SELF STUDY REPORT

FOR

1st CYCLE OF ACCREDITATION

KARMAVEER BHAURAO PATIL COLLEGE OF ENGINEERING, SATARA

SADAR BAZAR, NEAR RTO OFFICE, SATARA
415001
www.kbpcoes.edu.in

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NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

The Rayat Shikshan Sanstha was founded by Late. Padmabhushan Dr. Karmaveer Bhaurao Patil in 1919. It happens to be one of the leading Educational organizations in Asia. The Rayat Shikshan Sanstha since its inception has focused to provide education to the poor, downtrodden segments of the society. Dr. Karmaveer Bhaurao Patil believed that education alone can eradicate untouchability, caste-hierarchy, money lending, superstitions, social and economic inequality. Accordingly, he started "Earn and Learn" Scheme which has been recognized as a unique tool in the area of mass education.

The Rayat Shikshan Sanstha manages around 630 schools of varied categories and 43 colleges in the streams of Arts, Commerce, Science, Law, Education, Engineering, Business Management etc. These institutions are functioning in different districts of Maharashtra and in Karnataka

Accordingly, under the ages of the Rayat Shikshan Sanstha, Karmaveer Bhaurao Patil College of Engineering was established in the year 1983. After due developments over the years, presently the institute offers four undergraduate programs, namely Mechanical Engineering, Civil Engineering, Computer Science and Engineering, Electronics Engineering with a total intake of 240 students. Also, the institute offers two postgraduate programs in Mechanical Engineering and Electronics Engineering with a total intake of 36 students. The institute is affiliated to Shivaji University, Kolhapur, Dr. Babasaheb Ambedkar Technological University, Lonere and approved by All India Council for Technical Education, New Delhi.

Vision

- **To be a premier institute enhancing the young minds into potential manpower through autonomy**

Mission

- **To produce promising technocrats through academic excellence.**
- **To strengthen industry institute interaction for mutual benefits.**
- **To promote research and development for catering to the needs of society at large.**
- **To inculcate social as well as ethical values amongst employees and students.**

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- **Strong Social foundation.**

- **Transparent Governance, and Administration.**

- **Committed, well qualified and competent faculty.**

- **Trained laboratory and supporting staff**

- **Student Centric teaching methodology with ICT engagement.**

- **Rich central library, E-library, and departmental libraries.**

- **Located in the heart of the city.**

Institutional Weakness

- **Location disadvantage for better Institution? Industry interaction.**

- **Being a Self-Financing Institution no funds from Government.**

- **Limited opportunities for consultancy services to industries.**

- **Being an affiliated institution, it is difficult to integrate the rapidly changing technology in the curriculum.**

- **Lower merit students at entry level.**

Institutional Opportunity

- **Creation of "Centers of Excellence" and "Industry-sponsored laboratories" in all departments.**

- **Collaborating with institutions and universities in joint research and continuing education.**

- **Enhance research activities through sponsored Research and Development projects.**

- **Networking with premier institutes and Industry for advanced, applied research and enhance academic interaction through MOUs.**

- **Extend alumni network to develop industry connect.**

Institutional Challenge

- **Getting more funded projects and consultancy.**

- **Increase in placement ratio.**

- **Attracting meritorious students at entry level**

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Karmaveer Bhaurao Patil College of Engineering is affiliated to Dr. BabasahebAmbedkar Technological University, Lonere and Shivaji University, Kolhapur. The institute follows the curriculum designed and developed by the affiliating University.

The faculty members contribute to the revision of curriculum as a member of Board of studies along with curriculum revision workshop organized by the affiliating university. Institution Academic calendar is prepared considering the academic calendar of Affiliating university which consists of unit test schedule, assessment schedule, university examination schedule, department, and Institution level activities, Co-curricular, extra-curricular activities. Every department prepares academic calendar in line with the academic calendar of Institute before the commencement of the academic year. In each semester, subject allotment to faculty is based on the choices received from faculty. Course files are maintained by the faculty members for the subjects handled which contains lecture notes, question bank, lab manuals etc. for the course handled by them in line with the university syllabus.

Subject knowledge of the students is evaluated through the Class test, Quiz, Seminar, Project based learning, Mini-project, Project work etc. Academic Monitoring is carried out by Dean Academics and respective Head of Department. Students are encouraged for the Internship and Industrial visits to provide real-time exposure.

To the mainstream, the cross-cutting issues and make the students thrive physically, mentally and emotionally institute carries out various activities like Save Girl child, Lek Ladaki Abhiyaan, Pollution Awareness, Computer Literacy in Public Schools, Tree Plantation, Cleanliness awareness etc.

Student's feedback and continuous assessment help to monitor the quality delivery of the curriculum and continuous improvement. The institute conducts certificate courses; value-added courses and add-on programs to inculcate a research attitude, soft skills, personality development, transferable and life skills to keep students up-to-date with the current global scenario. Collection of feedback from students, parents, teachers, alumni and other stakeholders based on curriculum through well-designed feedback forms and analyzed. Action taken on feedback report is resolved and implemented to enrich the curricular aspects.

Teaching-learning and Evaluation

The Institute adheres to the centralized admission process which is carried out by Directorate of Technical Education (DTE), Maharashtra. The students from various reserved categories are admitted as per the reservation policies of competent authority including supernumerary seats. Efforts are taken to identify slow and advanced learners by the initial assessment of their learning levels and initiatives are taken to satisfy their learning needs, by arranging the different activities.

The institution implements the student-centric teaching approach by planning and implementing quality policies for the teaching-learning process. Various content delivery methods, e-resources, and ICT tools are

adopted by the teachers to enrich the learning experiences of the students. The institution has proficient, devoted and experienced faculty members from diverse backgrounds. Teachers take the initiative to upgrade their knowledge and keep abreast with the latest developments. Teachers strive to inculcate creativity, scientific temper and research attitude in students.

Teachers serve as mentors to students and counsel them to improvise their overall performance. The institute has framed significant reforms in Continuous Internal Evaluation (CIE) to achieve academic excellence. The mechanism of internal assessment is transparent and robust covering all the learning domains. The institute has an examination grievance redressal system to deal with the grievance of students in a time-bound and efficient manner. The institution adheres to the academic calendar for the conduct of CIE. The attainment of learning outcomes of the students is evaluated by internal assessment methods, University examination results, the involvement of students in co-curricular and extracurricular activities and feedback from stakeholders.

Research, Innovations and Extension

The institute believes that research and education go hand in hand. The institute has Research Development and IPR Cell for monitoring research activities. It guides and motivates faculty and students to present and publish their research work in journals and conferences. The institute is organizing guest lectures, workshops on Intellectual Property Rights (IPR) which creates awareness among students and faculty. Students are promoted to undergo innovative projects and industry-sponsored projects through which support from industry is received in terms of financial and nonfinancial means.

In the last five years, three faculties are awarded Ph.D. and 11 are pursuing Ph.D. Institute organizes the national level conference (NCRTET), paper presentation, project competition, technical events under 'QUEST'. Faculty and students have secured awards from State and National level organization and published research contributions in national/international level conferences and journals.

Students participate in activities dealing with social and environmental issues under the guidance of Cultural and NSS Programme Management Committee. Activities such as blood donation camp, organ donation, health checkup are organized in collaboration with recognized bodies. Tree Plantation, Rallies, Street Play, Swachh Bharat, Yoga Day, *Kargil Vijay Divas*, Kranti Day, Constitution Day etc. are celebrated to inculcate values like Righteous conduct, human values, national integration, communal harmony and social cohesion in the students. Leadership, interpersonal skills, self-confidence develops among students by organizing cultural events and Annual Sports Competitions. The Institute has linkages for conducting various programmes such as Guest Lectures, Seminars, Workshops, Training, Field trips, Internships, Industry Sponsored Projects, and extension activities under various functional MOU's with reputed Academic Institutes, Industries, and NGOs.

Infrastructure and Learning Resources

The institute has maintained standards for infrastructure and learning resources. For smooth conduct of theory sessions spacious, luminous as well as good acoustic and well-ventilated classrooms are available. To conduct conferences, workshops, and seminars each department has separate Seminar Halls. Every department has well-equipped laboratories for experimentations and research. Separate faculty cabins are provided for the faculty. The institution has adequate facilities for sports such as ground, indoor and outdoor games, gym equipment, facilities for yoga and cultural activities.

Besides the conventional teaching aids, classrooms and seminar halls are equipped with ICT facilities viz. LCD projectors and internet connectivity. The adequate budgetary provision is made in the institute's budget for the infrastructure up gradation and maintenance.

The library is equipped with library management software such as Libreria and WEBOPAC through which the remote access to the library resources is provided, and separate e-library, computer facility with internet connectivity is provided in the library to provide the access to different e-resources. The institute provides access to the e-learning resources from NPTEL E-journals and E-books from all the branches. To disseminate e-books to the students and faculty the open source software, Calibre is used. Book bank facility is made available for all students.

The institute has hostel facility for girls and boys. Store and Xerox center are available on the campus. Ramp and lift are available for differently abled students.

The Institution has 50 MBPS leased line and Wi-Fi for internet connection to provide quality bandwidth to all the students, faculty in the classrooms, labs, faculty room, and administrative office. The IT infrastructure of the institute is developed and maintained by the IT Cell of the institute that includes the network design, deployment, installation, maintenance, and website hosting and maintenance. The Institute host LMS content through MOODLE and FTP server for effective teaching-learning process. The institute has established the systems and procedures for maintaining and utilizing physical, academic and support facilities such as laboratory, library, computers, classrooms etc. which is followed for the maintenance purpose.

Student Support and Progression

The students receives financial support in the form of scholarships, free ships, and EBC from the Government of India and Government of Maharashtra. During last five years 65% students are benefited through these financial support schemes. Along with Government scholarships and free ships, financial support is provided by institute in collaboration with various industries.

For the holistic development of students institute organizes guest lectures, seminars, and workshops on career counseling, preparation of competitive examinations and soft skill development through Career Development Cell and Training and Placement Cell. Institute promotes Vocational Education Training programs for enhancement of practical skills.

Institute organizes sessions on Yoga and Meditation to keep the body and mind healthy and happy. Institute strengthens the slow and fast learners through remedial coaching and personal counseling. The institute provides facility of Language laboratory to enhance the soft skills of the students. The Bridge courses are organized by the department to cater the requirement of the program.

In order to ensure transparency, preventing unfair practices institute has student grievance redressal committee, anti-ragging committee and internal complaints committee. The institute organizes and promotes the students to actively participate in sports and cultural activities.

The institute has a registered Alumni association, the alumni contributes in terms of expert lectures, seminars, workshops sponsorships for project those who are entrepreneur. A culture of student's involvement and participation is developed in order to facilitate the conduction of curricular, Co-curricular and extra-curricular activities.

Governance, Leadership and Management

The vision and mission of the institute have been framed by giving due consideration to the views and suggestions of stakeholders. The democratic management of parent institution Rayat Shikshan Sanstha is governing this institute through the Board of Governors and The College Development Committee. The visionary leadership is viewing this institute to be an Autonomous institute and sets the mission in tune with. The governance of the institute is through active participation of faculty and staff of the institute, through various functional committees.

The Organization structure shows the functional structure, administrative and academic bodies, and control levels of institute. Policy implementation is through e-governance in the area of planning, administration, finance and accounts, students' admissions and support with the use of customized ERP software and institutes website that also offers grievance redressal mechanism.

Faculty is empowered through various measures taken by the institute for the welfare of faculty and staff by providing financial support tor faculty development, conducting training programmes, deputing faculty and staff for various training programmes and elevating moral and capabilities of faculty and staff to mentor students for their betterment. They are financially supported through various schemes to take care of emergancies and future. Institute appraises the performance of faculty and staff through a performance appraisal system that motivates the faculty and staff.

This is self-financed non aided private institute. The available funds are carefully planned and allocated through annual budget with due approval from governing body and the parent institution. Transperancy is maintained by involving committees during budget and expenditure. The accounts are audited internally and externally by auditors. The strategies are planned to mobilize funds from Industry, organizations, alumni, and donors to be used for laboratory development, supporting deprived students' education.

The institute has setup IQAC that constantly takes initiatives for improvement of Quality of education, services and institutes performance. The IQAC monitors and suggests the corrective actions, takes initiatives for quality awarenwss and improvements.This leads in performance improvement. Various practices are experimented that leads to improvement in faculty, staff, administration, infrastructure for upliftment of the students.

Institutional Values and Best Practices

The institute promotes gender equity by providing equal opportunity to male & female students to organize and participate in gender equity awareness and promotion programmes. The safety measures are taken by providing the facility of the CCTV surveillance and security guards. For the counseling of the girl students, the counseling session, seminar, and workshops on women's safety and women empowerment are organized in the institute. The institute has anti-ragging squad and committee to prevent the ragging in the campus, and grievance cell to prevent undue incidences.

Institute is having alternate energy initiatives to save energy and a waste management mechanism for solid waste management and E-waste management.

Solid waste management is categorized in dry waste and wet waste. The dry waste is further separated into paper waste, plastic and wrappers are collected, separated and managed effectively. The E-waste from the

different departments is collected, bifurcated and handed over to E-waste collector for recycling.

The institution has rainwater harvesting structures, to harvest the rainwater. The green audit is conducted regularly. The institute has pedestrian roads and shady trees with the clean and pollution free campus. Institute discourages the use of plastic and promotes paperless office. Sufficient facilities are available for Divyangjan.

Institute is helping the local community by different means. The institute has defined the code of conduct for the faculty, staff, and students, and organizes activities to increase consciousness about national identities and symbols by celebrating various national days, birth and death anniversaries of great Indian personalities. The institute organizes programmes to promote human values and professional ethics.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	KARMAVEER BHAURAO PATIL COLLEGE OF ENGINEERING, SATARA
Address	Sadar Bazar, Near RTO Office, Satara
City	Satara
State	Maharashtra
Pin	415001
Website	www.kbpcoes.edu.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal(in-charge)	Shivajirao Mahadeo Sangale	02162-230636	9881976704	02162-235767	office@kbpcoes.edu.in
Associate Professor	Dilip Sampatti Aldar	02162-233005	9226814409	02162-235290	deanac@kbpcoes.edu.in

Status of the Institution	
Institution Status	Self Financing and Private

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minroity institution	No

Establishment Details

Date of establishment of the college	22-09-1983

University to which the college is affiliated/ or which governs the college (if it is a constituent college)

State	University name	Document
Maharashtra	Dr. Babasaheb Ambedkar Technological University	View Document
Maharashtra	Shivaji University	View Document

Details of UGC recognition

Under Section	Date	View Document
2f of UGC		
12B of UGC		

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

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	29-04-2018	12	Extension of Approval to be obtained every year from AICTE Delhi

Details of autonomy

Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	Yes
If yes, has the College applied for availing the autonomous status?	No

Recognitions	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

Location and Area of Campus				
Campus Type	**Address**	**Location***	**Campus Area in Acres**	**Built up Area in sq.mts.**
Main campus area	Sadar Bazar, Near RTO Office, Satara	Semi-urban	3.18	13446.06

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	**Name of Programme/Course**	**Duration in Months**	**Entry Qualification**	**Medium of Instruction**	**Sanctioned Strength**	**No.of Students Admitted**
UG	BTech,Civil Engineering	48	H.S.C.	English	60	49
UG	BTech,Electronics Engineering	48	H.S.C.	English	60	21
UG	BTech,Computer Science And Engineering	48	H.S.C.	English	60	52
UG	BTech,Mechanical Engineering	48	H.S.C.	English	60	57
PG	Mtech,Electronics Engineering	24	B.E. OR B.TECH	English	18	4
PG	Mtech,Mechanical Engineering	24	B.E. OR B.TECH	English	18	4

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				6				19				41
Recruited	0	0	0	0	17	2	0	19	14	7	0	21
Yet to Recruit				6				0				20
Sanctioned by the Management/Society or Other Authorized Bodies				0				0				26
Recruited	0	0	0	0	0	0	0	0	9	17	0	26
Yet to Recruit				0				0				0

Non-Teaching Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				29
Recruited	27	2	0	29
Yet to Recruit				0

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Technical Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				16
Recruited	16	0	0	16
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	6	1	0	1	0	0	8
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	11	1	0	13	7	0	32

Temporary Teachers									
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**		
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	1	0	0	1
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	8	17	0	25

Part Time Teachers									
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**		
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	**Male**	**Female**	**Others**	**Total**
	0	0	0	0

Provide the Following Details of Students Enrolled in the College During the Current Academic Year

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	656	1	0	0	657
	Female	532	1	0	0	533
	Others	0	0	0	0	0
PG	Male	7	0	0	0	7
	Female	13	0	0	0	13
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	24	30	30	28
	Female	15	23	24	21
	Others	0	0	0	0
ST	Male	2	0	0	0
	Female	0	2	0	0
	Others	0	0	0	0
OBC	Male	55	68	82	72
	Female	38	57	48	59
	Others	0	0	0	0
General	Male	99	94	101	144
	Female	111	89	93	105
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		344	363	378	429

3. Extended Profile

3.1 Program

Number of courses offered by the institution across all programs during the last five years

Response: 783

File Description	Document
Institutional Data in Prescribed Format	[View Document]

Number of programs offered year-wise for last five years

2017-18	2016-17	2015-16	2014-15	2013-14
06	07	07	07	07

3.2 Students

Number of students year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1250	1381	1478	1579	1689

File Description	Document
Institutional Data in Prescribed Format	[View Document]

Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
120	180	180	180	180

File Description	Document
Institutional data in prescribed format	[View Document]

Number of outgoing / final year students year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
350	370	380	384	373

File Description	Document
Institutional Data in Prescribed Format	View Document

3.3 Teachers

Number of full time teachers year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
88	99	102	100	89

File Description	Document
Institutional Data in Prescribed Format	View Document

Number of sanctioned posts year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
94	102	102	100	98

File Description	Document
Institutional data in prescribed format	View Document

3.4 Institution

Total number of classrooms and seminar halls

Response: 25

Total Expenditure excluding salary year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
221.98	260.49	256.55	297.06	336.39

Number of computers

Response: 702

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

1.1.1 The institution ensures effective curriculum delivery through a well planned and documented process
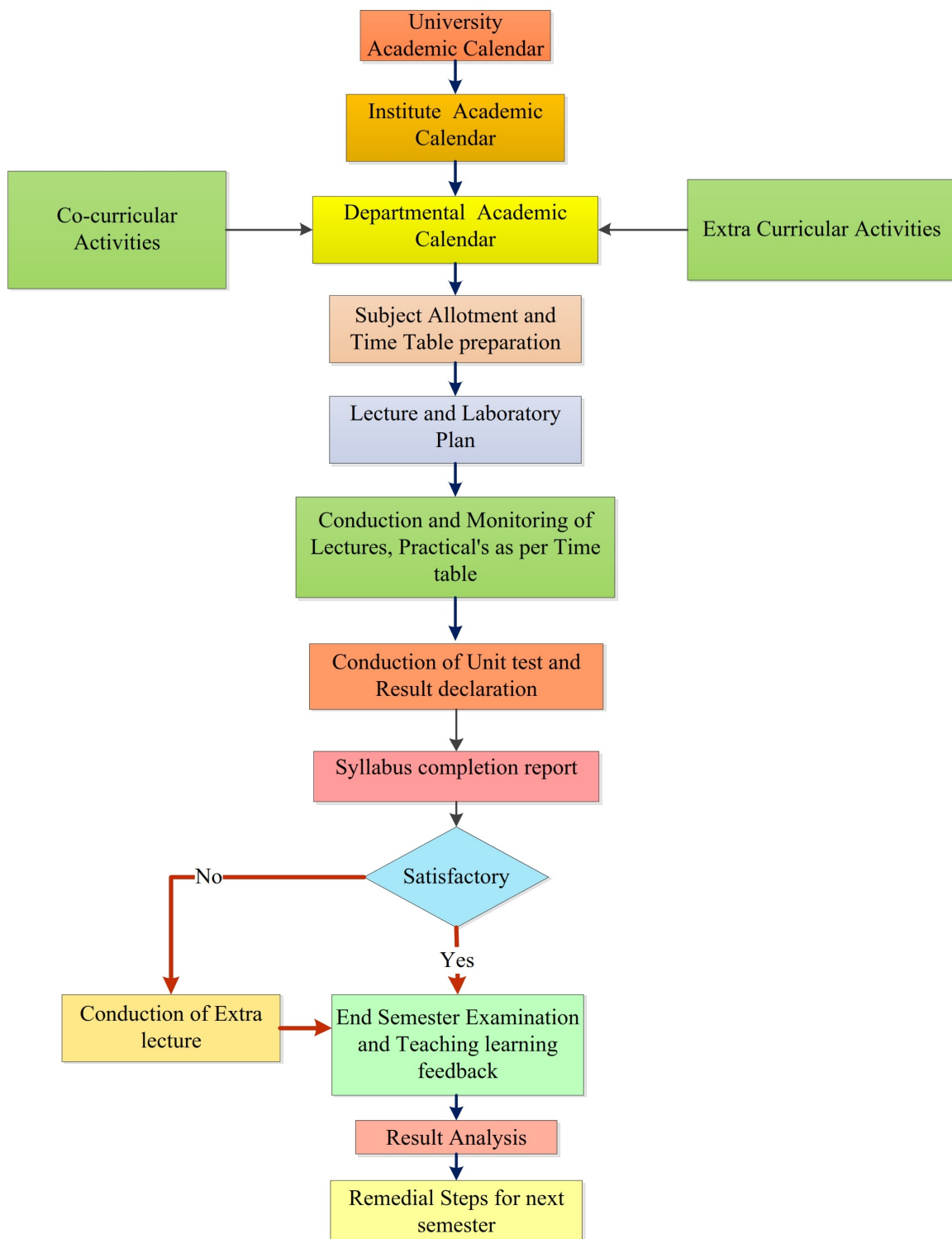
Response:

The Institution has developed and practices its extensive action plan for effective implementation of the curriculum. Institution Academic calendar is prepared considering academic calendar of Affiliating university which consists of unit test schedule, assessment schedule, university examination schedule, department, and Institution level activities, Co-curricular, extra-curricular activities, and monitoring schedule.

- Based on the Institute Academic Calendar every department prepares the departmental academic calendar.
- In each semester, subject allotment to faculty is based on the choices received from faculty.
- Time table for the entire semester is framed with provision for, tutorials, seminar and Project/Mini-project hours.
- Lecture and Laboratory plan is prepared by the faculty at the beginning of every semester in line with the academic calendar and displayed on the LMS/ personal websites.
- Faculty prepares notes, question bank, lab manuals for the course handled by them in line with the university syllabus and it is uploaded on MOODLE /Google Classroom/Personal Website etc.
- Course files are maintained by the faculty members for the subjects handled which contain all the documents necessary for the implementation of the action plan.
- Teachers can strengthen their knowledge in the subjects listed in the curriculum by attending the Faculty Development Programme of their courses.
- Monthly review of the student's attendance for an individual course is taken by course coordinator and departmental academic coordinator.
- Subject knowledge of the students is evaluated through the Class test, Quiz, Seminar, Project based learning, Mini-project and Project work.
- Monthly syllabus completion is reviewed by the head of the department.
- To create a better learning atmosphere, the head of the department allocates faculty as a Mentor of students for mentoring academic and personal issues.
- For the holistic development of students institute provides Soft skill training, Certificate courses, Value added courses, Add-on program by inviting experts from various fields of industries to share their expertise.
- Students are encouraged for the Internship and Industrial visits to provide real-time exposure to the students. Industrial collaboration and signing MoUs are facilitated to give exposure to practical needs.
- Remote access of Library is provided and Books, Journals, and e-resources are made available through the Library portal.
- All the laboratories are well equipped to enable the students to gain the skills required for their future grooming.
- Institute has adopted innovative teaching-learning processes, tools, and techniques by

implementing the advanced concept of teaching pedagogy, use of ICT for enhancing teaching-learning experience. For learning enhancement, different resources such as the National Digital Library, Information, and Library network center, LMS, NPTEL local chapter, Virtual Lab, FOSS Laboratory etc. facilities are provided.

University Academic Calendar

↓

Institute Academic Calendar

↓

Co-curricular Activities → Departmental Academic Calendar ← Extra Curricular Activities

↓

Subject Allotment and Time Table preparation

↓

Lecture and Laboratory Plan

↓

Conduction and Monitoring of Lectures, Practical's as per Time table

↓

Conduction of Unit test and Result declaration

↓

Syllabus completion report

↓

Satisfactory

No → Conduction of Extra lecture

Yes ↓

Conduction of Extra lecture → End Semester Examination and Teaching learning feedback

↓

Result Analysis

↓

Remedial Steps for next semester

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

1.1.2 Number of certificate/diploma program introduced during the last five years

Response: 26

1.1.2.1 **Number of certificate/diploma programs introduced year-wise during the last five years**

2017-18	2016-17	2015-16	2014-15	2013-14
09	08	04	03	02

File Description	Document
Minutes of relevant Academic Council/BOS meetings	[View Document](#)
Details of the certificate/Diploma programs	[View Document](#)
Any additional information	[View Document](#)

1.1.3 Percentage of participation of full time teachers in various bodies of the Universities/ Autonomous Colleges/ Other Colleges, such as BoS and Academic Council during the last five years

Response: 35.56

1.1.3.1 Number of teachers participating in various bodies of the Institution, such as BoS and Academic Council year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
09	08	04	07	06

File Description	Document
Details of participation of teachers in various bodies	[View Document](#)
Any additional information	[View Document](#)

1.2 Academic Flexibility

1.2.1 Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years

Response: 33.72

1.2.1.1 How many new courses are introduced within the last five years

Response: 264

File Description	Document
Minutes of relevant Academic Council/BOS meetings.	View Document
Details of the new courses introduced	View Document
Any additional information	View Document

1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented

Response: 100

1.2.2.1 Number of programs in which CBCS/ Elective course system implemented.

Response: 6

File Description	Document
Name of the programs in which CBCS is implemented	View Document
Minutes of relevant Academic Council/BOS meetings.	View Document
Any additional information	View Document

1.2.3 Average percentage of students enrolled in subject related Certificate/ Diploma programs/Add-on programs as against the total number of students during the last five years

Response: 100

1.2.3.1 Number of students enrolled in subject related Certificate or Diploma or Add-on programs year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1250	1381	1478	1579	1689

File Description	Document
Details of the students enrolled in Subjects related to certificate/Diploma/Add-on programs	[View Document](#)
Any additional information	[View Document](#)

1.3 Curriculum Enrichment

1.3.1 Institution integrates cross- cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum

Response:

The current curriculum has various courses which address Gender, Environment and Sustainability, Human Values and Professional Ethics related issues across the various programs offered are such as Community services, Soft skills, Professional Ethics, Energy and Environmental Engineering, Environmental and Pollution Control, Human Values and Professional Ethics, Industrial Management, Business English, Basic Human Rights, Entrepreneurship Development. To mainstream these cross-cutting issues and make the students thrive physically, mentally and emotionally, the institute carries out various activities in line with the curriculum.

Environment and sustainability:

The courses introduce the fundamentals of biotic, abiotic factors and ecological cycle, application of water and wastewater engineering theory and principles to comprehensive environmental control. Engineer's role in achieving sustainable progress and essential for conserving natural resources and preserving the environment. The subject likewise introduces planning for the built environment, energy, and environmental pollution. Various techniques of harnessing energies, effects and remedial measures associated with noise pollution, air pollution, water treatment, land pollution are studied. An environmental study is an interdisciplinary course examining the interplay between the social, legal, management and scientific aspects of environmental issues.

Gender :

The courses in curriculum emphasis on building interpersonal skills to communicate clearly, to enhance team building and time management skills. Students are motivated to learn active listening and responding skills. On completion of the course, students will be able to make the practice of techniques for self-awareness and self-development and relate the conceptual understanding of communication into the day to day practice. The curriculum and inline activities are concerned with society and the relationships among individuals within a society. In a wider sense, community service includes activities regarding gender sensitization like Lek-Ladaki Abhiyaan, Save Girl child through Counseling of Pregnant women, and Poster Presentation.

Human Values:

The curriculum emphasis on the need for execution of law to ensure greater safety in industries. The curriculum inculcates management of human resources which includes manpower planning objectives, estimating manpower requirement, recruitment and selection process, assessment devices, retention of manpower etc. It also inculcates human values in the students by introducing human rights violations, human rights of mentally and physically challenged, individual liberty, Freedom and democracy etc. Along with curriculum for the good health the activities like yoga, meditation is conducted by the institute. As a contribution to the society blood donation camp is organized.

Professional Ethics:

The curriculum consists of several courses to cater to the need of general awareness like language, non-verbal communication, personal communication, meetings, group discussion, audio-visual aids, and technical proposals. In order to make the students acquainted for literature survey in the respective field, analysis of literature survey, a building of oral and written presentation skills, concept in novel work, technical writing skills and the advances in the applications of engineering seminar, mini-project, projects are evaluated. Industrial training is a part of the curriculum which develops knowledge of applying the theoretical concept in actual practice. Graduate programs in industrial management provide engineers with a strategic management education with a focus on production management, marketing, financial management etc.

File Description	Document
Any Additional Information	[View Document](#)
Link for Additional Information	[View Document](#)

1.3.2 Number of value added courses imparting transferable and life skills offered during the last five years

Response: 44

1.3.2.1 Number of value-added courses imparting transferable and life skills offered during the last five years

Response: 44

File Description	Document
Details of the value-added courses imparting transferable and life skills	[View Document](#)
Brochure or any other document relating to value added courses.	[View Document](#)
Any additional information	[View Document](#)

1.3.3 Percentage of students undertaking field projects / internships

Response: 33.68

1.3.3.1 Number of students undertaking field projects or internships

Response: 421

File Description	Document
List of students enrolled	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)

1.4 Feedback System

1.4.1 Structured feedback received from 1) Students, 2)Teachers, 3)Employers, 4)Alumni and 5)Parents for design and review of syllabus-Semester wise/ year-wise
A.Any 4 of the above

B.Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: A.Any 4 of the above

File Description	Document
Any additional information	[View Document](#)
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	[View Document](#)
URL for stakeholder feedback report	[View Document](#)

1.4.2 Feedback processes of the institution may be classified as follows:
A. Feedback collected, analysed and action taken and feedback available on website

B. Feedback collected, analysed and action has been taken

C. Feedback collected and analysed

D. Feedback collected

Response: A. Feedback collected, analysed and action taken and feedback available on website

File Description	Document
Any additional information	[View Document](#)
URL for feedback report	[View Document](#)

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average percentage of students from other States and Countries during the last five years

Response: 0.03

2.1.1.1 Number of students from other states and countries year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1	0	0	1	0

File Description	Document
List of students (other states and countries)	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

2.1.2 Average Enrollment percentage (Average of last five years)

Response: 71.78

2.1.2.1 Number of students admitted year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
212	220	258	297	342

2.1.2.2 Number of sanctioned seats year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
276	396	396	396	396

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

2.1.3 Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years

Response: 61.61

2.1.3.1 Number of actual students admitted from the reserved categories year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
81	100	113	119	101

File Description	Document
Institutional data in prescribed format	[View Document]
Any additional information	[View Document]

2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners

Response:

The institution assesses the learning levels of the students which helps students' improvement. After the assessment of the students' learning ability the slow learner is motivated to do better and advanced learners are promoted to excel in the particular course.

- After admission, the induction program is conducted for first-year students, and their learning ability is evaluated on the basis of their percentage of Higher Secondary Certificate Examination. The learning abilities are also assessed by the course coordinator per semester. The performance of the student may vary for different courses based on student's interest and pace.
- The process to identify the slow and advanced learners is conducted in the first month of the semester.
- Method of identification and activities for slow & fast learners for courses are decided by the course coordinator on the basis of need of the respective course.

Methods used for the identification of slow and advanced learners are as follows:

- Previous University Examination Results
- Unit Test Result
- Technical Test

The Institute has a provision for mentors /advisors for each class or group of students for academic and personal guidance. Faculty mentors review academic progress periodically and counsel students to improve

performance and ensure academic growth.

Activities Conducted For slow Learners:

* Based on the performance in internal tests, assignments remedial lectures are conducted
* Practice assignments
* Analogies are discussed.
* Demonstration of concepts through videos
* Personal discussions on academics by the Course coordinator
* Discussion with parents about academic progress.
* Solving University question papers

Activities conducted for Advanced Learners:

* Application-oriented assignments & Laboratory tasks are given
* Online tasks including web-based design and simulations **are conducted.**
* Students are involved in modeling activity.
* Institute promotes students to participate in paper presentation, project competition, Surveys etc.
* To make the students aware of research opportunities and IPR.
* Promoting the students for various scholarships offered by Industries.
* Encourage the students for Civil Service examinations

Both slow and advanced learners are encouraged to use virtual laboratory, FOSS laboratory, MOOC platforms like NPTEL, SWAYAM, Open courseware of Massachusetts Institute of Technology, Coursera, etc. for learning the basic as well as advanced courses.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

2.2.2 Student - Full time teacher ratio

Response: 14.2

File Description	Document
Any additional information	View Document

2.2.3 Percentage of differently abled students (Divyangjan) on rolls

Response: 0.16

2.2.3.1 Number of differently abled students on rolls

Response: 02

File Description	Document
List of students(differently abled)	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

2.3 Teaching- Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Response:

The teaching-learning process is student-centric and academic planning is done accordingly. The college emphases on enhancing involvement critical thinking and creativity among students by incorporating student-centric methods in the teaching-learning process.

The College provides state of the art seminar halls and E-class rooms with infrastructure for ICT enabled teaching and learning.

Experiential Learning:

- **Industrial and field visits:** Industrial and field visits are organized to make the students understand the practicality and implementation of the concepts studied and to update them with the current technology.
- **Internships:** Students are also encouraged for internships to gain real life experience of an industrial environment which will help to develop themselves technically and professionally.

Problem Solving Approach:

- Assignments and tasks are given to the students to enhance their thinking ability.
- Integrative tools like MOODLE, Kahoot, Blog space are used by the faculties to conduct online quizzes and for giving assignments.

Participative Learning:

- Students are encouraged to access the library. The Institute has established a digital library for the ease of the students. Stocked with books, journals, magazines, and e-magazines, this facility is a boon for any student willing to find a text or reference. Online resources are also provided through these libraries. The scope of learning widens giving students an education that is greater than the syllabus.
- Group Discussions, group seminars are arranged.
- Students are encouraged to take up mini projects.
- Students are encouraged to participate in group technical activities that include coding competitions, robotics competition, circuit design competition, poster and paper presentations etc.
- Role plays are conducted.

Project-based Learning:

Project-based learning used to accelerate the learning process by getting students' involvement in finding technical solutions to the given problem statements.

Following project-based learning activities are conducted for the students.

- Creating simulations
- Model designing and development
- Building small projects to understand the topic/concept
- In addition, learner-centered teaching methods such as group work, role play, project work, case study etc. supplement classroom teaching which enhances critical thinking among students.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.

Response: 96.59

2.3.2.1 Number of teachers using ICT

Response: 85

File Description	Document
List of teachers (using ICT for teaching)	[View Document](#)
Any additional information	[View Document](#)
Provide link for webpage describing the " LMS/ Academic management system"	[View Document](#)

2.3.3 Ratio of students to mentor for academic and stress related issues

Response: 14.71

2.3.3.1 Number of mentors

Response: 85

File Description	Document
Any additional information	[View Document](#)

2.3.4 Innovation and creativity in teaching-learning

Response:

Teachers have adopted various innovative tools and techniques in the teaching-learning process to improve students' engagement in terms of degree of attention, curiosity, and interest.

Following are the various tools and techniques used by faculties to make teaching more innovative:

Model-based teaching Learning: The model-based teaching creates mental models, influence our perceptions of phenomena and understanding of information. Modeling tools like Matlab, Simulink are used to create simulation Models. Physical Models are also used to teach the concepts.

Android Apps: Android apps are used for effective content delivery and enhancing learning. The apps such as Kahoot used for online quiz conduction, Civil sutra used to find quantities of the material required for brickwork, concrete work, painting etc.

Online Quiz / Tests: The online quiz and test tools are used in the active learning process, that includes **TestMoz, Google forms** etc.

Audio-Visual Tools: Audio-visual tools like videos, animation, simulations are used for the demonstration of the concepts, which works as a brain mapping tool and help to thrive and grow Students' imagination. This includes the animation tool such as **Blender and Synfig Studio.**

Virtual laboratory: Institute is a nodal center of the virtual project started by MHRD, Government of India, which is used to encourage the students to conduct experiments by arousing their curiosity. This helps them in learning basic and advanced concepts through remote experimentation.

FOSS laboratory: The institute is having FOSS (Free and Open Source Software) Center of IIT, Bombay. Use of this laboratory enables students to learn and develop basic as well as advanced skills through spoken tutorials.

Project-based learning: Project Based learning is a student-centered pedagogy that involves a dynamic classroom approach in which it is believed that students acquire a deeper knowledge through the active exploration of real-world challenges and problems.

Digital Social Learning: Digital Technologies are changing the ways in which we make the students engage with each other for learning. Digital social learning resources like YouTube, Faculty YouTube channel, Faculty web pages, Google tools like Google classroom and WhatsApp are used.

File Description	Document
Any additional information	[View Document](#)

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

Response: 96.3

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	View Document
List of the faculty members authenticated by the Head of HEI	View Document

2.4.2 Average percentage of full time teachers with Ph.D. during the last five years

Response: 6.56

2.4.2.1 Number of full time teachers with Ph.D. year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
09	06	06	05	05

File Description	Document
List of number of full time teachers with PhD and number of full time teachers for 5 years	View Document
Any additional information	View Document

2.4.3 Teaching experience per full time teacher in number of years

Response: 10.83

2.4.3.1 Total experience of full-time teachers

Response: 953

File Description	Document
Any additional information	View Document

2.4.4 Percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years

Response: 39.75

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
15	07	11	03	02

File Description	Document
Institutional data in prescribed format	View Document
e-copies of award letters (scanned or soft copy)	View Document

2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years

Response: 2.02

2.4.5.1 Number of full time teachers from other states year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
02	02	02	02	02

File Description	Document
List of full time teachers from other state and state from which qualifying degree was obtained	View Document
Any additional information	View Document

2.5 Evaluation Process and Reforms

2.5.1 Reforms in Continuous Internal Evaluation(CIE) system at the institutional level

Response:

Continuous Internal Evaluation is an important element of the teaching and learning process. Earlier the evaluation system was less student-centric. Following reforms are implemented in present continuous internal evaluation system:

- **Continuous Internal Evaluation System:** To make the education strategy sound, the institution implements a uniform Continuous Internal Evaluation (CIE) System to be implemented by all programs; to evaluate all aspects of a student's performance on a regular basis throughout the year.

The common formats are designed for internal evaluation to ensure the uniformity in the assessment process.

- **Notification of Evaluation Process:** Students are made aware of the evaluation process through the following initiatives:
  1. Academic Calendar with CIA and examination dates.
  2. Evaluation procedure on notice board.
  3. Published on the website.
- **Tools of Assessment**: The process of continuous evaluation is employed through various tools like internal midterm-tests, assignments, tutorials, online test, unit test, laboratory work, internal viva, etc. The course coordinator announces the distribution of marks for the assessment, the various components of the assessment is decided by the course coordinator and are announced in the class within the first fortnight of the semester
- **Examination**: Unit wise question banks are provided to the student, which may be useful for the preparation of unit test and university examination. During semester two internal midterm tests are conducted. After the internal examination, the performance of the students is analyzed and if necessary the Re-test is conducted. The remedial measures are taken by conducting tutorial classes to clarify the doubts. Surprise test is conducted on various units. Many time online tests are conducted by using Testmoz, Moodle, Piazza, Kahoot and Google Forms.
- **Grievance and Transparency:** After the assessment through the unit test, the result is shown to students. If students have any grievance about the assessment of the internal test that is clarified.
- **Continuous Evaluation of Project Work**: For the final year project, the synopsis seminar is conducted and the projects are finalized, the log book is maintained, the weekly review of the works is taken by the guide and monthly progress report is submitted by the students. The progress of the project is monitored by the departmental progress monitoring committee twice in the semester. At the end of the semester, the presentation and demonstration of the project are given to the departmental committee. It has resulted in substantial improvement in the student's performance through comprehension of difficult topics, improved time management, enhanced writing skills and individualized attention resulting in refining their cognitive, psychomotor and affective domains of learning.
- **Evaluation of Laboratory Work:** The laboratory plans are prepared by every laboratory coordinator/course coordinator and displayed on the notice board, published on the LMS website, personal website. The assessment of the experiments conducted in the particular week is assessed in the next week. The assessment criteria are also displayed and communicated to the students and assessment of the journal is done by the laboratory/course coordinator.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.5.2 Mechanism of internal assessment is transparent and robust in terms of frequency and variety

Response:

The institution conducts the Continuous Internal Evaluation (CIE) System to assess all aspects of a student's development on a continuous basis throughout the year. Students are made aware of the course wise evaluation scheme through the following initiatives:

- The orientation programmes at the beginning of the semester
- Academic Calendar with Exam dates.
- Display in the Department Notice Board.
- Announcements of the evaluation scheme by every course coordinator in the class.
- Display of the lecture plan, Laboratory plan, and evaluation criteria.

Internal assessment and evaluation is done by the following methods

1. Quiz
2. Surprise Test
3. Assignments / Tutorials
4. Unit Test/Midterm Test/ClassTest
5. Group work: Projects (Project-based learning)
6. Seminars
7. Laboratory Work
8. Internship/Vocational training /IndustrialVisit
9. Mini /major projects

Continuous assessment in the practical & tutorial:

For practical and tutorial subjects, there is a continuous evaluation during the semester. Continuous Assessments sheets are maintained to evaluate weekly performance. The evaluation parameters are regularity, involvement in laboratory work, and promptness in the submission of records. The laboratory plans are prepared by the course coordinator/ laboratory coordinator and announced, displayed on the notice board/LMS Website/personal websites. Internal examination for practical is also conducted by the concerned laboratory coordinator.

Term work Evaluation:

Term work marks to be given after evaluation of each course are given in the university syllabus. Course Coordinator prepares and disseminates the evaluation scheme for his/her course. Parameters of evaluation may vary course wise. It includes performance in mid-term tests, unit tests, practical / tutorials, surprise tests, project-based learning activities, viva etc. Course Coordinator chooses the evaluation parameters best suited for his/her course. For theory courses, two unit tests / one midterm test per semester are conducted. The frequency of Surprise tests, quizzes are decided by the respective course coordinator.

Continuous assessment in projects:

As part of the internal assessment of projects, a review committee is formed which comprises of all the project guides and Head of the department. The project coordinator is appointed to look after the smooth conduction of project related activities. Students are formed into groups. The groups collect the literature on a topic and review the literature and submit the synopsis for the approval, the seminar on the synopsis is

conducted to finalize the topic and the proposed work. The project guide monitors the weekly performance and the weekly activities assigned by the guide and all the activities related to the project work are maintained in the log book. The review committee of the department takes the review seminars/presentation and the suggestion/ correction/ modification, are given to the students.
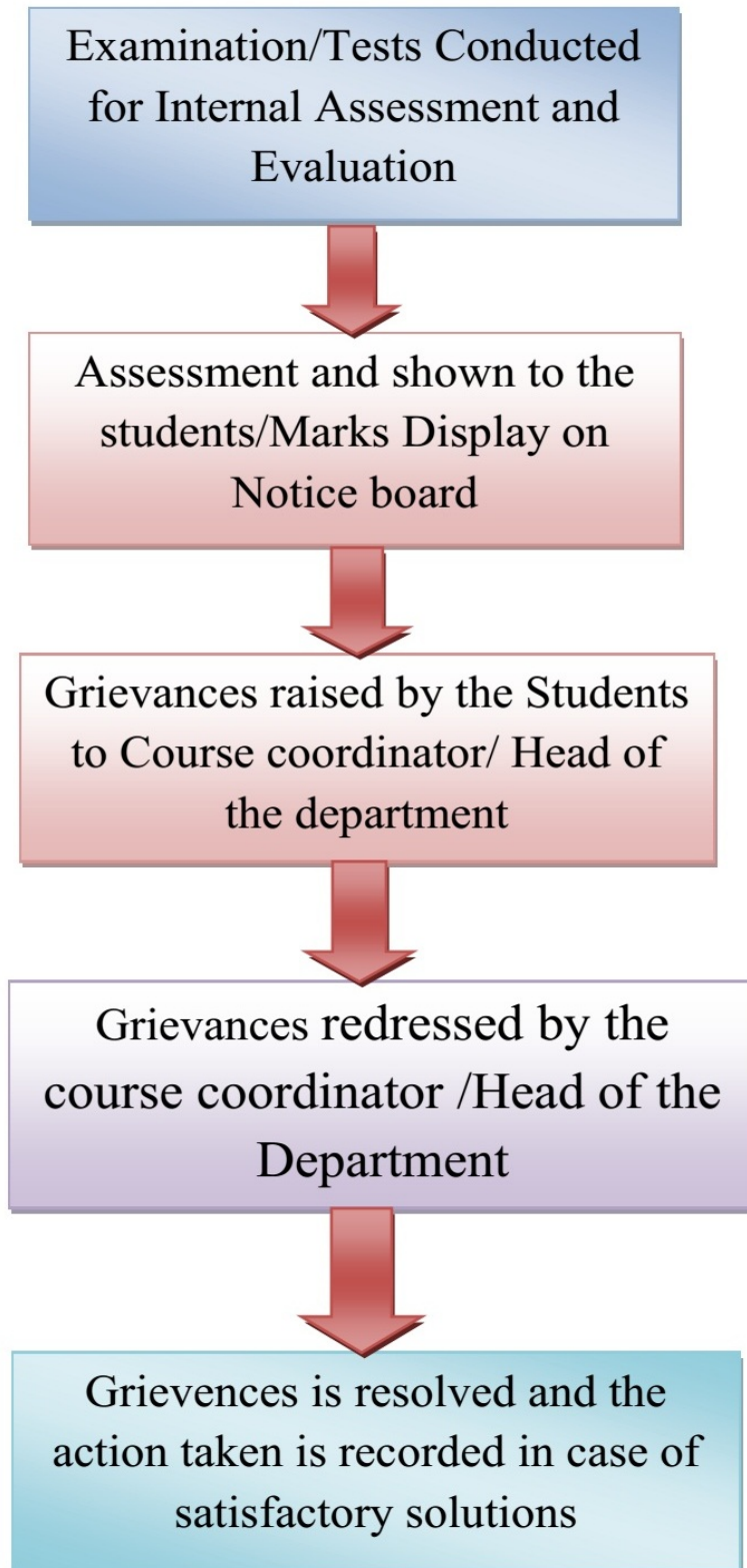
The MOODLE online Learning Management System is utilized for Continuous internal evaluation like quiz and assignments. Also, tools such as Testmoz and Kahoot are used for the conduction of the online evaluation tests and quizzes.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

2.5.3 Mechanism to deal with examination related grievances is transparent, time-bound and efficient

Response:

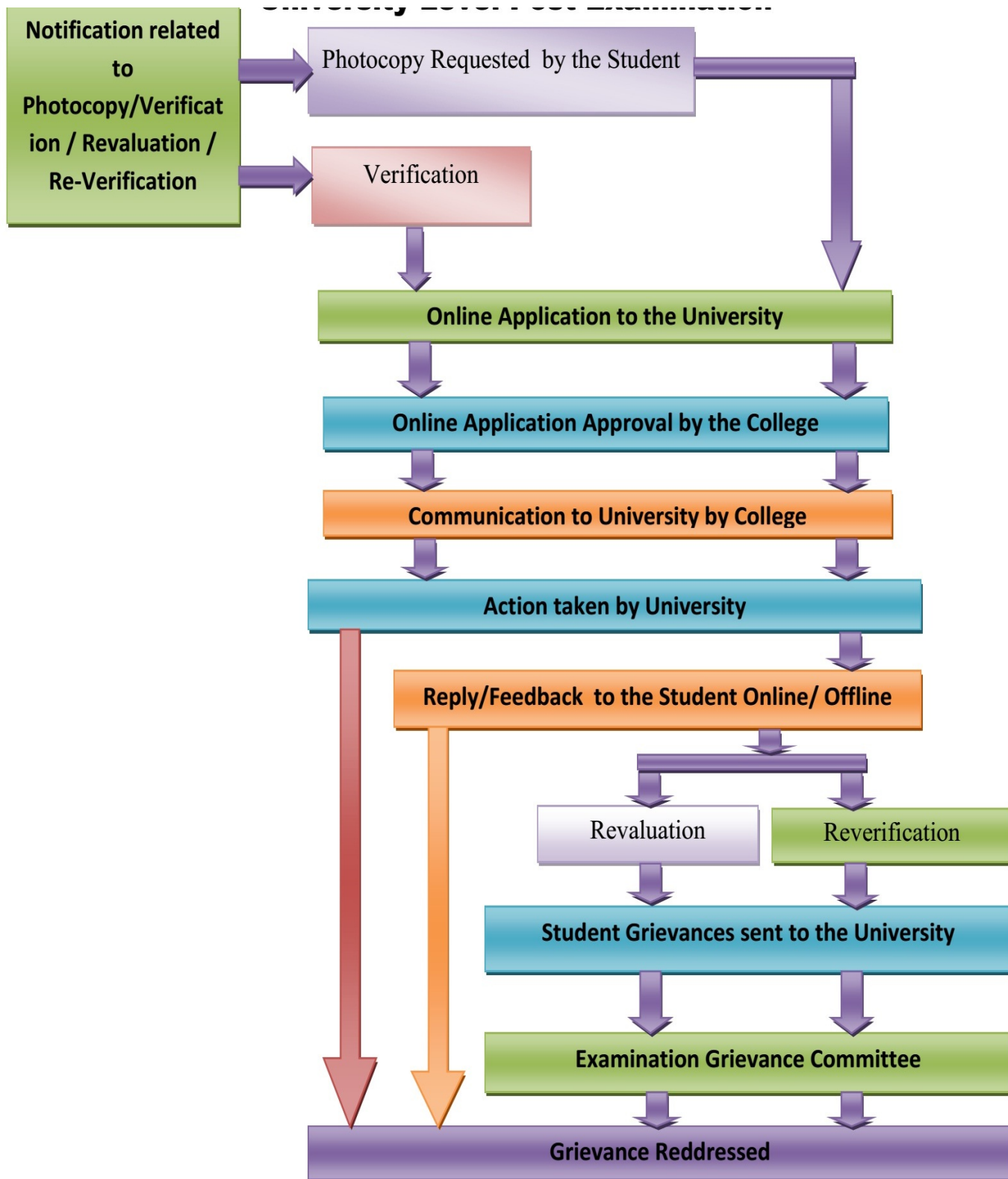**Redressal of Grievance for Internal assessment:**

Examination/Tests Conducted for Internal Assessment and Evaluation

Assessment and shown to the students/Marks Display on Notice board

Grievances raised by the Students to Course coordinator/ Head of the department

Grievances redressed by the course coordinator /Head of the Department

Grievences is resolved and the action taken is recorded in case of satisfactory solutions

- The Unit Test is conducted for the internal assessment. After assessment of the answer book of the

Unit Tests, they are shown to the students. Unit Test marks of the students are displayed on the notice board to ensure transparency in the evaluation.

- Continuous evaluation of Laboratory work assessed weekly. Marks given after evaluation are signed by the students.
- The student can raise the grievances related to internal examination and internal evaluation to the course coordinator within one week, the concerned course coordinator looks into the matter in order to resolve the grievance.
- The course coordinator analyses the grievance and suggests the solution to the student within the next week, if the solution is accepted by the student, then the grievance resolved.
- In the case the grievance redressed by the course coordinator is not accepted by the student, the student may contact the Head of the department and the head of the department redresses the grievance.
- In case of dissatisfaction, the same is put before the Grievance Redressal Cell. The cell looks after such grievances and redresses the same.

Redressal of Grievance for University level assessment:

University Level Post Examination

Notification related to Photocopy/Verification / Revaluation / Re-Verification

Photocopy Requested by the Student

Verification

Online Application to the University

Online Application Approval by the College

Communication to University by College

Action taken by University

Reply/Feedback to the Student Online/ Offline

Revaluation

Reverification

Student Grievances sent to the University

Examination Grievance Committee

Grievance Reddressed

Revaluation and verification of marks

- There is a provision for revaluation of answer sheets. The students who are not satisfied with the marks obtained in university examination can apply for revaluation and verification of marks obtained.
- The University provides the photocopy of answer books to students on demand after paying some fee.
- After receiving the answer book he/she can apply for revaluation of the answer book if the student

feels the need.

- The application is forwarded to the University,

Grievance(s) related with mark sheet

- An aggrieved student who has the grievance(s) related with mark sheet shall make an application to the university through the principal of the college. The principal, after verifying the facts, may forward it to the concerned section of the university. The university redresses all such grievances within a reasonable time, preferably within fifteen days of the receipt of application.
- The application submitted by the student shall be forwarded to the concerned section (Dy Registrar) viz. Academic grievance, administrative grievance etc. The university-level committee is responsible to redress the matter.
- If the student is not satisfied with this decision, he/she can submit appeals to the higher authorities (Registrar/ VC) within a stipulated time. University level committee shall process grievance(s) submitted by the students.

Redressal of Grievance during Examination:

```
┌─────────────────────────────┐
│     Student Grievances      │
│    sent to the University   │
└─────────────────────────────┘
               │
               ▼
┌─────────────────────────────┐
│     Grievance forwarded     │
│      to university by       │
│      Principal/Office       │
└─────────────────────────────┘
               │
               ▼
┌─────────────────────────────┐
│   Examination Grievance     │
│         Committee           │
└─────────────────────────────┘
               │
               ▼
┌─────────────────────────────┐
│         Grievance           │
│         Redressed           │
└─────────────────────────────┘
```

- During the examination, if any student finds uncertainty in question eg. Data given in the question is inadequate, seniors supervisor take the cognizance and convey the same to the Principal.
- These grievances are conveyed to the University through Principal, which in turn are redressed by them.

Any other discrepancies in the exam procedure:

- If any student has any grievance like a change in name in mark sheet; College sends the letter to the university through Principal to resolve the issue. The university looks into the matter and appropriate measures are taken.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

2.5.4 The institution adheres to the academic calendar for the conduct of CIE

Response:

As per University guidelines, the Institute prepares academic calendar which includes general features like commencement of semester and end of the semester. Considering this, the Institute prepares detail academic calendar.

- The meeting of the heads of the departments along with IQAC coordinator and dean academic is conducted to decide the academic planning of the year. Before commencement of the academic year, the Institute prepares its own academic calendar in line with the university academic calendar.
- Based on the Institute academic calendar every department prepares the departmental academic calendar, which includes departmental curricular, co-curricular and extracurricular activities.
- The academic calendar is displayed on the notice board and published on the college website in order to communicate it to the students, teachers, staff, and parents well in advance.
- The institute academic calendar consists of the following information related to CIE:

    - Commencement of Semester

    - Unit tests

    - Project related seminar

    - Project Review

    - Internal oral

    - Mini project Seminar

    - Display of List of Defaulter students

    - End of the Semester

- On the basis of the academic calendar, Test coordinator prepares the detailed schedule of Unit Test which includes the Question bank display, Question paper submission, Answer paper assessment for every unit test. Thus Unit Tests are implemented effectively and results are declared as per the schedule.
- The project coordinator is appointed by the department to look after all the project related activities. Every department conducts project progress review and seminar presentations as per standard procedure set by each department. This is part of the internal evaluation.
- The teaching plan is prepared by each teacher which adheres to the academic calendar of Institute. Attendance of the students is observed daily. Cumulative attendance and defaulter students lists are

displayed every month.

- The policies are revised in meeting & flexibility is given to higher authority to make run time changes for the conduction of internal assessment.

The Principal, Academic Dean and HOD look after the following activities related to Internal Evaluation:

1.Completion of Term work

2.Conduction of Theory Examination

3.Evaluation of Term work based on continuous evaluation

4.Conduction of final Internal Examination.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.6 Student Performance and Learning Outcomes

2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students

Response:

The Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) are drafted in-line with the vision and mission of the Institute. Workshops and Seminars were arranged by IQAC of the Institute to orient the faculty members on Outcome Based Education, Blooms Taxonomy, Graduate Attributes and formation of POs, PSOs and COs.

Each program has clearly stated Program Outcomes (POs), Program Specific Outcomes (PSOs) for the program which are achieved through Course Outcomes (COs) and Co-Curricular Activity. Faculty and staff are aware with Vision and Mission of Institute, POs and PSOs of the program as they are involved in the formation process. POs of the program are in line with Graduate Attributes and the vision and mission of the Institute. COs for each course are finalized by individual Course Coordinator.

The resources (faculty, library, laboratory, etc.) and pedagogy to be adopted for effective course delivery and student learning are determined in consonance with the Course Outcomes to be attained.

The assessment of course outcomes is done by using direct and indirect measurement tools.

Communication of CO, PO and PSOs:

POs and PSOs are displayed/conveyed through

-Institute website.

-Faculty personal website.

-Display Boards at HOD Cabins, laboratories, Common rooms etc.

-LMS Portal Moodle.

The Course outcomes for the specific course are communicated and explained by faculty to students at the commencement of the course. It is also uploaded on the College website for information to the viewer.

POs and PSOs and COs are a mandatory part of the course file prepared by the course coordinator. COs are also specified in Lecture plan and are attached in Laboratory Journals of each student.

File Description	Document
COs for all courses (exemplars from Glossary)	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.6.2 Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution

Response:

Institute has developed a mechanism for outcome evaluation. Each Program formulates its Program Outcomes and Program Specific Outcomes. The Program Outcomes are finalized considering the Graduate Attributes and blending those appropriately to suit the program. The PSOs are defined in line with the expectation of professional bodies and society. Course Outcomes for each course are defined by individual Course Coordinator. Each course outcome is mapped with the Program outcomes, and program specific outcomes to assess the students' progress continuously. Following the teaching activity; assessment and evaluation for each course are carried out through various means such as Assignments, Tutorials, Unit Tests, University Examination, Extra-curricular activities, etc. Then attainment level for POs and PSOs is calculated.

Following flow chart depicts strategy for assessment of attainment of program outcomes, program specific outcomes, and course outcomes.

CO-PO-PSO Attainment
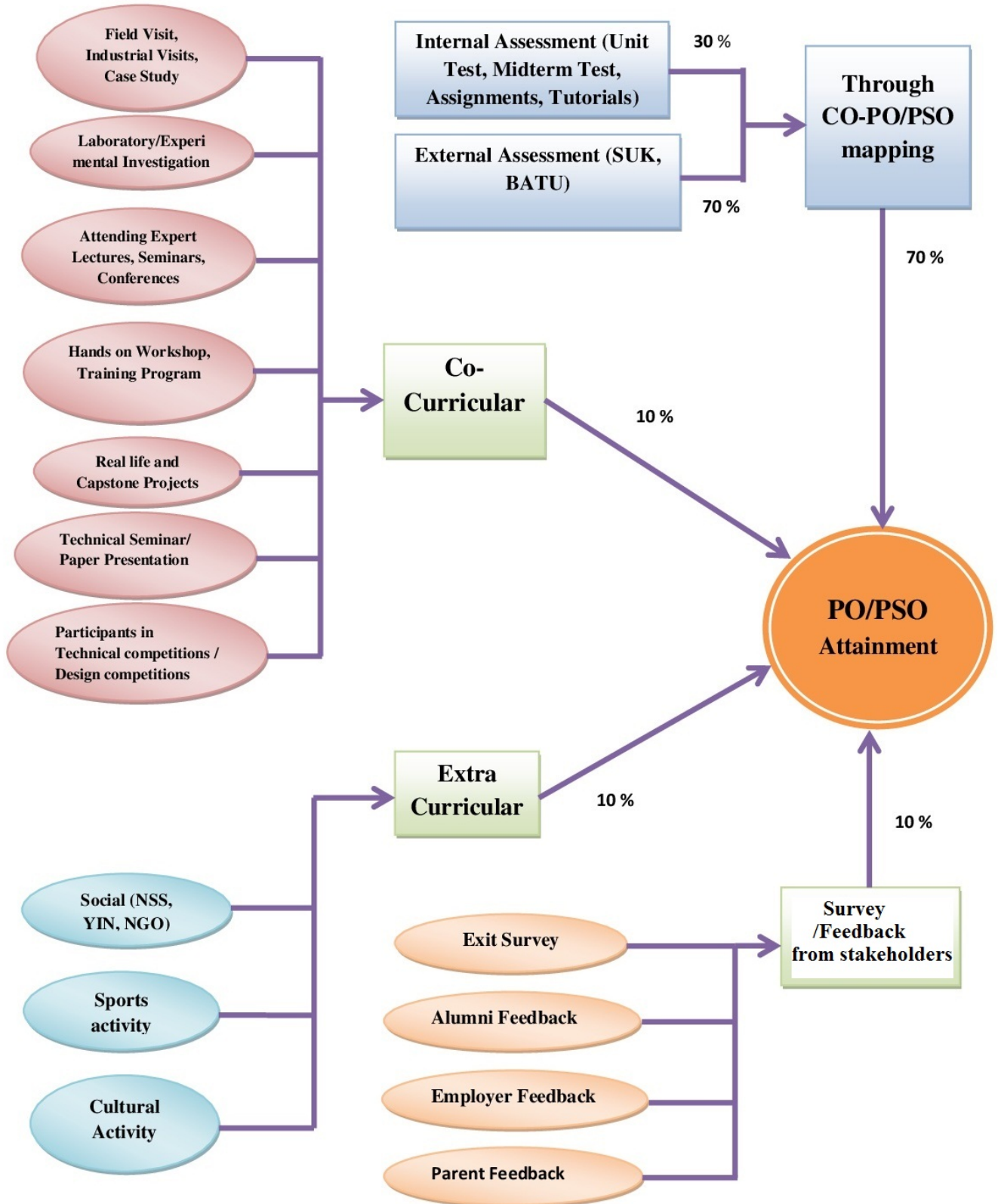
The Course Coordinator defines the strategy for attainment of each CO through tests, laboratory performance, project work, and the various activities to be performed by the students. All the questions of assignments, unit tests are mapped with COs which in turn is mapped with POs and PSOs. The level of mapping is categorized as substantial, moderate and low.

The direct tools like tests, projects, midterm tests, tutorials, theory and practical examinations conducted

by the university are used to evaluate the attainment of POs and PSOs. The indirect tools like exit surveys, feedback from students, parents, and alumni are employed to get the insights of self-evaluation. Data collected through these tools is analyzed by the course coordinator.

Soft skills and lifelong learning skills are not being attained satisfactorily through the curriculum. Therefore, Value-added programs are conducted for the students by various Departments in coordination with Training & Placement Cell.

 Students are encouraged to participate in various extra and co-curricular activities organized by students' associations, students' clubs.

The Performance Levels are decided based on the attainment are:

Level 1: Below expectations: Attainment less than 25 %

Level 2: Progressing to the criterion: Attainment between 26 - 50 %

Level 3: Meets criterion: Attainment between 51 - 100 %

The final attainment level is calculated by the course coordinator. Based on the levels of attainments, the action plan for the improvement is recommended in next cycle.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.6.3 Average pass percentage of Students

Response: 87.31

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 337

2.6.3.2 Total number of final year students who appeared for the examination conducted by the institution

Response: 386

File Description	Document
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response:

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

3.1.1 Grants for research projects sponsored by government/non government sources such as industry ,corporate houses, international bodies, endowment, chairs in the institution during the last five years (INR in Lakhs)

Response: 51.69

3.1.1.1 Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years(INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
19.60	7.70	13.75	2.68	7.96

File Description	Document
List of project and grant details	[View Document](#)
e-copies of the grant award letters for research projects sponsored by non-government	[View Document](#)
Any additional information	[View Document](#)

3.1.2 Percentage of teachers recognised as research guides at present

Response: 5.68

3.1.2.1 Number of teachers recognised as research guides

Response: 5

File Description	Document
Any additional information	[View Document](#)

3.1.3 Number of research projects per teacher funded, by government and non-government agencies, during the last five year

Response: 3.3

3.1.3.1 Number of research projects funded by government and non-government agencies during the last five years

Response: 118

3.1.3.2 Number of full time teachers worked in the institution during the last 5 years

Response: 179

File Description	Document
Supporting document from Funding Agency	[View Document](#)
Any additional information	[View Document](#)
Funding agency website URL	[View Document](#)

3.2 Innovation Ecosystem

3.2.1 Institution has created an ecosystem for innovations including incubation centre and other initiatives for creation and transfer of knowledge

Response:

To create and transfer of knowledge and impart necessary practical skills, the Institute is providing quality education. The activities carried out over the number of years have resulted in many alumni establishing their own successful business/startups. To facilitate improvisation, innovation, and invention the Institution has created an ecosystem. The objective is to provide a conducive atmosphere to develop technological ideas into the product(s) and hence business. As a part of this important initiative, Institution has built a partnership with ecosystem players by having a close association with industries and entrepreneurs. The institution has signed MOU with regional communities like manufacturing association, builders association, and individual organizations. For help in achieving objectives following activities has been carried out in the Institute.

- **Lectures/workshops on Intellectual Property Rights (IPR)and patent laws**
- **Entrepreneurship Awareness Camp**
- **Workshop on Rally Car Design Challenge (RCDC)**
- **Workshop on Go Kart Design & Manufacturing**
- **Project Competitions**
- **Paper Presentations**
- **Project-based activities are promoted in the campus**
- **Following the tradition of the institute, students are encouraged to work on live projects offered by nearby industries etc.**

Ongoing activities have resulted in two startups registering with incubation center and continuing their development of product and also one patent is filed by our faculty & student. As a result of these transfer of knowledge activities, students are participating and securing prizes in various national competitions such as

- **Texas Instrument India Innovation Challenge in association with DST and Govt. of India and IIM Banglore**
- **Rally Car Design Challenge (RCDC) competition (Funded by Cooper Corporation Pvt. Ltd. Satara)**

- **Hackathon**
- **National Linux Students Championship (NLSC)**
- **Unnat Maharashtra**
- **Paper Presentations etc.**

Our Institute is supported by Rayat Shikshan Sanstha, the parent trust, in partnership with Tata Technologies and Science and Technology Park has established Yashwantrao Chavan Centre for Invention, Innovation, and Incubation (YC-CIII). The total investment is more than Rs. 200 million. CIII is an initiative to create Entrepreneurs and Industry ready resources by helping innovators to

1. Develop/improve new products or processes
2. Promote technology start-ups
3. Provide co-working space to young entrepreneurs for the promotion of startups
4. Provide strong mentorship to invent new products, services, and processes
5. Provide support for IPR and technology management
6. Create a mechanism for access to risk capital to startups like Seed funding, Angel Investment, Venture Capital, Private Equity, etc.

CIII has Technology and R&D center, Exploration center, Advanced Manufacturing Centre, Co-working space, Incubation center, and a Mentorship programme. It provides mentorship from industry experts by leveraging advanced tools related to product design and development. Centre has the necessary facilities like setups to experiment with advanced automobiles, commercial robot, commercial software and hardware required for design and analysis, 3D scanner, 3D printer, VMC; which will help build the prototype and for batch production.

Ongoing activities and ecosystem will be useful in the creation and transfer of knowledge. Hopefully, these will come out with intellectual property useful products leading to successful business.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

3.2.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the last five years

Response: 85

3.2.2.1 Total number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
30	19	16	12	08

File Description	Document
Report of the event	View Document
List of workshops/seminars during the last 5 years	View Document
Any additional information	View Document

3.3 Research Publications and Awards

3.3.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research

Response: Yes

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.3.2 The institution provides incentives to teachers who receive state, national and international recognition/awards

Response: Yes

File Description	Document
e- copies of the letters of awards	View Document
Any additional information	View Document

3.3.3 Number of Ph.D.s awarded per teacher during the last five years

Response: 0

3.3.3.1 How many Ph.Ds awarded within last five years

3.3.3.2 Number of teachers recognized as guides during the last five years

Response: 5

File Description	Document
URL to the research page on HEI web site	View Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
Any additional information	View Document

3.3.4 Number of research papers per teacher in the Journals notified on UGC website during the last five years

Response: 1.4

3.3.4.1 Number of research papers in the Journals notified on UGC website during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
31	25	45	25	08

File Description	Document
List of research papers by title, author, department, name and year of publication	[View Document](#)
Any additional information	[View Document](#)

3.3.5 Number of books and chapters in edited volumes/books published and papers in national/international conference proceedings per teacher during the last five years

Response: 1.6

3.3.5.1 Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
89	27	10	13	14

File Description	Document
List books and chapters in edited volumes / books published	[View Document](#)
Any additional information	[View Document](#)

3.4 Extension Activities

3.4.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years

Response:

The institute is run by Rayat Shikshan Sanstha, whose motto is **"Education through Self-help".** Institute organizes various extension activities to inculcate social and ethical values among the students. The institute promotes neighborhood network and student engagement in extension activities, contributing to good citizenship bearing high moral values, community service and holistic development of students.

National Social Service Committee and Cultural Committee play a pivotal role in sensitizing the students. The institute introduces various activities to the student's during the induction program and ensures their participation throughout the academic year. Involvement in such service-learning activities helps students to become mature and socially responsible. Institute organizes and participates in activities like:

- **Blood Donation Camp**
- **Organ Donation awareness Camp**
- **Gandhi Jayanti**
- **Karmaveer Jayanti**
- **Shivjayanti**
- **Health check- up Camp**
- **Road Safety Week**
- **Donation for Orphanages**
- **Kranti Day**
- **Kargil Vijay Divas**
- **Constitution Day**

Students are motivated to participate in sensitizing activities, such as **Save Girl Child**, **Young Leader, 'Swachh Bharat Abhiyan', Tree plantation, Counseling of pregnant women at civil hospital Satara, Campus Cleaning** etc. These activities imbibe the sense of National Integrity, Environmental and Social Responsibility among them. To achieve these following activities are conducted:

- **Lek Ladki Abhiyan (Beti Bachao Beti Padhao)**
- **Street Play (Hinsela Nakar Ahinsela Swikar)**
- **Patient Counseling**
- **Yoga Day**
- **Rangoli Competition on social issues**

Students actively participate in various holistic competitions like **Drawing, Elocution, Debate on Democracy and Good Governance, Essay writing, Add-Mad Competition, Extempore,** etc. These lead to emotional, intellectual, social, and interpersonal development of students. Students have the opportunity to improve their leadership quality, interpersonal skills, self-confidence by organizing Socio-Technical events, Institute motivates students to participate in **the Youth Festival, Avishkar, and Young Inspiratory Network (YIN)** activities. It provides a platform for networking and collaborates with youths which exposed students to stand up for their rights and seek their personal and social development.

The spirit of social responsibility reflects the overall personality development of students through various community service activities. Utilization of students technical knowledge for solving their social problems. As a part of this, our students developed a **Plastic Road in Ambavde village Khatav** which is the **"First of its kind of Project"** in Maharashtra State.

Our institute is a part of various projects for the betterment of rural places which are been covered under Unnat Maharashtra Abhiyan (UMA), accordingly, CTARA Department of **Indian Institute of Technology**

Bombay issued a grant for project impact analysis of **"Jalyukt Shivar Abhiyan".**

The students of the institute designed and developed the system as a part of their projects which are dealing with the issues of the society.

File Description	Document
Any additional information	[View Document]
Link for Additional Information	[View Document]

3.4.2 Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years

Response: 36

3.4.2.1 Total number of awards and recognition received for extension activities from Government /recognised bodies year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
10	8	12	3	3

File Description	Document
Number of awards for extension activities in last 5 years	[View Document]
e-copy of the award letters	[View Document]
Any additional information	[View Document]

3.4.3 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

Response: 107

3.4.3.1 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
19	35	18	11	24

File Description	Document
Reports of the event organized	[View Document](#)
Number of extension and outreach programs conducted with industry,community etc for the last five years	[View Document](#)
Any additional information	[View Document](#)

3.4.4 Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

Response: 94.26

3.4.4.1 Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1250	1381	1478	1579	1204

File Description	Document
Report of the event	[View Document](#)
Average percentage of students participating in extension activities with Govt or NGO etc	[View Document](#)
Any additional information	[View Document](#)

3.5 Collaboration

3.5.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc during the last five years

Response: 434

3.5.1.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
151	105	78	55	45

File Description	Document
Number of Collaborative activities for research, faculty etc	<u>View Document</u>
Copies of collaboration	<u>View Document</u>
Any additional information	<u>View Document</u>

3.5.2 Number of functional MoUs with institutions of National/ International importance, Other Institutions, Industries, Corporate houses etc., during the last five years (only functional MoUs with ongoing activities to be considered)

Response: 122

3.5.2.1 Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years (only functional MoUs with ongoing activities to be considered)

2017-18	2016-17	2015-16	2014-15	2013-14
41	26	22	20	13

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	<u>View Document</u>
Details of functional MoUs with institutions of national, international importance,other universities etc during the last five years	<u>View Document</u>
Any additional information	<u>View Document</u>

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The institution has adequate facilities for teaching- learning. viz., classrooms, laboratories, computing equipment, etc.

Response:

The institution has adequate facilities for teaching-learning such as classrooms, laboratories, computing equipment, tutorial rooms and seminar halls as per the norms of apex body, AICTE, DTE, and University.

- The academic infrastructure or Instructional area in the institute include classrooms, laboratories and sufficient space for hosting all academic activities.
- Every department has a separate seminar hall to conduct conferences, workshops, and seminars for students and faculty.
- Classrooms are well equipped with LCD projectors, LAN and Wi-Fi internet connectivity**.** Classrooms are spacious with proper ventilation, natural light and with good acoustic.
- The Institute has an adequate number of Computers with configuration Dual Core /Core2 Duo/Core-i3 and Core- i5 and required software.
- The Institute hosted learning management system (LMS) content through Moodle and FTP server for effective for teaching-learning process.
- The Institute has well-equipped laboratories and workshops with state-of-art equipment and machinery for the students to carry out the practical courses, projects and research work like Universal Testing Machine, total station, Computer Numerical control machine, Computerized variable compression I C Engine test rig. Steam Power Plant, PLC, VFD, Microcontroller, VLSI and DSP kits, Spectrum Analyzer, Texas Instruments Analog Lab. The Laboratory and workshop equipment are fetching consultancy and support Industry and Research activities.
- The central facilities such as Library, Central Computing Facility, Canteen, Boys and Girls Common Room, and Standalone Language Laboratory.
- Internet connectivity is catered with 50 Mbps through OFC and 100 Mbps LAN network.
- The Library is updated with e-resources such as e-books, journals, and collection of rare books such as manuscripts, handbooks, data books and other knowledge resources for library enrichment. The facilities are focused to be more student-centric, for the complete development of students by providing remote access to library and e-learning resources. Open access is given to all students.
- For the physically impaired (Divyangjan) students, the institute provides Ramps and elevator and other supporting facilities.
- The Electronic Surveillance System has been installed in the campus for identification of malicious activities provides security to students, faculties, and staff.
- Institute has a standby power generator of 82 KVA, to take care of power shutdown.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

4.1.2 The institution has adequate facilities for sports, games (indoor, outdoor),gymnasium, yoga centre etc., and cultural activities

Response:

The Institute encourages and provides facilities for students to participate in various extra-curricular activities in order to build team spirit and leadership qualities. Faculty members and director of physical education along with staff coordinate all sports and extra-curricular activities in the institute.

- Institute provides opportunities for the students to participate in various indoor and outdoor sports activities.
- The institution has a practice of organizing and participating in Inter-departmental, Inter-Collegiate and Inter-University tournaments.
- Institute has infrastructural facilities to carry out indoor as well as outdoor games. The facility is provided for outdoor games such as Kabaddi, Volleyball, Badminton.
- Facility for indoor games like Carrom, Chess and Table Tennis is available in the institute.

- Facilities available in Gymnasium are consists of adjustable bench press and dumbbells, chromium plates, barbell rods, and plates.
- Institute provides first aid and medical facility through visiting doctor.

Yoga activity :

To promote the importance of health in students, staff and Faculty Institute conducts guest lectures and discussion for awareness of Yoga. Institute celebrated International Yoga day. Institute conducts workshops on "Stay Fit Stay Healthy" associated with yoga.

Cultural Activities :

The Institute has a committee for cultural activities. This committee along with the staff and students of the institute organizes cultural events. The aim of annual cultural events are to provide a platform for students to showcase their talents and organizational skills.

It comprises of events in the form of competitions and stage performances such as Kamaveer fest, Traditional day, Treasure Hunt and Xtasy. To broaden the horizons of the students, they are encouraged to participate in several inter-college events. Institute encourages students to participate in the Youth Festival at University level.

NSS Activity:

As per the guidelines of the Shivaji University, Kolhapur and Dr. Babasaheb Ambedkar Technological University, Lonere the Institute has NSS unit of students and staff. The NSS unit in the institute provides a platform for various social activities such as Tree plantation, promotion NSS Camp, visit and donation to a remand home, orphanage and old-age home.

Yoga:

The institute has signed MOU with Ambika Yoga Kutir, the yoga activities are organized for the student's

staff and faculty, also institute celebrates the yoga day.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

4.1.3 Percentage of classrooms and seminar halls with ICT - enabled facilities such as smart class, LMS, etc

Response: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 25

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	[View Document](#)
any additional information	[View Document](#)
Link for additional information which is optional	[View Document](#)

4.1.4 Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.

Response: 28.74

4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
10	05	05	105	336.39

File Description	Document
Details of budget allocation, excluding salary during the last five years	[View Document](#)
Audited utilization statements	[View Document](#)
Any additional information	[View Document](#)

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS)

Response:

The library is the heart of all academic activities of the Institute. Students are motivated to make the best use of library facilities for their development. The Library is using **MKCL's Libreria** software having version **2.0.3715.28728.** The Libreria is an integrated, multi-user, software which can be used to manage different functions of the library such as accessioning, cataloging of books, circulation of books, circulation of book bank and registration of members.

The software is used to generate various reports such as accessioning reports, members reports, and circulation reports. Accessioning reports give details of accession register, withdrawn register, date wise purchase, books not marked for circulation. The members report consists of details of member register, member's transaction history and library card of the student. The Circulation report provides details of the issue/returned book list, highest running book, highest running member, book transaction history and book bank issued list. The book circulation is done on students bar-coded identity card and barcode on books. SATO CG 408 bar Code Printer and Honeywell laser bar code scanner devices are available to make books issue-return process easy and accurate. The software is used to generate barcodes of books, spine labels of books, and members' borrow card.

Library users can get details of the book such as publisher, call number, accession number, availability and image of the book. A separate computer is also made available in the library for WEBOPAC facility. Library WEBOPAC link is provided on the college website. A separate web page is created on the college's website to provide library details, details of E-resources such as question papers, syllabus, NPTEL Video lectures and different links of subscribed and open source e-journals and e-books.

The open source software, **Calibre** is used to disseminate e-books to the students and faculty. The link is available through LAN and on College Website.

The library extends vital support to the academic and research needs of the college by providing an updated and comprehensive collection of reading material.

Sr. No.	Particulars	Numbers
1	Total Titles	9506
2	Total Volumes	39698

3	Print Journals	68
4	Bound Volumes(Journals)	1733
5	Educational CDs	576

Library services :

1) Institute's central library fully satisfies the student's requirement of textbooks as per AICTE norms. textbooks & reference books prescribed in the syllabus are provided in sufficient volumes. Apart from textbooks on regular curriculum, the Library contains some valuable educational books, books for GATE and competitive examinations.

2) The library comprises of sections like Digital library, dedicated reference section, current journal section, bound volume section, book issue/return section.

3) 10 computers with internet connectivity are available to the students for accessing e-learning resources.

4) Spacious and well-furnished space is allocated for the reading section in the library.

5) All the books are arranged subject-wise according to Dewey Decimal Classification (DDC) number for easy retrieval of books.

The Library has its Facebook page to circulate updated activities of the college library.
 https://www.facebook.com/Kbpcoe-Library-2316273878592489/?modal=admin_todo_tour.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resources for library enrichment

Response:

The college library is enriched with various rare books such as databooks, handbooks, manuals, conference proceedings, rare books, and other knowledge resources to benefit students and faculty for their knowledge enhancement, research and exploring new things apart from the textbooks.

Satara city is a historical place. It was the second capital of Chhatrapati Shahu Maharaj (Grand Son of Chhatrapati Shivaji Maharaj) as a part of it the collection of letters of Rajmata Jijau, Maharani Tararani and Rajarshi Shahu Maharaj are made available in the library. The back volumes of the printed journals from 1984 are available in the library as a bound volume from different publishers Such as IEEE, Productivity, ACM-Operating system Review, The Structural Engineers etc. These books and bound volumes are maintained properly by doing timely pest control of the library.

The institute's library and all faculty are members of National Digital Library of India, which contains so many collections of rare books, manuscripts, and various reports. The link of the National Digital Library is displayed in the college library as well as on the college website.

The Rare Book Society of India (RBSI) is providing a virtual space for rare book collectors and history buffs to read, discuss, rediscover and download lost books. RBSI showcases rare Indian books, prints, and art, that have been digitized, with the purpose of bringing these lost words to life. Through this open virtual platform, members of RBSI can create a digital collection of rare and valuable books by downloading the digitized books that are made available in the library and intranet. The link of the **Rare Book Society of India** is also shared on the college website to access the rare collection.

https://www.rarebooksocietyofindia.org/

Antique Indian Books and Manuscripts Online is the online resource of Indian Rare Manuscripts (200 to 350 Years old), Antique Books (which are most rare & unavailable), Historical, Ancient Documents & Inscriptions. The Division of Rare Manuscripts provides access of rare collection to students, scholars, and researchers to read without any charges.T he link of the same is shared on college website to access manuscripts.

http://indianmanuscripts.com/

The digital library of the Bhandarkar Oriental Research Institute, Pune has one of the largest collections of rare books and manuscripts spanning over 1,40,000 books and 28,000 manuscripts collected in a period of 90 years. This collection covers several languages and scripts such as Sanskrit, Prakrit, Indian regional languages, Classical, Asian and European languages. The link of **1000 rare books** is shared on the college website.

The open source software, **Calibre** is used to disseminate e-books to the students and faculty. The link is available through the intranet and on the college website. The library has created its Facebook page to circulate updated activities of a college library.

The library has provided various links of open source e-journals, e-books, encyclopedias, patents and other important and helpful links to the students on the college website. Such as DOAJ, IEEE Spectrum. e-PGPathshala, NPTEL, SWAYAM, FOSS e-resources.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

4.2.3 Does the institution have the following:

1. e-journals

    2.e-ShodhSindhu
    3.Shodhganga Membership
    4.e-books
    5.Databases

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: A. Any 4 of the above

File Description	Document
Details of subscriptions like e-journals,e-ShodhSindhu,Shodhganga Membership etc	View Document
Any additional information	View Document

4.2.4 Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)

Response: 15.76

4.2.4.1 Annual expenditure for purchase of books and journals year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
6.45	13.94	19.98	20.58	17.84

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	View Document
Audited statements of accounts	View Document
Any additional information	View Document

4.2.5 Availability of remote access to e-resources of the library

Response: Yes

File Description	Document
Any additional information	View Document

4.2.6 Percentage per day usage of library by teachers and students

Response: 18.98

4.2.6.1 Average number of teachers and students using library per day over last one year

Response: 254

File Description	Document
Any additional information	View Document

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

IT infrastructure is an essential pillar of the institute to support academic and administrative services. To cater to the volume and speed of services updating the IT infrastructure is unavoidable. The controlling authorities like AICTE also publish revised norms for updating if IT infrastructure.

- Institute makes provision in the financial budget every year for adding recent computers and software to support updating of IT infrastructure.
- Computers are updated from dual-core computers to core i3 and further added core i5 computers from time to time. Currently, the institute is having 702 computers and laptops with it. The computers are well networked to provide intranet and internet facility.
- The computer network is supported with Dell Xeon3.03GHz and HP Xeon 2.02GHz Servers, Windows 2008 server OS further updated to robust open-source Linux based CentOS7 operating System.
- More than 600 computers, are networked in LAN and are supported with internet bandwidth updated from 8 Mbps to 50mbps, through OFC. Besides, separate internet connectivity, through 46 Wi-Fi hotspots, provides Wi-Fi connectivity 24x7.
- All the classrooms are equipped with projection systems to enable projection of presentations, videos etc.
- All the IT infrastructure is provided with software support that is updated from time to time. System software is updated from Linux-Ubuntu, Windows to open source Ubuntu 16, Windows 10. The server is updated from windows server 2008 to robust Linux based CentOS7. Institute have entered in an agreement with Microsoft Corporation for Microsoft software and communication software that helps to the timely update of software.
- Tally ERP 6 software used for accounting is updated to Tally ERP 9 release 6.4.8 in 2018 with latest supports.
- Institutes office is supporting students through dedicated ERP software since 2013 is further updated with additional features in 2018.

- Institute provides library support through Libreria website http://libreria.org.in/KBPCOELIBsatara and institutes FTP server. The FTP server was available only through intranet and now updated for internet access.
- The CCTV surveillance facility was installed in 2013, is upgraded with the digital camera and digital recording system and added with cameras in 2018.
- The laboratory application software like MATLAB, ANSYS, Quartus-Prime, PROM, Altera / Intel, Cut milling View, Festo hydraulic and pneumatic etc. are installed with the updated version.
- Institute provides Moodle learning management system and data is updated from time to time. Free Open Source Software (FOSS) learning facility in collaboration with IIT Bombay. It is further upgraded to provide NPTEL courses by setting up NPTEL local chapter. Learning of MOOCs and Swayam courses is also facilitated at this center.
- A dedicated language laboratory upgraded with the latest computers and software in 2017 that facilitates language learning interface.
- The Virtual Laboratory is set up with the latest computers and supporting software, that facilitates remote access to equipment at national level laboratories for experimenting.
- Institute has its website www.kbpcoes.edu.in updated time to time with recent updates on site.
- Independent IT cell maintains the IT Infrastructure and updates it suitably.

File Description	Document
Any additional information	[View Document]
Link for Additional Information	[View Document]

4.3.2 Student - Computer ratio

Response: 1.78

File Description	Document
Any additional information	[View Document]

4.3.3 Available bandwidth of internet connection in the Institution (Lease line)
>=50 MBPS

35-50 MBPS

20-35 MBPS

5-20 MBPS

Response: >=50 MBPS

File Description	Document
Any additional information	[View Document]

4.3.4 Facilities for e-content development such as Media Centre, Recording facility, Lecture Capturing System (LCS)

Response: Yes

File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	View Document
Any additional information	View Document
Link to photographs	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years

Response: 28.37

4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
71.70	51.28	71.56	52.54	148.97

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	View Document
Audited statements of accounts.	View Document
Any additional information	View Document

4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

Response:

The institute has standard established systems and procedures for maintaining the physical, academic and support facilities. Housekeeping and Maintenance section is divided into various subsections such as Housekeeping, Electrical Maintenance, IT Infrastructure Development and Maintenance (IT Cell), Building Maintenance etc.

A maintenance request is submitted to the principal and same will be forwarded to the maintenance in-charge. The in-charge will register the request and forward the same to respective maintenance personnel and coordinates the material requirement if any with stores. The maintenance in-charge takes the follow up on the status of the maintenance work from the respective section until the completion of the work.

Electrical Maintenance and Electrical substation maintenance:

The electrical installations and maintenance of electrical equipment in the institute is taken care of by the electrical maintenance section. For maintenance requisitions are received from the concern departments regarding the repairs of electric Tube lights, fans and electrical machinery installed in various labs, then prepare a schedule of maintenance, and implement accordingly. The required electrical material is sourced by the stores of the institute. If required external agencies may be employed with the prior permission of the principal. The annual budget is prepared and submitted for approval to the principal.

The substation maintenance includes maintenance of transformer oil filtration, replacing silica gel crystals in transformer breather, greasing of air break switches, Painting of structure, maintenance of CT PT units, the removal of any grown plants, grass, etc. within yard, inspection of earthing and earth resistance as per IS code and annual Inspection from Electrical inspector (PWD).

IT Infrastructure Development and Maintenance (IT Cell):

The IT infrastructure development and maintenance committee (IT CELL) is responsible for the development of the institute structured network, maintenance of the network, maintenance of the computers, printers, server installation and maintenance, website development, maintenance, and updating. Along with that the EPBX system of the institute is maintained through IT Cell.

For the IT infrastructure, the required IT infrastructure layout, requirement, procurement, installation, and maintenance are done through IT Cell. The computer and printer maintenance is resolved at the local level based on the problem with computer and printer to the IT cell.

Building Maintenance, Building services, Plumbing, Sanitary:

The central maintenance committee looks after the maintenance of civil works such as plumbing Sanitary systems, leakages if any, potable water filters, Cleaning of water tanks, and related maintenance.

The maintenance and housekeeping of the classrooms, laboratories, library, and the institute as a whole are taken care of by the non-teaching staff.

Departmental Equipment and Instrument maintenance:

The laboratory in-charge and laboratory assistant identifies the instruments and equipment which are faulty and are to be repaired and prepares the list and the request letter to the principal through the head of the department. The quotations are called for the repair and maintenance following the procedure of the College and Sanstha, based on that the experts are called and maintenance procedure is completed.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years

Response: 64.97

5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
928	913	939	967	1009

File Description	Document
Upload self attested letter with the list of students sanctioned scholarships	[View Document](#)
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	[View Document](#)

5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution besides government schemes during the last five years

Response: 7.31

5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
150	149	91	74	49

File Description	Document
Any additional information	[View Document](#)

5.1.3 Number of capability enhancement and development schemes –

    1. For competitive examinations

    2. Career counselling

3. Soft skill development

4. Remedial coaching

5. Language lab

6. Bridge courses

7. Yoga and meditation

8. Personal Counselling

A. 7 or more of the above

B. Any 6 of the above

C. Any 5 of the above

D. Any 4 of the above

Response: A. 7 or more of the above

File Description	Document
Details of capability enhancement and development schemes	[View Document]()
Any additional information	[View Document]()
Link to Institutional website	[View Document]()

5.1.4 Average percentage of student benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years

Response: 54.35

5.1.4.1 Number of students benefited by guidance for competitive examinations and career counselling offered by the institution year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
649	999	1216	350	727

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	[View Document]()
Any additional information	[View Document]()

5.1.5 Average percentage of students benefited by Vocational Education and Training (VET) during the last five years

Response: 21.89

5.1.5.1 Number of students attending VET year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
651	257	242	192	173

File Description	Document
Details of the students benifitted by VET	[View Document](#)
Any additional information	[View Document](#)

5.1.6 The institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases

Response: Yes

File Description	Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	[View Document](#)
Details of student grievances including sexual harassment and ragging cases	[View Document](#)
Any additional information	[View Document](#)

5.2 Student Progression

5.2.1 Average percentage of placement of outgoing students during the last five years

Response: 54.47

5.2.1.1 Number of outgoing students placed year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
133	225	211	204	242

File Description	Document
Self attested list of students placed	View Document
Details of student placement during the last five years	View Document

5.2.2 Percentage of student progression to higher education (previous graduating batch)

Response: 7.14

5.2.2.1 Number of outgoing students progressing to higher education

Response: 25

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education	View Document

5.2.3 Average percentage of students qualifying in State/ National/ International level examinations during the last five years (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

Response: 37.49

5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil services/ State government examinations) year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
7	5	5	10	6

5.2.3.2 Number of students who have appeared for the exams year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
101	46	19	12	10

File Description	Document
Upload supporting data for the same	[View Document](#)
Number of students qualifying in state/ national/ international level examinations during the last five years	[View Document](#)

5.3 Student Participation and Activities

5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at national / international level (award for a team event should be counted as one) during the last five years.

Response: 149

5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
17	28	71	26	07

File Description	Document
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	[View Document](#)
e-copies of award letters and certificates	[View Document](#)

5.3.2 Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution

Response:

The Students' Council is established at the institute under the Maharashtra University Act. In addition to representation from faculty and staff representations, from students on Students' Council is as follows:

- One regular student from each class.
- · One student from the categories like sports, National Cadet Corps (NCC), National Service Scheme (NSS), cultural.
- · Two principal nominee girl students.

Along with the students' council at the institute level, every department at the institute has the students' association such as:

- Civil Engineering Students' Association (CESA)
- Computer Science and Engineering Students' Association (CSESA)
- Electronics Engineering Students' Association (EESA)
- Mechanical Engineering Students' Association (MESA)
- Production Engineering Students' Association (PESA)
- First Year Association of B.Tech Students (FABS)

Each of these associations is constituted of One Faculty Coordinator, President, Vice president, Treasurer, Head of Technical activities, Head of Sports activities, Head of cultural activities and Training and Placement coordinator.

The objective of the students' Council, along with the students' association is:

- To look after the welfare of the students and to promote and coordinate the co-curricular and extra-curricular activities to inculcate social and professional ethics.

In addition to the role in student council, students also have representation on following college-level committees:

- **Magazine committee:** "Panorama" is an institutional annual magazine published by the magazine committee wherein students are given opportunity to present their talent in the form of technical and nontechnical articles, poetry, sketching, painting, and photography. Interviewing eminent personalities.
- **Ant ragging and student discipline committee**: This committee ensures zero ragging incidents in the institute and also spreads awareness among students against any type of ragging activities.
- **Internal complaints committee:** This committee addresses students' complaints and maintains harmony and discipline among the students.
- **Cultural Committee:** This committee coordinates various cultural activities and events throughout the year such asTraditional day, Dance competition, Singing competition, Roleplay, one-act Play etc.
- **Gymkhana Committee:** This committee organizes departmental and interdepartmental various sports activities like indoor and outdoor games. Our students actively participate in various sports at intercollegiate, zonal, interzonal, Interuniversity, national level.
- **Student support committee**: This committee is for the student support for academic and non-academic issues.
- **Internal Quality Assurance Committee (IQAC):** To ensure the academic and administrative quality within the institute.

Various technical, as well as non-technical activities, are organized and coordinated by students such as

·   **Technical activities:** "Quest" a paper presentation competition and Conference, DCAD, Mu-master, Texas instruments TIDrishti competition, Rob race, Robo war, C-Coding, Bridge Making, Model Making, Go-Kart, RCDC, seminars, and talks.

·   **Nontechnical activities**: "Karmaveer Fest" a social-cultural activity, "Xtasy" a cultural activity, "Young Leader" to build the leadership qualities, student parliament, photo exhibition, genesis android and sports activities including annual sports competitions.

Students are participating in paper and poster presentation, project competition, youth festival, Indradanushya- a cultural festival of universities, sports competitions at zonal, interzonal, Ashwamedh-sports Interuniversity competition and national level sports competitions.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

5.3.3 Average number of sports and cultural activities/ competitions organised at the institution level per year

Response: 27.2

5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
35	33	16	37	15

File Description	Document
Report of the event	[View Document](#)
Number of sports and cultural activities / competitions organised per year	[View Document](#)

5.4 Alumni Engagement

5.4.1 The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non financial means during the last five years

Response:

Alumni Association of the institute is registered with Registration Number MH/8828/Satara, dated 29/07/2004.

The Alumni Association is working with the following objectives:

- To increase interaction or help to increase interaction between the colleges of engineering passed students of the college and present students undergoing education in the college.
- To enhance, modernize, upgrade the existing facilities at engineering colleges with the help of past students.

- To make available industrial training, placements and other facilities to the present students through the help of past students in various industries.
- To grant scholarships to deserving students and to provide interest-free loans and other monitory and no monitory assistance to deserving students of engineering college for higher education.
- To undertake, conduct, carry on and help to carry on scientific/academic study and research in engineering.
- To organize or assist in the organization of lectures, seminars, refresher courses, conferences, get together etc.
- To encourage educational, cultural fundraising sports and other such activities as managing committee may deem fit in further once of the objectives of KBPIAN.
- To solve the problem of past students, present students, and give proper guidance to assist for stability and equity in society.
- To organize seminars and projects to develop a source of business among the youth.
- To organize various social activities such as dramas, debates, so as to develop and maintain various cultural ethics and customs of society.

The alumni association meeting is conducted by the association regularly and the Institute conducts the alumni meet annually.

Alumni meet provides a good opportunity to the faculty, staff, and students, for interaction with the alumni working in various sectors and at a different level.

The alumni are invited for the conducting Expert talks, Seminars, workshops on different areas of their expertise.

Our alumni preserve the **Rayat Culture** by sponsoring economically weak students through financial help.

Our alumni have proposed donation in terms of money, material, machinery and required services for the renovation, repair, reorientation and landscaping requirements required for infrastructural development of the Institute.

Alumni have come up with a proposal to develop a **Center of Excellence** by developing a laboratory in the name of **Late. Major Amol Nilange** and cyclic scholarship for students.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

5.4.2 Alumni contribution during the last five years(INR in Lakhs)
? 5 Lakhs

4 Lakhs - 5 Lakhs

3 Lakhs - 4 Lakhs

1 Lakh - 3 Lakhs

Response: ? 5 Lakhs

File Description	Document
Any additional information	View Document
Alumni association audited statements	View Document

5.4.3 Number of Alumni Association / Chapters meetings held during the last five years

Response: 18

5.4.3.1 Number of Alumni Association /Chapters meetings held year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
05	04	03	02	04

File Description	Document
Number of Alumni Association / Chapters meetings conducted during the last five years	View Document
Any additional information	View Document
Report of the event	View Document

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the institution

Response:

VISION

To be a premier institute enhancing the young minds into potential manpower through autonomy

MISSION

- To produce promising technocrats through academic excellence.
- To strengthen industry institute interaction for mutual benefits.
- To promote research and development for catering to the needs of society at large.
- To inculcate social as well as ethical values amongst employees and students.

The institute 'Karmaveer Bhaurao Patil College of Engineering, Satara' is governed by its parent trust 'Rayat Shikshan Sanstha, Satara'. The Rayat Shikshan Sanstha was instituted by the great visionary **Padmabhushan Dr. Karmaveer Bhaurao Patil**, in 1919, to educate the downtrodden sections in the society. Trust works for the children of society who are deprived of education due to social inequality, lack of financial support, etc. through ashram schools, boarding houses, schools and colleges spread over 11 districts of Maharashtra and one district of Karnataka. The Rayat Shikshan Sanstha is professionally and democratically governed by eminent personalities involved in education from the state of Maharashtra. Trust runs about 630 schools, 43 colleges in the area of Arts, Commerce, Science, Law, Education, Management along with Engineering. The trust is exclusively involved in the field of education; and is the biggest education provider in the state of Maharashtra.

Following to vision and mission of the trust, Karmaveer Bhaurao Patil College of Engineering, Satara was established in 1983, to provide education in the field of Engineering and Technology.

From the apex, Rayat Shikshan Sanstha's professional management leads Institute. Whereas fulfilling statutory requirements institute has a Board of Governance (BOG) and College Development Committee (CDC). CDC is headed by eminent technocrats from Government, Government, Academic and private sector, eminent industrialists and nominees of statutory bodies. BOG and CDC take strategic and policy decisions to accomplish the mission. Execution of the decisions is done by Principal, through the functioning of the departments headed by Head of the department and institute level committees.

CDC and BOG have taken important decisions like shifting affiliation from Shivaji University, Kolhapur; engaged in imparting education in all disciplines to a dedicated technological university established by the state of Maharashtra i.e. Dr. Babasaheb Ambedkar Technological University, Lonere (DBATU). DBATU offers a better structure of syllabus, examination systems, the wide choice of courses through electives etc., thus provides freedom like autonomy. The Vision and Mission of the institute are reflected through the perspective plan of the Institute.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.1.2 The institution practices decentralization and participative management

Response:
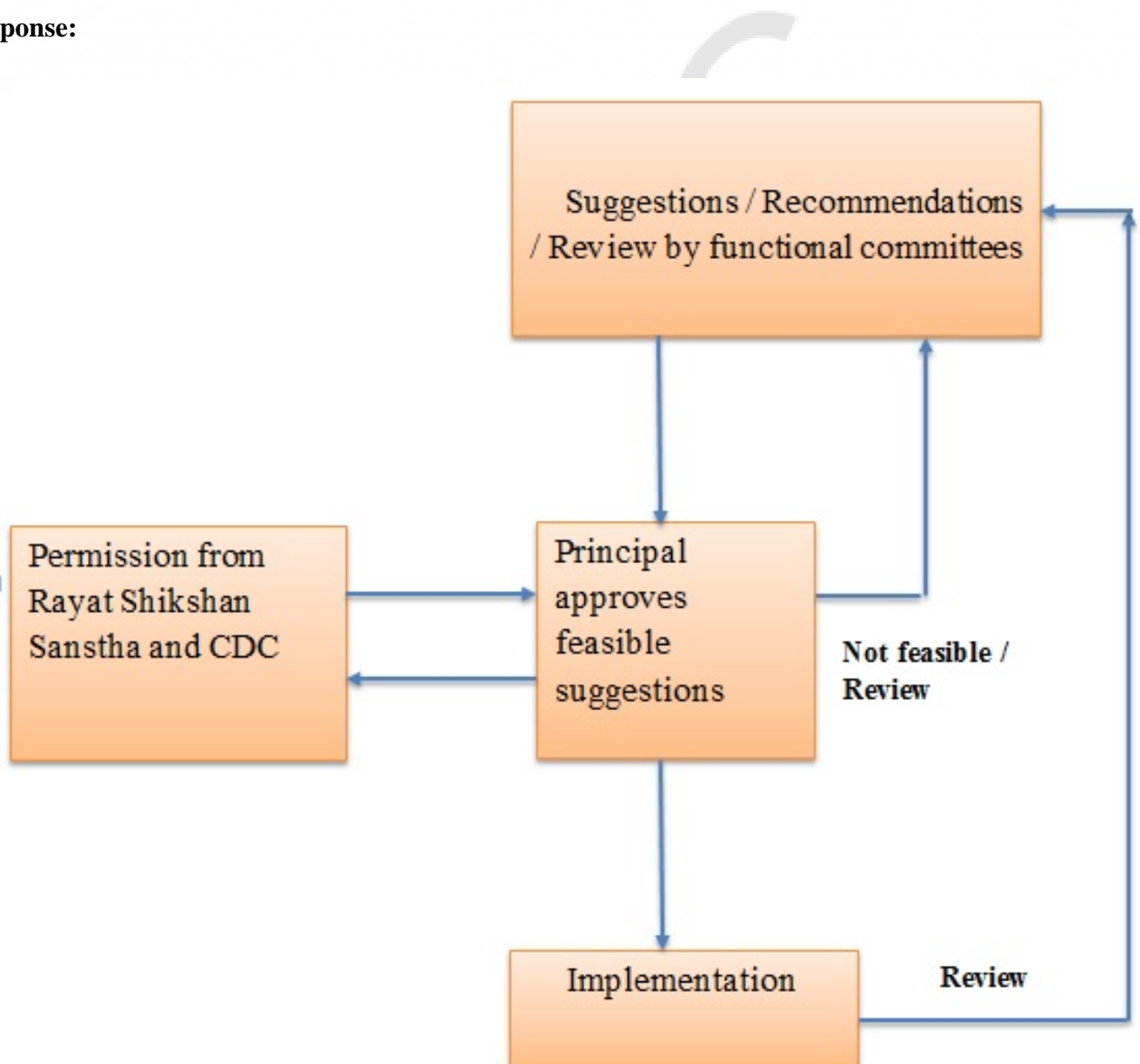
Karmaveer Bhaurao Patil College of Engineering follows governance through decentralization. The

institute is governed by its parent trust 'Rayat Shikshan Sanstha, Satara'; which has the robust structure for functioning through its General body, Management Council, Executive committee, Life member board, Higher education committee, Coordination committee, and five regional advisory committees. Policy decisions regarding all around 675 institutes run by Rayat Shikshan Sanstha are taken at the appropriate level.

For institute, highest level committees as per statutory requirements are Board of Governance (BOG) and College Development Committee (CDC). The principal has overall responsibility for execution of the decisions taken by BOG and CDC and regular functioning of the institute. Academic activities are governed by Dean Academic and are responsible for academic performance. Internal Quality Assurance Cell (IQAC) has the responsibility for overall quality assurance as per statutory requirements. Heads of individual academic departments are responsible for the department's administration and academics. Other primary functional departments are Administrative office, Library, Gymkhana, Training and placement office, and Workshop.

Various functional committees are constituted where cross-functional faculty and staff are the members of the committees. These functional committees help implement the bottom-up approach as they identify the development opportunities in academic and administrative operations through committee meetings. Committees discuss cross-functional issues and suggest actions. The minutes of the meeting are submitted to the Principal for further guidance. Suggestions given by functional committees are discussed in the meeting of Principal, Dean Academics and Heads of the Departments and decisions are taken in the overall interest of the institute, further directives are given to the concern.

The decisions which require permissions from the trust are referred to Rayat Shikshan Sanstha for further considerations and then decisions are taken as directed by the trust. Committees further execute the decisions of the Principal and take follow up. Thus every faculty and staff are involved in the decision-making process.

The Case study: Library requirements and Implementation

The Library committee meeting was held on 9 March 2015. In this meeting eight committee members were present. After discussions in the meeting, decisions were taken to recommend possible developments necessary in the library. Some of the important suggestions by the committee are presented below as an example.

1. To get Ebooks and NPTEL lectures available in the library.
2. Grills and net fitted to windows for safety
3. Get done paste control
4. Get furniture for a proposed reading room

The minutes of the meeting of the library committee were forwarded to the Principal and then necessary actions were initiated.

The action taken report dated 3 June 2015 shows that

1. Ebooks and NPTEL lectures were made available to faculty and students through institutes FTP server (link ftp://172.20.0.1) or from internet link http://103.108.74.91
2. The correspondence is made to get grills and net to be fitted to windows.

3. Paste control is done
4. The furniture was made available for the reading room.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.2 Strategy Development and Deployment

6.2.1 Perspective/Strategic plan and Deployment documents are available in the institution

Response:

Example of activity successfully implemented based on the strategic plan

The strategic plan of the institute in the form of the perspective plan is based on graduate attributes, considering local needs. The perspective plan is developed considering five key aspects. A careful observation of the aspects and the elements therein reveals that many aspects could not be fulfilled without having active cooperation from and participation of the external agencies like industries, other institutions, training providers, social organizations, etc. Mutually beneficial partnership with such external agencies is the key to implement a strategic plan. Keeping this in mind institute has been taking initiatives consistently to have a formal understanding by entering into MoU with such organizations. This has resulted in having many MoUs. Following table clearly explains, for example, how some of the MoUs have helped in putting the perspective plan in action and the benefits thereof.

Sr. No.	An element from the perspective plan	Institute having MoU with the organization	Benefits of MoU
1	Industry interface through summer internship for faculty and students	Priar Web Pvt. Ltd. Mumbai	Students and faculty have undergone training
2	Undertaking field projects with participation from the industry	Abhijat Equipments Pvt. Ltd. Satara	Students have undertaken field projects
3	Providing platform to the faculty and students for industry-sponsored projects and R & D	Cooper Corporation Pvt. Ltd. MIDC, Satata.	Sponsored Rally car design
		Rayat Institute for Research and Development	The faculty has registered for Ph.D.
4	Inviting experts and	Cyclo transmissions Ltd,	Mr. Rahul Shinde is

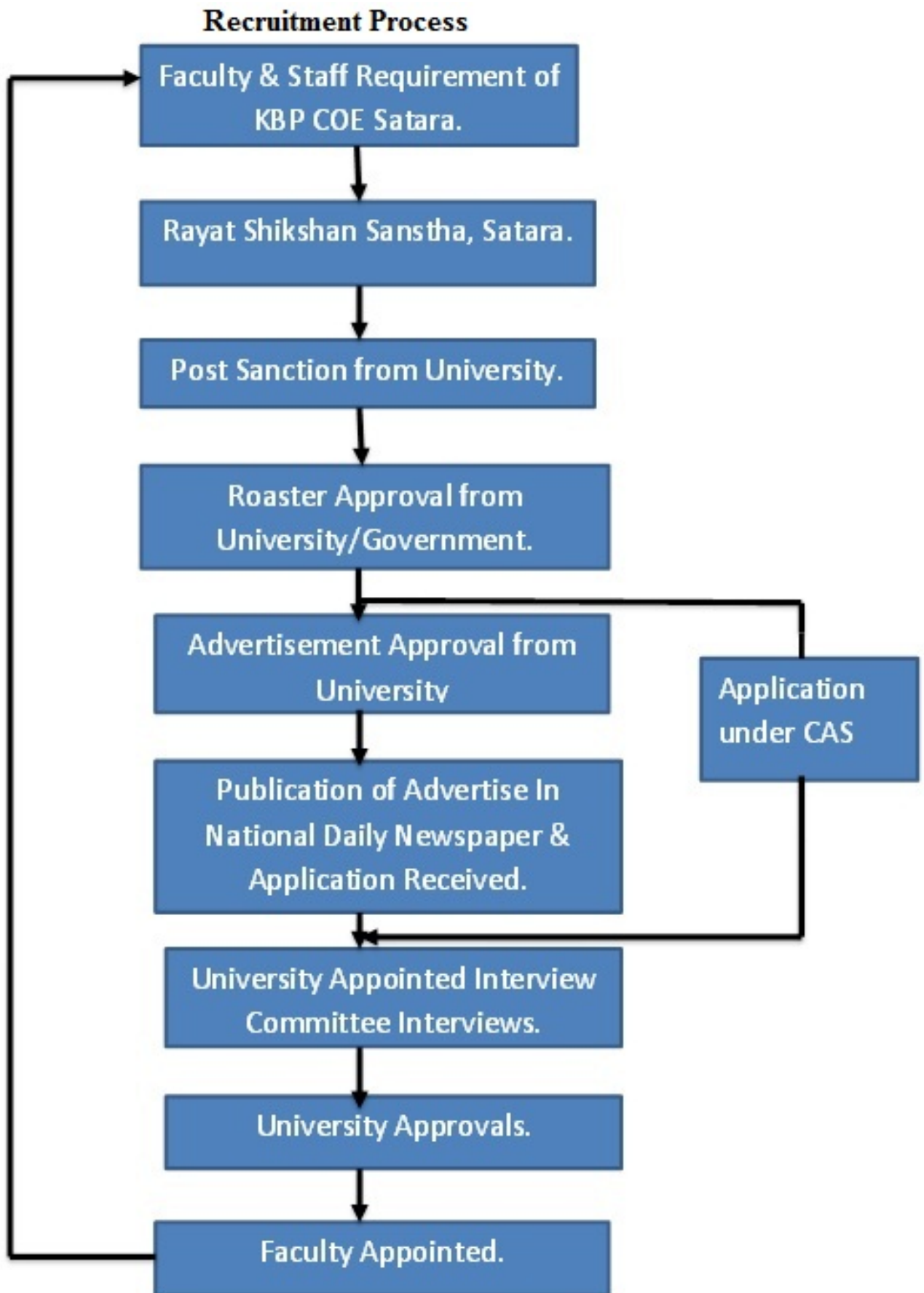|			
	eminent person for evaluation of progress in various departments	Patkhal, Satara.	working on Department Advisory Board
5	Providing the facility for students to take internship or training in the related industry	Win-Win Technologies, MIDC, Satara	Students have undergone training
6	Providing skill-based training to the students	Universal Education, J P Nagar Ph. 5, J P Nagar, Bangalore	Soft skill training
7	Signing MoU with organization /corporate/industry to exchange the knowledge and expertise in a related program of engineering	Manufacturers Association of Satara, MAS Bhavan, Addl. MIDC, Satara	Participation of MAS members in exchange of knowledge
8	Make an effort to educate the students for entrepreneurship and setting up startups incubation cell	Yashwantrao Chavan Centre for Invention Innovation and Incubation, Satara	Training for students and end to end assistance to convert an idea into the business
9	Inculcating Rayat culture in faculty, staff, and students	Karmaveer Vidya Prabodhini, Rayat Shikshan Sanstha, Satara	Participation of faculty, staff, and students in the activities
10	Contributing to social change and promoting green initiatives	Aastha Samajik Sanstha, Satara.	Tree plantation, watershed development
11	Enhancing operational efficiency in academic and administration for better results	Government College of Engineering, Pune	Mentorship by Government College of Engineering, Pune

The process of the signing of MoU by the institute is continuing. The activity and discussions are going on regarding signing MoU with many industries, educational institutes, and other organizations.

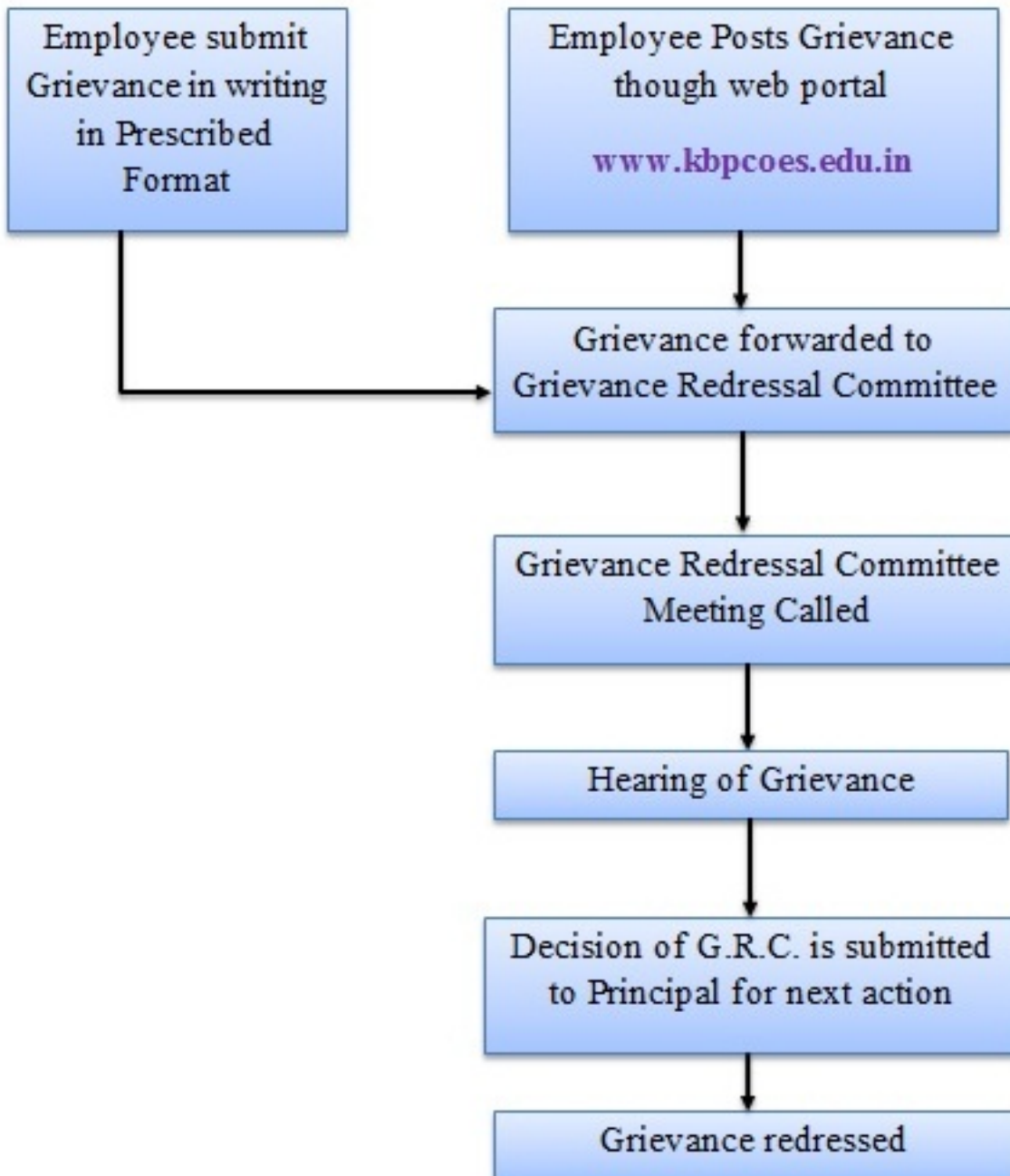| File Description	Document
Any additional information	[View Document](#)
Strategic Plan and deployment documents on the website	[View Document](#)
Link for Additional Information	[View Document](#)

6.2.2 Organizational structure of the institution including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism

Response:

Recruitment Process

```
        ┌─────────────────────────────┐
        │ Faculty & Staff Requirement │
        │      of KBP COE Satara.      │
        └─────────────────────────────┘
                      │
                      ▼
        ┌─────────────────────────────┐
        │ Rayat Shikshan Sanstha,      │
        │         Satara.              │
        └─────────────────────────────┘
                      │
                      ▼
        ┌─────────────────────────────┐
        │ Post Sanction from University│
        └─────────────────────────────┘
                      │
                      ▼
        ┌─────────────────────────────┐
        │   Roaster Approval from      │
        │   University/Government.     │
        └─────────────────────────────┘
                      │
                      ▼
        ┌─────────────────────────────┐        ┌──────────────┐
        │ Advertisement Approval from  │        │ Application  │
        │        University            │        │  under CAS   │
        └─────────────────────────────┘        └──────────────┘
                      │
                      ▼
        ┌─────────────────────────────┐
        │ Publication of Advertise In  │
        │ National Daily Newspaper &   │
        │   Application Received.       │
        └─────────────────────────────┘
                      │
                      ▼
        ┌─────────────────────────────┐
        │ University Appointed Interview│
        │   Committee Interviews.       │
        └─────────────────────────────┘
                      │
                      ▼
        ┌─────────────────────────────┐
        │   University Approvals.       │
        └─────────────────────────────┘
                      │
                      ▼
        ┌─────────────────────────────┐
        │    Faculty Appointed.         │
        └─────────────────────────────┘
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Grievance Redressal

```
┌──────────────────────┐        ┌──────────────────────┐
│ Employee submit      │        │ Employee Posts        │
│ Grievance in writing │        │ Grievance though      │
│ in Prescribed        │        │ web portal            │
│ Format               │        │ www.kbpcoes.edu.in    │
└──────────┬───────────┘        └───────────┬──────────┘
           │                                │
           └──────────────┐  ┌──────────────┘
                          ▼  ▼
               ┌────────────────────────────┐
               │ Grievance forwarded to     │
               │ Grievance Redressal        │
               │ Committee                  │
               └─────────────┬──────────────┘
                             ▼
               ┌────────────────────────────┐
               │ Grievance Redressal         │
               │ Committee Meeting Called     │
               └─────────────┬──────────────┘
                             ▼
               ┌────────────────────────────┐
               │ Hearing of Grievance        │
               └─────────────┬──────────────┘
                             ▼
               ┌────────────────────────────┐
               │ Decision of G.R.C. is        │
               │ submitted to Principal for   │
               │ next action                  │
               └─────────────┬──────────────┘
                             ▼
               ┌────────────────────────────┐
               │ Grievance redressed          │
               └────────────────────────────┘
```

Karmaveer Bhaurao Patil College of Engineering, Satara has a well-established organization structure under the guidance of Rayat Shikshan Sanstha, Satara (Parent Organisation), for the smooth functioning of the administrative and academic process.

The governing body is the highest decision-making body constituted as per statutory requirements and consists of members of the management, nominated members of various bodies, Principal and nominated faculty members. College Development Committee (formerly Local Management committee) has been formed following affiliating university guideline and includes representatives of society, Principal, three members elected from teaching faculty and one member of non-teaching staff.

- Functioning of statutory bodies is as per the directives, given in the statues of affiliating university and AICTE.
- Principal, Heads of the Departments, sectional heads and Co-coordinators of various committees have adequate participation in making decisions in academic and administrative processes under their purview.
- Service rules as enforced by Government, affiliating University, University grants commission, All India Council of Technical Education are followed.
- Recruitment and promotion policies and rules have been defined by statutory bodies and decisions are taken following these. Recruitments are done by parent trust.
- Administration set up in chronological order is as follows

1. Board of governance
2. College Development Committee (Previously Local Managing Committee)
3. Principal
4. Vice Principal
5. Dean Academic
6. Internal Quality Assurance Cell (IQAC)
7. Registrar
8. Training and Placement Officer (TPO)
9. Physical Director

- Academic administration is through

1. Principal
2. Vice Principal
3. Dean Academic
4. Head of the Civil Engineering Department
5. Head of the Computer Science and Engineering Department
6. Head of the Electronics Engineering Department
7. Head of the Mechanical Engineering Department
8. Head of the Basic Sciences and Humanities Department.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

6.2.3 Implementation of e-governance in areas of operation

1. **Planning and Development**
2. **Administration**
3. **Finance and Accounts**
4. **Student Admission and Support**
5. **Examination**

A. All 5 of the above

B. Any 4 of the above

C. Any 3 of the above

D. Any 2 of the above

Response: A. All 5 of the above

File Description	Document
Screen shots of user interfaces	[View Document](#)
ERP Document	[View Document](#)
Details of implementation of e-governance in areas of operation Planning and Development,Administration etc	[View Document](#)
Any additional information	[View Document](#)

6.2.4 Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions

Response:

The institute follows governance through decentralization. The principal is the overall controller for the activities in the institute. Principal primarily focuses on administrative activities and financial control and acts as the final authority. Implementation of policies as directed by 'Board of Governance' and 'College Development Committee' is the major role of Principal. The responsibility of academic activities and performance lies with 'Dean Academics'. Each department is headed by 'Head of the Department' and is responsible for the department's administration and academic activities. Head of the department is supported by faculty and staff with the department.

Various functional committees are constituted comprising faculty and staff and are headed by committee head. These functional committees discuss related issues in committee meetings, based on the suggestions of the committee Principal and Dean Academics in consultation with HOD take necessary actions. The committees in normal course meet at least twice a year. Similarly, statutory committees are constituted and function to fulfill statutory requirements. Need-based meetings are additionally conducted. The chairman and secretary of the committee decide agenda for the meeting. The minutes of the meeting are submitted to the Principal for further considerations and actions. Decisions involving financial and policy matters are put forward for approval of college development committee and subsequently to Rayat Shikshan Sanstha.

Every faculty member is involved in the functioning of the institute as being the member of the functioning committee. Following case studies indicate functioning of the organization through participative and decentralized management of the institute.

Case study No. 1

The Library committee in its meeting discussed issues regarding library and following discussions were taken.

1. To procure ebooks and NPTEL lectures for library
2. Put forward a requisition for furniture for the proposed reading room.
3. Fitting grills and net to windows for safety
4. Get Paste control done in the library

The minutes of the meeting were forwarded to the Principal and then necessary actions were initiated.

The action taken was as follows

1. Ebooks and NPTEL lectures were made available to faculty and students through institutes FTP server (link ftp://172.20.0.1) or internet link http://103.108.74.91.
2. The furniture was made available for reading
3. The correspondence is done to get grills and net to be fitted to windows
4. Paste control was done immediately

Case Study No. 2

1. Ladies hostel rector informed office superintendent regarding the shortage of water and subsequent purchase of water from private suppliers resulting in increased water bills.
2. Office superintendent reported the same to principal and the matter was referred to hostel committee.
3. Committee recommended drilling bore to solve the issue permanently.
4. Principal acted upon the recommendation and requested permission from higher authorities.
5. Permission was granted subject to approval by the college development committee.
6. Borewell work was carried out and the water supply was ensured. The final approval of all the expenditures was accorded by college development committee.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

6.3 Faculty Empowerment Strategies

6.3.1 The institution has effective welfare measures for teaching and non-teaching staff

Response:

The Rayat Shikshan Sanstha and particularly Karmaveer Bhaurao Patil College of Engineering, Satara is more concerned about its employees. Institute cares for its employees about their emergency need, their

family settlement, catering family needs, provision to care for the family in case of mishap through various welfare schemes through Rayat Shikshan Sanstha and its sister institution The Rayat Sevak Cooperative Bank Ltd.

1. Financial support to faculty and staff for attending faculty development programs, conferences, research activities etc.
2. Duty leave for attending faculty development programs, conferences etc.
3. Provident fund contribution
4. Maternity leave for ladies faculty and staff as well as paternity leave.
5. Employees are insured under LIC's Group Scheme for Life Insurance.
6. Rayat Shikshan Sanstha's Rayat Sevak Kutumb Kalyan Yojana provides support to the family of the deceased member. In case of unfortunate death of the member, immediate support of INR 1,00,000/- (One Lakh Only) is given to the family.
7. Rayat Shikshan Sanstha's Sevak Welfare Fund provides the support to the members in case of financial crunch due to accidental or unexpected death, or financial support in case of illness where a long course of treatment, or expensive surgery, or illness due to an accident. 85 Members are registered under this scheme.
8. Shivaji University, Kolhapur's Student Parents teacher and administrative staff welfare fund provides the financial support up to INR 1,00,000 (One Lakh) in case of accidental death, death due to natural calamity, permanent disability etc.
9. The Rayat Sevak Cooperative Bank's Sabhasad Kalyan Thev: The regular employee of institute being the member of The Rayat Sevak Cooperative Bank Ltd harness the benefits of various schemes of the bank. 82 Members are registered under this scheme. Hairs of deceased members are provided with support up to ten Lakh rupees.
10. The Rayat Sevak Bank provides various banking facilities and schemes for its members. The loan schemes are also provided with rebate on interest on prompt repayment.
    ○ Housing Loan
    ○ Loan no 1 up to INR13,00,000 (Thirteen Lakh)
    ○ Loan no 2 up to INR 5,00,000 (Five Lakh)
    ○ Loan on House as collateral security up to INR 25,00,000 (Twenty Five Lakh)
    ○ Educational Loan up to INR 10,00,000 (Ten Lakh) for inland education, INR 30,00,000 (Thirty Lakh) for Inland medical Education and education abroad.
    ○ Car Loan up to INR 10,00,000 (Ten Lakh)
    ○ Loan on Gold deposits
    ○ Savings bank account overdraft facility
    ○ Fixed and recurring deposits
    ○ Banking Facilities with ATM debit card
11. The Rayat Sevak Bank provides loan waiver through Sabhasad Kalyan Thev. The loan up to Rs 10,00,000 (Ten Lakh) is waived.
12. Institute conducts medical checkup camps.
13. The medical facility, Yoga awareness programs for employees.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

6.3.2 Average percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

Response: 15.27

6.3.2.1 Number of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
13	19	17	10	14

File Description	Document
Details of teachers provided with financial support to attend conferences,workshops etc during the last five years	[View Document](#)
Any additional information	[View Document](#)

6.3.3 Average number of professional development /administrative training programs organized by the institution for teaching and non teaching staff during the last five years

Response: 5.8

6.3.3.1 Total number of professional development / administrative training programs organized by the Institution for teaching and non teaching staff year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
12	6	3	4	4

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centres).	[View Document](#)
Reports of Academic Staff College or similar centers	[View Document](#)
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	[View Document](#)
Any additional information	[View Document](#)

6.3.4 Average percentage of teachers attending professional development programs viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Program during the last five years

Response: 71.49

6.3.4.1 Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
80	45	42	90	80

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers).	[View Document](#)
IQAC report summary	[View Document](#)
Details of teachers attending professional development programs during the last five years	[View Document](#)
Any additional information	[View Document](#)

6.3.5 Institution has Performance Appraisal System for teaching and non-teaching staff

Response:

To upgrade and maintain the quality of education and improvement in the teaching-learning process, this institute has in place performance appraisal system for faculty and non-teaching staff. The performance appraisal is a means for assessing and analyzing the faculty and staff performance. The self-appraisal helps individual to appraise his or her performance and motivates for continuous improvement. Also, it helps management to facilitate improvement, identify training needs etc.

The performance appraisals are collected from every faculty, where the faculty is giving information about self and rates the self-performance. Wherever necessary the information given by the faculty is supported by documentary evidence. The administration validates the information and assesses.

The performance of faculty is assessed based on the following aspects.

1. Qualifications and up gradation in qualifications
2. Teaching and professional experience and teaching performance
3. Innovation and contribution in teaching method
4. Research contribution: Involvement of faculty in various faculty development and other programs by the way of attending the programs, organizing the programs, involvement as resource persons

etc, Involvement of faculty in laboratory development

5. Involvement of faculty in institutes administration by the way of holding the posts like Principal, Vice Principal, Head of the Department, Training, and Placement officer etc., by the way of holding the membership of any functional committees.
6. Involvement of faculty in various bodies of University
7. Participation of faculty in Examination related activities like paper setting, Assessment, involvement as the examiner, coordinators.
8. Involvement of faculty in consultancy and projects in association with industry
9. Contribution and involvement of faculty in Rayat Shikshan Sanstha's projects, educational initiatives,
10. Extension work and community service, Involvement of faculty in social activities
11. Participation in corporate life

Similarly, the performance appraisals are collected from every staff, giving information about self and rate the self-performance. Wherever necessary the information given by staff is supported by documentary evidence. The administration validates the information and assesses.

The performance of staff is assessed based on the following major aspects.

1. Experience of staff
2. The capacity of staff to get work done, relations with colleagues
3. Innovation and contribution in teaching method
4. Participation of Staff in Examinations
5. Involvement of staff in institute administration
6. Involvement and contribution of staff in Consultancy and Internal Revenue Generation
7. Involvement of staff in Rayat Shikshan Sanstha activities

File Description	Document
Any additional information	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

The financial activities of the institute are governed by Rayat Shikshan Sanstha, the parent organization. The institute prepares the annual budget for next year in the month of December and presents for approval to Rayat Shikshan Sanstha. Approval is accorded by Sanstha by the end of June. The institute follows the expenditure pattern according to the budget duly sanctioned by Rayat Shikshan Sanstha. Any modification or revision required in the budget to cater to unforeseen or timely requirements is submitted for revised

sanction by the month of August.

The daily transactions are recorded in books of accounts according to Rayat Shikshan Santha's guidelines and complying with the guidelines of state governments, Fee Regulatory Authority and Institutions of Chartered Accountants. Accounting method followed is on Accrual Basis. The books of accounts thus prepared are made ready for financial auditing.

Rayat Shikshan Sanstha the parent trust of Karmaveer Bhaurao Patil College of Engineering has established a robust mechanism to avoid financial irregularities in all the institutions. A separate Audit department has been established for carrying out a financial audit of each and every institute run by Sanstha. A senior Principal, well versed with handling financial matters, shoulders responsibility of audit department. After Secretary and Joint Secretary, this is considered as the most important administrative position. Twice a year a dedicated team of expert auditors carries out internal audit of each and every institute run by Rayat Shikshan Sanstha. The external audit is conducted by an external Chartered Accountants agency annually, for the completed financial year.

During the audit process, auditors from Rayat Shikshan Sanstha (internal auditors) verify each and every financial transaction for necessary procedural approvals, verifies all finance related documents for their adequacy. Any discrepancy, if noticed is brought to the notice, queries raised regarding discrepancy of inadequacy need to be resolved immediately by providing documentary evidence. Any query, if not resolved is recorded and the audit report is prepared, stating noncompliance. Internal auditor reports to the principal about discrepancies and shortcomings observed, by conducting a meeting after every internal audit is completed. Such noncompliance should be cleared within the next few days before the next audit. All the objections get cleared before the final external audit. Thus the regular internal audit is conducted by parent trust.

External audit is conducted by appointed auditor, M/s Kirtane Pandit and Associates, Pune, the Chartered Accountants.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.4.2 Funds / Grants received from non-government bodies, individuals, Philanthropists during the last five years (not covered in Criterion III) (INR in Lakhs)

Response: 32.63

6.4.2.1 Total Grants received from non-government bodies, individuals, philanthropists year-wise during the last five years (INR in Lakhs)
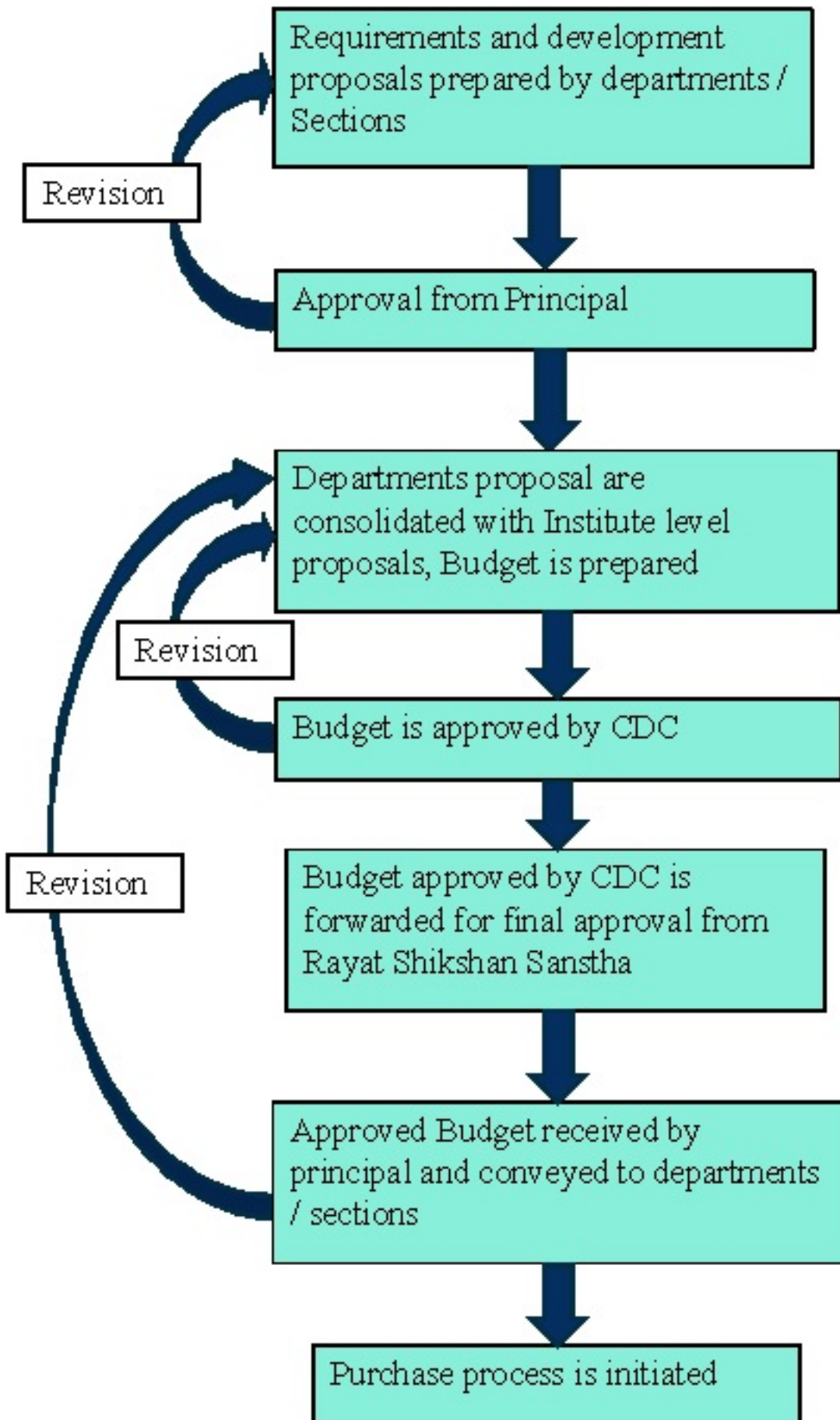
2017-18	2016-17	2015-16	2014-15	2013-14
10.83391	5.30593	6.08835	9.89116	0.51223

File Description	Document
Details of Funds / Grants received from non-government bodies during the last five years	[View Document](#)
Any additional information	[View Document](#)
Annual statements of accounts	[View Document](#)

6.4.3 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

Response:

Requirements and development proposals prepared by departments / Sections

Revision

Approval from Principal

Departments proposal are consolidated with Institute level proposals, Budget is prepared

Revision

Budget is approved by CDC

Revision

Budget approved by CDC is forwarded for final approval from Rayat Shikshan Sanstha

Approved Budget received by principal and conveyed to departments / sections

Purchase process is initiated

To progress in tune with Vision and Mission of the institute, an institute strategically plans for administrative, academic, laboratory and infrastructure development in advance. The heads of the departments are expected to plan for the development of laboratories and infrastructure, considering the requirements of the syllabus, the addition of equipment to enrich laboratories, prospected opportunities for testing and consultancy, etc. Based on such issues the heads of departments submit a development budget to the Principal. Overall infrastructure development planned at the institute level is consolidated with the department's budget.

- The consolidated budget is put for approval of the College Development Committee (CDC). CDC approves the budget after necessary corrections, modifications etc. After approval of the CDC, the budget is put for sanction by Rayat Shikshan Sanstha. Based on the approval, individual departments decide their priorities of purchases.
- The finance available is utilized optimally by following procedures prescribed by Rayat Shikshan Sanstha. The purchase committee is constituted for the effective utilization of resources and ensures procedural formalities. Various budget heads have been created in books of accounts, which help to monitor the utilization of budget provided for various departments and activities.
- The money collected from students in the form of fees and other sources like consultancy, donations etc. remain only with the institute and do not get transferred to the parent trust. This ensures that the institute funds are utilized only for the benefit of the institute.
- Other than fees collected from students, the institute explores following avenues for raising funds for various projects and activities

1. Raising the funds from testing and consultancy services
2. Raising the funds through alumni's contribution towards laboratory and infrastructure development
3. Getting the laboratories developed by industries as a center for excellence
4. Raising the funds through sponsored projects, industry / Government funded projects
5. Funds from management.

- Other than monetary resources, the institute has a library, reach in quality and quantity. Library resources are effectively utilized so as to benefit primarily students and faculty. Institute runs a book bank scheme through which a set of text and reference books is issued to the students at nominal charges.
- Laboratory facilities are optimally utilized for consultancy services which also generate resources for the institute.
- Faculty from the institute undertakes industry-sponsored projects; utilizing their technical know-how and get it completed as students projects. This avoids siphoning of institute funds which otherwise would have required to support student projects.

Thus management gives complete freedom of mobilizing and effective utilization of resources.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

Response:

Institute have Internal Quality Assurance Cell (IQAC), constituted and reformed from time to time. It acts as a nodal agency of the Institute for coordinating quality-related activities, including adoption and dissemination of best practices. It facilitates the creation of a learner-centric environment conducive for quality education. It forms mechanisms for effective academic activities.

IQAC organizes training programs for the dissemination of information on the various quality parameters of higher education. The Co-ordinator of IQAC, Academic Dean and Heads of the Departments are responsible for the effective implementation of the Internal Quality Assurance System. It Monitors documentation of the various programmes/activities leading to quality improvement.

Best Practice: 1

1. LEARNER CENTRIC TEACHING AND LEARNING PROCESS

Objectives

- To improve the teaching and learning process by implementing the use of various teaching tools such as quiz, case study, group discussion, model demonstrations, role play, etc.
- To increase the engagement of students in learning by using various Active Learning Methods like Project Based Learning.

Context

- Overall student achievement is likely to increase when students are able to learn at their own pace with a variety of teaching styles and formats available to them.
- It is necessary to apply a variety of teaching tools rather than the use of a simple Lecture Method to enhance learning.
- It is observed that students behave as a passive listener during the lecture which makes necessary to change them as an active learner.

The Practice:

- IQAC conducts FDPs to orient faculty towards student-centered learning methods.
- All the faculty members are mandated to maintain a Course File for their course including Active Learning.
- The lecture plan and Laboratory plan are given to the students at the beginning of the semester.
- Students mentoring is done which also addresses the academic problems faced by the students.
- The Representation is given to students on IQAC and Students' Council where they can share their views and ideas for learning enhancement.
- Feedback from the students is taken on academic activities.

Evidence of Success:

- Students give their feedback freely.
- Students engagement in the classroom and laboratory are increased.
- Students involvement in academic activities is increased.

Best Practice: 2

Effective use of E-learning Mechanism

Objective: To inculcate self-learning capability among the students through MOOC and e-learning Platforms.

Context:

- E-Learning is a relatively new emerging technology. It concentrates on sharing Knowledge of expert to the students/ academician. This will enhance their knowledge irrespective of location and time.

Practice:

- The students are participating in the different e-learning platforms such as IIT NPTEL, through NPTEL local chapter, SWAYAM, IIT free open source software system (FOSS), IIT Virtual laboratory through the nodal center and other MOOC platforms like Coursera, Edx, Alison, etc. As a part of its students and mentor faculty participated in FOSS, NPTEL, Coursera

Outcome:

- The Participation and awareness of students/ academician have been augmented. In AY 2016-17 total Participation of students/ academician was 504 number. In AY 2017-18 total Participation of students/ academician was 958 number and currently AY 2018-19 till date the registration is 1047.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms

Response:

IQAC is the central body within the College to continuously review the teaching-learning processes of all the programs. IQAC along with Dean Academics take the review of the teaching-learning process. The academic calendar of the institute is prepared to keep in view the Academic calendar of University. Based on this, each Department prepares its Time Table followed by an Individual Time table of the faculty. Then considering syllabus of the Course and individual's timetable, each faculty prepares his / her Course File

as per format provided by the Academic Dean. Course File is checked periodically by Academic Dean and members of IQAC. Feedback based on checking is given to the faculty. Also, the Academic Monitoring and Academic Audit is done. Feedback in the form of suggestions is given at each stage i.e. after checking, monitoring and audit. Accordingly, improvement is done in the teaching process and the content of the file is modified.

(A) Enhancement of course file content: The effectiveness of the teaching-learning process is enhanced by faculty involvement in improving the quality and effectiveness of course content.

The course file prepared contains the following points which cover many categories of teaching and learning tools.

- List of Online resources, links of journals and web links to provide the latest updates and ongoing research trends of the topic.

- PPTs, NPTEL / other video links.

The important part of the course file is a teaching and assessment plan. It contains the teaching method being adopted, scheduled dates for teaching a particular topic, the reference material for the students, teaching activities, and activities expected from students during teaching. This information available in advance provides opportunities to all the laboratory in-charge, department, institute, and the students to prepare themselves well in advance so as to achieve the expected outcome.

(B) Academic Monitoring System

Institute has a system of monitoring academic activities periodically. It includes the number of lectures conducted by faculty members, syllabus covered, measures taken for poor attendance of a student, Review of Assignments given, Project Based Learning, the progress of the project, etc. It is done monthly and at the end of the semester. The number of defaulter students is fortnightly monitored. Review of University examination results, internal examinations and student's feedback for teaching are also taken regularly.

(C) Academic Audit:

We conduct regular internal academic audits by IQAC. Dean (Academics), Head of the Department and Member of IQAC work as internal auditors. An audit is done to ensure that we are complying with the set procedure.

- Annual external academic audit is carried out by a committee comprising of external academic experts from reputed institutions to ensure the quality in teaching and learning and other academic processes followed.
- The external auditors review all the documents maintained by the department.
- The auditing process helps to further improve the system by effective corrective measures taken by the departments as per the suggestions that are given by the internal and external auditors and IQAC of the college.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year

Response: 17.8

6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
18	23	20	18	10

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	View Document
Any additional information	View Document
IQAC link	View Document

6.5.4 Quality assurance initiatives of the institution include:

1. Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback collected, analysed and used for improvements
2. Academic Administrative Audit (AAA) and initiation of follow up action
3. Participation in NIRF
4. ISO Certification
5. NBA or any other quality audit

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: B. Any 3 of the above

File Description	Document
Details of Quality assurance initiatives of the institution	[View Document](#)
Any additional information	[View Document](#)
Annual reports of institution	[View Document](#)

6.5.5 Incremental improvements made during the preceding five years *(in case of first cycle)* **Post accreditation quality initiatives** *(second and subsequent cycles)*

Response:

Institute is taking continuous and wide efforts to improve quality. IQAC sets the benchmark for various activities and processes. It monitors the process and measures the performance against the set benchmark through joint efforts of Academic Dean and Heads of Departments.

Some of the initiatives of IQAC contributing to incremental improvements for the last five years are:

- Common Academic formats are prepared, circulated time to time and implemented.
- The content of Course File is enhanced qualitatively year by year.
- Through participative learning, project-based learning, efforts are being taken to build the student-centric learning system.
- The use of Classroom Assessment Tools (CATs) like *Muddiest Point* improve the feedback from the students on the topics so far covered in the class.
- Students were promoted to view NPTEL and similar videos since 2016 to improve the learning process. Further NPTEL Local Chapter is formed for online courses in 2018. Faculty Mentors are participating and motivating the students to register and complete online courses through SWAYAM, MOOCs, NPTEL.
- Students were promoted for use of Free Open Source Software(FOSS), the FOSS laboratory is set up in Jan 2016 in association with IIT Bombay, to provide certification in FOSS.
- Virtual Laboratory is set up in 2016 for experimentation with remote equipment at national level institutes. The increasing use of resources like Virtual laboratories enhances the effectiveness of the teaching-learning process.
- Academic Audit mechanisms are started and implemented. Internal audit is done by the Head of Department, Member IQAC and Dean Academic and AAA is done by the External Agency which includes experts from faculty in other institutes.
- Continuous Assessment system and the Academic Monitoring process are improved.
- Mapping and Attainment of Course Outcomes and Program Outcomes are introduced from 2016 and followed to monitor progress.
- Soft Skill development training programs are organized for students.
- National Conference on Recent Trends in Engineering & Technology (NCRTET) is organized.
- As a result of efforts taken students started participating in Texas Instruments sponsored India Innovation Challenge competition. ALTERA (INTEL Corporation) have sponsored software for VLSI Laboratory in the institute.
- Career Development Cell is formed in 2017 to provide special coaching for competitive exams. Programs on awareness about IPR

- Entrepreneurship Development Cell is started. This Cell has organized Entrepreneurship Awareness Camp. Several students have started their own business and are flourishing as entrepreneurs.
- Institute started using limited ERP in 2014, the scope of ERP is further increased for finance, students support, administrative activities like establishment section etc. Institute started using Tally for accounting.
- Institutes website is updated successively to make it more user-friendly and informative. Few of the faculty started hosting individual websites from 2014. Most of the faculty now are providing students with support for their academics through individual websites. The faculty has also developed Android Apps for academic support to students.

Continuing Education and Faculty and staff Development activity are carried out, which includes organizing workshops and Seminars for faculty and staff on topics like Innovative Teaching Methods, Teaching Technology, laboratory training, Training on ERP software and Tally etc.

File Description	Document
Any additional information	View Document

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Number of gender equity promotion programs organized by the institution during the last five years

Response: 191

7.1.1.1 Number of gender equity promotion programs organized by the institution year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
44	26	45	43	33

File Description	Document
Report of the event	[View Document]
List of gender equity promotion programs organized by the institution	[View Document]
Any additional information	[View Document]

7.1.2

    1.**Institution shows gender sensitivity in providing facilities such as:**
        1.**Safety and Security**
        2.**Counselling**
        3.**Common Room**

Response:

Safety and security:

The institute takes care regarding gender sensitivity from safety, security and related issues.

Gender sensitivity ensures that women and men enjoy the same status and have equal opportunity to exercise their human rights and realize their full potential, especially young women.

The institute campus has a security check at the entrance for all entrants. Identity card and uniform are mandatory for the students and staff in the college campus. The Institute has installed CCTV Cameras for surveillance at different locations such as Institutes Entrance, Library, Classrooms, Student Section, Principal's Office, all corridors and Computer Centre

The programs related to gender equality are conducted in the Institute for women empowerment and

awareness. The first aid facility is made available in every department and Medical facility with a sick room is available on the institute campus. Separate lady doctor is appointed in case any student suffered from health issues. Firefighter units are placed at different locations on the college campus.

Counseling:

A team of faculty is available for mentoring the students about academic problems and giving a future perspective. The counselor is appointed to resolve the student's psychological issues and gender-related issues. Counseling offers students a space to talk and think about individual problems and difficulties, and many find it helpful.

Counseling is not about giving advice, but that helps the faculty to understand the difficulties of students. Faculty can help students to make decisions and alternatives that may work better.

The Institute has constituted student grievance committee to address the grievances if any raised by the students.

Common Room:

Institute has provided separate boy's common room and girl's common room with adequate facilities. This is the place where the students can relax, can study with their classmates in the common room during their free hours.

File Description	Document
Any additional information	[View Document](#)

7.1.3 Alternate Energy initiatives such as:

1. Percentage of annual power requirement of the Institution met by the renewable energy sources

Response: 30.71

7.1.3.1 Annual power requirement met by the renewable energy sources (in KWH)

Response: 43995

7.1.3.2 Total annual power requirement (in KWH)

Response: 143246

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

7.1.4 Percentage of annual lighting power requirements met through LED bulbs

Response: 4.39

7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)

Response: 2822.4

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 64240

File Description	Document
Details of lighting power requirements met through LED bulbs	[View Document](#)
Any additional information	[View Document](#)

7.1.5 Waste Management steps including:
- **Solid waste management**
- **Liquid waste management**
- **E-waste management**

Response:

Karmaveer Bhaurao Patil College of Engineering is caring for the waste build at the institute.

All the waste generated in the campus is managed as follows.

Solid Waste Management:

·   The waste bins are placed separately in every corner of the corridor, washrooms, and common room, laboratories, library, and classrooms.

·   Solid waste is collected regularly from all departments and college campus, through the cooperative efforts of faculties, staff, and students. Institute reuses and recycles some of the solid wastes.

·   The institute has established a solid waste management plant that consists of four pits of 43cubic

feet, 28 cubic feet, 28 cubic feet, and 33.5 cubic feet capacity. Total 132.5 cubic feet capacity is operational on the campus. Green and wet waste are processed and converted for preparing organic fertilizer.

·   The estimated generation of solid waste on campus is about 15 to 20kg/day, which is collected by staff from various departments, canteen, and garden.

·   The collected solid waste is dumped in the pit. Minimum 45-60 days are required to complete one cycle of composting. Castings generated in terms of manure are utilized as an organic fertilizer for gardening. Bio culture is also added for fast decomposition of waste.

·   Old newspapers, used papers and journal files, workshop scrap etc. are recycled through external agencies.

Liquid Waste Management:

·   Hazardous Chemicals are kept separately in the laboratory away from the reach of students. Lab In-charge and lab-assistant takes care of the chemicals and safety norms in the laboratory are strictly followed.

·   Students are made aware of the hazardous chemicals and safety aspects when they are given instructions before utilizing the chemicals. The Chemicals used in the experiments are dilute acid and alkalies. The experiments are titration only that generate water and salts. They are safely discharged with wastewater.

E-waste management:

·   Due to the advancement in technology, various types of electronic gadgets and computers are used by the institute. These products become outdated after their life cycle. These products contain some kind of hazardous materials like lithium, lead, zinc, etc.

·   Improper disposal of these products is harmful to the living being. Therefore, the management of E-waste is an important issue. E-waste management is done by collecting all the electronic waste generated in the institute premises at a central place allocated for the same and sent for recycling through an authorized E-waste collector, designated by Rayat Shikshan Sanstha, Satara.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

7.1.6 Rain water harvesting structures and utilization in the campus

Response:

- With the current climatic changes, water is the most valuable resource. This institute aware the people and takes care to preserve the water and resource.
- Rainwater harvesting is used for collecting, storing and using rainwater for landscape and other uses. The rainwater is collected from various hard surfaces such as rooftops and/or other man-made aboveground hard surfaces.
- The institute is having 4394 sq. m rooftop where Rainwater can be harvested. Rainwater harvesting is being done in step by step manner.
- Presently the rooftop of the main building is used as the catchment area to harvest the rain. The average rainfall in Satara city is 400 mm annually. The institute collects about 30,24,264 liters. of rainwater during the season. The harvested water is used to refill groundwater resource through a soak pit in a campus.
- The collected rainwater in a well is used in the institute campus for gardening and for washrooms in the campus.

Rainwater harvested in Liters	Harvesting Process	Utilization of Harvested water Liters
30,24,264	Rooftop water is collected and discharged in the soak pit.	For regular use such as watering to plants and trees, washrooms and to

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

7.1.7 Green Practices

- **Students, staff using**
a) **Bicycles**
b) **Public Transport**
c) **Pedestrian friendly roads**
- **Plastic-free campus**
- **Paperless office**
- **Green landscaping with trees and plants**

Response:

The institute creates awareness among the students, staffs, and faculty, about the environment conservation responsibilities by organizing different activities.

Bicycles, Public Transport, and Pedestrian friendly roads:

The institute is located at heart of Satara city. The bus stops are accessible to the students and staff from the institutes, which are used by the students for reaching the institute. All nearby residing staff and students use bicycles and pedestrian friendly roads to reach the institute. Boys and girls hostels are at walkable distance from the institute. Students residing nearby the institute use bicycles or walk to the institute.

Plastic-free campus

- To avoid the use of plastic preferences are given to use non-plastic items in the institute campus like institute canteen, store, office etc.

Paperless office

- Institute uses ERP software for administrative works to reduce paperwork and to increase efficiency.
- Notices and Circulars by Principal and admin office are conveyed to all through emails.
- Tally software is used in the office for accounting such as accounts bookkeeping, voucher printing, cheque printing, receipt, and payments etc.
- The Learning management system, MOODLE is used for the academic activity, google forms and spreadsheets are used for the internal data collection, dissemination purpose.
- The FTP server is used for distributing the E-learning resources to the students.
- The library is using MKCL's Libreria software, for accessioning, cataloging of books, circulation of books, and circulation of book bank and registration of members.

Green landscaping with trees and plants

- The students and faculty are encouraged to plant more trees and making the campus garbage and plastic free zone by organizing the tree plantation programme and cleanliness camps. Tree plantation programs help in encouraging the eco-friendly environment, which provides pure oxygen within the institute and awareness among the students, faculties, and staffs. Classrooms, laboratories, and corridors are having ample natural light and air ventilation.

File Description	Document
Any additional information	[View Document]()
Link for Additional Information	[View Document]()

7.1.8 Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years

Response: 0.11

7.1.8.1 Total expenditure on green initiatives and waste management excluding salary component year-wise during the last five years(INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
0.50890	0.30590	0.18028	0.15867	0.28721

File Description	Document
Green audit report	View Document
Details of expenditure on green initiatives and waste management during the last five years	View Document
Any additional information	View Document

7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:

  1. **Physical facilities**
  2. **Provision for lift**
  3. **Ramp / Rails**
  4. **Braille Software/facilities**
  5. **Rest Rooms**
  6. **Scribes for examination**
  7. **Special skill development for differently abled students**
  8. **Any other similar facility (Specify)**

A. 7 and more of the above

B. At least 6 of the above

C. At least 4 of the above

D. At least 2 of the above

Response: A. 7 and more of the above

File Description	Document
Resources available in the institution for Divyangjan	View Document
Any additional information	View Document
link to photos and videos of facilities for Divyangjan	View Document

7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years

Response: 158

7.1.10.1 Number of specific initiatives to address locational advantages and disadvantages year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
44	32	37	25	20

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	View Document
Any additional information	View Document

7.1.11 Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)

Response: 77

7.1.11.1 Number of initiatives taken to engage with and contribute to local community year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
27	15	12	13	10

File Description	Document
Report of the event	View Document
Any additional information	View Document

7.1.12

Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff

Response: Yes

File Description	Document
Any additional information	View Document
URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics	View Document

7.1.13 Display of core values in the institution and on its website

Response: Yes

File Description	Document
Any additional information	View Document
Provide URL of website that displays core values	View Document

7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations

Response: Yes

File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	View Document
Any additional information	View Document

7.1.15 The institution offers a course on Human Values and professional ethics

Response: Yes

File Description	Document
Any additional information	View Document
Provide link to Courses on Human Values and professional ethics on Institutional website	View Document

7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions

Response: Yes

File Description	Document
Any additional information	View Document
Provide URL of supporting documents to prove institution functions as per professional code	View Document

7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years

Response: 116

7.1.17.1 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
32	19	16	16	33

File Description	Document
List of activities conducted for promotion of universal values	View Document
Any additional information	View Document

7.1.18 Institution organizes national festivals and birth / death anniversaries of the great Indian personalities

Response:

Institute organizes the national festivals and birth/death anniversaries every year.

- **Republic day and Independence day:** Every year institute celebrates Republic Day and Independence Day with full of joy and enthusiasm. All teaching and non-teaching staff and students are invited for the celebration. The flag hoisting ceremony is done with the hands of the Principal. Sweets are distributed to all staff and students. The cultural section of institute organizes patriotic speeches, Patriotic songs, and patriotic dances and Path-Natya of the students.

The NSS students along with the faculties and staff visits remand home, old age home and distribute sweets, fruits etc.

For inspiration to our students, birth and death anniversaries of national legends are celebrated in the institute.

- **Shiv Jayanti:** On the occasion of Shiv Jayanti the students of institute go to Pratapgagh fort in the organized way to bring the Shiv Jyot. The students run with Shiv Jyot one by one as a like a relay race. They cover the distance of around 75 km through the hilly areas. The Principal along with faculties, staff and student welcomes the palakhi and shiv jyot. The statue of ChatrapatiShivajiMaharaj is garlanded and student delivers the speeches on the ChatrapatiShivajiMaharaj.
- **Mahatma Gandhi Jayanti, Lal Bahadur Shastri Jayanti, Dr. Babasaheb Ambedkar Jayanti:** On the occasion of Mahatma Gandhi Jayanti all the faculties, staff and students gather in the morning and clean the institute campus area. After the cleaning activity, the tribute is offered to Mahatma Gandhi and Lal Bahadur Shastri and students delivers speeches on the life and work of these leaders. On the occasion of the Dr. Babasaheb Ambedkar Jayanti, students, staff and faculty offers tribute to the Dr. B.R. Ambedkar and students deliver the speeches on the social issues.
- **Shaheed Diwas:** On this day Supreme sacrifice of Bhagatsingh, Sukhdev and Rajguruis remembered. The students gather in Auditorium and garland their photograph and pay the homage, for their sacrifice for Freedom of the country. Faculty and students talk on Life of Bhagat Singh. Discussion is organized on relevant and present social challenges before youth.

- **Engineers Day:** The celebration starts by garlanding the photo of Bharat Ratna Sir M. Vishveshwaraya. The Engineers day is celebrated in association with Builders Association of India, Satara Center. In the main function, the Builders Association of India Satara center along with our alumni distribute the prizes to all our rankers. The authorities along with the chief guest deliver the speeches. On this occasion painting and rangoli exhibition is organized.

- **Teachers Day:** The celebration begins by paying tribute to Dr. Sarvpalli Radhakrishanan. The students of higher class conduct the lectures for lower classes on different topics. Prizes are given to the students by observing their teaching performance. Student organizes the funny games, singing competitions for the teachers and staff, delivers the speeches followed by felicitation of teachers.

The institute also celebrates following national festivals and birth / death

- Netaji Subhaschandra Bose birth anniversary

- Yoga Day
- RashtriyaEktaDiwas
- Kargil Vijay Diwas
- Sadbhavana Din
- International Youth Day (IYD)
- International Women's Day

File Description	Document
Any additional information	[View Document](#)

7.1.19 The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions

Response:

The functional transparency is the inherited operational process from our parent organization Rayat Shikshan Sanstha. Every process is fully transparent and the process is completed through different committees at the institute level.

The Institute follows the centralized admission process (CAP) of the Directorate of Technical Education (DTE), Government of Maharashtra. This ensures complete transparency in the admission process in the following steps:

- Admission notification is hosted by DTE, Maharashtra on their website.
- Institute constitutes the admission cell to provide information about the admission process to parents and candidates.
- The admission process for 80 % of intake is governed and managed by the centralized admission process (CAP), Government of Maharashtra, through an online mechanism.
- Students can fill up both the choice of the stream and the college by on-line counseling process followed by online registration.
- 20% Institute quota seats are filled at the Institute level as per the admission rules of DTE purely on merit basis in a transparent manner.

The institute maintains administrative transparency:

- The Principal and the Management encourage transparency in decisions making and implementation.
- Different committees are constituted, consist of faculty staff and students contribute in the decision making and implementation of different plans in a transparent manner.
- IQAC helps in different areas including administrative, academic, and finance.
- There is a mechanism for grievance redressal; the grievances are addressed in a transparent manner.

The institute maintains Finance transparency:

- Financial activities of the institute are fully transparent. The purchase and utilization of funds are

processed through the purchase committee and supporting functional committees.

* Every financial transaction is recorded in the register of accounts and audited by internal auditors regularly. Finally, all accounts are audited by an external agency and the registers of accounts are available to stakeholder on demand.

The institute maintains transparency in the academic:

* The academic calendar is prepared based on the university academic calendar and displayed on the institute website. Based on the academic calendar of the institute every department prepares its departmental academic calendar. The calendar includes the schedule of the curricular, co-curricular and extra-curricular activities.
* The continuous evaluation process and evaluation scheme is displayed and show to the students at the beginning of every semester.
* Unit tests are conducted and the results are displayed on the notice board.
* The performance of the students is communicated to the parents every semester through the parents meet.

File Description	Document
Any additional information	[View Document](#)

7.2 Best Practices

7.2.1 Describe at least two institutional best practices (as per NAAC Format)

Response:

BEST PRACTICE I

Title of the Practice: Imparting skills through Project Based Learning.

Objective of the Practice

1. To give scope for creativity among the students.
2. To help develop critical thinking ability.
3. To develop the ability to work in a group /team.
4. To develop the interpersonal skills among the students.
5. To help develop entrepreneurial skills.

The Context:

* In affiliated colleges, classroom teaching and laboratory work is carried out pertaining to the syllabus provided by the affiliating university. The theoretical inputs are given in the classroom whereas skills are imparted during practical sessions. Structured nature of the syllabus seldom allows crossing of the boundaries specified by the syllabus; hence there is limited scope for the students to work independently and explore their creativity. Integrating what has been learned in

individual courses and applying it comprehensively does not happen.

- To bridge the gap, Karmaveer Bhaurao Patil College of Engineering practices project-based learning to complement classroom teaching and laboratory work. Project-based learning helps students to use their creativity.
- Attempts are made to offer projects for a batch of students; pertaining to the course that is taught in the classroom or laboratory.
- Engineering students have to undertake mini projects and major projects as their course work, under the supervision of the faculty, expert in the respective technology domain. Undertaking projects in the small groups related to individual courses give the opportunity to the students to experiment by using their creative ideas and helps them in understanding practical difficulties in implementation. This develops their ability to complete mini and major projects more effectively and efficiently.

The Practice:

- Individual faculty informs students about the practice followed in the institute at the beginning of the semester.
- Faculty identifies small projects which will help in understanding concepts. Students also have the freedom to choose their own concept to work on. A small group of students is formed and projects are allotted to these groups.
- Students search the relevant literature, develop the concept, prepare designs based on the concept and validate it in consultation with the course coordinator. Further, they convert the concept into a prototype and demonstrate to the course coordinator. During the design and manufacturing phases, students learn to develop alternatives and choose the right one. They complete the project in the stipulated period of time and write a report in the prescribed format.
- To help students do the activities, departments conduct need-based workshops for project-based learning. During this workshop, students are given the insight of different fields of engineering, fundamentals, emerging technology, tools, software's and practices. During the workshop, while interacting with the faculty, students develop the ability to identify the problem, develop alternative solutions, testing feasibility of the solution, etc.
- Successful projects are presented in different National/International project competitions organized by Government, university and other renowned organizers.
- Potential projects can be converted into products and successful businesses.

Evidence of Success:

- For almost every course project-based learning is practiced and is well appreciated and enthusiastically accepted by students.
- The number of industries are sponsoring live projects to the students as their final year project.

- Every year, projects are getting selected for TEXAS Instrument India Innovation Challenge organized in association with the Department of Science and Technology, Government of India and IIM, Bangalore. Every team of students is getting components and tools worth $ 200. One of the team has bagged runner up prize worth USD 5000.
- The team of the second year, third year and final year students designed and developed the all-terrain vehicle. This was their first time attempt. The vehicle took part in National level Rally Car Design Challenge competition held at Bikaner. The team was amongst top 10 finalists. The project received sponsorship from Cooper Corporation Pvt. Ltd., Satara worth Rs. 5 lakh.

- Students have received awards in university-level project competition
- Students have presented technical papers in national conferences and international conferences.
- Based on the projects undertaken some students have started their startup business.

Problems Encountered and Resources Required:

- Finance is one of the hindrances while handling costly projects like an all-terrain vehicle. Institute approached for help to local industry. Looking at the enthusiasm of faculty and students, industry sponsored the project. This may not happen every time and some provision will have to be made to tackle such issues.
- Earlier, students considered it an additional burden and were a bit reluctant to participate. Constant dialogue and counseling could overcome these initial hurdles. The faculty has to spend extra hours on the activity which they are willingly doing.
- While handling projects sponsored by industries, students have to visit industry more frequently according to the convenience of the industry; which affects the attendance of these students in the classroom.
- Sometimes students divert all attention to the project. They need to be counseled to maintain the balance between regular academics and projects.
- Equipment, components, funds limit the conversation of concepts to product /prototype.

BEST PRACTICE II

Title of the Practice: Book Bank Scheme for all students

Objectives of the practice

1. To make the students resourceful in terms of textbooks and reference books.
2. To make education affordable

The Context

The normal practice regarding the issue of books to the students in educational institutes to issue no of borrowers cards to individual students. Students borrow a book by depositing borrower's card for a stipulated time period, after which he or she has to return the book. If the student has to retain the book he or she has to again go through the same process by approaching the library, thus a student cannot retain books throughout the semester. This limits the availability of the book when required to a student and the student is required to purchase it, adding a financial burden. Considering the cost of the books needed by the student throughout the semester, this becomes a hindrance for economically poor students.

Karmaveer Bhaurao Patil College of Engineering since 1990-91 is handling this issue very efficiently and effectively by implementing a book bank scheme. The scheme allows the student to keep at least one book of every course throughout the semester and makes the student resourceful without having a financial burden. A social welfare scheme by Government makes the facility of book bank available to certain reserved category students. Karmaveer Bhaurao Patil College of Engineering, however, offers the facility to each and every student of the institute.

The Practice

Every student is offered a maximum of seven books (normally student studies 5 theory courses in every semester). The student may opt for getting up to 7 books on the scheduled date. Normally, textbooks prescribed in the syllabus are issued under a book bank scheme. Student if prefers to get books less than 7 while entering the scheme, he or she can add books up to 7 during the semester. By this way, all the students can maintain books with them for the whole semester.

Yearly maintenance of the books returned by the students at the end of the semester is carried out from the amount collected from the student as well as it helps to purchase new books to replace damaged books & to purchase new editions.

The schedule for every class and every department is displayed on the library notice board as well as on departmental notice board to give wide publicity. The care is taken to ensure minimum disturbance in the academic schedule of the class. Students return the books after completion of their end semester examination.

Based on earlier experience number of copies are added each year to ensure quantity supply of the books as per student's choice and requirements.

Students need to refer reference books also along with textbooks. Hence, the book bank scheme is also supported by issuing borrower's cards. Students can borrow a reference book by using borrower's cards and I-card by following the usual practice of issuing book by depositing borrower's card or I-card. This practice allows access to both the textbook as well as a reference book.

Evidence of Success

Karmaveer Bhaurao Patil College of Engineering is rich in library resources; having more than 40,000 books. On average, the library has 32 books per student. This makes it possible to successfully implement a book bank scheme. Every year students are getting benefited by the scheme. Success is evident from the data provided in the following table.

Total Circulation	Academic year 2017-18	Academic year 2016-17	Academic year 2015-16	Academic year 2014-15	Academic year 2013-14
Total students availed the book bank facility (Semester I & II)	975	994	1124	1192	1234
Total students admitted	1250	1381	1478	1579	1689
% of the student's availing facility	78	72	76	75	73

The book bank scheme is matured over Time. The consistency in the percentage of the students getting benefitted from the scheme reflects evidence of the success of the practice of implementing book bank scheme for all the students studying in the institute.

Problems Encountered and resources required

- Sometimes books returned are in damaged condition; however, such cases are rare.

- Revision in university syllabus results in changes in the recommended of books for some courses; this makes some titles redundant and is unavoidable. The institute keeps on adding new titles and volumes of books as required, from the library budget.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

7.3 Institutional Distinctiveness

7.3.1 Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust

Response:

Rayat Culture:

The founder of the parent trust of Karmaveer Bhaurao Patil College of Engineering, Padmabhushan Dr. Karmaveer Bhaurao Patil came from the tenacious Jain family; but rejected its rigorous religious rites and fought all his life against the social ills that impede the secularist growth of society. He realized that the social ills could be remedied through the education of the masses alone and so laid the foundation of the Rayat Shikshan Sanstha in 1919. He believed that education alone could correct social ills such as caste-hierarchy, money-lending, illiteracy, untouchability, superstitions, and social and economic inequality. Throughout his life, he tried to translate this belief into reality. His wife Sou. Laxmibai Patil alias *Vahini*, the idol of sacrifice, had handed over all her gold ornaments one after the other including even her sacred *Mangal Sutra*, to meet the expenditure of the Boarding House run by Rayat Shikshan Sanstha. Long before Bhaurao passed away in 1959, he had donated his own land to the schools of the Sanstha, he had no house of his own and no account whatsoever in any bank. Now the Sanstha has a wide network of schools and colleges spread all over Maharashtra.

His followers were inspired by his idealism, selflessness, sacrifice, the dignity of labor and true cosmopolitanism. The teachers of the Sanstha worked on very scanty wages and sometimes even without wages. Karmaveer Bhaurao had thus formed a bright and ideal team of disciples who committed their life with selfless devotion and sacrifice, thus, contributed to the growth and development of the Sanstha and society. This is what we call the **'Rayat Culture'**.

The Vision and Mission of our institute are in tune with this **Rayat Culture**. Our Vision statement clearly says about enhancing of young minds into potential manpower. Our Mission statement mentions about **inculcating** social values amongst employees and students. This reflects that while creating efficient technocrats, we try to inculcate among our faculty and especially our students the social attitude and empathy for weaker and deprived section of society.

To inculcate *Rayat Culture* variety of activities are carried out throughout the year. Some of the prominent activities include

1. Celebrating Karmaveer Jayanti to make aware about the life and preaching of Karmaveer Bhaurao Patil
2. Celebrating death anniversary of Sou. *Vahini* to inculcate munificence and generosity.
3. Collect the funds and donate in case of natural calamities
4. Birth anniversary of the first female teacher of India 'Savitribai Phule' is celebrated.
5. Mahatma Jotiba Phule (19th-century social reformer and a pioneer of women's education in India) Jayanti is celebrated.
6. Death anniversary of Maharshi Vitthal Ramji Shinde is celebrated. His contribution to removing the practice of untouchability and bring about equality to the depressed classes in Indian society is phenomenal.
7. Creating awareness about education (in the current era, engineering education) amongst the students from the drought-prone and hilly area.
8. Promoting and participate in 'Swachh Bharat Abhiyan'
9. Promoting and participation in watershed management
10. Celebrate Shivaji Maharaj (idol for every Maharashtrian) birth anniversary
11. MOU with 'Dalit Mahila Vikas Mandal to promote gender equality

The outcome of intentional efforts taken to inculcate *Rayat Culture* is evident from the following

1. All faculty and staff donate one day salary to the orphans studying in boarding on the occasion of death anniversary of Laxmibai Patil.
2. To support financially weak branches of Sanstha, every faculty and staff each month donates one percent of the salary. This is called as Krutadnyata Nidhi.
3. Students, faculty, and staff are supporting the other students who are needy and require financial aid. Students from economically weaker sections are getting such support. The intent is very clear, organizations like Cummins (India) Ltd and Emerson (India) Ltd. support this initiative, resulting in students getting financial help from these organizations.
4. Recently donations were given for flood-affected people from Kerala.
5. Students from all religions celebrate Ganapati Festival
6. The students from the drought-prone and hilly area are pursuing an engineering education.
7. Students collected funds and donated it to the needy students in 'Remand Home' (where juvenile offenders are temporarily detained), 'Shahu Boarding House' (hostel developed by Rayat Shikshan Sanstha for children from downtrodden society, *Ahasaas*- institute for mentally retarded children', 'Sivananda Saraswati Sevashram, Chennai'.
8. Students volunteered and offered labor for 'Paani Foundation' (*Paani Foundation* is a not-for-profit company set up in 2016 by the team of the TV serial 'Satyamev Jayate' to fight drought in rural Maharashtra).
9. Blood Donation Camp is organized every year.
10. Organ donation awareness camps are organized.
11. Students participate in 'Save Girl Child' expedition.
12. Students and faculty have donated funds to our alumnus Mr. Ganesh Nanaware for his kidney transplant operation.
13. **A classic case of Ms. Komal Pawar** indicating lifelong inculcation of munificence and generosity amongst students of Karmaveer Bhaurao Patil College of Engineering.

Both Komal and her husband Dhiraj are our alumni. Unfortunately, at the age of around 27, Komal was required to undergo a very critical medical treatment of heart and bilateral lungs transplantation. This operation was the first of its kind in India. Doctors were prepared to carry out both the operations. However, the basic cost of operations was more than 50 Lakh rupees. It was beyond the capacity of the young couple. An appeal was made to the faculty and alumni of the institute to donate for the noble cause. Within a short span, the alumni of the institute donated generously the required amount and the operation was carried out successfully. Today Komal and Dhiraj generate awareness regarding organ donation and help the needy financially through 'KOMAL NEW LIFE FOUNDATION', which is a nongovernment nonprofit organization.

All the faculty, staff, and students of the institute are committed to following footprints of Padmabhushan Dr. Karmaveer Bhaurao Patil by adopting **'*Rayat Culture*'**.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

5. CONCLUSION

Additional Information :

Additional Information:

The institute is imparting technical education for more than three decades and serving society. Innovative practices are adopted for Teaching-Learning which reflects in the academic performance of the students in the form of rank holders in the university merit list.

University has awarded to the institute as the merited institute for the year 2015-2016 for maximum candidates appearing in university merit List, out of 36Engineering Institutes and approximate 16000 candidates in university. Alumna Miss. Sadhana Ahire secured the gold medal in B.E. (Electronics Engineering) in the year 2014-2015.

Students organize the national level technical event "QUEST" since 2004, consist of paper presentation competition and departmental technical events competitions and national conference "NCRTET" for students to bring out the ideas and talent and provide the platform to present it.

Institute has hosted the Zonal Sports Tournament of Shivaji University and Athletic Competition participating 45 institutes and around 10000 students within University area in 2017-18.

Institute offers the technical consultancy and testing services in the area of:

Structural Design and Inspection, Concrete and Material Testing, RCC design and verification, soil testing, third-party inspection of water conservation work, *Jalyukt Shivar*(Government of Maharashtra, Project), third party technical audit of Construction works. Electronics and Electrical equipment testing, Energy audit, Electronics System Design services, Software development, and Web design services, Design, development, and testing of equipment and machines.

Institute organizes the Late K. A. Gandhi Memorial Lecture series since 2006. Industry Institute interaction is essential to produce promising technocrats - the future nation builders. Recent trends in the industry, industry requirements are shared to the students through this program. Alumni working high positions in organizations are invited for the talk.

Alumni of the institute have achieved the top rank positions like Managers, CEO of the national and multinational organization, Government Services, Director of IIM, Professor at IIT. Many of alumni are entrepreneurs and business professionals having turnover more than INR 100 crores. Many alumni have settled in their profession and business in the US, UK, and other countries.

Concluding Remarks :

Karmaveer Bhaurao Patil College of Engineering, Satara is managed and run by the educational organization Rayat Shikshan Sanstha, Satara, founded by Late Dr. Karmaveer Bhaurao Patil with the objective of education to the downtrodden and masses.

The institute is affiliated to Dr. Babasaheb Ambedkar Technological university, Lonere and Shivaji University, Kolhapur, that has a mechanism for the effective curriculum planning and implementation. It provides the platform for the students to impart the technical skill as per the curriculum and soft skills, social skills, professional, ethical and human values. To build professional skills and awareness of the 'future technocrats' seminars, workshops, certificate courses, and different competitions are organized. Students are encouraged for the internship and sponsored real-life projects through industry connect. Linkage to the industry for the internship, sponsored projects, and community for extension activity is provided through MoUs with industries, organizations, academic institutions.

Students are engaged in effective learning through various activities and ICT enabled learning. The institute has developed sufficient physical and IT infrastructure for effective teaching-learning. They are participating in the national level innovation projects competition.

The inherent talents of students enthusiastically participate in sports and cultural activities organized in the institute and they are encouraged to participate in the sports and cultural competitions. Institute's efforts about social awareness, students are participating in the different social activities in the neighborhood community includes Swachh Bharat Abhiyan, tree plantation, blood donation camps, NSS camp etc.

Alumni of the Institute contribute to the curricular and co-curricular activities and developments in the institute.

The IQAC has a significant contribution to streamlining the academic and administrative functionalities. Institute conducts training to staff and faculty members for the implementation of quality procedures.

The Institute functions through decentralized and participative management by the delegation of authority through strategic policies. The head of the Institute is supported by Vice- Principal, Dean Academic, HODs, Administrative Head, Section in-charges and coordinators of various committees in the decision-making process. This institute is keen about its students, staff, and faculty and has taken marked steps about the welfare of all concerned.

With its efforts, this is the preferred institute in the surrounding.