26/01/2017	Blood Donation Camp	Blood Donation Camp on The Occasion of Republic Day	129
8	26/01/2017	Street Play	Street play on "Swach Bharat Abhiyan" the occasion of republic day at Gadegaon	05
9	19/02/2017	Health Check Up Camp	Health Check Up Camp at matoshri vrudhashram on the occasion of Shivaji Jayanti	20
10	04 & 05/03/2017	Fort Cleaning	Cleaning of Lohgad Fort , Near Lunawala	7

A.Y. 2017-18

Sr. No.	Date/Duration	Program	Details	Participation
1	10/07/2017 to 17/07/2017 7 days	Tree Plantation	Tree Plantation at Khandali	50

35. SWOC analysis of the Electrical Engineering Department and future plans:

Strengths:
- Academic Excellence in SUS
- Excellent infrastructure and well equipped laboratories in support of Academics.
- A unique mix of experienced and young enthusiastic human resource.
- Close monitoring of student performance and system of communicating regularly with parents.

Weaknesses:
- Lack of Faculty members with PhD qualification.
- Lack of Research and Inadequate consultancy activities.

Opportunities:
- To become Centre of Excellence in major areas of Electrical Engineering.
- Use of renewable energy to make department self sufficient for energy needs

Challenges:
- Increasing consultancy and R & D funded projects.
- Industrial exposure to students and faculty.

Future Plans:
- Industry collaboration for catering current needs through final year projects.
- To start post graduate programme in Specialized Electrical Domain.
- To strengthen student placement cell.

Department of Electronics & Telecommunication Engineering

Evaluative Report of the Department

1. **Name of the department:** Electronics & Telecommunication Engineering

2. **Year of Establishment:** 2010

3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):**

Name of the Programme	Name of the course	Specialization	Intake	Year of Establishment
U.G.	B.E.	E & TC	60	2010-11
P.G.	M.E.	Electronic`s	24	2012-13

4. **Names of Interdisciplinary courses and the departments/units involved:**
   Following Interdisciplinary courses are involved in curriculum of programs:

Sr. No.	Class	Name of Interdisciplinary course/ Subject	Department
1	SE	Control System	Electrical Engg.
2		Engineering Mathematics-III	F. E.
3		Electronics Software Lab – I	CSE
4		Environmental Studies	Civil
5	TE	Electronics Software Lab – II	CSE
6		Software Engineering and Project Management System	CSE

5. **Annual/ semester/choice based credit system (programme wise):**

   - UG: Semester - CBCS (SE), CGPA (TE and BE)
   - PG: Semester CBCS

6. **Participation of the department in the courses offered by other departments:**

Sr. No.	Class	Courses offered	Department
1	FE	Basic Electronics & Computer Programming	F. E.
2	SE	Analog & Digital Integrated Circuits	Electrical
	TE	Microprocessor & Microcontroller	
	TE	Electromagnetic Engineering	
3	SE	Digital Techniques	CSE
4	SE	Electrical & Electronics Technology	Mechanical Engineering
	TE	Automatic Control Engineering	
	BE	Mechatronics	
	TE	Advanced Computing Techniques	

7. **Courses in collaboration with other universities, industries, foreign Institutions, etc.**

Sr. No.	Course Name	Class	Nos. of Student	Start Date to End Date	Collaborative Organization
1	C# .Net	BE	34	25/08/2013 to 06/10/2013	Ashwath Infotech
2	JAVA Programming	TE	55	25/08/2013 to 06/10/2013	Ashwath Infotech
4	CCNA	TE	39	24/12/2014 to 04/01/2015	SEED Infotech
5	Communication Skills	SE	55	05/01/2015 to 10/04/2015	SEED Infotech
6	Aptitude	TE	81	05/01/2015 to 10/04/2015	SEED Infotech
7	Aptitude	TE	52	01/07/2015 to 10/09/2015	SEED Infotech
8	Recent Trends in Telecommunication Industry	--	--	27/07/2016	Reliance Jio Infocom
9	IoT with Python	TE	28	02/01/2017 to 09/01/2017	Aedifico Tech Pvt. Ltd. Delhi

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of teaching posts:

For UG and PG Programme

	Sanctioned	Filled
Professors	02	02
Associate Professors	04	02
Asst. Professors	15	17
Total	21	21

10. Faculty profile with name, qualification, designation, specialization. (D.Sc./ D.Litt./Ph.D. / M. Phil. etc.,)

Sr. No.	Name	Design-ation	Qualificat-ion	Specialization	No. of Years of Experie-nce	No. of PG Students Guided
1	Dr. K. J. Karande	Principal	Ph.D.	E & TC	22	13
			M. Tech.	E & TC		
2	Mr. A. O. Mulani	Asst. Prof.	Ph.D. pursuing	E & TC	16.5	06
			M. Tech.	Electronics		

			Ph.D. Pursuing	Electronics	18	06
3	Mr. A. B. Jagadale	Asso. Prof.	M. Tech.	E&TC		
4	Mrs. A. C. Pise	Asst. Prof.	M.E.	Electronics	14.5	05
			B.E.	E & TC		
5	Mrs. S. V. Surwase	Asst. Prof.	Ph.D. Pursuing	Electronics	14.5	NIL
			M. E.	Electronics		
6	Mr. A. D. Harale	Asst. Prof.	Ph.D. Pursuing	E & TC	10.1	05
			M. Tech.	Electronics		
7	Mr. G.B. Birajdar	Asst. Prof.	M.E.	Signal Processing	5.2	NIL
			B.E.	E & TC		
8	Mr. V.B. Jundale	Asst. Prof.	M.E.	E & TC	7.5	NIL
			B.E.	E & TC		
9	Mr. S.S. Gangonda	Asst. Prof.	M.E.	Signal Processing	7.9	NIL
			B.E.	E & TC		
10	Mr. G.V. Linge	Asst. Prof.	M.E.	E & TC	7.2	NIL
			B.E.	E & TC		
11	Mr. S.S. Patil	Asst. Prof.	M.E.	VLSI & Embedded System	6.1	NIL
			B.E.	E & TC		
12	Mr. H.S. Deshpande	Asst. Prof.	M.E.	Electronics	4.4	NIL
			B.E.	E & TC		
13	Ms. M. V. Daithankar	Asst. Prof.	M.E.	Electronics	2.7	NIL
14	Mr. V. V. Bhosale	Asst. Prof.	M.E.	E & TC	4.5	NIL
			B.E.	Electronics		
15	Ms. P.V. Bankar	Asst. Prof.	M.E.	Electronics	1.3	NIL
			B.E.	E & TC		
16	Mr. Vincent George	Asst. Prof.	M.Sc. B. Ed.	Maths.	30	NIL
17	Mr. R. D. Khaire	Asst. Prof.	M. A. M. Ed.	Physical Education	10	NIL

11. List of Senior Visiting/Adjunct Faculty : -

Sr. No.	Name of faculty	Qualification	Experience (in Years)	Name of Industry/ Organization
1	Dr. P. D. Gawande	Ph. D. E&TC	24	Sipna College of Engg & Technology, Amravati

2	Dr. Mukesh Singh	Ph.D. Electrical	16	Thapar University, Patiala
3	Mr. Raviraj A. Kanade	M.E. E&TC	09	Techno Samarthyam
4	Mr. Santosh L. Kulangi	M.E. VLSI & Embedded System	06	Knorr Bremse Technology Center, Pune

12. Percentage of Lectures delivered, and practical classes handled [Program wise] by temporary Faculty: 2%

13.   Student Teacher ratios:

Year	Students' Strength	Teacher(s)	STR
2013-14	276	16	17.25
2014-15	261	17	15.35
2015-16	216	17	12.70
2016-17	204	18	11.33
2017-18	162	17	9.52

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Support Staff	Sanctioned	Filled
Technical Staff	03	03
Administrative Staff	01	01

15. Qualification of teaching faculty:

Sr. No	Qualification	No of Teaching faculty
1	Ph.D.	03
2	Ph.D. pursuing	06
3	P.G.	12

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:

Although department so far has not received any funding from above agencies, in the past we have received funding from agencies mentioned below:

Sr. No.	Year	Particulars	Name of Agency	Amount (Rs.)
1	2012-13	Two day ISTE workshop Research methods in Educational Technology	IIT Bombay	7,000/-
		Two Week ISTE main workshop on Analog Electronics	IIT Kharagpur	1,72,500/-

2	2013-14	For conduction of various Workshops/ Seminars etc.	IETE, New Delhi	11,600/-
3	2014-15	Two Week Main workshop on Control System	IIT Kharagpur	1,29,420/-
		For conduction of various Workshops/ Seminars etc.	IETE, New Delhi	3,760/-
4	2015-16	For conduction of various Workshops/ Seminars etc.	IETE, New Delhi	28,560/-
5	2016-17	For conduction of various Workshops/ Seminars etc.	IETE, New Delhi	8,360/-
6	2017-18	For conduction of various Workshops/ Seminars etc.	IETE, New Delhi	4,600/-
		Total		**3, 65, 800/-**

A) Sponsored Projects from Industries

A.Y	Faculty	Title of the Project	Sponsoring Agency	Status of Proposal
2013-14	Mr. A.B. Jagadale	Digital control for servo stabilizer	TEJ-JET Industries	Completed
2013-14	Mr. A.D. Harale	BLDC Motor Control using ARM Controller	KANAAD Services and Training	Completed
2014-15	Mr. A.B. Jagadale	Automation of Hybrid Vehicle	Pioneer Pvt. Ltd.	Completed
2015-16	Prof. H.S. Deshpande	Color Detection & Separation Using PLC	Vibro Automation	Completed
2015-16	Mr. A.D. Harale	Vehicle Tracking system using GPS	Meen Technology	Completed
2016-17	Mr. A.D. Harale	Web Server using Raspberry Pi	Meen Technology	Completed
2016-17	Mr. S. S. Patil	Automatic Soda vending Machine	Vibro Feed Tech	Completed
2017-18	Mr. A.O. Mulani	Passenger Vehicle distributed Automation System based on CAN Bus	Micro Intelligent Machines	In Process

B) SPSPM Funding

A.Y.	Name of Faculty	Title of The Project	Amount	Status of Proposal
SPSPM Funding For Faculty				
2015-16	Mr. A. O. Mulani	Solar Vehicle	30,500.00	Completed

18. Research Centre /facility recognized by the University:

The department is recognized as Research Centre for Electronics Engineering and is affiliated to Solapur University, Solapur.

19. a) Publications per faculty:

Sr. No.	Faculty Name	Review No. of Paper published in Journal faculty/Student	No. of Publication listed in International/ National Conference	Monographs	Chapters in books	Books Published	International Book With ISBN NO.	Citation Index	SNIP	SJR	h -Index
1	Dr. K. J. Karande	18	29	1	--	5	5	167	--	--	6
2	Mr. A. O. Mulani	9	15	--	--	4	2	22	--	--	2
3	Mr. A. B. Jagadale	5	23	--	--	3	3	4	--	--	1
4	Mrs. A. C. Pise	6	14	--	--	--	--	3	--	--	1
5	Mrs. S. V. Surwase	1	7	--	--	--	--	--	--	--	--
6	Mr. A. D. Harale	7	6	--	--	--	--	1	--	--	1
7	Mr. V. B. Jundale	2	3	--	--	--	--	4	--	--	1
8	Mr. S. S. Gangonda	1	--	--	--	--	--	13	--	--	1
9	Mr. G. V. Linge	2	1	--	--	1	1	5	--	--	1
10	Mr. S. S. Patil	2	--	--	--	--	--	--	--	--	--
11	Mr. H. S. Deshpande	2	6	--	--	1	1	11	--	--	1
12	Mr. V. V. Bhosale	--	3	--	--	--	--	--	--	--	--
13	Ms. M. V. Daithankar	1	3	--	--	--	--	12	--	--	2
14	Ms. P. V. Bankar	1	3	--	--	--	--	2	--	--	1

19. b) Books and Monographs Published

- **Monographs –**

Sr. No.	Year	Name of Author	Title of Thesis	Details of Publication
1	2011	Dr. K. J. Karande	Biometric Face Recognition using Independent Component Analysis	SRTM University, Nanded, India

- **Books with ISBN/ISSN numbers and details of publishers-**

Sr. No.	Author	Name of Book	ISBN Number	Publisher
1	Dr. K. J. Karande	Feature Extraction by Independent Component Analysis	978-81-89866-74-7	Advances in Computer Vision and Information Technology by I K International Publication Pvt. Ltd.
		Face Recognition Using Independent Component a Analysis Under Variation Of Pose, Illumination & Facial Expression	978-3-659-19359-0	LAMBERT Academic Publishing, Germany
		Independent Component Analysis Of Edge Information For Face Recognition	978-81-322-1511-0	
		Fundamental optimized AES algorithm design in FPGA	978-3-659-86352-3	
		Modular Independent Component Analysis for Face Recognition	Accepted By Springer Series	Springer series: Springer Briefs in Computational Intelligence
2	Mr. A. O. Mulani	Basic Electronics	---	Crescent Publication
		Optical Communication	---	Electrotech Publication
		Embedded Systems	978-81-843171-38	Technical Publication
		DWT based robust invisible watermarking	ISBN-9783659845161	LAMBERT Academic Publishing, Germany
3	Mr. A.B. Jagadale	Digital Control for Three Phase Servo Stabilizer	10: 3659920711, 13: 978-3659920714	LAMBERT Academic Publishing, Germany
		Development of Electronic system for Bioimpedance Analysis	10: 3659924857 13: 978-3659924859	LAMBERT Academic Publishing, Germany
		Enhancing Optimization & Device Portability by Reducing Port Pin Count	10: 365993738X ISBN-13: 978-3659937385	LAMBERT Academic Publishing, Germany

4	Mr. G.V Linge	Enhancing Optimization &Device Portability by Reducing Port Pin Count	10: 3659937 38X ISBN-13: 978-3659937385	LAMBERT Academic Publishing, Germany
5	Mr. H.S. Deshpande	Fundamental optimized AES algorithm design in FPGA	ISBN 978-3-659-86352-3	LAMBERT Academic Publishing, Germany

20. Areas of consultancy and income generated-

Sr. No.	Academic Year	Name of Client	Area of Consultancy	Income Generated
1	2014-15	Pioneer Electro Systems	Home Security Systems	20,000/-
2	2015-16	Pioneer Electro Systems	Home Security Systems	12,000/-
3	2016-17	MEEN Technology	Vehicle Tracking System	27,500/-
4	2017-18	Chaitanya Milk & Milk Product, Kasegaon, Pandharpur	Development of Milk temperature indication & control system for Dairy	--

21. Faculty as members in
a) National committees b) International Committees c) Editorial Board-

National committees	International Committees	Editorial Board/ Reviewer	Other Members
10	22	05	--

22. Student's projects:

Sr. No.	Description	2016-17	2015-16	2014-15	2013-14
(a)	Percentage of students who have done in-house projects including interdepartmental programme	91.3	92	94.12	86.67
(b)	Percentage of students placed for projects in organizations outside the institution	08.70	08	5.88	13.33

23. Awards/ Recognitions received by faculty and students

A) Staff Achievements

Sr. No.	Name of faculty	Credentials
1.	Dr. K.J. Karande	Received Prestigious European Fellowship for training at Aalborg University Denmark on Project Based Learning. (www.erasmus.mobilityforlife.aau.dk).

		Chairman Board of Studies for Electronics & Telecommunication Engineering at Solapur University Solapur.
		Received state level "Navratna Prerana Puraskar" by Maharashtra Patrakar Sangh and Mahawarta News on 30th Nov 2014
2.	Mr. A. O. Mulani	State Level Advisory committee member in International Conference on Science and Technology at S.B. Patil College of Engineering, Indapur held at 21th and 22nd Feb 2014.
3.	Mr. A. B. Jagadale	Qualified GATE 2012
4	Mrs. A. C. Pise	Appreciation from IETE For establishing IETE Student Forum In SKN Sinhgad College of Engineering, Korti, Pandharpur
5	Mrs. S. V. Surwase	Appreciated performance in one week Technical Communication Workshop conducted by IIT Bombay with certificate for "Exceptional Performance".
6	Mr. G. B. Birajadar	Appreciation Certificate from Imperial Society of Innovation Engineers (ISIE) as Faculty Advisor organized at Bhopal, Madhya Pradesh from 25th - 29th March 2016
7	Ms. M.V. Daithankar	Appreciated performance in one week Technical Communication Workshop conducted by IIT Bombay with certificate for "Exceptional Performance".
		Qualified GATE 2016
8	Mr. G. B. Birajadar	Achieved Pune University Rank 7th in M.E.
		Appreciation Certificate from Imperial Society of Innovation Engineers (ISIE) as Faculty Advisor organized at Bhopal, Madhya Pradesh from 25th - 29th March 2016
9	Mr. S. S. Gangonda	Achieved Pune University Rank 8th in M.E.
		Selected in staff exchange program for Rwanda (Africa)

B) Awards / Recognitions received by students:

Student Achievements:

Academic Year	Co-curricular Activities				Extra-curricular Activities		
	International/National Level	State Level	University Level	Institute Level	International /National Level	University Level	Institute Level
2013-14	03	08	--	17	--	--	11
2014-15	10	09	--	02	--	04	07

2015-16	05	06	--	06	--	--	12
2016-17	10	13	--	10	--	03	38
2017-18	06	--	--	08	--	--	--

University Rankers:

Sr. No.	Academic Year	Class	Name	% Marks	University Rank
1	**2014-15**	**B.E**	Snehal S. Ingole	82.60	1st
2			Shruti S. Mane	81.80	3rd
3			Kirti S. Gawali	80.53	7th
4		**TE**	Pooja S. Fugare	80.67	1st
5			Priyanka M. Jadhav	79.27	3rd
6	**2015-16**	**BE**	Priyanka M. Jadhav	80.79	6th
7			Pooja S. Fugare	80.36	7th
8		**TE**	Snehal S. Sule	80.73	6th
9			Amruta B. Patil	79.39	9th
10	**2016-17**	**SE**	Nagtilak Premala	86.61	6th
11		**BE**	Salunkhe Suchita	79.76	6th

24. List of eminent academicians and scientists/ visitors to the department:

The following eminent persons have visited the institute:

Academic Year 2013-14			
Sr. No.	Name of Eminent Speaker	Purpose	Date
1	Mr. Kishor Chandak MD Mantri-Chandak Constructions, Solapur	Chief Guest Spectrum 2K13	25/09/2013
2	Mrs. Mangaltai Shah Social Activist	Social Awareness	05/02/2014
3	Mr. Rajiv Khosala Vice President, Huawei Telecommunication Pvt. Ltd.	Wearable and Presence of Mind in the Workplace.	16/02/2014
Academic Year 2014-15			
Sr. No.	Name of Eminent Speaker	Purpose	Date
1	Dr. Vishwambar Chaudhari Founder-Oasis, Pune	"Expectations from Today's youth".	30/07/2014
2	Kaustubh Bhadbhade GM-HR Persistent Systems, Pune	"Placement Preparation"	07/11/2014
3	Dr. Arun N. Gaikwad Principal, Zeal COE, Pune	Biometrics IP & Its Future	09/03/2014
4	Dr. Hegadi R.S. HOD-CSE Dept. Solapur University Solapur	Chief Guest Spectrum 2K14	27/09/2014

5	Dr. Sanjay.N.Talbar Professor, Dept. ENTC, SGGS Inst. of Engg. & Technology, Nanded	Image Processing & histogram Normalization	18/10/2014
6	Dr. S.S. Inamdar Managing Trustee/Secretary, Vishwaniketan, Mumbai	International Collaborations with Project Based learning &	28/03/2015

Academic Year 2015-16			
Sr. No.	**Name of Eminent Speaker**	**Purpose**	**Date**
1	Dr. Mukta Atrey Sr. Project Manager at IIT Bombay, NMEICT,T10kT	Spectrum 2K15	24/09/2015
2	Mr. Devendra Fadanvis CM-Maharashtra State	Mission Namami Chandrbhaga	01/07/2016
3	Dr. S.G. Bhirud Ex. AICTE Advisor, Mumbai	Modeling& Simulation in Engineering & Technology	14/03/2016
4	Dr. Nisha Sarvade Professor VJTI, Mumbai	Recent trends in Microcontroller	02/04/2016

Academic Year 2016-17			
Sr. No.	**Name of Eminent Speaker**	**Purpose**	**Date**
1	Dr. Ashok Khade MD-DAS offshore India Pvt. Ltd.	"Success Stories of an Industrialist"	14/07/2016
2	Mr. Sham Yemul Director- Intellisoft Computer Consultants Pvt. Ltd. Solapur.	Spectrum 2k16	01/10/2016
3	Mr. Pravin Bhalerao MD-Euraka India Pvt Ltd	Engineers Day Celebration	15/09/2016
4	Adv. Mrs. Aparna Ramtirthkar Social Activist	"जरा असू द्या भान"	22/09/2016
5	Dr. Shivaji H. Pawar Ex.Vice Chancellor, D.Y. Patil Deemed University	"Innovative Technologies For Rural Development and their Commercialization"	20/08/2016
7	Mr. R. V. Balasubramaniam Iyer Vice-President, Reliance Jio Infocomm Limited	MoU signing ceremony of Reliance Jio Infocomm Ltd. with SKN Sinhgad College of Engineering, Korti, Pandharpur	27/07/2016
8	Dr. Munir Sayad Head Reliance 4G Lab, Mumbai.	"Development of Communication in Rural Area"	20/07/2016
10	Mr. Ganesh Shinde	"Aajacha Vidyarthi – Bhavishyaaani Aavhane"	07/03/2017
11	Dr. Nanda Patil	"Aajachi Stree"	08/03/2017
12	Mr. Vishwas Nangare-Patil IPS, Additional DIG, Maharashtra State-Police, Kolhapur Region.	To dream the impossible dream: Why did you come into this world?	26-06-2017

Academic Year 2017-18			
Sr. No.	Name of Eminent Speaker	Purpose	Date
1	Dr. Neelmia Iyer Sr. Principal Scientist, CSIR-NCL, Pune	Embedded Systems & Digital word evolution by ARM	29/07/2017

25. Seminars/ Conferences/Workshops organized and the source of funding
a. National

Academic Year	Category	Title	Funding Agency
2013-14	Workshop	Introduction to LATEX	Self-Sponsored
		Two-week ISTE workshop on "Analog Electronics"	IIT Bombay
	Seminar	Seminar On " Biometrics"	Self-Sponsored
		Seminar on "Robotics in industrial Applications"	Self-Sponsored
		Seminar on "PIC Microcontroller"	Self-Sponsored
2014-15	Conference	Conference on Computer Communication and Information Technology (CCIT- 2014)	Self-Sponsored
	Workshop	Two-week ISTE workshop on "Control System"	IIT Bombay
	Seminar	Seminar on "Image Processing and histogram Normalization"	Self-Sponsored
		Seminar on "-Advances in Microcontroller"	Self-Sponsored
		Seminar on "Advanced wireless communication and security"	Self-Sponsored
2015-16	Conference	Conference on Innovation in Computer and Electronics Engineering (ICEE–2015)	Self-Sponsored
	Workshop	Two days' Workshop on "e-Yantra Symposium"	IIT Bombay
		Two days' Workshop on "Introduction to Robotics"	Self-Sponsored
		Two week ISTE STTP workshop on "Technical Communication"	IIT Bombay
	Seminar	Seminar On " ARM cortex on M series"	Self-Sponsored
		Seminar on "Recent Trend in Aircraft Engineering"	Self-Sponsored
2016-17	Conference	International conference on Innovations in Engineering & Technology (CIET-2016)	Self-Sponsored
	Workshop	One day workshop on Image Manipulation Software	Self-Sponsored

2017-18	Workshop	One day IETE ISF workshop on Adobe Photoshop Software	IETE Society
		One day IETE ISF workshop on Arduino Microcontroller	IETE Society
		Two days' Workshop on IBM Watson IoT	IETE Society
		One day IETE ISF Workshop on Raspberry Pi with Python	IETE Society
		Workshop on IoT application using ESP 8266 Module	IETE Society
		Workshop on Component Identification and Soldering Techniques at NAVRANGE Balakashram	IETE Society
		Workshop on Graphical User Interface using MATLAB	Innovation Club
	Seminar	Seminar on Embedded System	Self-Sponsored
		Seminar on Introduction to Automotive Protocol	Self-Sponsored

b) International:

Name of Conference	Dates	Source of Funding
International Conference on Innovation in Engineering and Technology	30-31 December 2016	SPSPM's SKNSCOE

26. Student profile programme / course wise:

A) UG Details

Academic Year	Applications received	Selected (Total Admissions)	Enrolled		Pass %
			M	F	
2013-14	Online Admission Process done by DTE Mumbai, Govt. of Maharashtra	55	20	35	94.54
2014-15		67	24	43	98.50
2015-16		72	25	47	91.67
2016-17		69	24	45	98.11
2017-18		59	14	45	NA

*M=Male F=Female

B) PG Details

Academic Year	Applications received	CAP Admissions	Selected (Total Admissions)	Enrolled		Pass %
				M	F	
2012-13	24	24	24	11	13	83.33
2013-14	24	24	24	11	13	25.00
2014-15	20	20	20	09	11	40.00
2015-16	13	13	13	06	07	00.00

| 2016-17 | 06 | 06 | 06 | 02 | 04 | NA |
| 2017-18 | 06 | 06 | 06 | 02 | 04 | NA |

27. Diversity of Students

Academic Year	% of students from the same state	% of students from other States	% of students from abroad
2013-14	100	Nil	Nil
2014-15	100	Nil	Nil
2015-16	100	Nil	Nil
2016-17	100	Nil	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

A.Y.	GATE Qualified Students
2013-14	0
2014-15	1
2015-16	2
2016-17	1

29. Student progression

Student progression	Against % enrolled			
	2016-17	**2015-16**	**2014-15**	**2013-14**
UG to PG	8.70	9.72	14.93	18.18
PG to M.Phil.	NA	NA		
PG to Ph.D.	NA	NA		
Ph.D. to Post-Doctoral	NA	NA		
Self Employed	NA	1.38	2.99	7.27
Employed Campus selection Other than campus recruitment	73.91	54.16	47.76	38.18

30. Details of Infrastructural facilities
a) **Library**
b) **Internet facilities for Staff & Students**
c) **Classrooms with ICT facility**
d) **Laboratories**

a. Library

Sr. No.	Credentials	No. of Titles	No. of volumes
1	Books	276	1935
2	UG Project Report	79	79

3	PG Project Report	34	34
4	In-plant Training Report	111	111
5	E Journals	317	317
6	IETE Journal	18	32
7	News Letters	8	8
8	EFY Journal	12	12
9	Conference Proceedings	03	03
10	Magazines	03	77

b. Internet Facilities for Staff & Students

Wi- Fi Facility with 32 Mbps for students and the staff in the campus.

c. Classrooms with ICT facilities

Labs with ICT Facility
Number of classrooms = 04
Number of classrooms PG = 01
Number of Seminar Rooms = 01
Number of tutorial rooms = 01

All the classrooms are equipped with LCD projector with screen, Green Board, White Board, Fans, tubes, curtains and ICT facility. Seminar Hall with capacity of 150 students with ICT facility is available.

d. Details of Laboratories

Department has 11 well equipped laboratories which are as follows:

Sr. No.	Name of the lab	Area (m²)	Total Investment (in Rs.)	Major Equipments in Lab
1	Microwave Engineering	75	245847.00	Klystron based Microwave Bench-01 Measurement and characteristics of Gunn diode based Microwave Bench – 01 Digital Storage Oscilloscope – 01
2	Communication Engineering	75	1152739.02	Test Lab 5 in 1 – 01 GHz Spectrum Analyzer – 01 Digital Storage Oscilloscope – 01 Antenna System Analyzer – 01
3	Linear Integrated Circuits	75	297779.00	30 MHz Dual Trace Oscilloscope – 02 Projector – 01
4	ECAD	75	298141.48	Digital Storage Oscilloscope – 04
5	Project Lab	75	365182.19	PCB Coater, Exposure, Etching, Drilling and cutter – 01 each
6	Digital Signal Processing	75	214415.50	DSP Lab Version 2.0 Kit-05

7	Microprocessor & Microcontroller	75	102001.50	Universal Programmer-01
8	Digital Electronics	75	320493.71	Dual Trace Oscilloscoe-04
9	Software Lab	75	1214472.00	--
10	Embedded System Lab	75	1085503.00	PLC System-01, 3GHz Spectrum Analyzer with Tracking Generator, 60 MHz Digital Storage Oscilloscope
11	PG Research	75	8,20,365.00	MATLAB

31. Number of students receiving financial assistance from College, university, government or other agencies:

Sr. No.	Year	Category						Total
		OPEN/EBC	OBC	VJ/NT	SBC	SC	ST	
1	2013-14	155	36	19	07	11	--	228
2	2014-15	144	34	20	09	12	--	219
3	2015-16	121	28	14	05	15	--	183
4	2016-17	116	26	17	06	20	--	185

32. Details on student enrichment programmers (special lectures / workshops / seminars) with external experts:

Academic year 2013-14		
1.	**Value Addition Programs**	
1	Java Programming by Ashwath Infotech Solutions Pvt. Ltd., Solapur	55
2	Training on C#.NET by Ashwath Infotech Solutions Pvt. Ltd., Solapur	34
2.	**Guest Lectures**	
1	Guest Lecture on "Optical Fiber Manufacturing" by Mr. Laxman Shinde	39
2	Guest Lecture on "Embedded System/ VLSI" by Mr. Dr. B. P Ladgaonkar	26
3	Guest Lecture on "MATLAB & Simulink in Signal Processing" by Mr. Kirti Thakhur	44
4	Guest Lecture on "PLC programming" by Mr. Vijay Suryawanshi	24
5	Seminar on "PIC Microcontroller"	44
6	Seminar on "Robotics in Industrial Applications"	115
7	Guest Lecture on "Biometrics"	18
3.	**Workshop / Conferences organized**	
1	Two Week ISTE Workshop on "Computer Programming" by IIT Bombay.	03
2	Two Week ISTE Workshop On "Signal System" By IIT Kharagpur	01
3	Workshop on "Training and Identification of Master Trainers on Outcome Based Accreditation Process and Parameters"	01
4	Two-week ISTE workshop on "Analog Electronics" by IIT Mumbai	13
5	Workshop on "Signal and Image Processing Theory, Simulation and Application", by IIT Bombay	01
6	Workshop on "Database Management System", by IIT Bombay	03
4.	**Industrial Visits**	
1	JET Industries, Ichalkaranji	39
2	Shri Vinayak Electrosystems, Ichalkaranji	39
3	Tej Industries, Ichalkaranji	39

Academic year 2014-15		
1. Value Addition Programs		
1	CCNA by Seed Infotech Ltd., Pune	39
2	Communication Skills by Seed Infotech Ltd., Pune	55
3	Aptitude Preparation by Seed Infotech Ltd., Pune	81
2. Guest Lectures		
1	Guest Lecture on "Matlab Graphic User Interface" by Ms. Megha Gore	37
2	Guest Lecture on "Antenna Design and Optimization using 4NEC2X" by Mr. V. V. Ratnaparakhi	36
3	Guest Lecture on "Electronic Product Design" by Mr. Dr. V. L. Patil	74
4	Guest Lecture on "Passive RFID Tag Design" by Dr. Shankar Nawale	26
5	Guest Lecture on "Image Processing And Histogram Normalization"	127
6	Guest Lecture on "Advanced Wireless Communication and Security"	57
3. Workshop / Conferences organized		
1	Two days workshop on "Windows App Development" by Manage Code Cultivation, Pune	54
2	One days workshop on "Introduction to VHDL" by Mr. A. B. Jagadale, Mr. A. C. Pise, Ms. Suyana Kakade	37
3	One days workshop on "Proteus Software", by Pallavi Bhiware	43
4	Two days workshop on "PCB Layout Design" by Mr. Avinash Sawant and Miss. S. Patil (Pioneer Electro Systems)	40
5	Two week ISTE workshop on "Control System" by IIT Kharagpur	04
6	One day workshop on Advanced Communication & Measurement Techniques in RF	02
7	Conference on Computer Communication and Information Technology	20
8	One day workshop on, "Designing of LED Emergency Light System", by Mr. A. B. Jagadale	49
9	Conference on computer communication and Information Technology (CCIT-2014)	20
4. Industrial Visits		
1	Students visited ENERCON Windpowers Pvt. Ltd., Satara	28
Academic year 2015-16		
1. Value Addition Programs		
1	Training on APTITUDE by SEED InfoTech Solution Ltd for T.E(E&TC)	52
2. Guest Lectures		
1	"Value Added Course after B.E. (Embedded/VLSI)" by Mr. Kashinath Joshi	41
2	"AVR Microcontroller Programming" by Ms. Pallavi Bhiware	77
3	"Personality Development" by Mr. Bhingare (Dnyandip Academy)	90
4	Guest Lecture on "Broadband Communication" by Mr. Pushpa Bangare	61
5	Seminar on Advances in Microcontroller	63
6	Seminar: Recent Trends in Aircraft Engineering	80
3. Workshop / Conferences organized		
1	One day workshop on "Arduino Microcontroller Programming" by Mr. D.R. Patnaik	97

2	Two days' workshop on "PCB Designing" by Avinash Sawant (Poineer Electro Systems)	44
3	Three days' workshop on RF Component &Antenna, Design ,Fabrication & Measurement	01
4	Two week ISTE STTP workshop on "Technical Communication"	02
5	One week ISTE STTP workshop for coordinator on "Technical Communication" by IIT, Bombay	01
6	Guest lecture and hand on practical on ARM cortex on M series	144
7	Conference on Innovation in Computer and Electronics Engineering	20
4. Industrial Visits		
1	Students visited Vibrofeedtech and Vibro Automation Centre Pune	39
Academic year 2016-17		
1.	**Value Addition Programs**	
1	IoT with Python using Raspberry Pi by Aedifico Tech Pvt. Ltd., Delhi	28
2.	**Guest Lectures**	
1	"Recent trends on Programmable Logic Devices" by Mr. Shatrughna Ransumbhe	46
2	"Wireless Technologies" by Dr. Achala Deshmukh	61
3	"Guidance on Competitive Exam", by Mr. Pravin Kolhe	48
4	"Career Guidance and competitive exam preparation", by Mr. Ravindra Bhutada	97
5	Guest Lecture by Alumini on "Preparation for Campus Selection"	49
3. Workshop / Conferences organized		
1	One day workshop on "Image Manipulation Software" by Mr. Swami and Mr. Lokhande.	71
2	One day workshop on "Adobe Photoshop S/W Workshop" by Mr. Swami and Mr. Lokhande.	54
3	One day IETE ISF workshop on "Arduino Microcontroller" by Mr. Dhiraj Muttin	54
4	Two Days' IETE ISF Workshop on "IBM Watson IoT", by Mr.Amol Kulkarni	54
5	One day IETE ISF workshop on, "Raspberry Pi with Python" by Mr. Khamitkar Ravikant	107
6	Workshop on PCB Layout Design	20
7	International conference on Innovations in Engineering & Technology (CIET-2016)	71
4. Industrial Visits		
1	VibroFeedtech, Pune	25
2	Vibro Automation Center, Pune	25
3	Koyana Dam Hydroelectric Power Plant	35
Academic year 2017-18		
1.	**Guest Lectures**	
1	Guest Lecture on Introduction to Automotive Protocols	33
2	Guest Lecture on Embedded System	82

3	Guest Lecture on "Arduino Programming"	40
4	Guest Lecture on Cortex Technologies and its applications	43
5	Guest Lecture on Competitive Exams Preparation	53
6	Guest Lecture on Data Structure	65
7	Guest Lecture on Opportunities in Telecomm Industries	24
2. Workshop / Conferences organized		
1	Workshop on IoT application using ESP 8266 Module	49
2	Workshop on Component Identification and Soldering Techniques at Navrange Balakashram	20
3	Workshop on Graphical User Interface using MATLAB	24

33. Teaching methods adopted to improve student learning

Department practices blend of activities based on Project based learning in addition to traditional lecture-based learning.

To improve classroom learning, department has applied following practices:

- Teachers are allotted subject as per their choice and specialization
- Teachers are asked to prepare semester-long teaching plan and course file before start of the semester.
- Each teacher is asked to prepare soft copies of their notes and Power point presentations for the course content. Same is shared with the students by using FTP and Moodle and in the classrooms.
- To simplify Teaching Learning process, teaching aids are provided for conducting lectures.
- Videos and animations are used by faculty members to elaborate concepts as per the complexity of the topic.
- Lab experiments and homework in the form of assignments is given to students
- Lectures with self-learning sessions are added to the timetable of S.E.

Project Based and Active Learning:

- Department supports Project Based Learning (PBL) concept through which students are asked to work on the projects. Students are informed that learning in PBL environment is better that traditional lectures. Also, it is useful to develop technical and professional skills.
- Lab Innovations is another activity in line with PBL where students are allowed to work on their ideas. This activity also results in improved learning and creation of useful lab models.
- Also, students are motivated to work on ongoing research projects. Capstone projects are compulsory projects for the final year students.
- Project exhibition and various technical festivals provide an opportunity for active learning.
- Expert talks and Industry expert seminars are arrangedto bridge the knowledge gap.

Assessment Method:
- Various tests (Unit tests and Prelim, Online, etc.) are used for assessment.
- Mock tests are conducted to evaluate the students' understanding.
- Feedback from alumni and final year student are taken into account during the revision of the PEO's at the institute.
- Indirect assessment is done through campus interviews and performance of students in competitive exams like GATE, GRE, and CAT, etc.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

A.Y. 2013-14

Sr. No.	Date	Program	Details	No. of Students
1.	05/04/2014	NSS Volunteers activity at Matoshri Vrudhaashram	With team of Doctor for Diseases detective Programme for seiner citizen staying in an old age home.	14
2.	14/04/2014	NSS Volunteers participated in Chaitri Wari	Participation during Chaitri Wari for water distribution to pilgrims.	14

A.Y. 2014-15

Sr. No.	Date	Program	Details	Participation
1	14/07/2014	NSS Volunteers activity at Palakhi-tal after Ashadiwari	For cleanliness solid Waste Management and Disposal at Palakhital ,Wakhari	44
2.	2/09/2014 to 04/09/2014	NSS Volunteers participated in Kartiki Ekadashi wari	3 days camp arranged for awareness of maintaining health related issue and cleanness with the help of Revenue Dept. Pandharpur	44
3.	30/03/2015 to 31/03/2015	NSS Volunteer Activity at Vitthal Darshan Queue during Chaitri Ekadashi wari	Water Distribution for pilgrims at Vitthal Darshan Queue in Temple during 8.00 am to 10.00 pm	44

A.Y. 2015-16

Sr. No.	Date	Program	Details	Participants
1	01/11/ 2015	NSS Student arrange Blood Donation Camp at SKNSCOE, Pandharpur	Blood Donation camp arranged for donate blood for a community supply.	16
2	24/08/2015	NSS Volunteers activity at Palakhi Tal, Wakhari, Pandharpur	Activity for cleanliness, solid Waste Management and disposal at Palakhi Tal, Wakhari	16

A.Y. 2016-17

Sr. No.	Date	Program	Details	Participation
1	6/8/2016	Tree Plantation and cleanliness Activity at Palavi, Korti, Pandharpur	50 different types of tree Plantation activity implemented at Palavi (NGO) which work for Rehabilitation project of HIV/AIDS affected orphan children.	7
2	23/07/2016	NSS Activity After Aashadhi ekadashi at Bhatambure	Solid Waste Management Collection and Disposal at Bhatumbare	7
3	1/07/2016 to 16/07/2016	Student Participated During Ashadi Wari at Pandharpur For Helping Food and Drug Administration dept. Govt. of India	Awareness related with cleanliness and Proper Hygienic food Provide to people in wari	7

A.Y. 2017-18

Sr. No.	Date	Program	Details	Participation
1	27/08/2017 to 10/09/2017	Workshop on Component Identification and Soldering Techniques	Navrange Balakashram, Pandharpur	22
2	1/07/2017 to 4/07/2017	Assistance to Food and Drugs quality Assurance department, Govt. of Maharashtra	During Ashadi Wari, Pandharpur	2
3	10/07/2017 to 17/07/2017	Residential Camp for Soil conservation, environment awareness and Tree Plantation	Khandali Village, under Swachh Bharat Mission	9
4	08/09/2017	Awareness Programme about Organ Donation	Rotary Club, Pandharpur under NSS	5

35. SWOC analysis of the Electronics & Telecommunication Engineering Department and future plans

Strength Weakness Opportunity Challenges (SWOC) analysis used to identify the acquired and inherent strengths along with weaknesses of the department. Furthermore, it is also carried out to identify the opportunities to excel and improve, to negotiate the challenges faced by the department from the internal and external environment.

Strengths:
• Well-equipped laboratories and class rooms

- Support for the students through varies activities
- IETE Student chapter and innovation club
- Project based learning activities and support for EDP activity

Weaknesses:
- Lack of faculty members with Ph.D. Qualification
- Inadequate consultancy activities

Opportunities:
- Interdisciplinary approach in research activities
- Good opportunity for community projects

Challenges:
- Admission challenge due to recession in core industries

Future Plans:
- To establish an Energy research Centre
- To establish center for Project Based Learning.

Department of Mechanical Engineering
Evaluative Report of the Department

1. **Name of the Department:** Mechanical Engineering

2. **Year of Establishment:** 2010

3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):**

Course offered	Name of the course	Specialization	Intake	Year of Establishment
U.G.	BE	Mechanical Engineering	60	2010-11
	BE	Mechanical Engineering	60 (Additional Intake)	2011-12
	BE	Mechanical Engineering	60 (Additional Intake)	2013-14
P.G.	M.E.	Design Engineering	24	2012-13

4. **Names of Interdisciplinary courses and the departments/units involved:**

Following Interdisciplinary courses are involved in curriculum of programs:

Sr. No.	Class	Name of Interdisciplinary course	Department
1	S.E.	Engineering Mathematics-III	General Science & Engg.
2	S.E.	Computer Programming in C++	CSE
3	T.E.	Advanced Computer Programming-I	CSE
4	B.E.	Automatic Control Engineering	E&TC
5	S.E	Numerical Methods	General Science & Engg.
6	S.E.	Electronics and Electrical Engineering	E&TC and Electrical
7	T.E.	Advanced Computing Technique-II	E&TC
8	B.E.	Mechatronics	E&TC

5. **Annual/ semester/choice based credit system (programme wise):**
   UG: Semester- CBCS (SE), CGPA (TE and BE)
   PG: Semester- CBCS

6. **Participation of the department in the courses offered by other departments:**

Sr. No.	Class	Courses offered	Department
1	FE	Basic Mechanical Engineering	General Science & Engg.
2	FE	Engineering Graphics	
3	FE	Workshop Practice -I & II	
4	ME	Finite Element Methods	PG- Civil Engg.

7. **Courses in collaboration with other universities, industries, foreign Institutions, etc.**

Sr. No.	Name of the course	Class	Participating institution /industry	No. of students	Date
1	CATIA	T.E. Mech.	Deltasys Technologies, Pune	42	23/6/2014to 2/7/2014
2	CATIA	T.E. Mech.	Indo German Tool Room, Aurangabad	23	24/12/2015 to 4/1/2015
3	PRO-E	T.E. Mech.	Indo German Tool Room, Aurangabad	24	24/12/2015 to 04/01/2015
4	ANSYS	T.E. Mech. B.E. Mech.	Indo German Tool Room, Aurangabad	24	24/12/2015 to 04/01/2015
5	Integrated Advance Cad Course	S.E. Mech.	Indo German Tool Room, Aurangabad	31	24/12/2015 to 04/01/2015
6	CATIA	T.E. Mech.	Indo German Tool Room, Aurangabad	31	22/6/2015 to 04/07/2015
7	PRO-E	T.E. Mech.	Indo German Tool Room, Aurangabad	28	22/6/2015 to 04/07/2015
8	HYPERMESH	T.E. Mech.	Indo German Tool Room, Aurangabad	28	23/12/15 to 03/01/16
9	SOLIDWORKS	T.E. Mech.	Indo German Tool Room, Aurangabad	51	23/12/15 to 03/01/16
10	CATIA	T.E. Mech.	Indo German Tool Room, Aurangabad	28	23/6/2016 to 04/07/2016
11	ANSYS	B.E. Mech.	Mech. Dept. SKNSCOE	16	23/12/16 to 01/01/2017
12	TATA DRE	B.E. Mech.	TATA Technology, Pune	43	27/09/2016 to 08/04/2017

8. **Details of courses/programmes discontinued (if any) with reasons:**

Sr. No.	Course Discontinued	Duration	Year of Closure	Reason
1	UG- Mechanical Engineering (2nd shift)	4 Years	2017-18	Second shift timing was not suitable for the students of this region

9. **Number of teaching posts:**

	Sanctioned	Filled
Professors	06	02
Associate Professors	12	03
Asst. Professors	37	50
Total	55	55

10. Faculty profile with name, qualification, designation, specialization. (D.Sc./ D.Litt./Ph.D. / M. Phil. etc,,)

Sr. No.	Name	Designation	Qualification	Specialization	Experience In Yrs.	No. of PG students Guided
1	Dr. R. T. Vyavahare	Professor	Ph.D.	Mechanical Engg.	16	07
			M. E.	Design		
2	Mr. S. S. Kulkarni	Asso. Prof.	Ph.D. Pursuing	Mechanical Vibrations	13.5	08
			M.E.	Design		
3	Dr. S. G. Kulkarni	Asso. Prof.	Ph.D.	Composite Materials	14	03
			M.E.	Design		
4	Mr. S. D. Katekar	Asst. Prof.	Ph.D. Pursuing	Fracture Mechanics	14.5	09
			M.E.	Design		
5	Mr. N. L. Phule	Asst. Prof.	Ph.D. Pursuing	Heat Power	12	Nil
			M.E.	Heat Power		
6	Mr. M.B. Kulkarni	Asso. Prof.	Ph.D. Pursuing	Heat Power	14	Nil
			M.E.	Heat Power		
7	Mr. S. A. Sonawane	Asst. Prof.	Ph.D. Pursuing	Manufacturing	13	07
			M.E.	Design		
8	Mr. B. S. Gandhare	Asst. Prof.	Ph.D. Pursuing	Industrial Engg.	11	10
			M.E.	Tribology & Maintenance		
9	Mr. A. S. Aradhye	Asst. Prof.	Ph.D. Pursuing	Industrial Engg.	13	02
			M.E.	Design		
10	Mr. S. R. Koli	Asst. Prof.	Ph.D. Pursuing	Alternative Fuels	16	Nil
			M.E.	Automobile		
11	Mr. D. R. Giram	Asst. Prof.	M.E.	Heat Power	13.5	Nil
			B.E.	Mechanical		
12	Mr. H. S. Kulkarni	Asst. Prof.	M.E.	Heat Power	6.5	Nil
			B.E.	Mechanical		
13	Mr. S. M. Chavan	Asst. Prof.	M.E.	Design	07	Nil
			B.E.	Mechanical		
14	Mr. P. P. Kulkarni	Asst. Prof.	M.E.	Design	07	Nil
			B.E.	Mechanical		
15	Mr. S. S. Pathak	Asst. Prof.	M.E.	Manufacturing	12	Nil
			B.E.	Mechanical		

16	Prof .U. S. Gholap	Asst. Prof.	M.E.	CAD/CAM	5.5	Nil
			B.E.	Mechanical		
17	Mr. S. A. Bansode	Asst. Prof.	M. Tech.	Machine Design	04	Nil
			B.E.	Mechanical		
18	Mr.A. D. Jadhav	Asst. Prof.	M.Tech.	Energy Engg.	8.5	Nil
			B.E.	Mechanical		
19	Mr. S. S. Nagane	Asst. Prof.	M.E.	Design	4.5	Nil
			B.E.	Mechanical		
20	Mr. A. S. Kulkarni	Asst. Prof.	M.E.	Design	05	Nil
			B.E.	Mechanical		
21	Mr. B. S. Admile	Asst. Prof.	M.E.	Design	05	Nil
			B.E.	Mechanical		
22	Mr. M. M. Katkar	Asst. Prof.	M.E.	Design	04	Nil
			B.E.	Mechanical		
23	Mr. H. S. Deshpande	Asst. Prof.	M.E.	Design	05	Nil
			B.E.	Mechanical		
24	Mr. Y. D. Shinde	Asst. Prof.	M.E.	Design	03	Nil
			B.E.	Mechanical		
25	Mr. R. K. Shinde	Asst. Prof.	M.E.	Heat Power	6.5	Nil
			B.E.	Mechanical		
26	Mr. I. N. Pirjade	Asst. Prof.	M.E.	Design	01	Nil
			B.E.	Mechanical		
27	Mr. R. V. Dhokate	Asst. Prof.	M.E.	Design	4.5	Nil
			B.E.	Mechanical		
28	Mr. S. C. Mali	Asst. Prof.	M.E.	Design	03	Nil
			B.E.	Mechanical		
29	Mr. A. A. Bhadule	Asst. Prof.	M.E.	Automobile	13	Nil
			B.E.	Automobile		
30	Mr. M. D. Tamboli	Asst. Prof.	M.E.	Heat Power	04	Nil
			B.E.	Mechanical		
31	Mr. B. M. Shivgunde	Asst. Prof.	M.E.	Mechatronics	01	Nil
			B.E.	Mechanical		
32	Mr. S. V. Shaikh	Asst. Prof.	M.Sc.	Physics	03	Nil
			B.Sc.	Physics		
33	Mr. S. B. Kondi	Asst. Prof.	M.Sc.	Mathematics	03	Nil
			B.Sc.	Mathematics		
34	/Mrs. V. H. Karande	Asst. Prof.	M.Sc.	Chemistry	03	Nil
			B.Sc.	Chemistry		
35	/Mrs. N. M. Pathan	Asst. Prof.	M.Sc.	Physics	03	Nil
			B.Sc.	Physics		

36	/Mrs. V.B. More	Asst. Prof.	BCA	Computer Science	02	Nil
			M.Sc.	Chemistry		
37	Mr. J. S. Gore	Asst. Prof	M.Sc.	Physics	07	Nil
			B.Sc.	Physics		
38	Mr. D.B. Waghmare	Asst. Prof.	M.Phil., NET	Lib. Sci.	10	Nil
39	Mr. D. V. Navale	Asst. Prof.	M. Lib. Sci.,	Lib. Sci.	13	Nil
			M.A., M. P. Ed.	Physics		
40	Mr. V. V. Patil	Asst. Prof.	MCA	Computer Science	04	Nil
41	Mr. R. A. Borate	Asst. Prof.	BCA	Computer Science	02	Nil
			MCA	Computer Science		
42	Mr. M. D. Joshi	Asst. Prof.	M.E.	Heat Power	02	Nil
			B.E.	Mechanical		
43	Mr. S. B. Bole	Asst. Prof.	M. Tech	Manufacturing	10	Nil
			B.E.	Mechanical		
44	Mr. C. C. Pawar	Asst. Prof.	M.E.	Design	04	Nil
			B.E.	Mechanical		
45	Mr. S. B. Maharnavar	Asst. Prof.	M.E.(Pursuing)	Design	01	Nil
			B.E.	Mechanical		
46	Mr. O.N. Thigale	Asst. Prof.	M.E.	Thermal	06	Nil
			B.E.	Mechanical		
47	Mr. P.C. Dagade	Asst. Prof.	M.E.	Design	05	Nil
			B.E.	Mechanical		
48	Mr. A.P. Gaikwad	Asst. Prof.	M.E.(Pursuing)	Design	01	Nil
			B.E.	Mechanical		
49	Mr. G.K. Inamdar	Asst. Prof.	M.E.(Pursuing)	Design	01	Nil
			B.E.	Mechanical		

11. List of Visiting/Adjunct Faculty: 06

Sr. No.	Name of Faculty	Qualification	Experience (In Years)	Institute/Industry
1	Dr. P. V. Jadhav	Ph.D.	14	BHVUCOE, Pune
2	Mr. R. U. More	M.E. Design	12	Adlent India Pvt. Ltd., Pune
3	Mr. P.A. Jadhav	M. Tech. (Thermal)	05	TCS, Pune
4	Mr. Anand Shete	M.E. Design	12	Entrepreneur
5	Mr. J. P. Pawar	M.E. Design	11	Entrepreneur
6	Mr. M. K. Sawant	M.E. Design	13	Manager, KBL, Kirloskarwadi

12. Percentage of Lectures delivered, and practical classes handled [Program wise] by temporary Faculty: 5%

13. Student Teacher ratios:

Year	Students strength	Teacher(s)	STR
2013-14	414	26	15.92
2014-15	583	36	16.19
2015-16	665	41	16.21
2016-17	731	45	16.24
2017-18	736	49	15.00

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Support staff	Sanctioned	Filled
Technical staff	11	11
Administrative staff	04	04

15. Qualification of teaching faculty:

Sr. No.	Qualification	No. of Teaching faculty
1	Ph.D.	03
2	Ph.D. (Pursuing)	08
3	P.G.	41
4	P.G. (Pursuing)	03

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received :

Number of faculty with National ongoing project.	Amount Sanctioned (Rs.)
01	1,00,000.00

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

Department has received funding from IIT, Bombay, Institution of Engineers (India), Solapur University and SPSPM. Also, department has got financial support for students' projects.

a) **Sponsored Projects from Industries:**

A. Y.	Faculty	Title of the Project	Sponsoring Agency	Status of Proposal
2013-14	Mr. S.S. Kulkarni	Bearing system optimization in differential lock of skidder axle	John- Deer, Pune	Completed

2013-14	Mr. S.A. Bansode	Floor cleaning Machine	Pragmatic Sales & Services, Pune	Completed
2014-15	Mr. S.G. Kulkarni	Effect of Al_2O_3 addition in Al-356 alloy on mechanical properties	Vishal Industries, Pune	Completed
2014-15	Mr. B.S. Gandhare	Design and analysis of Pressure vessel by using MCDM	Sparkon Equipments & Projects, Sangola	Completed
2014-15	Mr. B.S. Gandhare	Experimental analysis of small wind turbine	GMV Engineering Services, Pune	Completed
2014-15	Mr. S.R. Koli	Edge detection technique using image processing in MATLAB	Top Gear Transmission, Satara	Completed
2014-15	Mr. P.A. Dhawale	Sugarcane Bud cutting machine	Matoshri Nursary, Pandharpur	Completed
2015-16	Mr. B.S. Gandhare	Design and analysis of sugar chopper blade	Utopian Sugars Ltd., Mangalvedha	Completed
2015-16	Dr. R.T. Vyavahare	An ergonomic evaluation of foundry workstation & suggesting improvements	Ashta Liners Pvt. Ltd., Ashta	Completed
2015-16	Mr. N.L. Phule	Thermosyphon heat pipe using ultrasonic sound wave	Pipe Tech Engineering Services, Pune	Completed
2015-16	Mr. N.L. Phule	Thermosyphon heat pipe using Nano particles	Pipe Tech Engineering Services, Pune	Completed
2015-16	Dr. R.T. Vyavahare	An ergonomic assessment of an industrial workstation & suggesting design modifications	Ankita Industries, Aurangabad	Completed
2015-16	Mr. S.A. Bansode	Performance Analysis of Coated & Uncoated Single Point Cutting Tool	Oerlikon Balzers Coating India Pvt. Ltd., Pune	Completed
2015-16	Mr. S.A. Sonawane	Optimization of WEDM for IN-625	Ruturaj Wire Cut, Shiroli MIDC, Kolhapur	Completed
2015-16	Mr. S.A. Sonawane	Optimization of WEDM for Ni-75	Ruturaj Wire Cut, Shiroli MIDC, Kolhapur	Completed
2016-17	Mr. B.S. Gandhare	Critical success factor of TQM in Agro process industries	Pandurang sugar factory, Shripur	Completed

2016-17	Mr. B.S. Gandhare	Design of the boiler pump maintenance	Shri Vithal sugar factory, Gursale	Completed
2016-17	Mr. S.A. Sonawane	Effect of WEDM Process Parameters on kerf width	Ruturaj Wire Cut, Shiroli MIDC, Kolhapur	Completed

A. Funding Received from IIT, Bombay

Academic Year	Name of Laboratory	Funding Received in Rs.
2015-16	Virtual Lab	2,81,155.00
	e-Yantra Lab	1,72,973.00

B. Funding Received from IEI and SUS

Academic Year	Name of Program	Funding Received in Rs.
2015-16	EDP Awareness Camp	7,000.00
	Advances in Manufacturing	21,000.00

C. SPSPM's Funding:

A. Y.	Faculty	Title of The Project	Amount in Rs.	Status of Proposal
2014-15	Mr. A.S. Aradhye	Manufacturing of Hybrid vehicle	25,000.00	Completed
2015-16	Mr. A.S. Aradhye	Manufacturing of Hybrid vehicle	32,000.00	Completed
2015-16	Mr. A.S. Aradhye	Manufacturing of Solar vehicle	36,990.00	Completed
2016-17	Mr. S. D. Katekar	Dynamic Analysis of Rotating Shaft Subjected to Slant Crack	13,450.00	Completed
2016-17	Mr. B. M. Shivagunde	Product development on 3D printer	10,000.00	Completed

18. Research Centre /facility recognized by the University: Nil

19. a) Publications per faculty:

Sr. No.	Faculty Name	No. of Paper published in Journal faculty/Student	No of Publication listed in International/ National Conference	Monographs	Chapters in books	Books Published	International Book With ISBN NO.	Citation Index	SNIP	SJR	h -Index
1	Dr. R. T. Vyavahare	03	02	--	--	01	--	26	--	--	03
2	Mr. S.S.Kulkarni	04	07	--	--	--	--	17	--	--	03
3	Dr. S.G. Kulkarni	05	07	--	--	--	--	33	--	--	03
4	Mr. M. B. Kulkarni	02	--	--	--	--	--	01	--	--	01
5	Mr. N. L. Phule	01	02	--	--	--	--	--	--	--	--
6	Mr. S.D.Katekar	06	03	--	--	--	--	06	--	--	02
7	Mr. S.A.Sonawane	02	03	--	--	--	--	13	--	--	02
8	Mr. B.S.Gandhare	06	13	--	--	--	--	10	--	--	01
9	Mr. A.S.Aradhye	05	18	--	--	--	--	07	--	--	02
10	Mr. S.R.Koli	02	01	--	--	01	--	01	--	--	01
11	Mr. D.R.Giram	01	--	--	--	--	--	01	--	--	01
12	Mr. H.S.Kulkarni	01	--	--	--	--	--	--	--	--	--
13	Mr. S.M. Chavan	01	--	--	--	--	--	--	--	--	--
14	Mr. P.P. Kulkarni	07	02	--	--	--	--	04	--	--	01
15	Mr. S.S.Pathak	02	--	--	--	--	--	--	--	--	--
16	Mr. U.S.Gholap	02	--	--	--	01	01	--	--	--	--
17	Mr. S.A.Bansode	01	02	--	--	--	--	--	--	--	--
18	Mr. A.D.Jadhav	01	--	--	--	01	--	--	--	--	--
19	Mr. S.S.Nagane	02	01	--	--	02	01	--	--	--	--
20	Mr. A.S.Kulkarni	01	--	--	--	--	--	06	--	--	02
21	Mr. B.S.Admile	02	01	--	--	--	--	07	--	--	01
22	Mr. M.M. Katkar	02	03	--	--	--	--	--	--	--	--
23	Mr. H. S. Deshpande	02	--	--	--	--	01	02	--	--	01
24	Mr. Y.D.Shinde	01	01	--	--	--	-	--	--	--	--
25	Mr. R.K.Shinde	--	02	--	--	--	01	--	--	--	--
26	Mr. S. B. Maharnavar	01	01	--	--	--	--	--	--	--	--
27	Mr. R. V.Dhokate	02	--	--	--	--	01	--	--	--	--
28	Mr. S.C. Mali	02	01	--	--	01	01	03	--	--	01
29	Mr. M.D.Tamboli	01	01	--	--	01	01	--	--	--	--
30	Mr. M.D. Joshi	04	---	--	--	--	--	--	--	--	--

31	Mr. I.N. Pirjade	01	01	--	--	--	--	--	--	--	--
32	Mr. C.C.Pawar	02	01	--	--	--	--	--	--	--	--
33	Mr. O.N.Thigale	02	02	--	--	--	--	--	--	--	--
34	Mr. P.C. Dagade	03	01	--	--	--	--	--	--	--	--

b) Books Published:-

Books with ISBN/ISSN numbers with details of publishers:

Sr. No.	Name of Author	Title of Book	ISBN NO.	Details of publisher
1	Mr. S. S. Nagane	Vibration Analysis of Rolling Element Bearing with Unbalanced Rotor	978-3-659-97001-6	LAMBERT Academic Publishing
2	Mr. R. V. Dhokate	Dynamic Analysis of Rotating Shaft Subjected to Slant Crack.	978-3-659-77677-9	LAMBERT Academic Publishing
3	Mr. M. D. Tamboli	Localized Cooling.	978-3-330-00664-5	LAMBERT Academic Publishing
4	Mr. A. D. Jadhav	Solar AC system	978-1-365-61302-9	LULU Publishing
5	Mr. S. C. Mali Dr. R. T. Vyavahare	Ergonomics	978-1-365-61494-1	LULU Publishing
6	Mr. U. S. Gholap	CAD/CAM	978-3-330-02393-2	LAMBERT Academic Publishing
7	Mr. Y. D. Shinde	Modal Vibration Analysis	978-1-365-61488-0	LAMBERT Academic Publishing
8	Mr. R. K. Shinde Prof S. R. Koli	Effect of Exhaust gas Recirculation with Soya oil & its blends on Diesel Engine.	978-1-365-61487-3	LULU Publishing
9	Mr. S.S. Nagane	Vibration Analysis	978-1-365-60705-9	LULU Publishing
10	Mr. C.C. Pawar	Effect on Strength of Involute Spur Gear Tooth by Considering Uncertainties in Geometry and Material Properties by using FEM	978-1-365-85660-0	LULU Publishing
11	Dr. S.G. Kulkarni Mr. S. R. Koli	Design and Analysis of Diffuser Augmented Wind Turbine	978-620-2-01265-2	LAMBERT Academic Publishing

20. **Areas of consultancy and income generated**:

Sr. No.	Year	Area of Consultancy	Name of Client	Organization	Funding in Rs.
1	2014	Vibration Analysis	Mr. Uttam Anuse	Walchand Institute of Technology, Solapur	3000.00
2	2015	Vibration Analysis	Mr. P.V. Deshmukh	N. B. Navale COE, Solapur	3000.00
3	2016	Vibration Analysis	Mr. Hemant Waikar	Fabtech Technical Campus, College of Engineering and Research, Sangola	3000.00
4	2016	Vibration Analysis	Mrs. Shruthi Mahendrakar	Walchand Institute of Technology, Solapur	2500.00
5	2016	Composite Material	Mr. Pravin Vijay Dhandore	SVERI's College of Engineering, Pandharpur	3000.00
6	2016	Composite Material	Mr. Sagar B. Porlekar	Kolhapur Institute of Technology, COE, Kolhapur	3000.00
7	2016	Composite Material-StirCasting	Mr. S.H.Bansode	NBN College of Engineering,Solapur	3000.00
8	2016	Vibration analysis and Balancing of CNC Machine	Mr. Harshal Kasabe	Dynamic Balancing, Pune	In Progress
9	2016	Vibration Analysis and Object Modelling	Mr. Raviraj Karale Mr. Prashant Pawar	Rio 3D Printers & Prototyping, Sangli	In Progress

21. Faculty as members in
a) **National committees b) International Committees c) Editorial Board**

National Committee	International Committee	Editorial Board/Reviewer
24	15	03

22. Student's project:

Sr. No.	Description	2013-14	2014-15	2015-16	2016-17
1	Percentage of students who have done in-house projects including inter-departmental/ Programme	87.50	88.57	85.45	89.66
2	Percentage of students placed for projects in organizations outside the institution i.e. in Research	12.50	11.42	14.54	10.34

	laboratories/Industry/other agencies				

23. Awards/ Recognitions received by faculty and students:
a) Awards/ Recognitions received by faculty

Sr. No.	Name of Faculty	Details of Awards / Recognitions	Organization
1	Dr. R. T. Vyavahare	Selected as reviewer for reputed journals like Elsevier and Inderscience	Elsevier and Inderscience Editorial Board
2	Mr. S. S. Kulkarni	Selected as reviewer for Hindawi Publication	Hindawi Publication Corporation
3	Dr. R. T. Vyavahare	Completed Ph.D. in Ergonomic Considerations in Machine Design	Solapur University, Solapur
4	Dr. R. T. Vyavahare	Selected as reviewer for International Journal of Industrial and Systems Engineering (IJRSE)	International Journal of Industrial and Systems Engineering (IJRSE)
5	Mr. A. S. Aradhye	Faculty Advisor For ISIE	RPM International Racing Circuit, Bhopal
6	Mr. S. D. Katekar	Faculty Advisor For ISIE	Bhopal, Madhya Pradesh
7	Mr. A. S. Kulkarni Mr. R. K. Shinde Mr. R.K.Shinde Mr. S.M. Chavan Mr. A.D.Jadhav	Involved in Staff-Exchange Program	Sinhgad Technical Education Society, Rwanda, Kigali Campus
8	Dr. S. G. Kulkarni	Completed Ph.D. in Processing characterisation and modeling of alumina fly ash and hybrid reinforcement in A356 matrix composite	NIT, Surat
9	Mr. B. S. Gandhare	Selected as reviewer for International Journal of Industrial Engineering: Theory, Applications and Practice.	International Journal of Industrial Engineering (IJIE)
10	Dr. R.T. Vyavahare	Selected as BOS member	SUS, Solapur

List of GATE Qualified Faculty members

Sr. No.	Name of Faculty	Year
1	Dr. R.T. Vyavahare	2000, 2002
2	Mr.S.A.Sonawane	2002

3	Mr. B. S. Gandhare	2001
4	Mr. S. A. Bansode	2011,2012,2016, 2017
5	Mr. Y. D. Shinde	2012
6	Mr. N. L. Phule	2017

Details of the patents filed by Faculty member

Sr. No.	Patent	Project / Product
1	Mr. M. B. Kulkarni Application No. 2834/MUM/2015 Dated 21/12/2015	System and method for biogas generation

b) Awards / Recognitions received by students:
Student Achievements in Co-curricular & Extra-curricular Activities

Academic Year	Co-curricular			Extra-curricular Activities			
	International Level / National Level	State Level	University /Institute Level	International Level / National Level	State Level	University Level	Institute Level
2013-14	16	0	0	0	0	0	7
2014-15	5	1	5	2	0	5	6
2015-16	7	3	4	8	5	9	6
2016-17	21	5	1	6	4	8	8
2017-18	9	0	13	0	0	4	0

University Rankers

Academic Year	Name of Student	Class	% Marks	University Rank
2014-15	Doke Hari	SE	80.75	4
2014-15	Shrishrimal Vishal	TE	80.63	1
2014-15	Bhosale Dhanaji	BE	78.93	5
2015-16	Jagtap Ashwini	SE	84.5	2
2015-16	Patil Shubham	SE	83.13	5

Students Selected for Fellowship in foreign Universities

Sr. No.	Name of the student	Fellowship
01	Nawale Parijat	Technical University, Sophia, Bulgaria
02	Keshwani Mitesh	
03	Shrishrimal Vishal	
04	Doshi Shubham	
05	Ghotage Chaitnya	
06	Lavate Akshay	
07	Kulkarni Tushar	
08	Matnale Vishal	
09	Fattepurkar Ankit	Ural Federal University , Russia

24. List of eminent academicians and scientists/ Visitors to the department:

Academic Year 2013-14			
Sr. No.	Name of Eminent Speaker	Purpose	Date
1	Dr. Badve B.R. Retd. Principal, RIT, Sakharale, Sangli.	Chief Guest, Engineer's Day	15/09/2013
2	Mr. Kishor Chandak MD Mantri-Chandak Constructions, Solapur.	Chief Guest, SPECTRUM 2K13	25/09/2013
3	Dr.Hegadi R.S. HOD-CSE Dept. Solapur University Solapur	Chief Guest, SPECTRUM 2K14	27/09/2014
4	Mrs. Mangaltai Shah Social Activist	Social Awareness	05/02/2014
5	Mr. Rajiv Khosala Vice President, Huawei Tele-communication Pvt. Ltd.	Talk on, 'Wearable and Presence of Mind in the Workplace'	16/02/2014
Academic Year 2014-15			
Sr. No.	Name of Eminent Speaker	Purpose	Date
1	Dr.Vishambar Chaudhari Founder-Oasis, Pune.	Talk on, 'Expectations from Today's Youth'	30/09/2014
2	Kaustubh Bhadbhade GM-HR Persistent Systems, Pune.	Placement Preparation Guidance	07/11/ 2014
3	Dr. S.S. Inamdar Managing Trustee/Secretary, Vishwaniketan, Mumbai.	Talk on, 'International Collaborations with Project Based learning'	28/03/2015
Academic Year 2015-16			
Sr. No.	Name of Eminent Speaker	Purpose	Date
1	Dr.Mukta Atrey Sr. Project Manager at IIT Bombay,NMEICT,T10kT	Chief Guest, Spectrum 2K15	24/09/2015
2	Mr.Devendra Fadanvis CM-Maharashtra State	Mission on, 'Namami Chandrabhaga'	01/07/2016
3	Dr.S.M.Sawant Dean-Student Development RIT Sakharale, Sangli.	Talk on, 'Intellectual Property Rights'	16/02/2016
4	Mr.S.A.Jeurkar Secerety-IEI, Solapur Chapter	Chief guest for Seminar on 'Advances in Manufacturing'	05/03/2016
Academic Year 2016-17			
Sr. No.	Name of Eminent Speaker	Purpose	Date
1	Dr. Ashok Khade MD-DAS offshore India Pvt. Ltd.	Talk on, 'Success Stories of an Industrialist'	14/07/2016

2	Mr. Sham Yemul Director- Intellisoft Computer Consultants Pvt. Ltd. Solapur.	Chief Guest, Spectrum 2K16	01/10/2016
3	Mr. Pravin Bhalerao MD-Euraka India Pvt. Ltd.	Chief Guest, Engineers Day Celebration	15/09/2016
4	Adv.Mrs.Aparna Ramtirthkar Social Activist	Talk on, 'Jara Asudya Bhan'	22/09/2016
5	Dr. Shivaji H. Pawar Ex.Vice Chancellor, D.Y. Patil Deemed University, Kolhapur	Talk on, 'Innovative technologies for rural development and their commercialization'	20/08/2016
6	Dr.Mukesh Singh Professor-Thapar University,Patiala.	Talk on, 'Research Methodology'	27/08/2016
7	Mr.Bala Iyar	MOU Signing Ceremony of Reliance Jio Infocomm Ltd. with SKN Sinhgad College of Engineering, Korti, Pandharpur	27/07/2016
8	Dr. Mr. S.P. Chavan Professor WCE, Sangali	Session on, 'Vibration Analysis and Consultancy Opportunities'	17/09/2016
Academic Year 2017-18			
1	Dr. Nilima Iyer, Sr. Principal Scientist, CSIR-NCL, Pune	Expert talk on "Mechatronics and Embedded Systems"	29/07/2017
2	Mr. Sagar Pawar, Sr. Engineer, KATALYST Tech., Pune	Chief Guest for Engineers' Day	15/09/2017

25. Seminars/ Conferences/Workshops organized and the source of funding
a) Seminars/conferences (National/International)

Sr. No.	Seminars/Conferences Organized	Level	Date	Source of funding
1	Recent Trends in Mechanical Engineering	National	13/12/2014	Self-Sponsored
2	Recent Advances in Mechanical Engineering Design	National	12/12/2015	Self-Sponsored
3	Recent Trends in Mechanical Engineering (Student)	National	05/03/2016	Self-Sponsored
4	One Day Seminar on Advances in Manufacturing	National	05/03/2016	IE (I) SLC sponsored
5	Recent Trends in Mechanical Engineering (Student)	National	04/03/2017	Self-Sponsored
6	Resonance	National	11/03/2017	Self-Sponsored
7	Innovation in Engineering and Technology	International	30/12/2016 to 31/12/2016	Self-Sponsored

b) Workshops:(National/International)

Sr. No.	Workshops Organized	Level	Date	Source of funding
1	General Vehicle Maintenance in association with Mahindra two wheeler	National	01/03/2014	Self-Sponsored
2	Biped Robotics workshop on Quad copter	National	27/02/2015 & 28/02/2015	Self-Sponsored
3	Three Days Entrepreneurship Awareness Camp	National	15/08/2015 to 18/08/2015	Self-Sponsored
4	Non Destructive Testing	National	22/08/2015 & 23/08/2015	Self-Sponsored
5	Three Days Entrepreneurship Awareness Camp	National	26/02/2016 to 28/02/2016	SUS Sponsored
6	Basics of vibration and FFT analyzer.	National	26/05/2016 to 28/05/2016	Self-Sponsored
7	Patent Filing	National	09/08/2016	Self-Sponsored
8	Arduino and Robotics	National	20/08/2016 & 21/08/2016	Self-Sponsored
9	Vibration Analysis and Consultancy Opportunities	National	17/09/2016	Self-Sponsored
10	3D printing	National	21/09/2016	Self-Sponsored
11	Arduino based path following Robot	National	11/02/2017	Self-Sponsored
12	Recent trends on Solar Energy	Inter-national	25/03/2017 to 26/03/2017	Self-Sponsored
13	Arduino based blue tooth controlled Robot	National	29/07/2017 to 30/07/2017	Self-Sponsored

26. Student profile programme/course wise:

a) UG Details:

Class & A. Y.	Applications received	Selected (Total Admissions)	Enrolled		Pass %
			M	F	
BE 2013-14		64	56	08	94.91
BE 2014-15	Admission Process done by DTE, Mumbai, Govt.of Maharashtra	137	133	04	92.68
BE 2015-16		197	193	04	98.43
BE 2016-17		227	224	03	86.78
BE 2017-18		193	183	10	NA

*M=Male F=Female

b) PG Details:

Academic Year	Applications received	Selected (Total Admissions)	Enrolled		
			M	**F**	**Pass %**
2013-14		24	23	01	66.67
2014-15	Admission Process done by DTE, Mumbai, Govt. of Maharashtra	24	23	01	41.67
2015-16		18	17	01	12.50
2016-17		09	07	02	NA
2017-18		11	11	00	NA

27. Diversity of Students:

Branch	Academic Year	%Students from same state	% Students from other state	% of students from abroad
Mech.	2013-14	100	0	Nil
	2014-15	99.55	0.45	Nil
	2015-16	100	0	Nil
	2016-17	100	0	Nil
	2017-18	98.60	1.40	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.?

Academic Year	Number of Students Qualified in National & State Competitive Examinations			
	GATE	**GRE**	**TOEFL**	**CAT**
2013-14	1	0	0	0
2014-15	4	0	0	0
2015-16	5	1	1	1
2016-17	7	1	1	0

29. Student progression:

Student progression	Against % enrolled			
	2013-14	**2014-15**	**2015-16**	**2016-17**
UG to PG	32.20	11.38	6.25	2.19
PG to M.Phil.	NA			
PG to Ph.D.	NA			
Ph.D. to Post-Doctoral	NA			
Employed Campus selection	54.23	74.80	67.19	45.61
Entrepreneurship/ Self-employment	6.78	3.25	2.08	0.44

30. Details of Infrastructural facilities :-
a) **Library**
b) **Internet facility for staff and students**
c) **Classrooms with ICT facility**
d) **Laboratories**

a) **Library:**

Sr. No.	Title	Details
1	No. of Titles	398
2	No. of Volumes	2443
3	No. of International Journals (e-Journals)	670
4	No. of Project Reports (UG)	162
5	No. of Project Reports (PG)	26
6	No. of In-plant training Reports	468
7	NPTEL videos	63
8	News Letters	08
9	Proceedings of Conference	02

b) **Internet facilities for staff and students:**
32 Mbps internet connection with Wi-Fi and LAN facility is available for the students and staff in the campus.

c) **Classrooms with ICT facility:**
Number of classrooms = 11
Number of seminar hall =01
Number of PG classroom=01
Number of tutorial rooms=04
Number of drawing halls=03

All the classrooms are equipped with Green board, LCD projector, Fans, Tubes, Benches, Window curtains and ICT facility. Seminar hall of capacity 200 students with ICT facility is also available.

d) **Laboratories:-**
Department has 21 well equipped laboratories as follows:

Sr. No.	Area in m²	Name of the Laboratory	Lab Investment (Rs.)	Name of Major equipment in Lab
1	66	Vibration Lab	13,90,164.00	FFT Analyzer, Vibration Exciter
2	85	Metallurgy	2,78,606.00	Trinocular Microscope, Double disc polishing machine model double disc
3	85	Manufacturing Process	1,46,363.00	Sand dryer, sand muller
4	264	Machine Shop	40,51,262.00	CNC Lathe Trainer, Milling machine

5	132	Fluid Machinery and Fluid Power	8,66,000.00	Pelton wheel of 1KW capacity with 5 HP supply pump, Francis Turbine of 3.7 KW capacity with 15 HP supply pump, Combined Setup for Basic Hydraulic Trainer & Gear Pump Test Rig, Pneumatic Trainer Circuit (Basic)
6	66	Refrigeration and Conditioning	2,47,793.00	Refrigeration Tutor, A/C Trainer, Vapour Absorption Refrigeration Tutor, Ice Plant Trainer
7	66	Applied Thermodynamics	1,96,020.00	Bomb Calorimeter, Steam Colorimeter
8	132	I.C. Engines	11,58,639.00	Computerized VCR engine setup, Morse Test set up, Cut section model of single cylinder Diesel engine Two stoke
9	132	Automobile Engineering	3,62,886.00	Working model for Demonstration of chassis cut Section of Maruti Van, Cut section model of fully floating real axle,
10	132	Heat and Mass Transfer	4,42,631.00	Forced Convection Apparatus, Heat Pipe Apparatus, Pin Fin Apparatus, Critical Heat Flux Apparatus, Parallel and Counter floe Heat Exchanger Apparatus, Condensation in drop film
11	132	Drawing Hall and Graphics lab	57,813.00	-
12	132	Theory of Machines	2,46,330.00	Universal Vibration Apparatus
13	132	Metrology and Mech. Measurement	6,72,699.00	Optical Flat Apparatus with monochromatic light source, Floating Carriage diameter measuring machine with thread measuring wire set, Mitutoyo make surface roughness tester, Profile Projector, 12" Diffused Light Polariscope
14	132	Robotics, Mechatronics and Automatic Control Engg.	3,60,841.00	Industrial PLC system
15	66	Computer Lab - I	11,58,774.00	-
16	66	Computer Lab– II	14,41,682.00	HP Plotter
17	66	Computer Lab–III	7,05,600.00	-
18	66	Computer Lab– IV	7,95,700.00	-
19	66	Computer Lab V	7,76,100.00	-

| 20 | 75 | Basic Mechanical Engineering | 4,21,107.00 | AVL 444 5-gas analyser with accessories, Test rig of two stage reciprocating air compressor |
| 21 | 66 | Power Plant Engineering and ESA Lab | 3,38,783.00 | - |

31. Number of students receiving financial assistance from College, university, government or other agencies:

Year	Type of Scholarship					Total	Total no. of Students
	EBC	OBC	NT	SBC	SC		
2013-14	125	76	57	11	37	414	414
2014-15	340	107	69	21	46	583	583
2015-16	420	115	73	16	41	665	665
2016-17	464	112	95	20	41	732	732

32. Details of student enrichment programmes (special lectures / workshops / seminars) with external experts:

Sr. No.	Name of Guest	Designation	Company	Topic of Lecture	Date of Lecture
1	Shri. T. G. Bhise	Retired Executive Engineer	MSEB	Personality Development	22/02/2014
2	Shri S.R. Patil	Assistant Professor	RIT, Sakharale	Recent Trends in Automotive Technology	22/02/2014
3	Dr. Vinayak V. Diwan	Assistant Professor	New Polytechnic, Kolhapur	Soft skill development & interview Technique	04/04/2014
4	D. Rajkumar	Trainer	ANSYS	ANSYS	28/04/2014
5	Mr. Pushkar Deshpande	MS Student	German University	Metallurgy & materials Engg.	11/09/2014
6	Mr. B. S. Yadav	Trainer	MPSC	Careers in MPSC, UPSC	10/04/2015
7	Er. Shekhar A. Jeurkar	Secretary	IE(I) Solapur	Heat Treatment	05/08/2015
8	Dr. S.S. Gawade	Professor	RIT, Sakharale	Design ofmachine component	12/08/2015
9	Mr. Nitin Kolekar	General Manager	DIC, Solapur	EDP Inauguration Speech	15/08/2015

10	Mr. Rajshekhar R. Shinde	Project Officer	MCED CEO, DIC Hotgi Road, Solapur	Entrepreneurship & Motivation	15/08/2015
11	Mr. Arvind D. Joshi	Journalist	Consultant Solapur	Entrepreneurship on a career	15/08/2015
12	Dr. M.V. Nhavakar	Management controller & Trainer	MCED, Solapur	Entrepreneurship skills- Goal setting & planning	16/08/2015
13	Mr. K.A. Mulla	Expert Lecturer	MCED	Personality Development & discover your unlimited power	16/08/2015
14	Mr.R. N. Waghmare	Expert Lecturer	MCED	Marketing Survey	17/08/2015
15	Mr. Nagesh Kokare	Expert Lecturer	MCED	General EDP Triggering Mechanism	17/08/2015
16	Mr. Mallikarjun Borigidde	Managing Director	Swift Infocom (I) Pvt.Ltd.	Awareness for GATE Exam	15/09/2015
17	Mr. S.A. Jeurkar	Secretary	IE(I) Solapur	Forging Technology	29/01/2016
18	Mr. S.M. Sawant	Professor in MechEngg.	R.I.T. Sangali.	IPR- Intellectual Property Right.	16/02/2016
19	Mr. R. R. Shinde	Project Officer	MCED, Solapur	Entrepreneurship	26/02/2016
20	Mr. Arvind D. Joshi	Journalist/consultant	Solapur	Entrepreneurship & E Personality	26/02/2016
21	Ms. Prabha Tivari	Expert Lecturer	MCED Solapur	Communication skill	26/02/2016
22	Mr.Waghmare Ramchandra	Expert Lecturer	MCED Solapur	Marketing & Motivation	27/02/2016
23	Mr. Vishnu Patankar	Administration	NITIE Mumbai	Entrepreneurship Development	27/02/2016
24	Mr. S.E. Thobde	Manager	D.I.C. Industries Centre	Govt. sponsored Scheme for set up Industries	27/02/2016
25	Mrs. Sneha Vinayak Kurri	Expert Lecturer	MCED Faculty	Entrepreneurial Skill	28/02/2016
26	Dr. Mahadev Nhavkar	Management Consultant	MCED Faculty	Business opportunities / skill/ management	28/02/2016
27	Dr. Joshi Sarang	Asst. Mr.	SBP COE., Indapur	Casting method	04/03/2016

28	Mr. Jeurkar S.A.	Secretary	IEI Solapur	Advance in Manufacturing Seminar	05/03/2016
29	Mr. A.M. Gadage	Asst. Mr.	AIT, Pune	Composite Manufacturing Aspects	05/03/2016
30	Mr. J.K. Shaikh	Asst. Mr.	Zeal College of Engg. & Research Pune.	Advanced in Inspection & Metrology	05/03/2016
31	Mr. Avinash G. Kambale	Asst. Mr.	SIT, Lonavala	Gas metal arc welding of 3C2 12 Steel	05/03/2016
32	Mr. Shrinivas Metan	HOD Mech.	Orchid COE Solapur	Mechatronics what, How& Why?	11/03/2016
33	Miss.Namrata Ghag	Product Manager	CAAD Center Training Service Mumbai	Emerging trends in Mechanical Engineering	22/07/2016
34	Mr.Shaikh Bidwai	Executive	CAD/CAM Guru, Pune	Simulation by Hypermesh	28/07/2016
35	Dr.Sandip A. Kale	Associate Professor (Mech.)	Trinity College of Engg. & Resreach, Pune	Patent Filing	09/08/2016
36	Mr. Vinayak B.Bhosale	Business Consultant	Solapur	Economic Planning and Literacy	27/08/2016
37	Mr. Raghuraj N. Deshpande	Faculty	Pune	SWOT analysis steps in SSI	29/08/2016
38	Mr. Balaso S. Dhumal and Mr. Vardhan D. Jadkar	Executive	Disha Computer Institute,Pandharpur	Modeling design using Auto CAD	01/09/2016
39	Mr. Hari V.Dhudhankar	Sr.Manager (R&D)	Jaipur Rajasthan	Career Guidance and Counselling	19/09/2016
40	Er. Shekhar A Jeurkar	Secretary IE(I), SLC	Solapur	Conventional Heat Treatments	23/09/2016
41	Er. Shekhar A Jeurkar	Secretary IE(I), SLC, Solapur	Solapur	Forging Technology	02/02/2017
42	Mr. Kedar S. Kulkarni	Career Consultant	Solapur	Career Guidance in merchant Navy	6/02/2017

43	Dr. Sandip A. Kale	Associate Professor (Mech)	Trinity College of Engg. & Research, Pune	Innovative Wind Turbines	28/02/2017
44	Mr. Shrikant Bidwai	Professional Trainer	CAD/CAM Guru, Pune	Hyperloop and Career in Designing	14/07/2017
45	Mr. Muzamil A. Shaikh	Professional Trainer	CAD Center Training Services, Mumbai	Design Software's and Opportunities in Industry	18/07/2017
46	Mr. S. A Jeurkar	Ex. Secretary	Praj Consultancy and Services, Solapur	Fe – Fe$_3$C diagram in Metallurgy	21/08/2017
47	Mr. Santosh Damodare	Entrepreneur and Consultant	Girija Enterprises, Pandharpur	Industrial Engineering and Management	23/08/2017
48	Dr. Pradeep A. Jadhav	Professor	B.H.V.U COE, Pune	Advances in Manufacturing	05/09/2017

Details of Industrial Visit

Sr. No.	Class	No. of students	Name of company	Date
1	T.E.Mech	66	Mahindra and Mahindra, Nashik	27/03/2014
2	T.E.Mech	66	IGTR, Aurangabad	28/03/2014
3	S.E.Mech	120	Kirloskar Brothers Ltd.,Kirloskarwadi	02/04/2015
4	S.E.Mech	120	Mahesh Forge, Kohlapur	02/04/2015
5	S.E.Mech	120	Marvelous Metals Pvt. Ltd.,Kohlapur	02/04/2015
6	T.E.Mech	240	IGTR, Aurangabad	02/04/2015
7	B.E.Mech	120	Ghatage Patil Transport Ltd., Kohlapur	02/04/2015
8	B.E.Mech	120	Dudha Pandhari Dairy, Pandharpur	01/10/2015
9	B.E.Mech	120	MSRTC Workshop ,Pandharpur	01/10/2015
10	T.E.Mech	240	Anusaya Auto Press, Pune	23/01/2016
11	T.E.Mech	240	S.M.ROLLING Works Pvt. Ltd, Pune	23/01/2016
12	B.E.Mech	240	Dudh Pandhari Dairy, Pandharpur	08/10/2016
13	B.E.Mech	240	MSRTC Workshop, Pandharpur	08/10/2016
14	B.E.Mech	21	Plastivision India-2017, Mumbai	20/01/2017
15	S.E.Mech	95	Mahesh Forge Kohlapur & Marvelous Metals Pvt. Ltd., Kohlapur	24/02/2017 & 25/02/2017

16	T.E.Mech	47	Kala Genset, Chakan, Pune & Anusaya Auto Press Parts Pvt. Ltd., Chakan, Pune.	24/02/2017 & 25/02/2017
17	S.E.Mech.	98	Shri.Vitthal Sahkari Sakhar Karkhana Ltd.Gursale, Pandharpur.	28/07/2017
18	B.E.Mech.	160	MSRTC Workshop, Pandharpur.	28/07/2017
		160	Solapur Jilha Dudh Utapadk Sangh (Milk Processing Div.)	28/07/2017
		160	Chaitanya Milk & Milk Products, Pandharpur.	28/07/2017

33. Teaching methods adopted to improve student learning:

A) To improve students learning, department has applied following practices:

- The subject allocation is done well in advance to ensure sufficient time for preparation to the faculty members.
- Teaching plans are prepared by faculty members to ensure completion of curriculum in stipulated time. The teaching plan execution is monitored by HOD and essential measures are taken as per need.
- The course files for allocated subject are prepared by faculty members which contain bit by bit notes for each chapter, university and model question papers, question bank for descriptive as well as multiple choice questions etc. In addition to this soft copy notes and power-point presentations for the course content (PPT/notes) are prepared and shared with the students on FTP/MOODLE server.
- The LCD presentations, models, videos, and animations are used by faculty members to elaborate concepts as per the complexity of the topic.
- Continuous assessment of assignments, term work etc. is performed to know preparation of students and identify slow learners by asking some questions. Accordingly the extra input is provided.
- The self-learning sessions are conducted to take the review of students understanding and guidelines are given for attempting the questions in examinations.
- The remedial classes are arranged by considering the university results of previous semester subjects.
- The mock practical oral examinations are conducted to ensure students preparation for university external oral/practical examinations.

B) Project Based Learning (PBL):

- Learning of theoretical concepts is enhanced by hands on experience in the form of mini projects under the activity "Project Based Learning". In this activity students undertake mini projects in second and third year for application of theoretical knowledge in practice.
- Evaluation of the projects is done in annual project exhibition "WEENGS". Students also get acquainted with projects developed by students from other institutes. This activity is thus useful for promoting professional and process skills.
- Lab Innovations are also achieved by creating working models of theoretical mechanisms to promote the better understanding of the subjects.

- Capstone projects are compulsory as per university curriculum for the final year students. The students are encouraged to undertake the industry sponsored projects.
- Guest lectures are delivered by experts from academia and industry to bridge the gap between curriculum and technical advancements in the industry.
- Till date 09 students got foreign fellowships for PBL.

C) Assessment Methods:
- The department conducts unit tests and preliminary examinations to assess the understanding of different subjects.
- As per SUS norms, "In Semester Evaluation (ISE)" marks are based on internal examinations and assignments written by students. Students are made aware of these norms and encouraged for the better performance.
- SUS has unique examination pattern containing 20% weightage for multiple choice questions. The question bank is provided to the students through MOODLE for their preparation.
- Online tests for each subject are conducted using MOODLE software and performance of the students is analysed to take corrective measures.
- Continuous assessment of practicals and term work is carried out and time to time marks are assigned to experiments/assignments.
- Assessment of project work is done during interaction with the project guide and the record is maintained in the form of project log book.
- Assessment of personality development traits is carried out through various activities like LCD presentation, Group Discussion sessions, and mock placement drives etc.
- The department employs transparent institutional policy for term work marks. This policy is conveyed to students through notice board at the beginning of semester.
- The term work is allocated on the basis of attendance, test marks, continuous evaluation of experiments and mock practical/oral examination and participation in various co-curricular and extra-curricular activities.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Academic Year 2013-14				
Sr. No.	Date	Details of Program	Location	Participation
1	19/02/2013	Cultural Programme & cleanness	'Palavi', Pandharpur	25
2	02/03/2013	Tree Plantation, cleanliness, Save-Girl & Rural Development	At Gadegaon, Tal.Pandharpur.	25
3	05/04/2014	Team of Doctor for disease detective programme	Matoshri Vrudhashram, Gopalpur, Pandharpur	20

Academic Year 2014-15

Sr. No.	Day and Date	Details of Program	Location	Participation
1	14/04/2014	Water distribution pilgrims	Chaitrawari, Pandharpur	30
2	14/07/2014	Solid waste management, disposal and Activity for cleanliness at Palkhi Tal after Aashadiwari	At: Wakhari, Tal:.Pandharpur	30
3	02/11/2014 To 04/11/2014	03 Days Activity for Pilgrims Health for making health awareness, Cleanliness, Pamphlet Distribution	Kartikiwari, Pandharpur	35

Academic Year 2015-16

Sr. No.	Date	Details of Program	Location	Participation
1	24/08/2015	Solid waste management, disposal and Activity for cleanliness at Palkhi Tal after Aashadiwari	At: Wakhari, Tal:.Pandharpur	40
2	01/11/2015	Blood Donation Camp	SKN SCOE, Pandharpur	36
3	30/03/2015, 31/03/2015	Distribution of water of to pilgrims coming for Vitthal Darshan	Pandharpur	35

Academic Year 2016-17

Sr. No.	Date	Details of Program	Location	Participation
1	01/07/2016 to 16/07/2016	Helping for "Food and Drug Administration Dept."Govt.of Maharashtra to check quality of foo inspection in various general stores	Aashadhiwari, Pandharpur	65

2	23/07/2016	Solid Waste management collection & disposal	Aashadhiwari, Bhatumbare, Tal.Pandharpur.	63
3	06/08/2016	Tree Plantation	Palvi, Pandharpur	61
4	26/01/2017	Street Play "Swatch Bharat Abhiyan, Save Girl, Asa Ha Bharat Kasa Ha Bharat"	At: Gadegaon, Tal:.Pandharpur, Dist:Solapur	50
5	19/02/2017	Shivjayanti Utsav, Health check-up Camp	At: Matoshri Vruddhashram Gopalpur, Tal: Pandharpur	150
6	22/02/2017	Speech on "Shivaji Maharaj Residence in Solapur District" by Shri.Gopalrao Deshmukh (Senior History Researcher)	SKNSCOE, Pandharpur	300
7	04/03/2017 to 05/03/2017	Fort Cleaning	Lohgad and Tikona fort, Pune	52

Academic Year 2017-18				
Sr. No.	Date	Details of Program	Location	Participation
1	8/07/2017	Helping for "Food and Drug Administration Dept."Govt.of Maharashtra to check quality of food in various general stores	Aashadhiwari, Pandharpur	40
2	10/07/2017 to 17/07/2017	Swacha Bharat Mission & Tree Plantaion	At: Khandli, Tal: Mohol, Dist: Solapur	50

35. SWOC analysis of the Mechanical Engineering Department and future plans:

Strength Weakness Opportunity Challenges (SWOC) analysis enables to recognize various strengths along with weaknesses of the department. Furthermore, it also gives an idea about the opportunities to excel and improve and to face challenges in current competitive scenario.

Strengths:
- Experienced and well qualified faculty members
- Two faculty members completed Ph.D and about 08 faculty members pursuing their Ph.D. degree from reputed institutes.
- Student centric learning based approach.
- Practical exposure through Project Based Learning.
- Execution of various co-curricular and extra-curricular activities to nurture the leadership qualities and team spirit.
- Implementation of various value addition programs to bring technical advancement in students.

- Co-operative and healthy working environment for extracting better performance from faculty members and students.
- State of the art laboratories to support curriculum.
- MoUs with the industries and academic institutions for industrial exposure, VAP, R& D and placement assistance.
- Number of research publications by faculty members.

Weaknesses:
- Inadequate availability of Professor Cadre at semi urban location.
- Inadequate consultancy & research activities.

Opportunities:
- Interdisciplinary approach in research & students projects.
- To develop centre of excellence in key areas

Challenges:
- To groom the students of comparatively lower merit at rural level up to industry expectations, especially on soft skill front.
- To get more industrial support for projects being at rural location.

Future Plans:
- To be recognized as Ph.D. research centre
- To develop centre for Project Based Learning research
- To establish centre for excellence in upcoming technologies like vibration analysis testing.
- To strengthen research & industry-institute interaction.

Department of First Year Engineering
Evaluative Report of the Department

1. **Name of the Department:** First Year Engineering

2. **Year of Establishment:** 2010

3. **Names of Programs / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):** UG

4. **Names of Interdisciplinary courses and the departments/units involved:**

   Following Interdisciplinary courses are involved in curriculum of programs:

Sr. No.	Name of Interdisciplinary course	Department
1.	Basic Mechanical Engineering	Mechanical Engineering
	Engineering Graphics	
	Workshop Practices	
2.	Applied Mechanics	Civil Engineering
	Basic Civil Engineering	
3.	Basic Electrical Engineering	Electrical Engineering
4.	Basic Electronics	E & TC Engineering
5.	Computer Programming	Computer Science & Engineering

5. **Annual/ semester/choice based credit system (program wise):** FE-Semester - Choice Based Credit System (CBCS pattern)

6. **Participation of the department in the courses offered by other departments:**

Sr. No.	Class	Courses offered	Department
1.	SE	Engineering Mathematics-III	Mechanical Engineering
			Electrical Engineering
			Electronics & Telecommunication Engg
			Civil Engineering
2.		Applied Mathematics-I	Computer Science& Engineering
3.		Numerical Methods	Mechanical Engineering
4.		Applied Mathematics-II	Computer Science& Engineering

7. **Courses in collaboration with other universities, industries, foreign Institutions, etc.:** Nil

8. **Details of courses/programs discontinued (if any) with reasons:** Nil

9. **Number of teaching posts for Undergraduate Program:**

	Sanctioned	Filled
Professors	00	00
Associate Professors	04	01

Asst. Professors	10	19
Total	14	20

10. Faculty profile with name, qualification, designation, specialization. (D.Sc./ D.Litt./ Ph.D. / M. Phil. etc.)

Sr. No.	Name of Staff	Qualification	Designation	Specialization	Experience in Years
1	Mr. A.I. Nikam	M.Sc., SET (Ph.D. Pursuing)	Assistant Professor & HoD	Chemistry	13
2	Dr. R.N. Badage	M.Com, MBA., Ph.D.	Associate Professor	F.M.& H.R.M.	10
3	Dr. S.R.Nalage	M.Sc., B.Ed., Ph.D.	Assistant Professor	Physics	13
4	Mr. S.G.Deshmukh	M.Sc., (Ph.D. Pursuing)	Assistant Professor	Physics	21
5	Mrs. S.K.Kotgiri	MBA,GDC&A (M.Phil. Pursuing)	Assistant Professor	Marketing Management	21
6	Mr. S.V. Pawar	M.Sc.	Assistant Professor	Mathematics	11
7	Mr. A.D. Dhane	M.Sc., B.Ed. (M.Phil. Pursuing)	Assistant Professor	Mathematics	9
8	Mr. Y.S. Padavale	M.Sc. B.Ed.	Assistant Professor	Mathematics	7
9	Mrs. P.M. Ghule	M.Sc., B.Ed	Assistant Professor	Chemistry	5
10	Mr. K.R. Patmase	M.A.	Assistant Professor	English	7
11	Ms. J.A. Shinde	M.Sc.	Assistant Professor	Mathematics	2
12	Mr. R. B. Sudnye	M.Sc.	Assistant Professor	Mathematics	2
13	Mr. H.S. Deshpande	M.E	Assistant Professor	Mechanical Engineering	5
14	Mr. A.S. Aradhye	M.E (Ph.D. Pursuing)	Assistant Professor	Mechanical Engineering	13
15	Mr. P.P. Kalubarme	M.E	Assistant Professor	Electrical Engineering	5
16	Mr.G.V. Linge	M.E	Assistant Professor	Electronics & Telecommunication	7
17	Mr. S.S.Ingole	M.E	Assistant Professor	Computer Science & Engineering	6

18	Mr. A.P. Kshirsagar	M.E	Assistant Professor	Civil Engineering	11
19	Mr.S.V.Bagal	M.Sc. (SET)	Assistant Professor	Mathematics	2
20	Mr.V.P.Bochare	M.Sc.	Assistant Professor	Mathematics	1

11. List of Senior Visiting Faculty: Nil

12. Percentage of Lectures delivered, and practical classes handled [Program wise] by temporary Faculty: Nil

13. Student Teacher ratios:

Year	Students' Strength	Teacher(s)	STR
2013-14	263	18	14.61
2014-15	208	14	14.92
2015-16	228	15	14.25
2016-17	276	19	14.52
2017-18	257	20	12.85

14. Number of academic support staff (technical) & administrative staff, sanctioned and filled:

Support Staff	Sanctioned	Filled
Technical Staff	02	02
Administrative Staff	02	02

15. Qualification of teaching faculty:

Sr. No.	Qualification	No. of Teaching faculty
1.	Ph.D. Completed	02
2.	Ph.D. Pursuing	02
3.	M.Phil. Pursuing	02
4.	P.G. Completed	14

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre /facility recognized by the University: Nil

19. Publications:

a. Publication per faculty:

Sr. No.	Name of faculty	Number of papers published in peer reviewed journals	Number of publications listed in International/National Conference	Monographs	Chapter in Books	Books Edited	Books with ISBN/ISSN numbers with details of publishers	Citation Index	h-index
1.	Mr. Nikam A.I.	01	01	--	--	--		--	--
2.	Dr. Badage R. N.	02	02	--	--	--		--	--
3.	Dr. Nalage S.R.	05	06	--	--	--	Refer 19 (b)	257	9
4.	Dr. Hiremath S.S.	11	03	--	--	--		--	--
5.	Mr. Deshmukh S.G.	06	07	--	--	--		--	--
6.	Mrs. Kotgiri S. S.	01	--	--	--	--		05	--

b. Books with ISBN/ISSN numbers with details of publishers:

Sr. No.	Name of Author	Title of Book	ISBN No.	Details of publisher
1.	Dr.V.S. Mangnale & Mrs.S.K. Kotgiri	Marketing Research	978-93-80725-32-1	Nirali Publications
2.		Marketing Applications & Practices	975-93-81237-12-0	
3.		Strategic Human Resource Management	97893-81595-66-4	
4.	Dr.V.S. Mangnale & Mrs.S.K. Kotgiri	Training & Development	97893-81595-66-4	Nirali Publications
5.		Distribution & Retail Management	978-93-81595-65-7	
6.	Mr.V.K.Walekar, Mr.A.S. Patil& Mr.A.I. Nikam	A Text book of Engineering Chemistry	978-93-5077-091-7	Techmax Publications
7.	Mr.S.G. Deshmukh & Dr.C.M. Kanamadi	A Text book of Engineering Physics	978-93-5077-083-2	Techmax Publications
8.	Dr. B.B. Singh Mr.T.D. Pawar Mr.I.M. Chandarki Mr.S.S. Hiremath	A Text book of Engineering Mathematics-I	978-93-5077-377-2	Techmax Publications

9.	Mr.I.M. Chandarki Mr.S.S. Hiremath	A Text book of Engineering Mathematics-II	978-81-8407-900-5	Techmax Publications
10.	Dr.V.B. Patil Dr.S.R. Nalage	PPy-NiO Hybrid Thin Film NO_2 Sensor:Development and Characterization	978-3-330-05861-3	LAMBERT Academic Publishing

20. Areas of consultancy and income generated: Nil

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards….

National committee Members	International Committee Members	Editorial Board Members/ Reviewer
01	08	02

22. Student projects:-
   a) Percentage of students who have done in-house projects including inter-departmental/program: NA
   b) Percentage of students placed for projects in organizations outside the institution: NA

23. Awards/ Recognitions received by faculty and students:

A) Awards / Recognitions received by faculty:

Sr. No.	Academic Year	Name of Faculty	Details of Awards / Recognitions	Organization
1.	2014-15	Mr.S.G. Deshmukh	Best Paper Award – ICEM 2014 conference	Satyabhama University, Chennai (Tamilnadu)
2.			Consolation prize – ICC Conference 2015	Govt College of Engineering, Bikaner, Rajasthan
3.		Dr.S.R. Nalage	Rank 1 in Pure science category (PPG) Avishkar 2014	Fabtech, Sangola
4.	2015-16	Dr.S.R. Nalage	Rank 1 in Pure science category (PPG) Avishkar 2015	College of Bio-technology, Wadala

B) Awards / Recognitions received by students:

   i. Academics:

Sr. No.	Academic Year	Name of Student	CGPA/SGPA
1.	2014-15	More Akash Bhalchandra	10
2.		Jagtap Ashwini Anil	10
3.	2015-16	Kulkarni Divya Pradeep	10

4.		Bhosale Vikram Pandurang	10
5.		Suryawanshi Shubham Mahadev	10
6.		Damodare Shubhankar Chintamani	10
7.		Dhobale Jyoti Laxman	10
8.		Walajkar Priya Dharma	10
9.		Deshmukh Akshay Sharad	10
10.		Gadage Prajkta Ganesh	10
11.		Deshpande Aishwarya Ajit	10
12.		Karve Gaurang Prabhakar	10
13.		Babar Trupti Rajaram	10
14.		Kulkarni Swamini Nandkumar	10
15.		Lengare Nilesh Sadashiv	10
16.	2016-17	Dhanawade Rahul Balaso	10
17.		Babar Trupti Rajaram	10
18.		Kaldhone Onkar Shriram	10
19.		Kulkarni Swamini Nandkumar	10
20.		Pise Mahesh Balasaheb	10
21.		Gaikwad Suyash Dhananjay	10
22.		Nazarkar Manthan Shrikrushna	10
23.		Shinde Snehal Ramhari	10
24.		Dethe Shekhar Dashrath	10
25.		Bhinge Prachi Santosh	10
26.		Jagtap Rushikesh Dipak	10
27.		Bandgar Karishma Uttam	10
28.		Kale Vaibhav Abasaheb	10

ii.   Co-Curricular:

Sr. No.	Academic Year	Name of Student	Details of Awards / Recognitions	Organization
1.	2016-17	Mr. Sunil Raut & Mr. Pritam Awatade	Rank 2 Blind Driver Spectrum 2K16	SKNSCOE, Korti, Pandharpur
2.	2014-15	Mr. Suraj Shinde	Rank 1 Avishkar 2014	Fabtech college of Engineering,Sangola.

24. List of eminent academicians and scientists/ visitors to the department:

Sr. No.	Name of Eminent Speaker	Purpose	Date
Academic Year 2013-14			
1.	Mr. Kishor Chandak MD Mantri-Chandak Constructions, Solapur	Chief Guest Spectrum 2k13	25/09/2013
2.	Mrs.Mangal Tai Shah Social Activist	Social Awareness	05/02/2014

Academic Year 2014-15			
1.	Dr.Vishambar Chaudhari Founder-Oasis, Pune	Expectations from Today's youth	30/08/2014
2.	Dr.S.S. Inamdar Managing Trustee/Secretary, Vishwaniketan, Mumbai	International Collaborations with Project Based learning	28/03/2015
Academic Year 2015-16			
1.	Dr.MuktaAtrey Sr. Project Manager at IIT Bombay,NMEICT,T10kT	Spectrum 2k15	24/09/2015
2.	Mr.DevendraFadanvis CM-Maharashtra State	Mission NamamiChandrbhaga	01/06/2016
Academic Year 2016-17			
1.	Mr. Sham Yemul Director-Intellisoft Computer Consultants Pvt. Ltd. Solapur	Spectrum 2k16	01/10/2016
2.	Adv.Mrs.AparnaRamtirthkar Social Activist	JaraAsudyaBhan	22/09/2016
3.	Dr.Shivaji H. Pawar Ex.Vice Chancellor, D.Y.Patil Deemed University	Innovative technologies for rural development and their commercialization	14/09/2016

25. Seminars/Conferences/Workshops organized and the source of funding:
a.   National:

Sr. No.	Academic Year	Category	Title	Funding Agency
1.	2013-14	Workshop	One day workshop on Personality Development	SKNSCOE
2.	2013-14	Workshop	One day workshop on Computer Literacy	SKNSCOE
3.	2015-16	STTP	Two Week ISTE-STTP on Engineering Physics	IIT-Bombay
4.	2014-15	Workshop	One day workshop on Personality Development	SKNSCOE
5.	2014-15	Workshop	One day workshop on Computer Literacy	SKNSCOE
6.	2014-15	STTP	Two Week ISTE-STTP on Environmental Studies	IIT-Bombay
7.	2015-16	STTP	Two Week ISTE-STTP on technical Communication for STEM faculty	IIT-Bombay
8.	2015-16	Workshop	One day workshop on Personality Development	SKNSCOE
9.	2015-16	Workshop	One day workshop on Computer Literacy	SKNSCOE
10.	2016-17	Workshop	One day workshop on Computer Literacy	SKNSCOE

11.	2016-17	FDP	Four Week AICTE approved FDP by IIT Bombay on Use of ICT in Education for Online and Blended Learning	IIT-Bombay
12.	2016-17	Seminar	One Day Seminar on Right to Information act &Anti Corruption act	SKNSCOE
13.	2016-17	Workshop	One day workshop on Personality Development	SKNSCOE
14.	2017-18	Workshop	One Day Workshop on Computer Literacy	SKNSCOE

b. International: Nil

26. Student profile program/course wise:
a) UG Details:

Academic Year	Applications received	Selected (Total Admissions)	Enrolled		Passing Percentage (%)
			*M	*F	
FE 2013-14	All Admission Process is Governed by DTE, Maharashtra	263	196	67	50.65
FE 2014-15		208	143	65	58.21
FE 2015-16		228	154	74	61.21
FE 2016-17		276	206	70	66.03
FE 2017-18		257	167	90	NA

*M = Male *F = Female
b) PG Details: NA

27. Diversity of Students:

Academic Year	% of students from the same state	% of students from other States	% of students from abroad
2013-14	100	Nil	Nil
2014-15	100	Nil	Nil
2015-16	100	Nil	Nil
2016-17	100	Nil	Nil
2017-18	99.2	0.8	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc?: NA

29. Student progression: NA

30. Details of Infrastructural facilities:

a. Library: Central
- No. of Titles: 364
- No. of Volumes: 1771

b. **Internet and telephone facilities:**
➢ 32 Mbps Lease Line with Wi- Fi Facility is available to staff and student
➢ Wi-Fi facility is provided for students and staff in the campus.
➢ All staff rooms and department office have EPABX system facility

c. **Classrooms with ICT facility:**
➢ Seven classrooms are equipped with Green Board, LCD projector, Fan, Tubes, Benches, Window curtains & ICT facility. Seminar Hall with capacity of 150 students with ICT tools.Two tutorial rooms and one drawing hall is available in department

d. **Laboratories:**
Department has three well equipped laboratories as follows:

Sr. No.	Name of the lab	Lab Investment in Rs.	Area m²	Major Equipments
1.	Engineering Physics	2,75,805.00	150	Hall Effect Experimental Setup, He-Ne Laser, Spectrometer, Polarimeter
2.	Engineering Chemistry	91522.00	75	Digital pH meter, Digital potentiometer, Digital colorimeter, Distillation plant, Digital weighing balance
3.	Computer Centre	32,22,057.00	150	UPS, D Link Switches(4), Language Lab Software, MS Licensing

31. Number of students receiving financial assistance from College, university, government or other agencies:

Academic Year	No. of Students receiving financial assistance							
	EBC	SC	ST	VJ	NT 1,2,3	OBC	SBC	Total
2013-14	77	20	00	06	37	57	12	209
2014-15	51	17	00	01	29	42	4	144
2015-16	67	21	00	05	32	51	10	186
2016-17	92	23	01	01	54	55	10	236

32. Details on student enrichment programs (special lectures / workshops / seminars) with external experts:

A.Y.	Date	Resource person	Topic	No. of Students Participated
2013 -14	15/10/2013	Mr.Vikrant Gailkwad	Narendra te Vivekanad - Ek Sangharsh	252
	10/01/2014	Mr.Ashok Kortikar	Swami Vivekanand	204

2014 -15	02/10/2014	Dr.Rajendra Jadhav	Sadyastitit Gandhi Vichar	199
2015 -16	12/01/2016	Mr.J.P.Desai	Swami Vivekananda	210
2016 -17	17/08/2016	Mrs. Maitreyee Keskar	Motivational Lecture	276
	20/09/2016	Mrs. Aprnatai Ramtirthkar	Jara Asudya Bhan	250
	03/01/2017	Dr.Dilip Nalgirkar	SahajYog	250
	12/01/2017	Mr. Vinay Patravale	Yogi Sanyasi- Swami Vivekanand	250
	07/03/2017	Mr. Ganesh Shinde	Aajacha Vidyarthi: Bhavishya Aani Aavhane	265
	08/03/2017	Dr. Nanda Patil	Aajachi Stree (Only for Girl Students)	65

33. Teaching methods adopted to improve student learning:

To improve classroom learning, department has adopted following practices:

- Subject distribution is done well in advance to ensure complete preparation by subject teacher as per their specialization and subjects are allocated to respective teachers.
- Subject teacher prepares teaching plan and course file before start of semester.
- Course file contains soft and hard copies of notes, PPTs, animations, etc. of course content
- To simplify Teaching-Learning process, teaching aids like models, videos, and animations are used to elaborate concepts as per the complexity of the topic.
- For continuous involvement of student homework in the form of assignment are given to the students and assessed time to time.
- For better understanding and involvement, self learning sessions are included in time table.
- Continuous assessment is done to assess the concept understanding and practical ability of the student.
- Unit tests and Prelim are conducted for students' assessment.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

- Paying tribute on National Festivals, Republic day and Independence day
- Celebration of Engineers' day and Teachers' day
- Blood Donation Camp
- Water distribution to pilgrims during AASHADHI WARI

35. SWOC analysis of the General Science and Engineering Department and future plans

Strengths:
- The First Year Engineering Department has team of well qualified, dedicated and experienced faculty members
- Well equipped laboratories
- Classrooms equipped with ICT based tools

Weaknesses:
- Lack of R& D activities

Opportunities:
- To establish a unique teaching learning pattern to fulfill expectation of all stake holders through continuous feedback and improvements.

Challenges:
- Low merit and diversity of admitting students.

Future Plans:
- To establish recognized research labs for Physics and Chemistry.
- Publications on Multidisciplinary research.
- Planning to receive research grants from various funding agencies like DRDO, DST, and AICTE.

Savitribai Phule Shikshan Prasarak Mandal's

SKN SINHGAD COLLEGE OF ENGINEERING

(Approved by AICTE, Recognized by DTE (MS) & Affiliated to Solapur University)

DTE Code : EN-6643

SPSPM
॥ ज्ञान दान पवित्र दान ॥

Outward No. : SKNSCOE / 2016·17 / 1063

Date : **3 0 MAR 2017**

Declaration by the Head of the Institution

I certify that the data included in this Self Study Report (SSR) is true to the best of my knowledge.

This SSR is prepared by the institution after internal discussion, and no part thereof has been outsourced.

I am aware that the Peer Team will validate the information provided in this SSR during the peer team visit.

Date: 30/03/2017

Place: Pandharpur

Principal
SKN Sinhgad College of Engineering
Korti, Pandharpur, Dist. Solapur

College of Engineering
Korti
Pandharpur
413304

Savitribai Phule Shikshan Prasarak Mandal's

SKN SINHGAD COLLEGE OF ENGINEERING

(Approved by AICTE, Recognized by DTE (MS) & Affiliated to Solapur University)

DTE Code : EN-6643

Prof. M. N. Navale	**Mr. Rohit M. Navale**	**Dr. K. J. Karande**
M. E. (Elect.), MIE(I), MBA	M. E. (Mech.)	M. Tech. Ph. D. (E&TC)
PRESIDENT	**GENERAL SECRETARY**	**PRINCIPAL**

Outward No. : SKNSCOE / 2016.17/1062   Date : 3 0 MAR 2017

Certificate of Compliance

This is to certify that **SKN Sinhgad College of Engineering, Pandharpur** 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: 30/03/2017

Place: Pandharpur

Principal
SKN Sinhgad College of Engineering
Korti, Pandharpur, Dist. Solapur.

Ref. No. : SUS/Affi/2017/131

Date : **18 MAR 2017**

Certificate

This is to certify that **SKN Sinhgad College of Engineering, Pandharpur-413304, Maharashtra, India** is affiliated to the **Solapur University, Solapur** since 2010 and recognized by AICTE and the following Courses/Subjects are taught in the said college as per approval:

Sr. No.	Name of the Course(s) and Duration	Affiliation		Period of Validity for the year(s)
		Permanent	Temporary	
(I)	BE – MECHANICAL ENGG. (4 yrs.)		Temporary	2015-16 & 2016-17 (2 yrs.)
(II)	BE – CIVIL ENGG. (4 yrs.)		Temporary	2015-16 & 2016-17 (2 yrs.)
(III)	BE – ELECTRICAL ENGG. (4 yrs.)		Temporary	2015-16 & 2016-17 (2 yrs.)
(IV)	BE - E & TC ENGG. (4 yrs.)		Temporary	2015-16 & 2016-17 (2 yrs.)
(V)	BE – CS & ENGG. (4 yrs.)		Temporary	2015-16 & 2016-17 (2 yrs.)
(VI)	BE - MECHANICAL ENGG. – 2nd SHIFT (4 yrs.)		Temporary	2016-17 & 2017-18 (2 yrs.)
(VII)	ME - STRUCTURAL ENGG. (2 yrs.)		Temporary	2016-17, 2017-18 & 2018-19 (3 yrs.)
(VIII)	ME - DESIGN ENGG. (2 yrs.)		Temporary	2016-17, 2017-18 & 2018-19 (3 yrs.)
(IX)	ME - ELECTRONICS ENGG. (2 yrs.)		Temporary	2015-16, 2016-17 & 2017-18 (3 yrs.)
(X)	ME - CS & ENGG. (2 yrs.)		Temporary	2015-16 & 2016-17 (2 yrs.)
(XI)	Ph.D. – ELECTRONICS ENGG.		Temporary	2015-16, 2016-17, 2017-18, 2018-19 & 2019-20 (5 yrs.)

(Prof. Dr. V. B. Patil)
Additional Charge
Affiliation 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

F.No. Western/1-2809729516/2016/EOA/Corrigendum-1   Date: 14-Jun-2016

Corrigendum

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

Sub: Extension of approval for the academic year 2016-17.

Ref :   Application of the Institution for Extension of Approval for the Year 2016-17

EOA Issued on	F.No. Western/1-2809729516/2016/EOA	30-Apr-2016
EOA Printed on	F.No. Western/1-2809729516/2016/EOA	26-May-2016
Corrigendum 1	F.No. Western/1-2809729516/2016/EOA/Corrigendum-1	14-Jun-2016

Sir/Madam,

In partial modification of the letter F.No. Western/1-2809729516/2016/EOA and in terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	Western	Application Id	1-2809729516
Name of the Institute	S K N SINHGAD COLLEGE OF ENGINEERING	Permanent Id	1-6343361
Name of the Society/Trust	SAVITRIBAI PHULE SHIKSHAN PRASARAK MANDAL	Institute Address	AT POST KORTI, TALUKA PANDHARPUR, PANDHARPUR - KARAD ROAD, DIST SOLAPUR - 413304, PANDHARPUR, SOLAPUR, Maharashtra, 413304
Institute Type	Unaided - Private	Society/Trust Address	AT POST -KAMALAPUR, TAL- SANGOLA, DISTRICT- SOLAPUR. PIN:413307,KAMALAPUR,SOLAPUR,Maharashtra,413307

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

Application Number: 1-2809729516   Page 1 of 4
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PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

To conduct following courses with the intake indicated below for the academic year 2016-17*

Application Id: 1-2809729516			Course	Full/Part Time	Affiliating Body	Intake 2015-16	Intake Approved for 2016-17	NRI Approval status	PIO / FN / Gulf quota Approval status	Foreign Collaborarion/Twining Program Approval status*
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER SCIENCE & ENGINEERING	FULL TIME	Solapur University , Solapur	24	24	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DESIGN ENGINEERING	FULL TIME	Solapur University , Solapur	24	24	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	ELECTRONICS ENGINEERING	FULL TIME	Solapur University , Solapur	24	24	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	STRUCTURAL ENGINEERING	FULL TIME	Solapur University , Solapur	24	24	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	Solapur University , Solapur	60	60	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Solapur University , Solapur	60	60	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRICAL ENGINEERING	FULL TIME	Solapur University , Solapur	60	60	NA	No	N
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS AND TELECOMMUNICATIONS ENGINEERI	FULL TIME	Solapur University , Solapur	120	120	NA	No	N

Application Number: 1-2809729516
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Page **2** of **4**
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			NG							
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	Solapur University , Solapur	180	180	NA	No	N
ENGINEERING AND TECHNOLOGY	2nd Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	Solapur University , Solapur	120	120	NA	No	N

*Corrigendum for-   1. Restoration of Intake

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

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

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

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

Prof. Alok Prakash Mittal
Member Secretary, AICTE

Copy to:
1. **The Regional Officer,**
   All India Council for Technical Education
   Industrial Assurance Building
   2nd Floor, Nariman Road
   Mumbai - 400 020, Maharashtra

2. **The Director Of Technical Education,**
   Maharashtra

3. **The Principal / Director,**
   S K N SINHGAD COLLEGE OF ENGINEERING
   AT POST KORTI, TALUKA PANDHARPUR, PANDHARPUR - KARAD ROAD, DIST SOLAPUR -413304,
   PANDHARPUR,SOLAPUR,
   Maharashtra,413304

4. **The Secretary / Chairman,**
   SAVITRIBAI PHULE SHIKSHAN PRASARAK MANDAL

Application Number: 1-2809729516   Page **3** of **4**
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AT POST -KAMALAPUR, TAL- SANGOLA,
DISTRICT- SOLAPUR.
PIN:413307,
KAMALAPUR,SOLAPUR,
Maharashtra,413307

5. **Guard File(AICTE)**

Application Number: 1-2809729516
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Letter Printed On:14 June 2016

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Nelson Mandela MargVasant Kunj, New Delhi-110067
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

F.No. Western/1-3322386688/2017/EOA　　　　　　　　　　　　　　　　Date: 10-Apr-2017

To,

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

Sub: Extension of approval for the academic year 2017-18

Ref: Application of the Institution for Extension of approval for the academic year 2017-18

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2016 notified by the Council vide notification number F.No.AB/AICTE/REG/2016 dated 30/11/2016 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Permanent Id	1-6343361	Application Id	1-3322386688
Name of the Institute	S K N SINHGAD COLLEGE OF ENGINEERING	Institute Address	AT POST KORTI, TALUKA PANDHARPUR, PANDHARPUR - KARAD ROAD, DIST SOLAPUR - 413304, PANDHARPUR, SOLAPUR, Maharashtra, 413304
Name of the Society/Trust	SAVITRIBAI PHULE SHIKSHAN PRASARAK MANDAL	Society/Trust Address	AT POST -KAMALAPUR, TAL- SANGOLA, DISTRICT- SOLAPUR. PIN:413307,KAMALAPUR,SOLAPUR,Maharashtra,413307
Institute Type	Unaided - Private	Region	Western

Opted for change from Women to Co-ed and Vice versa	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved and Vice versa	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable
Opted for Conversion from degree to diploma	No	Opted for Conversion from diploma to degree	No	Conversion (degree to diploma or vice-a-versa) Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2017-18

Application Id: 1-3322386688			Course	Full/Part Time	Affiliating Body	Intake Approved for 2016-17	Intake Approved for 2017-18	NRI Approval status	PIO / FN / Gulf quota/ OCI/ Approval status	Foreign Collaborarion/Twining Program Approval status*
Program	Shift	Level								
ENGINEERING AND	1st Shift	POST GRA	COMPUTER SCIENCE & ENGINEERING	FULL TIME	Solapur University, Solapur	24	24	NA	NA	NA

Application Number: 1-3322386688　　　　　　　　　　　　　　　　　　　　　　Page **1** of **4**
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TECHNOLOGY		DUATE								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DESIGN ENGINEERING	FULL TIME	Solapur University, Solapur	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	ELECTRONICS ENGINEERING	FULL TIME	Solapur University, Solapur	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	STRUCTURAL ENGINEERING	FULL TIME	Solapur University, Solapur	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	Solapur University, Solapur	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Solapur University, Solapur	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRICAL ENGINEERING	FULL TIME	Solapur University, Solapur	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING	FULL TIME	Solapur University, Solapur	120	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	Solapur University, Solapur	180	180	NA	NA	NA

The above mentioned approval is subject to the condition that

S K N SINHGAD COLLEGE OF ENGINEERING

 shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

Course(s) Applied for Closure by the Institute for the AY 2017-18:

Application Number: 1-3322386688

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Application Id: 1-3322386688			Name of the Course	Full/Part Time	Affiliating Body	Course Closure Status
Program	Shift	Level				
ENGINEERING AND TECHNOLOGY	2nd Shift	UNDER GRADUATE	MECHANICAL ENGINEERING : (Last Approved Intake 120)	FULL TIME	Solapur University, Solapur	Approved

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

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

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

Prof. A.P Mittal
Member Secretary, AICTE

Copy to:

1. **The Regional Officer,**
   All India Council for Technical Education
   Industrial Assurance Building
   2nd Floor, Nariman Road
   Mumbai - 400 020, Maharashtra

2. **The Director Of Technical Education**,**
   Maharashtra

3. **The Registrar**,**
   Solapur University, Solapur

4. **The Principal / Director,**
   S K N SINHGAD COLLEGE OF ENGINEERING
   AT POST KORTI, TALUKA PANDHARPUR, PANDHARPUR - KARAD ROAD, DIST SOLAPUR -413304,
   PANDHARPUR,SOLAPUR,
   Maharashtra,413304

5. **The Secretary / Chairman,**
   SAVITRIBAI PHULE SHIKSHAN PRASARAK MANDAL
   AT POST -KAMALAPUR, TAL- SANGOLA,
   DISTRICT- SOLAPUR.
   PIN:413307,
   KAMALAPUR,SOLAPUR,
   Maharashtra,413307

6. **Guard File(AICTE)**

Application Number: 1-3322386688
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Note: ** - Approval letter copy will not be communicated through post/email. However, provision is made in the portal for downloading Approval letter through Authorized login credentials allotted to concerned DTE/Registrar.

Application Number: 1-3322386688
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Page **4** of **4**
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